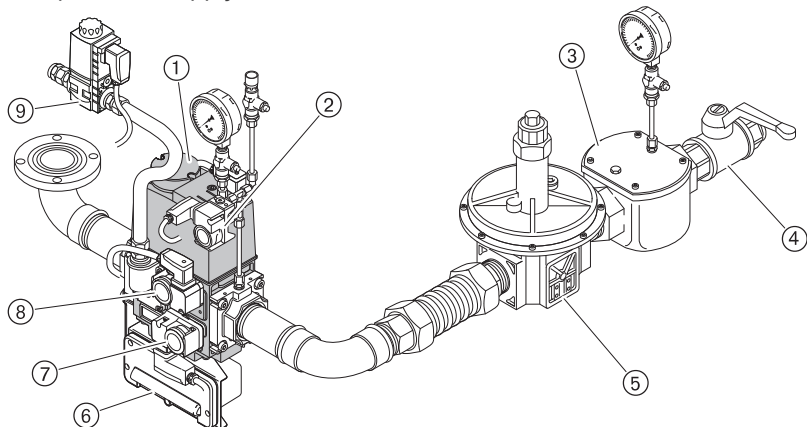


# Gas valve trains

## Installation example

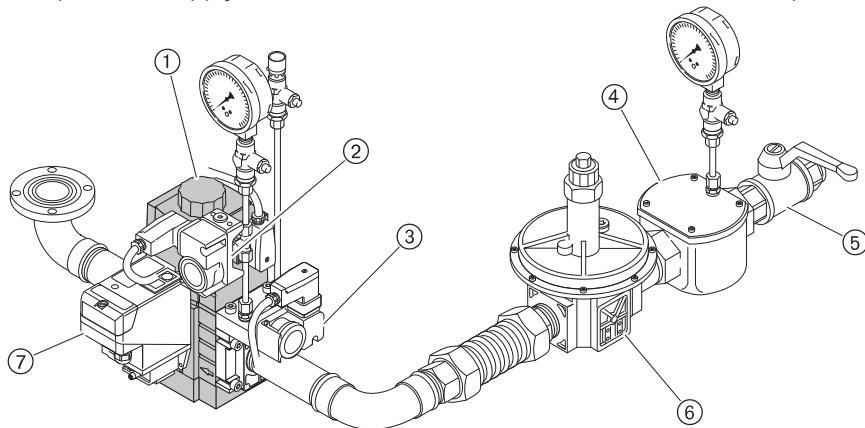
– weishaupt –

Low pressure supply with DMV 5.../12 screwed for burners with W-FM100/200



	Description see sheet
①	Gas butterfly valve 7-2.9
②	High gas pressure switch (optional) 7-2.13
③	Gas filter 7-2.4
④	Gas isolating valve 7-2.2
⑤	Low pressure regulator 7-2.6
⑥	Terminal box (only in conjunction with W-FM 100/200)
⑦	Low gas pressure switch 7-2.13
⑧	Valve proving gas pressure switch 7-2.13
⑨	Ignition gas valve 7-2.9

Low pressure supply with W-MF 5xx for burners with mechanical compound



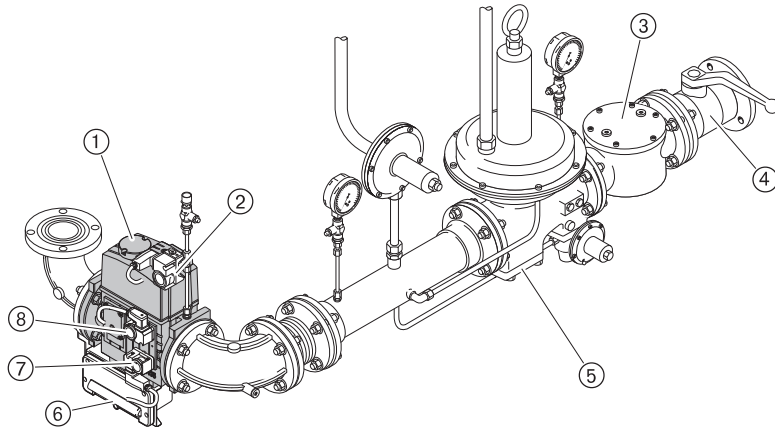
	Description see sheet
①	Double gas valve 7-2.9
②	High gas pressure switch (optional) 7-2.13
③	Low gas pressure switch 7-2.13
④	Gas filter 7-2.4
⑤	Gas isolating valve 7-2.2
⑥	Low pressure regulator 7-2.6
⑦	VPS valve proving (optional) 7-2.10

# Gas valve trains

## Installation examples

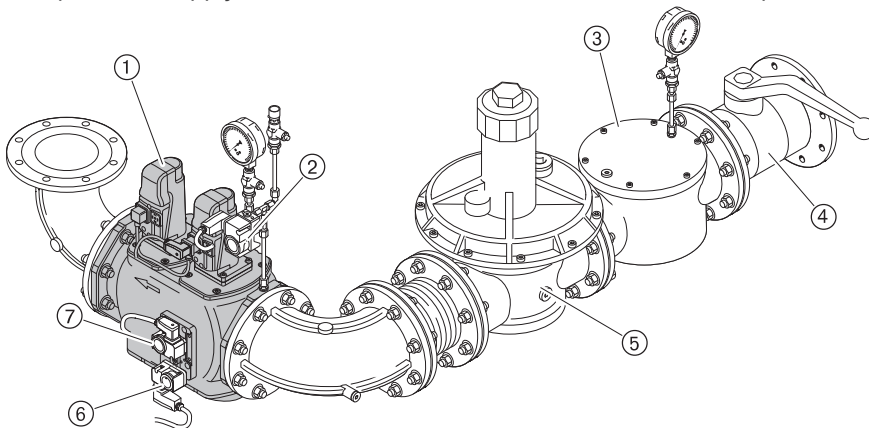
– weishaupt –

High pressure supply with DMV 5.../12 flanged for burners with W-FM100/200



	Description see sheet
①	Double gas valve 7-2.9
②	High gas pressure switch (optional) 7-2.13
③	Gas filter 7-2.4
④	Gas isolating valve 7-2.2
⑤	High pressure regulator 7-2.7
⑥	Terminal box (only in conjunction with W-FM 100/200) 7-2.13
⑦	Low gas pressure switch 7-2.13
⑧	Valve proving gas pressure switch 7-2.13

Low pressure supply with VGD40.x for burners with electronic compound



	Description see sheet
①	Double gas valve 7-2.9
②	High gas pressure switch (optional) 7-2.13
③	Gas filter 7-2.4
④	Gas isolating valve 7-2.2
⑤	Low pressure regulator 7-2.6
⑥	Low gas pressure switch 7-2.13
⑦	Valve proving gas pressure switch (optional in conjunction with W-DK 3/01 S-2) 7-2.13

# Fittings for gas

## Thermally activated shut off device TAE

– weishaupt –

### Thermally activated shut off device TAE

#### 1. Introduction

Thermal activated shut off valves type GT are self-activating shut off thermally for gas installations and they isolate the gas supply if the valve's body temperature rises above 100°C. In the event of a fire situation, they stop gas escaping downstream, into components that are not suitably capable of withstanding high temperatures.

The "Musterfeuerungsverordnung" (sample fire regulation)

- issue February 1995 - changed following the decision dated 18. September 1997, stipulates in § 4, chapter 6:

Fuel carrying pipes must be fitted with a device directly upstream of gas fired equipment installed in a room, that

1. will automatically isolate the fuel supply if the ambient temperature exceeds 100°C and
2. is designed in such a way that, up to a temperature of 650°C over a time span of a minimum of 30 minutes no more than 30l/h, measured as air volume flow, can flow through the device.

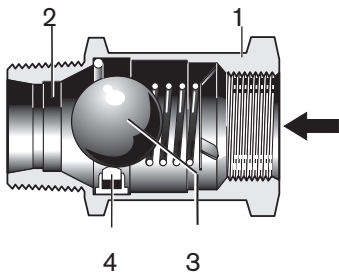
This does not apply to the burner, if the gas firing plant has already been fitted with the relevant equipment.

The new country fire regulations include this wording. The "Technical regulations for gas installations" DVGW-TRGI'86, issue 96, will also include wording on the basis of the Musterfeuerungsverordnung" (sample fire regulation).

The shut off devices are DVGW approved and are in accordance with the country fire regulations.

#### 2. Description of operation

A fusible link - the "temperature sensor" - locks a closing body, which is pre-tensioned by the compression spring, into a closed position. If the activating temperature is reached, the fusible link releases the closing body. This closes into a closing contour and creates a pressure tight fit, which remains so even when the compression spring loses tension due to further temperature influences.



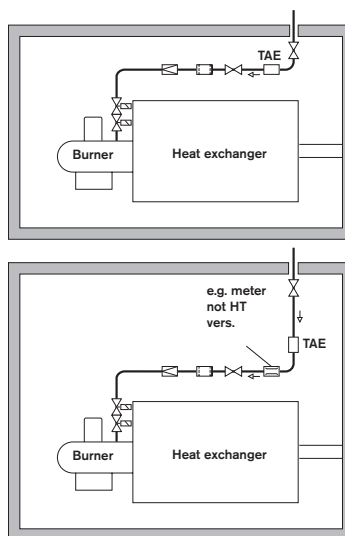
- 1 Housing
- 2 Closing contour
- 3 Closing body
- 4 Fusible link

#### 3. Installation

- The TAE should be protected against knocks!
- Do not touch inside the opening or insert objects into the internal chamber - danger of injury!
- **Installation must only be carried out by the approved contractor!**
- The TAE must be installed in line with the valid regulation directly upstream of non high temperature components!
- The installation position must not be hidden. The TAE must not be protected from radiating heat or flame influences!
- Observe the flow direction as indicated on the TAE. Installation position is optional
- For TAEs with threaded connections, installation must only be at the key face.
- If welding work is required, the housing must be protected against heat-up > 80°C in the area around the fusible link.
- The fusible link must not be subjected to mechanical loading. TAEs with damaged fusible links must not be re-used!
- The TAE must not be fitted with fixing clamps and must not be painted.
- Activated TAEs must not be regenerated, must not be installed and must be replaced by a new TAE!

It is recommended that the TAE is visually inspected (as described in this guideline) during maintenance or when carrying out work on the gas fired installation. It should be inspected at least every two years.

*Installation example:*

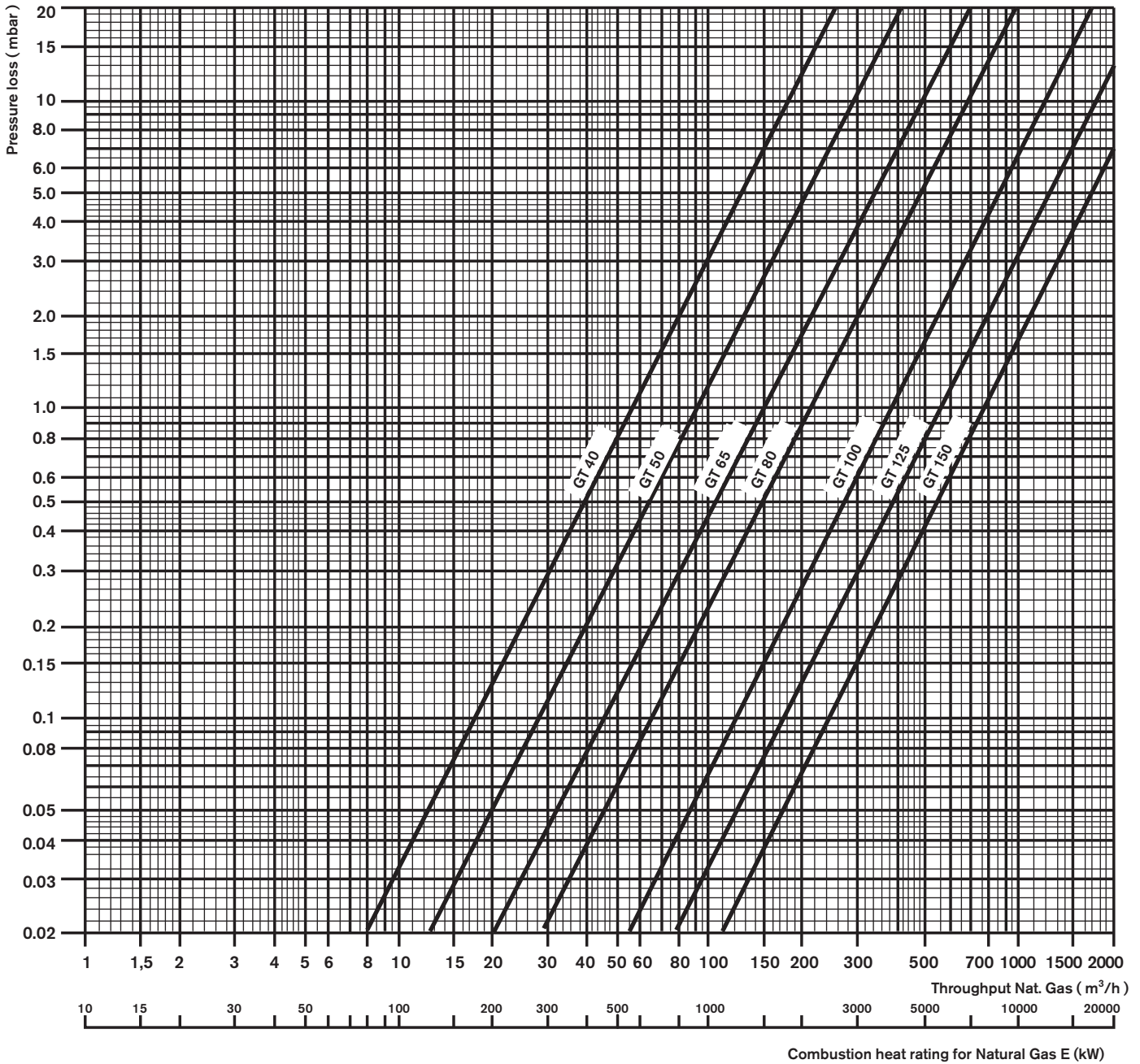


# Fittings for gas

Thermally activated shut off device TAE

– weishaupt –

## 4. Ratings reference line/nominal diameter selection diagram (Natural Gas d = 0.6)



Volumetric data relative to 0°C and 1013.25 mbar

# Fittings for gas

## Thermally activated shut off device TAE

– weishaupt –

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TAEs with thread (to DIN 2999) can be supplied in version:

- Inlet = female thread
- Outlet = male thread

The nominal diameter to be selected should be the same as for the isolating valve of the valve train group. This allows direct connection of the TAE to the isolating valve of the gas valve train).

The flanged version should also have the same nominal diameter as the flanged isolating valve.

### Notes for nominal diameter selection

It is preferred to use a TAE with the same nominal diameter as the isolating valve.

### Low pressure supply (up to 100 mbar)

The pressure loss of the TAEs is minimal. With gas supply pressures up to 30 mbar please check that the permitted total pressure loss of 2.6 mbar (to DVGW-TRGI 86/96) in the pipe work between main shut off device and the burner connection is not exceeded. If in doubt contact the local gas authority.

### Medium and high pressure supply

With supply pressure above 100 mbar and up to 4 bar the pressure loss of the TAE is usually considered as negligible.

### Technical data:

Activation temperature: \_\_\_\_\_ 100°C-8K

Nominal pressure: \_\_\_\_\_ PN4

Permissible ambient temperature: \_\_\_\_\_ 80 °C

Permissible leakage flow (test air up to 4 bar):

< 30 l/h at 820 °C for DN 10 up to DN 50

< 30 l/h at 650 °C for DN 65 up to DN 150

Thermal loading \_\_\_\_\_ 925°C

### Permissible gases:

Standard types: \_\_\_\_\_ Gases to G260  
(public gas supply)

Version sewage and bio gas:

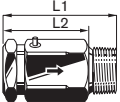
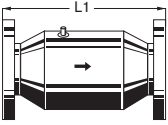
for gases, which are available clean and dry, max. sulphur content < 0.1%, other gas trace elements to G260.

# Fittings for gas

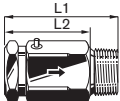
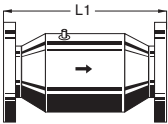
## Thermally activated shut off device TAE

– weishaupt –

### Standard types

Picture	Type	Nominal diameter (pipe joint to DIN 2999)	Connection		Dimensions			Weight (approx.) [kg]	Product ID-No.	Order No.
			inlet	outlet	L1 [mm]	L2 [mm]	SW [mm]			
	GT 40 IA4	DN 40 (1 1/2")	femal thread	male thread	112	90	65	1,42	CE-0085BN0395	454 484
	GT 50 IA4	DN 50 (2")			135	109	80	2,6	CE-0085BN0395	454 485
	GT 40 FFM	DN 40	flange conn.	flange conn.	155			3,7	CE-0085BN0395	151 331 2640/2
	GT 50 FFM	DN 50			175			6,8	CE-0085BN0395	151 331 2641/2
	GT 65 FFM	DN 65	DIN 2501, sheet 1,		197			8,2	CE-0085BN0395	151 331 2642/2
	GT 80 FFM	DN 80	PN16		229			11,0	CE-0085BN0395	151 331 2643/2
	GT100 FFM	DN 100	(general dimensions		267			15,3	CE-0085BN0395	151 331 2644/2
	GT125 FFM	DN 125	and number of bolts		226			26,0	CE-0085BN0395	151 331 2645/2
GT150 FFM	DN 150	as per DIN 2633 PN16)		270			32,0	CE-0085BN0395	151 331 2646/2	

### Version sewage and bio gas

Picture	Type	Nominal diameter (pipe joint to DIN 2999)	Connection		Dimensions			Weight (approx.) [kg]	DVGW test number	Order No.
			inlet	outlet	L1 [mm]	L2 [mm]	SW [mm]			
	GT 40 IA9	DN 40 (1 1/2")	femal thread	male thread	112	90	65	1,42	CE-0085BN0395	454 490
	GT 50 IA9	DN 50 (2")			135	109	80	2,60	CE-0085BN0395	454 491
	GT 40 FF9M	DN 40	flange conn.	flange conn.	155			3,7	CE-0085BN0395	151 331 2647/2
	GT 50 FF9M	DN 50			175			6,8	CE-0085BN0395	151 331 2648/2
	GT 65 FF9M	DN 65	DIN 2501, sheet 1,		197			8,2	CE-0085BN0395	151 331 2649/2
	GT 80 FF9M	DN 80	PN16		229			11,0	CE-0085BN0395	151 331 2650/2
	GT100 FF9M	DN 100	(general dimensions		267			15,3	CE-0085BN0395	151 331 2651/2
	GT125 FF9M	DN 125	and number of		226			26,0	CE-0085BN0395	151 331 2652/2
GT150 FF9M	DN 150	bolts as per DIN 2633 PN16)		270			32,0	CE-0085BN0395	151 331 2653/2	

The type description of the flanged fittings includes thermally activated shut off device GT...FF or GT...FF9 as well as mounting set GT...M (high temperature gasket set consisting of 2 HT flange gaskets and connection parts for 2 flange connections).

The following sealing sets consisting of 2 HT flange gaskets can be used as replacement parts and for service work.

Nominal diameter	Order No.
DN 40	151 331 2686/2
DN 50	151 331 2687/2
DN 65	151 331 2688/2
DN 80	151 331 2689/2
DN 100	151 331 2690/2
DN 125	151 331 2691/2
DN 150	151 331 2692/2

# Fittings for gas

Isolating valve with integrated thermally activated shut off device TAE  
for Natural Gas, Liquid Petroleum Gas, Towns Gas type 84...  
for sewage gas and bio gas type 87...

– weishaupt –

## Description

Thermally activated shut off valves types 998NG/84... and 87E are self activating shut off devices for gas installations and shut off the gas supply if the ambient temperature rises above 100° C. During a fire situation, they prevent gas flow when fitted directly upstream of components, that cannot withstand high temperatures.

## Technical data

Activation temperature ..... 95 °C ±5 K  
Nominal pressure: type 998NG..... PN1  
                          type 84/87 ..... PN5  
Permissible ambient temperature: ..... -20...60 °C  
Thermal loading ..... 650 °C

Ratings reference line, pressure loss, see technical document  
7-2.2 Sheet 2

## Permissible gases

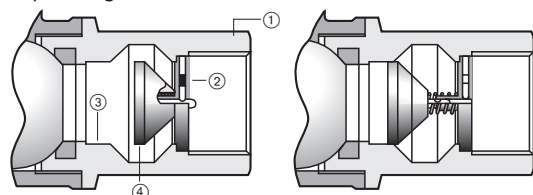
Type 84...           Gases to G260 (public gas supply)  
Type 87E            Special version for sewage and bio gas (G262)

## Description of operation

A fusible link ② - the "temperature sensor" - locks a closing body ④, which is pre-tensioned by the compression spring, into a closed position. If the activating temperature is reached, the fuse link releases the closing body. This closes into a closing contour ③ and creates a pressure tight fit, which remains so, even when the compression spring loses tension due to further temperature influences.

Operating condition:

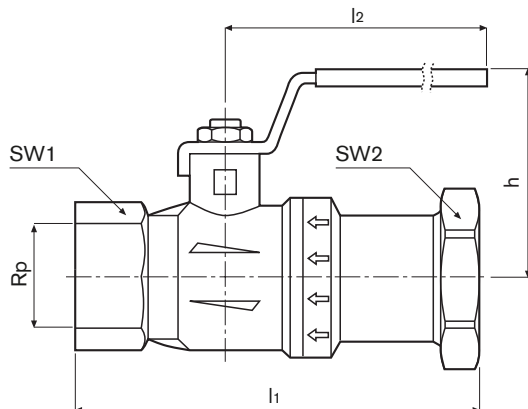
After activation:



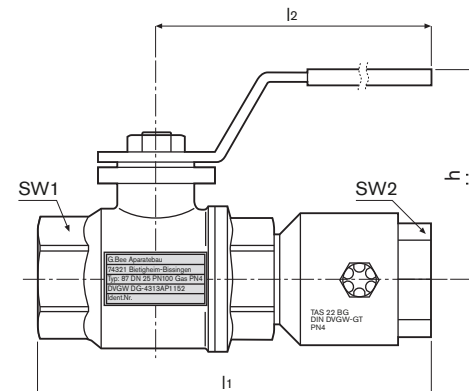
- ① Housing
- ② Fusible link

- ③ Closing contour
- ④ Closing body

## Type 84 / 998 NG



## Type 87E



## Dimensions for female ends

DN	Type	PN	Dimensions (mm)			SW1	SW2	Weight kg	Product ID No.	Order No.
			l1	l2	h					
Rp 1/2	998NG-1/2"-	CE-TAS 1	84	100	42	25	25	0.30	CE-0085BR0016	454 595
Rp 3/4	998NG-3/4"-	CE-TAS 1	96	100	45	31	31	0.44	CE-0085BR0016	454 596
Rp 1	998NG-1"-	CE-TAS 1	109	120	54	41	41	0.74	CE-0085BR0016	454 597
Rp 1 1/2	84-1 1/2"-	CE-TAS 5	152	160	79	55	55	1.95	CE-0085AU0292	454 579
Rp 2	84-2"-	CE-TAS 5	188	160	86	70	70	3.10	CE-0085AU0292	454 580
Rp 1	87E-1"-TAS 21BG	5	132	167	102	41	41	1.45	CE-0085BN0204*	454 634
Rp 1 1/2	87E-1 1/2"-TAS 22 BG	5	193	200	124	55	55	3.28	CE-0085BN0204*	454 635
Rp 2	87E-2"-TAS 22 BG	5	230	200	132	70	70	5.38	CE-0085BN0204*	454 636

\*) The CE-PIN given relate to the isolating valve, the TAE has a separate approval: TAS21: CE-0085BN0680, TAS22: CE-0085AU2380!

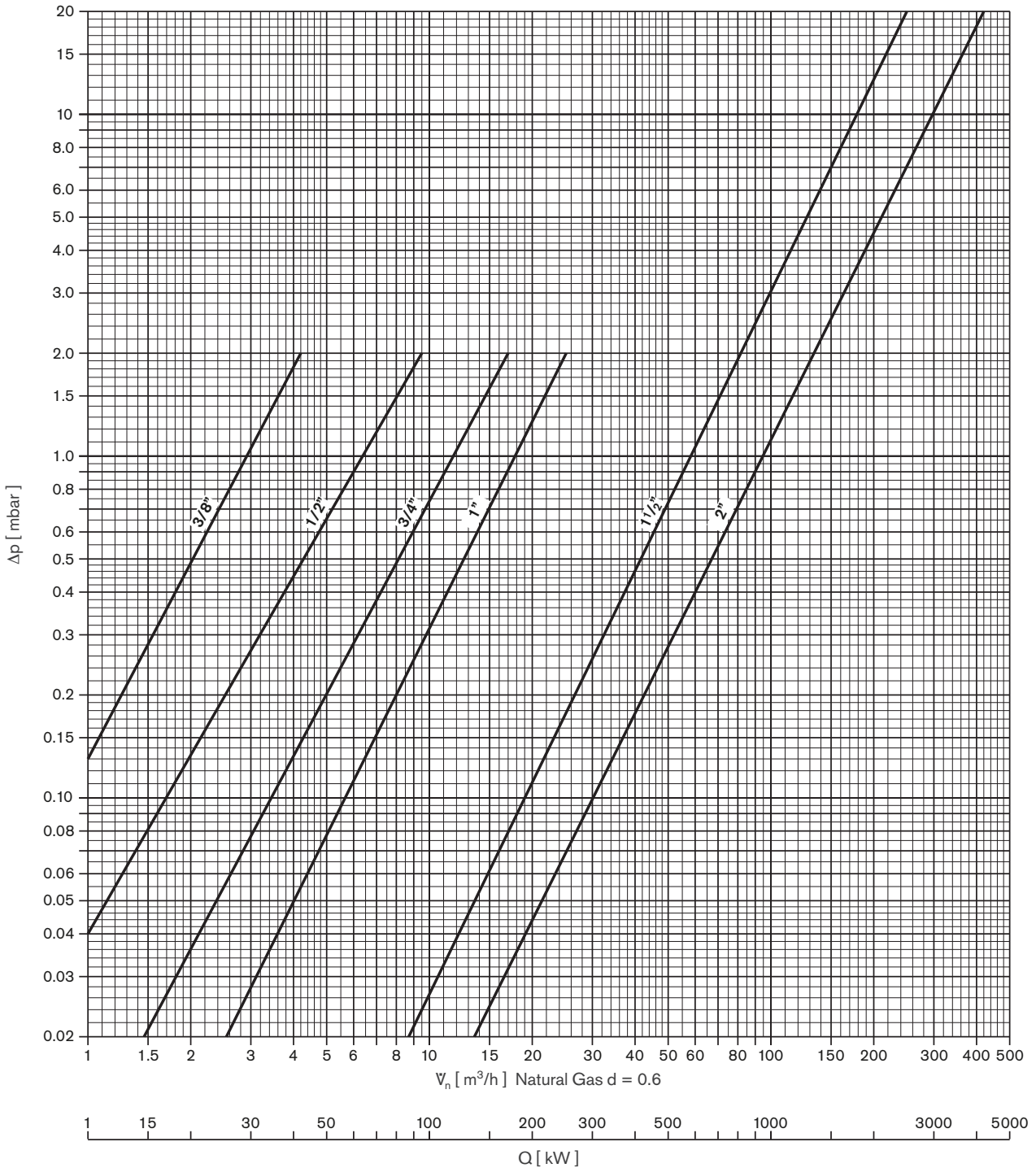
Max Weishaupt GmbH, D-88475 Schwendi  
Tel.: +49 7353 8 30, Fax: +49 7353 8 33 58  
Technical folder 674 GB, March 2010  
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We reserve the right to make changes.

# Fittings for gas

Thermally activated shut off device TAE with integrated isolating valve

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## 4. Ratings reference line/nominal diameter selection (Natural Gas d = 0.6)

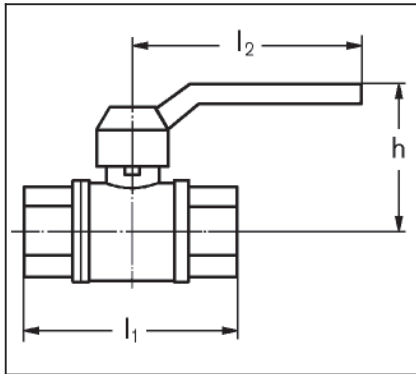




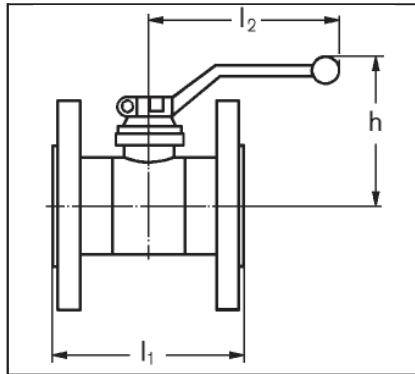
# Fittings for Natural and Liquid Petroleum Gases

Isolating valves to DIN EN 331 or DIN EN 13774

– weishaupt –



Isolating valves for female ends to DIN EN 331



Isolating valves for flange connection to DIN EN 13774

## Description

The isolating valves are easy to operate, with an operating movement of 90°. In the open position, the full cross section is full bore. The isolating valves are maintenance free.

## Technical data:

Max. operating pressure: Rp 3/8 – 2 PN5  
DN25 – 150 PN16

Application: Gases to G 260/1

Seating: Teflon

Flange connection: to DIN EN 1092-2 PN16

Female connection: to ISO 7/1

Perm. operating temp.: –20°C ... +80°C

Housing material: Female connection brass  
Flange conn. GGG40

## Dimensions for female connections

DN	Type	Dimensions (mm)		h	Weight kg	Product ID-No.	Order No..
		l <sub>1</sub>	l <sub>2</sub>				
Rp 3/8	84 - 3/8"- CE	60	82	38	0.2	CE-0085AU0270	454 003
Rp 1/2	84 - 1/2"- CE	75	100	43	0.3	CE-0085AU0270	454 004
Rp 3/4	84 - 3/4"- CE	80	120	50	0.4	CE-0085AU0270	454 005
Rp 1	84 - 1"- CE	90	120	54	0.6	CE-0085AU0270	454 006
Rp 1 1/4	84 - 1 1/4"- CE	110	160	73	1.0	CE-0085AU0270	454 007
Rp 1 1/2	84 - 1 1/2"- CE	120	160	79	1.2	CE-0085AU0270	454 008
Rp 2	84 - 2"- CE	140	160	86	1.9	CE-0085AU0270	454 009

## Dimensions for flange connection

25	KSN75- 25-16-B	125	165	114	3.2	CE-0085AT0437	151 331 2674/2 ①
40	KSN75- 40-16-B	140	185	136	5.7	CE-0085AT0437	151 331 2675/2 ①
50	KSN75- 50-16-B	150	185	143	7.6	CE-0085AT0437	151 331 2676/2 ①
65	KSN75- 65-16-B	170	230	158	12.0	CE-0085AT0437	151 331 2677/2 ①
80	KSN75- 80-16-B	180	360	186	15.5	CE-0085AT0437	151 331 2678/2 ①
100	KSN75- 100-16-B	190	360	203	22.6	CE-0085AT0437	151 331 2679/2 ①
125*	KSN75- 125-16-B	200	360	223	24.5	CE-0085AT0437	151 331 2680/2 ①
150*	KSN75- 150-16-B	210	625	230	33.5	CE-0085AT0437	151 331 2681/2 ①

① with screws, nuts and sealing ring for one face joint

\*) Note for replacement order:

Prior to ordering, the installation length of the isolating valve must be determined on site. Based on this it is possible to determine, which type (KSN 75 or 77) is correct for the replacement order.

Installation lengths type KSN 77:

- DN125: l<sub>1</sub> = 325 mm
- DN150: l<sub>1</sub> = 350 mm

The following order numbers for isolating valve and connection parts should be used for type KSN 77 when placing a replacement order:

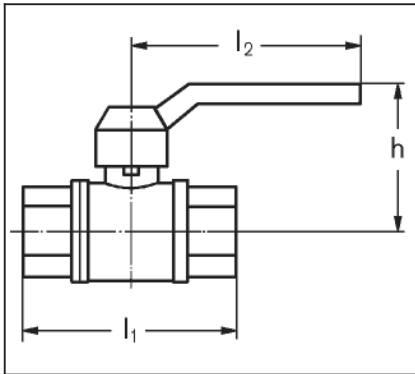
- DN125: 454653 (type KSN77-125-16-B with product ID No. CE-0085BN0185) + 15137126022
- DN150: 454654 (type KSN77-150-16-B with product ID No. CE-0085BN0185) + 15138126022

In all other cases the Order Numbers given above apply!

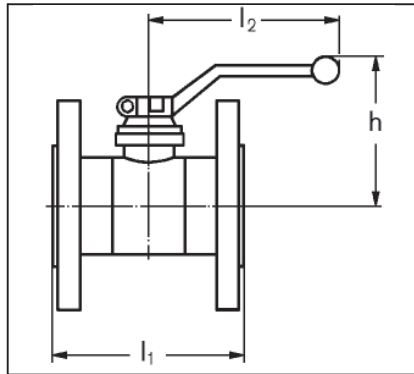
# Fittings for Bio and Sewage Gases

Isolating valves to DIN EN 331 or DIN EN 13774

– weishaupt –



Isolating valves for female connections to DIN EN 331



Isolating valves for flange connections to DIN EN 13774

## Description

The isolating valves are easy to operate, with an operating movement of 90°. In the open position, the full cross section is full bore. The isolating valves are maintenance free.

## Technical data:

Max. operating pressure:	Rp 3/4 – 2 PN5 DN25 – 150 PN16
Application:	Gases to G 262 max. H <sub>2</sub> S content 0.1%v, dry
Ball seal:	Teflon
Flange connection:	DIN EN 1092-2 PN16
Female connection:	to ISO 7/1
Perm. operating temp.:	–20°C ... +80°C
Housing material:	Female conn. stainless steel Flange connection GGG 40

with screws, nuts and sealing ring for one face joint

## \*) Note for replacement order:

Prior to ordering, the installation length of the isolating valve must be determined on site. Based on this it is possible to determine, which type (KSN 75 or 77) is correct for the replacement order.

Installation lengths type KSN 77:

- DN125:  $l_1 = 325$  mm
- DN150:  $l_1 = 350$  mm

The following order numbers for isolating valve and connection parts should be used for type KSN 77 when placing a replacement order:

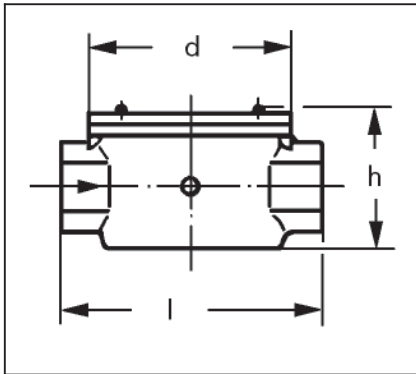
- DN125: 454653 (type KSN77-125-16-B with product ID No. CE-0085BN0185) + 15137126022
- DN150: 454654 (type KSN77-150-16-B with product ID No. CE-0085BN0185) + 15138126022

In all other cases the Order Numbers given above apply!

# Fittings for gas

## Weishaupt gas filter

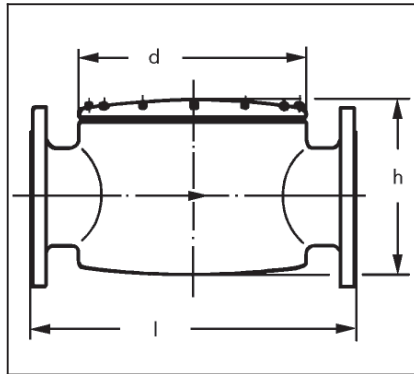
– weishaupt –



Filter with screwed connection to DIN EN 10226, Rp 3/8 to Rp 2

### Technical data type WF: 5...

Max. operating pressure: 0.5 bar  
 Max. operating temperature: -20°C to 80°C  
 Installation location: optional  
 Fine filtration: 50µm  
 Colour: brushed aluminium  
 Throughput medium: gases to G260/1, sewage and bio gases with max. 0.1 %v H<sub>2</sub>S, dry  
 Housing material: aluminium cast



Filter with flanged connection to DIN EN 1092-1 DN25 - DN150

### Technical data type WF: 3...

Max. operating pressure: 5 bar (DN 25-100)  
 2 bar (DN 125-150)  
 Max. operating temperature: -20°C to 80°C  
 Installation location: optional  
 Fine filtration: 50µm  
 Colour: brushed aluminium  
 Throughput medium: gases to G260/1, sewage and bio gases with max. 0.1 %v H<sub>2</sub>S, dry  
 Housing material: aluminium cast

### Description

Weishaupt gas filters comply with the regulations of the Gas Appliance and Pressure Equipment Directives (GAD90/396/EU and PED97/23/EU). Provided that the correct direction of flow is observed (arrowed) filters can be installed as required. However, it must be insured that sufficient space is available for the removal of the filter element. To ensure a constant gas throughput it is recommended that the filter insert is replaced at least once a year. Depending on the degree of soiling it may be necessary to replace the insert after a shorter interval. Prior to fitting the cover, the O ring should be checked and if necessary replaced. Following all service work, soundness testing and venting must be carried out. A connection for pressure test nipple G 1/4 is available on the inlet and outlet side for gas pressure measurement.

### Dimensions for female connections

Type	DN	l	h	d	Weight kg	Product ID No.	Order No.
WF503/1	Rp 3/8	100	46	72	0.5	CE-0085AS0538	151 223 4024/0
WF505/1	Rp 1/2	100	46	72	0.5	CE-0085AS0538	151 223 4012/0
WF507/1	Rp 3/4	120	56	85	0.7	CE-0085AS0538	151 223 4013/0
WF510/1	Rp 1	150	72	105	1.0	CE-0085AS0538	151 223 4014/0
WF515/1	Rp 1 1/2	210	92	155	1.5	CE-0085AS0538	151 223 4015/0
WF520/1	Rp 2	230	116	180	2.5	CE-0085AS0538	151 223 4016/0

### Dimensions for flange connections

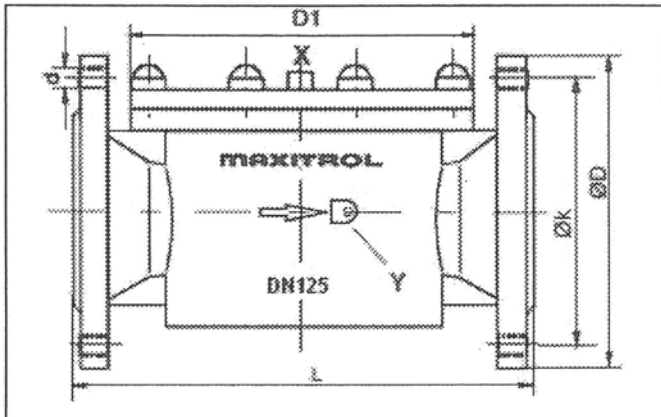
WF3025/1	25	200	85	135	2.5	CE-0085AS0538	151 330 2624/2 ①
WF3040/1	40	240	104	175	4.0	CE-0085AS0538	151 328 2680/2 ①
WF3050/1	50	255	126	195	5.5	CE-0085AS0538	151 327 2650/2 ①
WF3065/1	65	262	135	190	6.5	CE-0085AS0538	151 327 2651/2 ①
WF3080/1	80	330	175	230	8.0	CE-0085AS0538	151 329 2692/2 ①
WF3100/1	100	400	210	280	11.0	CE-0085AS0538	151 327 2653/2 ①
WF3125/1	125	470	240	340	16.0	CE-0085AS0538	151 327 2654/2 ①
WF3150/1	150	520	285	380	25.0	CE-0085AS0538	151 329 2664/2 ①

① with screws, nuts and sealing ring for one face joint

# Fittings for gas

Gas filter for pressures up to 6 bar

– weishaupt –



## Description

Weishaupt gas filters comply with the regulations of the Gas Appliance and Pressure Equipment Directives (GAD90/396/EU and PED97/23/EU). Provided that the correct direction of flow is observed (arrowed) filters can be installed as required. However, it must be insured that sufficient space is available for the removal of the filter element. To ensure a constant gas throughput it is recommended that the filter insert is replaced at least once a year. Depending on the degree of soiling it may be necessary to replace the insert after a shorter interval. Prior to fitting the cover, the O ring should be checked and if necessary replaced. Following all service work, soundness testing and venting must be carried out. A connection for pressure test nipple G 1/4 is available on the inlet and outlet side for gas pressure measurement.

Connection for test nipple G 1/4:

X = inlet  
Y = outlet

## Technical data type GF: 1...

Max. operating pressure: 6 bar  
 Max. operating temperature: -20°C to 80°C  
 Flange connection to: ISO 7005, PN16  
 Installation location: optional  
 Fine filtration: 50µm  
 Throughput medium: gases to G260/1  
 sewage and bio gases with max.  
 0.1 %v H<sub>2</sub>S, dry  
 Housing material: aluminium cast

Dimensions Type	DN	L	D1	D	k	n x d	Weight kg	Product ID No.	Order No.	Replacem. filter insert
GF125MF - 4040	125	400	315	250	210	8 x 18	14.1	CE-0085AQ0979	1513272605/2 ①	493 332
GF150MF - 4848	150	450	356	285	240	8 x 22	19.8	CE-0085AQ0979	1513292604/2 ①	493 333

① with screws, nuts and sealing ring for one face joint

Excess operating pressure [bar]	Maximum permissible gas throughput	
	DN125 [mn <sup>3</sup> /h]	DN150 [mn <sup>3</sup> /h]
1	1269	2115
2	1552	2587
3	1791	2986
4	2002	3337

**Note:** Pressure loss when operating with Natural Gas < 50 mbar is observed with the above max. throughputs.

# Fittings for gas

Gas meter type QA "Quantometer"

– weishaupt –

## 1. Introduction

Setting a gas burner and correctly determining the site specific gas throughput can only be carried out with a gas meter. Using a gas meter for heating and production processes the gas throughput can be monitored and the energy usage optimised. For gas burners, which have to be set within a specific regulating range, gas throughputs can only be determined using a gas meter.

Gas heating installations are usually fitted with a gas meter for payment purposes. On such installations, the service engineer has a commissioning aid for flue gas temperature and combustion values. However, in partial and intermediate load this "aid" is no longer given. Heating centres with more than one boiler often have just one meter. In these cases it is appropriate to fit one meter per appliance.

Unfortunately, process installations are often not equipped with a meter. On this type of plant the "commissioning aid" for flue gas measurement is also not available. Therefore, for safe operation and to avoid plant or product damage, gas meters must be fitted to ensure correct burner commissioning.

## 2. Description / technical data

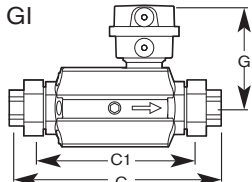
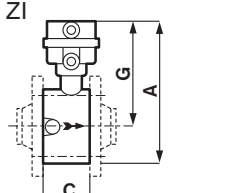
The rotary gas meters type QA are suitable for all non-aggressive gases. The rotation of the turbine rotor is proportional to the volumetric flow and is recorded on the mechanical index head ( $V_B[m^3]$ ).

Continuously lubricated bearings guarantee a maintenance free operation. The meters are equipped with a 7 digit mechanical counter, which registers the gas volume under the operating conditions of the burner. Using the requisite correction factor for gas pressure and gas temperature, this can be converted to the standard gas throughput, the reading used for firing rate determination. The meters are for use where official calibration is not required.

### Technical data

Gases:	Natural Gas, LPG, Towns Gas, all non aggressive gases
Operating pressure:	max. 4 bar
Measuring range:	up to 20 : 1 (see table)
Measurement accuracy:	from 0.1 $Q_{max}$ - 0,2 $Q_{max}$ 3 % v.M.W. from 0.2 $Q_{max}$ - $Q_{max}$ 1.5 % v.M.W.
Temperature ranges:	Gas -10°C to +60°C Ambient -10°C to +70°C
Material:	Housing aluminium
Weight:	See table
Dimensions:	See table
Product ID No.	CE 0085 BM 0200

## Technical data / dimensions

	Type	Model	Nom. diam. DN "/mm	Meas. range m <sup>3</sup> /h		Weight kg	Dimensions mm				Order no.*
				min.	max.		A	C	C1	G	
	QA 10	GI	1	1.6	16	1.7	159	240	185	115	454 561
	QA 16	GI	1	2.0	25	1.7	159	240	185	115	454 562
	QA 25	GI	1	2.5	40	1.7	159	240	185	115	454 563
	QA 40	GI	1	3.3	65	1.7	159	240	185	115	454 564
	QA 65	ZI	50	6	100	1.3	185	60	–	135	151 331 26 60/2
	QA 100	ZI	80	10	160	5.3	225	120	–	150	151 331 26 61/2
	QA 160	ZI	80	13	250	5.3	225	120	–	150	151 331 26 62/2
	QA 250	ZI	100	20	400	6.8	245	150	–	210	151 331 26 63/2
	QA 400	ZI	100	32	650	6.8	245	150	–	210	151 331 26 64/2
	QA 400	ZI	150	32	650	10.8	300	180	–	190	151 331 26 65/2
	QA 650	ZI	150	50	1000	10.8	300	180	–	190	151 331 26 66/2
	QA1000	ZI	150	80	1600	10.8	300	180	–	190	151 331 26 67/2

\* Included in delivery (flanged, model Z I) connection parts and 2 gaskets

# Fittings for gas

Gas meter type QA "Quantometer"

– weishaupt –

## 3. Meter selection / pressure losses

The gas volume is shown on the 7 digit counter in actual cubic meters (on the 7th digit, which is circled red, the gas volume for the 0.1 m<sup>3</sup> range = 100 l range can also be determined). At high gas pressure, the actual gas volume is considerably lower than the nominal volume, and that has a decisive effect on the size of meter to be selected. Often smaller sized meters can be used. It is preferable to install the meter at the point with the higher gas pressure (max. 4 bar).

The gas throughput for nominal rating (calculated from actual m<sup>3</sup>) must be within the meter measuring range (see also selection example).

### Selection example

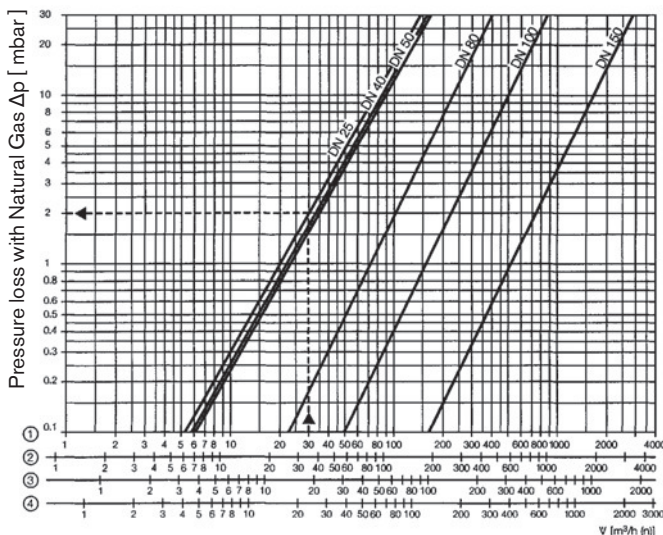
Burner rating	7600 kW
Natural Gas $H_i$	10.35 kWh/m <sup>3</sup>
Gives gas throughput: $V_n$	734 m <sup>3</sup> /h (normal conditions)
gas pressure at meter:	3.0 bar
Gas temperature at meter:	10°C
Barometer setting:	900 mbar
Gives an actual gas volume in operating condition:	

$$V_B = \frac{V_n}{f^1)} = \frac{734}{3.715} = 198 \text{ m}^3/\text{h}$$

Meter used: –Type QA 160 ZI  
– DN 80  
– Measurement range 13 - 250 m<sup>3</sup>/h

1) See also installation and operating manuals for gas and dual fuel burners.

### Example of determining the pressure losses under normal operating conditions



- ① = Erdgas / Natural gas / Gaz naturel /  $dv = 0.62$
- ② = Stadtgas / Town gas / Gaz de ville /  $dv = 0.45$
- ③ = Flüssiggas / LPG / Gaz de pétrole liquéfié /  $dv = 1.56$
- ④ = Luft / Air /  $dv = 1.00$

$V [m^3/h]$

### Note

The actual reading based on metered pressure and temperature must be noted. The pressure loss  $\Delta p$  then given must be multiplied by the factor for total pressure in bar (pressure at meter + 1), to take into account the density changes of the gas at working pressure.

Example: (see above)

Gas throughput:	198 actual m <sup>3</sup> /h
Gas pressure at meter:	3.0 bar
$\Delta p$ to diagram:	7 mbar
$\Delta p$ actual:	$7 \times (3 + 1) = 28 \text{ mbar}$

# Fittings for gas

Gasmeter type QA "Quantometer"

– weishaupt –

## 4. Impulse generator

Quantometers QA with mechanical index head are fitted with various types of impulse generators. The volume proportional impulses can be used for the following tasks:

- for remote transmission
- for data recording
- to start electronic accessories
- for analogue or digital indication and control or regulation.

It is important to adhere to the relevant regulations for electrical installations (in Germany VDE regulations) and if necessary, the relevant regulations for explosive atmosphere protection. Approved isolating switch units must be fitted for the transfer of impulses from a failsafe circuit to a non-failsafe circuit.

Various impulse generators are available depending on the task required.

### Low frequency impulse generator E1 (NF)

Each Quantometer QA with mechanical index is equipped with a NF Reed contact as standard.

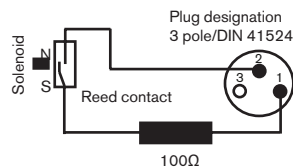
The contact is closed once for every rotation of the last whole unit number wheel.

### Medium frequency generator E200 (MF)

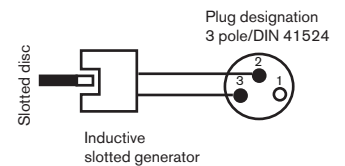
The medium frequency impulse generator is a Hall switch to DIN 19234 (NAMUR) and is fitted as standard in the mechanical index head.

Outputs/ impulse values	Impulse generator	Meter type / model	
		QA.../G1	QA.../Z1
	NF-Type E 1 Reed contact	10 imp/m <sup>3</sup>	1 imp/m <sup>3</sup>
	MF-Type E 200 Inductive proximity switch	500 imp/m <sup>3</sup>	QA 65: 250 imp/m <sup>3</sup> QA100-650: 187.5 imp/m <sup>3</sup> QA/e 100-1000: 187.5 imp/m <sup>3</sup>

### QA NF generator E1



### QA/QAe MF generator E 200



Switch voltage  $U_{\max} = 24 \text{ V}$   
Switch current  $I_{\max} = 50 \text{ ma}$   
Breaking capacity  $P_{\max} = 0,25 \text{ W}$   
Series resistance  $R_v = 100\Omega \pm 20\%$

Data for switch version  
to DIN EN50227Namur  
Nominal voltage  $U_n = 8 \text{ V DC}$   
Internal resistance  $R_i = 1 \text{ k}\Omega$   
Consumption:  
active area free  $I \geq 2.1 \text{ mA}$   
active area covered  $I \leq 1.2 \text{ mA}$

# Fittings for gas

Gas meter type QA "Quantometer"

– weishaupt –

## 5. Installation notes / mounting example

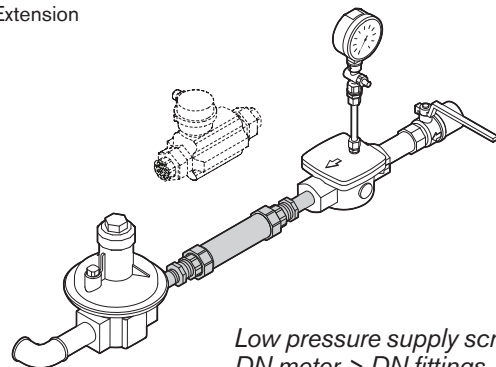
Installation position: Optional  
Throughput direction: observe → on housing  
Straight inlet length : 3 x D (cylindrical same DN as meter)  
Straight outlet length: 3 x D (cylindrical same DN as meter)  
or pipe section such as double  
nipple with reducing socket or  
reducing flange.  
Example see illustration on right.

### Note:

The meters are supplied in shock proof packaging!

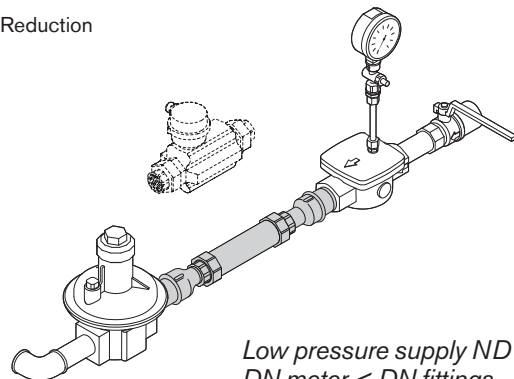
- Check for transport damage prior to installation
- Remove plastic film from inlet and outlet flange
- Check movement of turbine wheel by blowing on it
- Fit gaskets supplied
- Fit meter with voltage supply isolated
- Soundness test at the same time as soundness test of whole valve train assembly
- Maintenance:  
QA's are maintenance free. Depending on site conditions, the meters should be checked every 5 to 8 years.

Extension

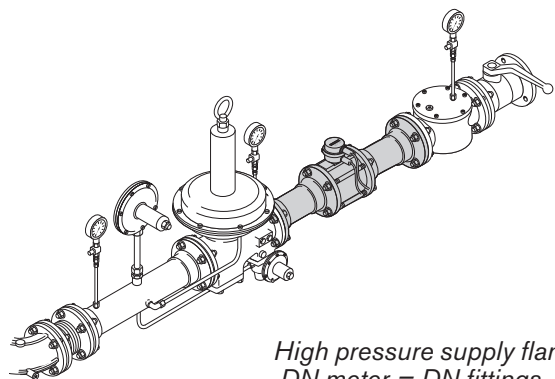


*Low pressure supply screwed  
DN meter > DN fittings*

Reduction



*Low pressure supply ND screwed  
DN meter < DN fittings*



*High pressure supply flanged  
DN meter = DN fittings*

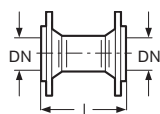
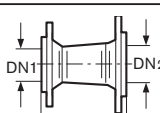
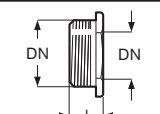
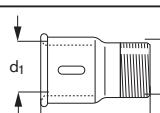
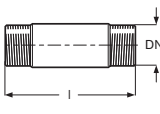
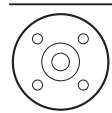


# Fittings for gas

Gas meter type QA "Quantometer"

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## 6. Accessories / installation material

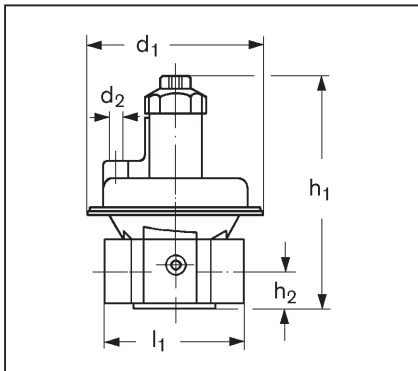
Inlet section / outlet section steel		DN	l mm	Weight kg	Order No.	
	Intermediate flange	DN 50	150	6.130	151 330 26 26/2	
	Intermediate flange	DN 65	200	7.670	151 330 26 99/2	
	Intermediate flange	DN 80	240	10.200	151 330 26 29/2	
	Intermediate flange	DN 100	300	11.600	151 330 26 27/2	
	Intermediate flange	DN 150	450	23.700	151 330 26 43/2	
Concentric flanged transition, in grey and ductile cast iron		DN1	DN2	l mm	Weight kg	Order No.
	Grey cast iron	40	50	200	7.000	151 330 26 25/2
	Duct. cast iron	50	65	200	7.100	151 327 26 82/2
	Duct. cast iron	50	80	200	7.200	151 329 26 89/2
	Duct. cast iron	50	100	200	8.100	151 327 26 44/2
	Duct. cast iron	65	80	200	8.200	151 330 26 08/2
	Duct. cast iron	80	100	200	9.300	151 329 26 90/2
	Duct. cast iron	80	150	200	12.000	151 330 26 22/2
	Duct. cast iron	100	150	200	12.800	151 328 26 26/2
Duct. cast iron	125	150	200	14.100	151 330 26 23/2	
Reducing nipple 1/A		DN	l mm	Weight kg	Order No.	
		1 x 1/2	29	0.099	453 735	
		1 x 3/4	29	0.078	453 086	
		2 x 3/4	36	0.362	453 710	
		2 x 1	36	0.389	453 719	
		2 x 1 1/2	36	0.275	453 718	
Sleeve M4 EN10242 No. 246		d1	d2	l	Order No.	Description
	R 3/4"	R 1/2"	48	453724	3/4 X 1/2-Zn-A EN10242	
	R 1"	R 3/4"	55	453741	1 X 3/4-Zn-A EN10242	
	R 1 1/2"	R 1"	63	453746	1 1/2 X 1-Zn-A EN10242	
	R 2"	R 1"	70	453747	2 X 1-Zn-A EN10242	
	R 2"	R 1 1/2"	70	453745	2 X 1 1/2-Zn-A EN10242	
Double nipple		DN	l mm	Weight kg	Order No.	
	R 1/2	R 1/2	40	0.033	139 000 26 54/7	
		R 1/2	50	0.050	139 000 26 05/7	
		R 1/2	70	0.078	139 000 26 06/7	
		R 1/2	75	0.074	139 000 26 52/7	
		R 1/2	80	0.090	139 000 26 07/7	
		R 1/2	100	0.133	139 000 26 55/7	
	R 3/4	R 3/4	50	0.062	139 000 26 11/7	
		R 3/4	80	0.104	139 000 26 12/7	
		R 3/4	160	0.237	139 000 26 13/7	
		R 3/4	180	0.278	139 000 26 14/7	
	R 1	R 1	80	0.173	139 000 26 39/7	
		R 1	100	0.218	139 000 26 18/7	
	R 1	120	0.257	139 000 26 19/7		
	R 1	160	0.348	139 000 26 20/7		
	R 1	180	0.436	139 000 26 40/7		
	R 1	200	0.478	139 000 26 21/7		
R 1 1/2	R 1 1/2	50	0.126	139 000 26 22/7		
R 2	R 2	80	0.276	139 000 26 26/7		
	R 2	160	0.647	139 000 26 27/7		
Screwed flange		DN	l mm	Weight kg	Order No.	
		RP 1 1/2	26	1.740	452 920	
		RP 2	28	2.450	452 921	

Additional connection parts see 7-2.17

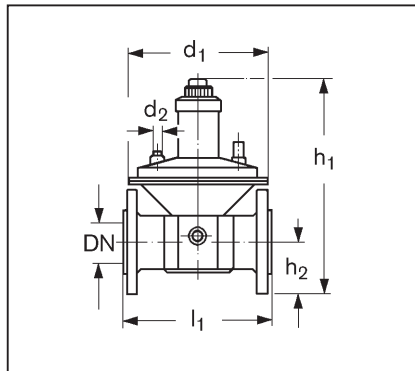
# Fittings for gas

Pressure regulator for gas type FRS... to DIN 3380 or EN 88-1  
inlet pressure up to 500 mbar to DN 150

– weishaupt –



Pressure regulator with screwed connection to DIN EN 10226, Rp 3/8 to Rp 2



Pressure regulator with flanged connection to DIN EN 1092-1, PN 16, DN 40 to 150

## Technical data

Inlet pressure range	$p_{e \text{ min.}} = p_{as \text{ min.}} + 2.5 \text{ mbar}$ to $p_{e \text{ max.}}$ 500 mbar
Outlet pressure	5 to 150 (200) mbar (see spring table on following page)
Regulator group	RG 10
Closing pressure group	SG 30 (the closing pressure at $\nabla =$ is max. 30 % above $p_{as}$ )
Media	Gases to DVGW work sheet G 260/l, gases with max. 0.1 vol. % $\text{H}_2\text{S}$ , dry
Ambient temperature	- 15° C to + 70° C
Test point	both sides G 1/4" (inlet pressure)
Setpoint setting	clockwise rotation increases the pressure, anti-clockwise rotation decreases the pressure
Materials	Housing: aluminium cast Internal parts: plastic, aluminium, steel Soft rubber parts on NBR basis non ferrous metals
Installation position	Spring chamber vertically upwards or lying horizontally
Pressure stage	PN 1

## Attention:

Breather and vent line to outside are not generally required, as a safety diaphragm ensures that no more than 30l/h (rel. to air) can escape into the room if the operating diaphragm breaks. A screwed port on the breather opening enables the connection of a vent line. If a vent line is fitted, this must be a minimum of DN15, installation to TRGI 2008.

## Attention:

Breather port must not be sealed, its free opening to ambient pressure must be ensured.

Only adjust the control pressure set point on the gas pressure regulator.

Failure to comply may result in personal injury or damage to equipment. It is therefore essential to follow these instructions.

Up to  $p_e = 500 \text{ mbar}$  no vent necessary.

1) Version 2S  
with G1-G7 vers. ZMA  
and with simultaneous burners

Order No.	Pressure regulator type
640550	FRS 507-2S
640551	FRS 510-2S
640552	FRS 515-2S
640553	FRS 520-2S
640554	FRS 5040-2S
640555	FRS 5050-2S
640556	FRS 5065-2S
640557	FRS 5080-2S
640558	FRS 5100-2S
640559	FRS 5125-2S

## Dimensions (Dimensions given are approximate - we reserve the right to make changes in line with future developments)

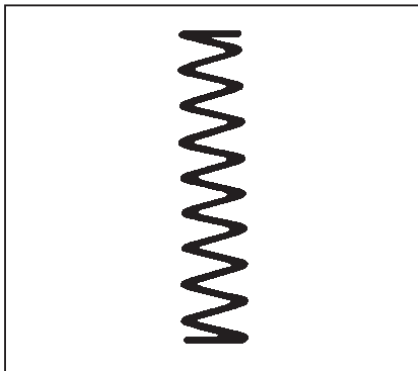
Pressure regulator type	Pict.	DN	$l_1$	$d_1$	$d_2$	$h_1$	$h_2$	Spring* colour	Outlet pressure range	Weight kg	Product ID No.	Order No.
FRS 503	1	Rp 3/8	75	115	G 1/4	143	24	orange	5...20	0.60	CE 0085AQ 7126	640 681
FRS 505	1	Rp 1/2	75	115	G 1/4	143	24	orange	5...20	0.60	CE 0085AQ 7126	640 675
FRS 507	1	Rp 3/4	100	130	G 1/4	165	28			1.00	CE 0085AQ 0246	640 676
FRS 510	1	Rp 1	110	145	G 1/4	190	33			1.20	CE 0085AQ 7126	640 677
FRS 515	1	Rp 1 1/2	150	195	G 1/2	250	49	orange	5...20	2.50	CE 0085AQ 7126	640 678
FRS 520	1	Rp 2	170	250	G 1/2	310	47			3.50	CE 0085AQ 7126	640 679
FRS 5040	2	40	200	195	G 1/2	280	65			3.50	CE 0085AQ 7126	151 329 2670/2
FRS 5050	2	50	230	250	G 1/2	340	75	orange	5...20	5.00	CE 0085AQ 7126	151 329 2671/2
FRS 5065	2	65	290	285	G 1/2	405	95			7.50	CE 0085AQ 7126	151 329 2672/2
FRS 5080	2	80	310	285	G 1/2	405	95	orange	5...20	10.00	CE 0085AQ 7126	151 329 2673/2
FRS 5100	2	100	350	350	G 1/2	495	105			16.00	CE 0085AQ 7126	151 329 2674/2
FRS 5125	2	125	400	400	G 1/2	635	135	orange	5...20	28.00	CE 0085AQ 7126	151 331 2626/2
FRS 5150	2	150	480	480	G 1/2	780	160			36.00	CE 0085AQ 7126	151 331 2627/2

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Tel.: + 49 7353 8 30, Fax: +49 7353 8 33 58  
Technical folder 674 GB, March 2010  
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We reserve the right to make changes.

# Fittings for gas

Pressure regulator gas type FRS... to DIN 3380 or EN 88-1  
inlet pressure up to 500 mbar to DN 150

– weishaupt –



## Pressure springs for low pressure gas pressure regulator

Pressure regulator type	Spring type/colour	Outlet pressure range mbar	Order No.
FRS 503	orange*	5...20	490 180
FRS 505	blue	10...30	490 134
	red	25...55	490 135
	yellow	30...70	490 136
	black	60...110	490 137
	pink	100...150	490 040
FRS 507	orange*	5...20	490 181
	blue	10...30	490 139
	red	25...55	490 140
	yellow	30...70	490 141
	black	60...110	490 142
FRS 510	pink	100...150	490 041
	orange*	5...20	490 182
	blue	10...30	490 144
	red	25...55	490 145
	yellow	30...70	490 146
FRS 510	black	60...110	490 147
	pink	100...150	490 147
	orange*	5...20	490 183
	blue	10...30	490 124
	red	25...55	490 125
FRS 5040	yellow	30...70	490 126
	black	60...110	490 127
	pink	100...150	490 043
	grey	140...200	490 196
	FRS 515		
FRS 5050	orange*	5...20	490 184
	blue	10...30	490 129
	red	25...55	490 130
	yellow	30...70	490 131
	black	60...110	490 132
FRS 520	pink	100...150	490 044
	grey	140...200	490 197
	orange*	5...20	490 185
	blue	10...30	490 119
	red	25...55	490 120
FRS 5065	yellow	30...70	490 121
	black	60...110	490 122
	pink	100...150	490 045
	grey	140...200	490 198
	FRS 5080		
FRS 5100	orange*	5...20	490 187
	blue	10...30	490 035
	red	25...55	490 036
	yellow	30...70	490 037
	black	60...110	490 038
FRS 5100	pink	100...150	490 039
	grey	140...200	490 199
	orange*	5...20	490 188
	blue	10...30	490 093
	red	25...55	490 096
FRS 5125	yellow	30...70	490 099
	black	60...110	490 102
	pink	100...150	490 048
	grey	140...200	490229
	FRS 5150		
FRS 5150	orange*	5...20	490 189
	blue	10...30	490 094
	red	25...55	490 097
	yellow	30...70	490 100
	black	60...110	490 103
FRS 5150	pink	100...150	490 049
	grey	140...200	490 230

For inlet pressures above 300 mbar pressure regulators to EN88-2 with SAV and SBV should be used, see also Weishaupt accessories list and technical leaflet Weishaupt pressure regulators with safety assemblies.

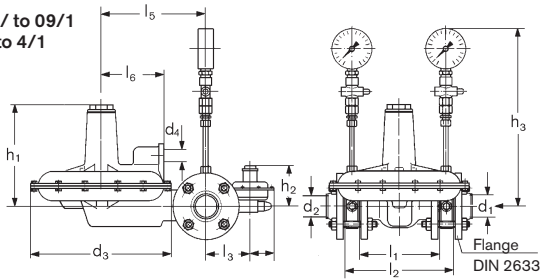
\* Used as standard on pressure regulators

# Fittings for gas

Weishaupt high pressure regulators with safety devices,  
further information see print No. 12 and additional sheet print No. 1979

– weishaupt –

Picture 1  
Types 08/ to 09/1  
and 1/1 to 4/1



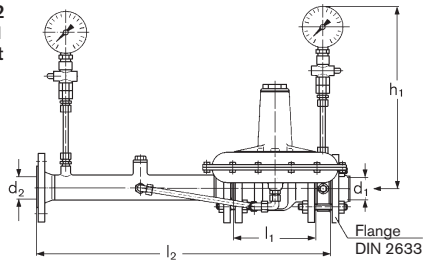
Types	d1/d2	d3	d4	h1	h2	h3
08/1 to 09/1	25	190	3/4"	155	100	380
1/1 to 4/1	50	350	1"	250	100	490

Types	l1	l2	l3	l4	l5	l6
08/1 to 09/1	160	250	100	60	160	100
1/1 to 4/1	200	290	110	60	260	150

Dimensions in mm are approximate values.

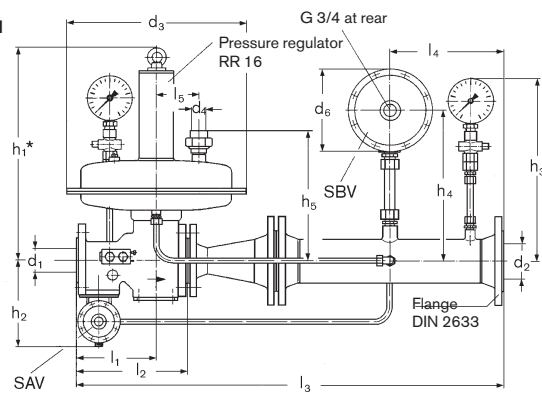
Picture 2  
Type 5/1  
compact



Type	d1	d2	l1	l2
5/1	50	50	200	750

All other dimensions can be taken from the table for pressure regulators type 1/1 to 4/1.

Picture 3  
Types 5/1  
to 8/1



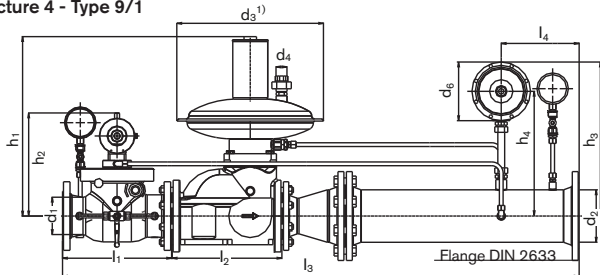
Types	d1	d2	d3 <sup>1)</sup>	d4	d6	h1	h1 <sup>2)</sup>	h2
5/1-25/50	25	50	310	1"	190	470	660	195
5/1-25/80	25	80	310	1"	190	470	660	195
6/1-50/50	50	50	310	1"	190	485	680	195
6/1-50/80	50	80	310	1"	190	485	680	195
7/1-50/50	50	50	405	1"	190	485	680	195
7/1-50/80	50	80	405	1"	190	485	680	195
7/1-50/100	50	100	405	1"	190	485	680	195
8/1-80/80	80	80	405	1"	190	545	735	240
8/1-80/100	80	80	405	1"	190	545	735	240
8/1-80/150	80	80	405	1"	190	545	735	240

Types	h3	h4	h5	l1	l2	l3	l4	l5
5/1-25/50	430	350	280	133	180	847	250	95
5/1-25/80	430	360	280	133	180	1016	250	95
6/1-50/50	430	350	295	179	250	752	250	95
6/1-50/80	430	350	295	179	250	1104	250	95
7/1-50/50	430	350	295	179	250	752	250	95
7/1-50/80	450	360	295	179	250	1104	250	95
7/1-50/100	460	370	295	179	250	1204	250	95
8/1-80/80	450	360	355	210	300	952	250	95
8/1-80/100	460	370	355	210	300	1254	250	95
8/1-80/150	480	400	355	210	300	1254	250	95

1) Diaphragm ø and also greatest width dimension 2) Dimension for spring access

Picture 4 - Type 9/1



Types	d1	d2	d3 <sup>1)</sup>	d4	d6	h1	h1*
9/1-100/100	100	100	360	3/4"	190	576	770
9/1-100/150	100	150	360	3/4"	190	576	770

Types	h2	h3	h4	l1	l2	l3	l4
9/1-100/100	400	467	372	350	352	1456	250
9/1-100/150	400	494	400	350	352	1658	250

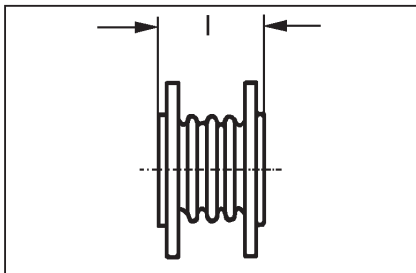
1) Diaphragm ø and also greatest width dimension  
\* Dimension for spring access

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# Fittings for gas

Compensators to DIN 30 681

– weishaupt –



#### Description

The compensator, also known as an expansion compensator, only serves for the absorption of movement in an axial direction. It can cater for expansion or compression.

#### Technical data

Max. operating pressure: 10 bar  
Max. operating temperature: up to 100°C  
Material body: Stainless steel  
Flange: Steel

#### Application:

Gases to G260/1  
Sewage and bio gas with max.  
0.1%v H<sub>2</sub>S, dry.

#### Note

Use only in low pressure range <0.5 bar.  
On high pressure gas valve trains always fit  
downstream of the high gas pressure regulator.

## Compensator

Flange connection: to EN 1092-1 PN16

Type	DN	I	Total stress absorption, axial expansion + compression -	Weight kg	DIN-DVGW- Reg.-No.	Order No.
ALN 10.0020.018.0	20	92	± 9	1.7	NG-4504.AR0922	151 327 2662/2 *
ALN 10.0025.022.0	25	92	± 11	2.6	NG-4504.AR0922	151 327 2663/2 *
ALN 10.0040.030.0	40	97	± 15	4.1	NG-4504.AR0922	151 327 2664/2 *
ALN 10.0050.028.0	50	110	± 14	5.1	NG-4504.AR0922	151 327 2665/2 *
ALN 10.0065.020.0	65	102	± 10	6.1	NG-4504.AR0922	151 327 2666/2 *
ALN 10.0080.032.0	80	102	± 16	7.8	NG-4504.AR0922	151 329 2694/2 *
ALN 10.0100.028.0	100	102	± 14	8.1	NG-4504.AR0922	151 327 2668/2 *
ABN 10.0125.035.0	125	135	± 17,5	11.0	NG-4504.AR0922	151 327 2669/2 *
ABN 10.0150.032.0	150	157	± 16	14.0	NG-4504.AR0922	151 328 2623/2 *

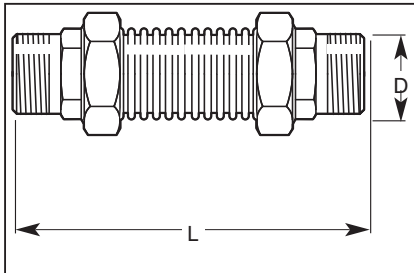
\* with screws, nuts and sealing rings for one face joint.

The DIN-DVGW-Reg.-No. and the compensator type  
are stamped on the circumference of the flange.  
Please observe when fitting.

# Fittings for gas

Compensators to DIN 30 681

– weishaupt –



## Compensator

Screwed connection: to DIN 2999

Type	D	L	Total stress absorption, axial	DIN-DVGW-Reg.-No.	Order No.	Order No. flange gasket
AGB 10.0020.0.028.0	R 3/4	173	± 14	DG-4504.AS 0449	454 354	441 010
AGB 10.0025.0.030.0	R 1	194	± 15	DG-4504.AS 0449	454 355	441 011
AGB 10.0040.0.034.0	R 1 1/2	240	± 17	DG-4504.AS 0449	454 356	441 012
AGB 10.0050.0.042.0	R 2	270	± 21	DG-4504.AS 0449	454 357	441 024

### Description

The compensator serves for the absorption of movement in an axial direction

### Technical data

Max. operating pressure: 4 bar

Max. operating temperature: up to 100°C

Material: Body - Stainless steel  
Screwed union - Temper cast

### Application:

Gases to G260/1

Sewage and bio gas with max.

0.1%v H<sub>2</sub>S, dry.

### Note

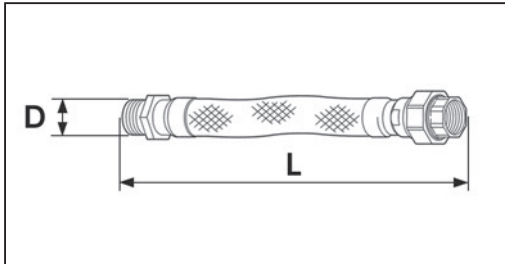
Use only in low pressure range <0.5 bar.

On high pressure gas valve trains always fit downstream of the high gas pressure regulator.

# Fittings for gas

## Gas hoses

– weishaupt –



**Gas hose**  
(Screwed connection: to DIN EN 10226-1)

Type	D	L	DIN-DVGW-Reg-No.	Order No.
RS 331L12	R 1/2"	500	NG-4602.AR 0643	491 252
RS 331L12	R 1/2"	1000	NG-4602.AR 0643	491 253
RS 331L12	R 3/4"	500	NG-4602.AR 0643	491 254
RS 331L12	R 3/4"	1000	NG-4602.AR 0643	491 255
RS 331L12	R 1"	500	NG-4602.AR 0643	491 256
RS 331L12	R 1"	1000	NG-4602.AR 0643	491 257
RS 331L12	R 1 1/2"	500	NG-4602.AR 0643	491 258
RS 331L12	R 1 1/2"	1000	NG-4602.AR 0643	491 259
RS 331L12	R 2"	500	NG-4602.AR 0643	491 260
RS 331L12	R 2"	1000	NG-4602.AR 0643	491 261

**Technical data:**

Metal hose with single ply woven sleeve cover  
with male and female thread

Max. operating pressure: MOP5

Max. operating temperature: -20°C...+200°C

Material: Hose - Stainless steel 1.4541 / 1.4571  
Woven sleeve cover - Stainless steel 1.4301  
Screwed unions - Temper cast

The hose should be installed tension and torsion free.

# Fittings for gas

Double gas valves (DMV) to EN 161 (Class A) screwed

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## Function

### DMV-D/11

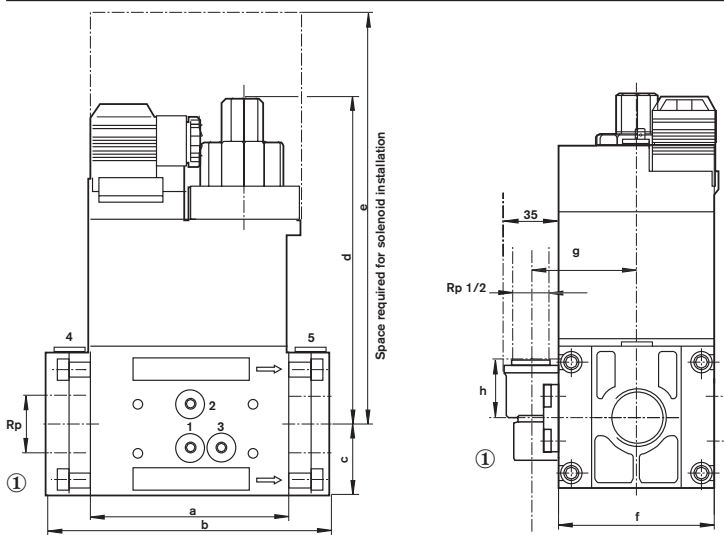
Two single stage solenoid valves, normally closed, fast opening, fast closing, manual limiting of gas throughput incorporated via main flow adjustment on valve 1 (V1).

**LE function** possible by fitting a hydraulic damper.

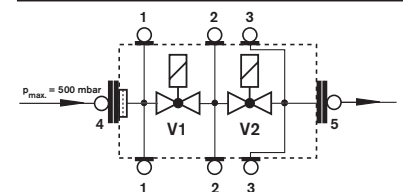
Two single stage solenoid valves, normally closed, slow opening, fast closing.

Opening time setting with initial lift range on valve 2 (V2), main flow adjustment on valve 1 (V1)

## Installation dimensions DMV-D/11



## Pressure test



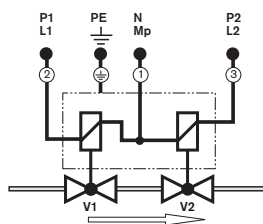
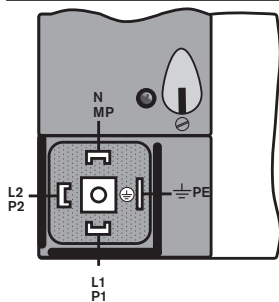
## Legend

- 1 Pressure into V1
- 2 Pressure between V1 and V2
- 3 Pressure after V2
- 4 Inlet flange connection
- 5 Outlet flange connection

## Pressure test:

DMV 503-520	Pos. 1, 2, 4, 5	Rp 1/8
DMV 503	Pos. 3	M 4
DMV 507-520	Pos. 3	Rp 1/8

## Electrical connection



## Dimensions

Type	Connection	Dimensions in mm								Weight kg	Solenoid Rating (VA)	Product ID.-No.	Order No. ①	
		a	b	c	d	e	f	g	h					
DMV-D 503/11	Rp 3/8-1/2	77	121	30	109	190	73	55	30	1.7	1011	35	CE-0085 AN 2801	605 202
DMV-D 507/11	Rp 1/2-1	93	140	35	134	232	73	55	28	2.1	1111	40	CE-0085 AN 2801	605 204
DMV-D 512/11	RP 1	124	174	45	150	254	99	68	24	4.6	1211	60	CE-0085 AN 2801	605 206
DMV-D 520/11	Rp 1 1/2-2	124	201	45	190	333	99	68	28	5.6	1212	80	CE-0085 AN 2801	605 208

① Connection flanges and ignition gas flange are accessories and not included under the order number.

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# Fittings for gas

Double gas valves (DMV) to EN 161 (Class A) screwed

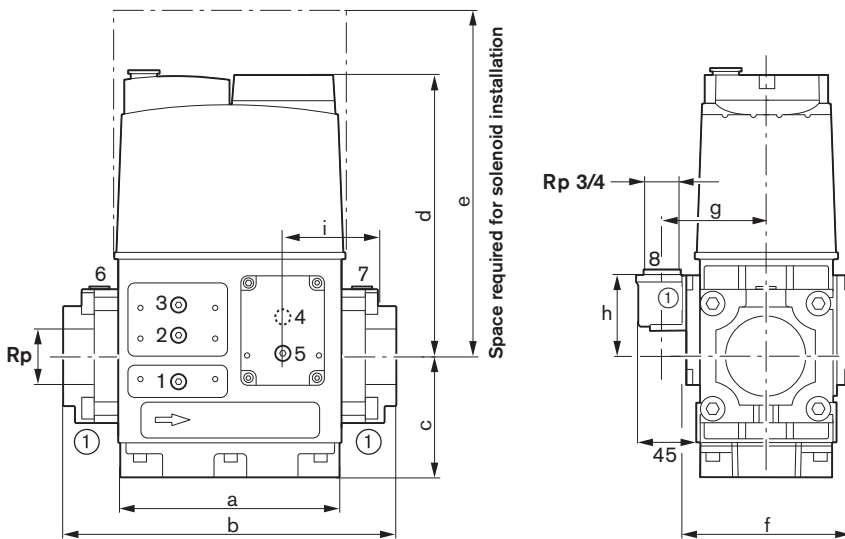
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## Function

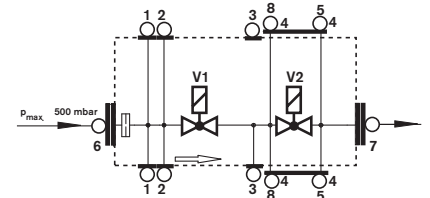
### DMV 525/12

Two single stage solenoid valves normally closed, fast opening, fast closing.

## Installation dimensions DMV 525/12



## Pressure test



## Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 5 Pressure after V2
- 6 Inlet flange connection
- 7 Outlet flange connection
- 8 Ignition gas outlet

## Pressure test:

DMV 525/12

Pos. 1, 2, 3, 5, 6, 7 Rp 1/4

Pos. 8 Rp 3/4

## Electrical connection



Rating (W) t = 3s	Rating (VA) oper.	Product ID.-No.
2 x 65 0236	2 x 30	CE-0085BO

## Dimensions

Type	Connection	Dimensions in mm									Weight kg	Solenoid No.	Order No. ①
		a	b	c	d	e	f	g	h	i			
DMV-525/12	Rp 1 1/2-2	162	243	88	207	336	124	75	75	83	7.1	1411/2P	625 005

Dimensions given are approximate. We reserve the right to make changes in line with future developments.

① Connection flange and ignition gas flange are accessories and are not included under the order number.

# Fittings for gas

Multifunction assembly (screwed) consisting of:

- Double solenoid valve to EN 161 (Class A)
- Gas filter

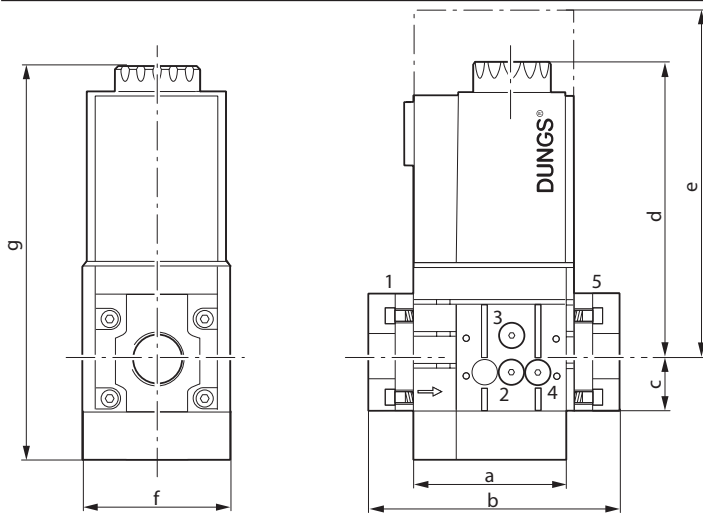
– weishaupt –

## Function

### W-MF 5xx

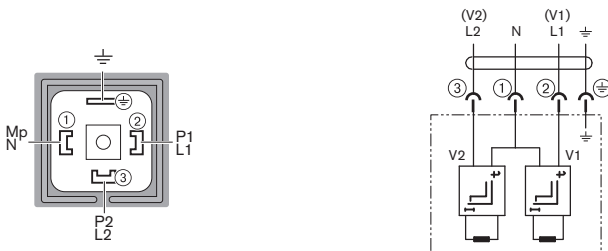
Two single stage solenoid valves, normally closed, fast opening, fast closing with gas filter.

## Installation dimension W-MF 5xx

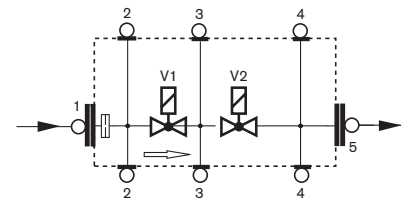


e = space required for solenoid replacement

## Electrical connection



## Pressure test



## Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 4,5 Pressure after V2

## Pressure test:

- Pos. 2, 3, 4 Rp 1/8
- Pos. 1, 5 Rp 1/4

## Dimensions

Type	Connection	Dimension in mm							Weight kg	Solenoid No.	Rating (VA) t=3s	Rating (VA) oper.	Product ID.-No.	Order No. <sup>⓪</sup>
		a	b	c	d	e	f	g						
W-MF 507	Rp 3/4-1	95	143	61	173	210	87	234	3.8	032/P	120	16	CE-0085 BM 345	625 001
W-MF 512	Rp 1-2	126	176	80	186	223	114	265	6.5	042/P	160	20	CE-0085 BM 345	625 003

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

<sup>⓪</sup> Connection flanges are accessories and not included in the order number.

# Fittings for gas

Multifunction assembly (screwed) consisting of:

- Double solenoid valves to EN 161 (Class A)
- Servo assisted pressure regulator to DIN EN 88-1
- Gas filter

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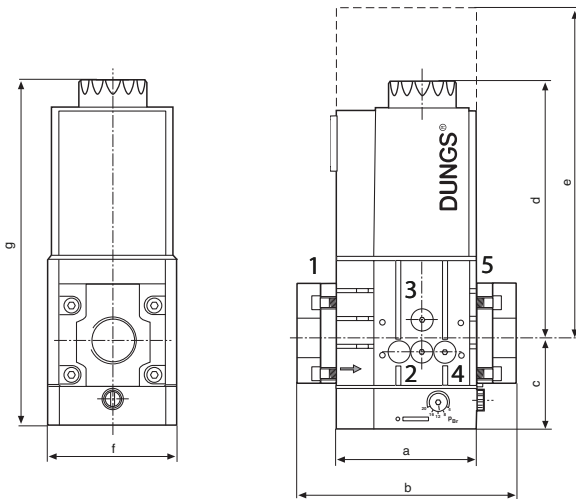
## Function

### W-MF 5xx SE

Two single stage solenoid valves, normally closed, fast opening, fast closing with servo assistance to pressure regulator and gas filter.

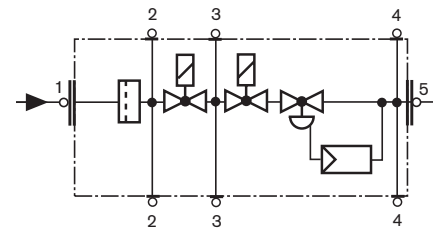
Setting range outlet pressure:  
4-20 mbar

## Installation dimensions W-MF 5xx SE



e = space required for solenoid replacement

## Pressure test



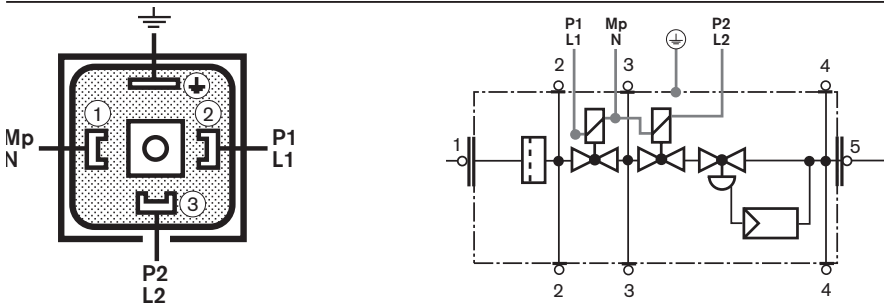
### Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 4,5 Pressure after V2

### Pressure test:

- Pos. 2, 3, 4 Rp 1/8
- Pos. 1, 5 Rp 1/4

## Electrical connection



### Note:

It is recommended that the filter element G1/8 on the breather nozzles is changed in line with the annual service of standard installations.  
On installations with a higher degree of soiling and dust, the intervals should be shortened accordingly.  
Order No.: 605 302

## Dimensions

Type	Connection	Dimensions in mm		Weight kg	Solenoid No.	Rating (VA) t=3s	Rating (VA) oper	Product ID. No	Order No. ①					
		a	b											
W-MF 507 SE	Rp 3/4-1	95	143	61	173	210	87	234	3.8	032/P	120	16	CE-0085 BM 345	605 320
W-MF 512 SE	Rp 1-2	126	176	80	186	223	114	265	6.5	042/P	160	20	CE-0085 BM 345	605 321

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

① Connection flanges are accessories and not included in the order number.

# 9 Fittings for gas

Multifunction assembly (screwed) consisting of:

- Double solenoid valves to EN 161 (Class A)
- Servo assisted pressure regulator to DIN EN 88-1, slow opening, adjustable start gas pressure
- Gas filter

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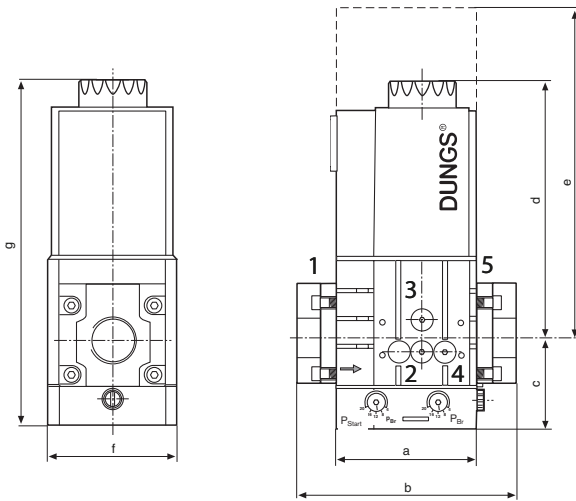
## Function

### W-MF 5xx SLE

Two single stage solenoid valves, normally closed, with slow opening characteristic, fast closing, with servo assisted pressure regulator and gas filter.

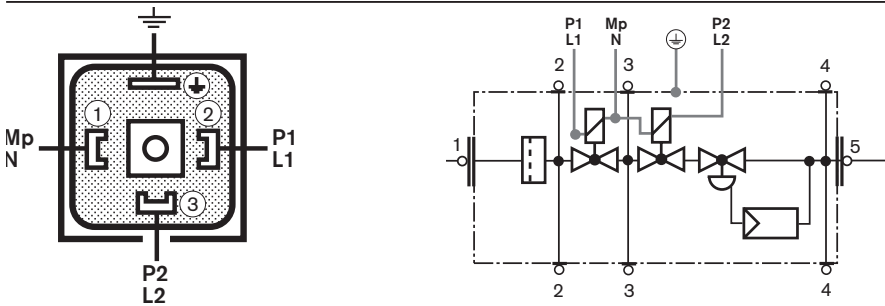
Setting range outlet pressure:  
4-20 mbar

## Installation dimensions W-MF 5xx SLE

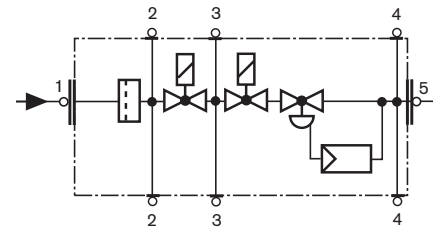


e = Platzbedarf für Magnetwechsel

## Elektroanschluß



## Pressure test



## Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 4,5 Pressure after V2

## Pressure test:

- Pos. 2, 3, 4 Rp 1/8
- Pos. 1, 5 Rp 1/4

## Note:

It is recommended that the filter element G1/8 on the breather nozzles is changed in line with the annual service of standard installations. On installations with a higher degree of soiling and dust, the intervals should be shortened accordingly. Order No.: 605 302

## Dimensions

Type	Connection	Dimensions in mm		Weight kg	Solenoid No.	Rating (VA) t=3s	Rating (VA) oper.	Product ID No.	Order No. ①					
		a	b											
W-MF 507 SLE	Rp 3/4-1	95	143	61	173	210	87	234	3.8	032/P	120	16	CE-0085 BM 345	605 326
W-MF 512 SLE	Rp 1-2	126	176	80	186	223	114	265	6.5	042/P	160	20	CE-0085 BM 345	605 327

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

① Connection flanges are accessories and not included in the order number.

# Fittings for gas

Double gas valves (DMV 5xx/11, /12 and W-MF 5xx) to EN 161 (Class A) screwed

– weishaupt –

## Accessories

Flange	for DMV... and W-MF	Order No.	Hydraulic damper	for DMV ...	Order No.
Rp <sup>3</sup> / <sub>4</sub>	507/11	605 227	H 12/5	507/11	605 237
Rp 1	507/11	605 233	H 12/5	512/11	605 237
Rp 1	512-520/11	605 228	H 12/5	520/11	605 237
Rp 1 <sup>1</sup> / <sub>2</sub>	512-520/11	605 230			
Rp 2	512-520/11	605 231			
Rp 1 <sup>1</sup> / <sub>2</sub>	525/12	625 030			
Rp 2	525/12	625 031			
			<b>Ignition gas flange</b>		
			for DMV-D 507-520 W-MF 5xx	Rp 1/2	605 232
			for DMV 525/12	Rp 3/4	625 032

## Technical data

Size	DMV 507	DMV 512.520	DMV 525/12	Installation position	Solenoid vertical or horizontal
Flange with pipe thread to ISO 7-1	Rp <sup>3</sup> / <sub>4</sub> , 1 and their combinations	Rp 1, 1 <sup>1</sup> / <sub>2</sub> , 2	Rp 1 <sup>1</sup> / <sub>2</sub> , 2	Strainer	DMV: Integral sieve W-MF 5xx: Integral sieve + filter
Media	Gases to DVGW work sheet G 260/I, Biogas with up to 0.1% v H <sub>2</sub> S dry			Voltage/frequency	~ (AC) 50-60 Hz 220V - 240V -15% +10%, other voltages on request, Available voltages: ~ (AC) 110V-120V,
Max. operating pressure	500 mbar			Rating/consumption	at ~ (AC) 240V; + 20°C; see type overview
Solenoid valve 1 (V1)	automatic shut off valve to EN 161: Class A			Type of protection/switch on duration	IP 54 / 100% ED
Solenoid valve 2 (V2)	automatic shut off valve to EN 161: Class A			Electrical connection	Plug connection EN 175301-803
Closing time	< 1s			Interference protection	Interference degree N
Opening time	DMV, DMV-D: < 1s W-MF, W-MF SE < 1s W-MF SLE approx. 20s depending on pe DMV-DLE: approx. 20s at room temperature 20°C and without quick action stroke			Limit contact	DMV: Type K01/1 (DIN tested), can be fitted to V1 and V2 W-FM 5xx: not possible
Quick action stroke (for LE...) up to DMV 520/11	Manually adjustable up to approx. 70% of total stroke				
Main flow restrictor	On DMV/11 manually adjustable on V1				
Materials of gas carrying parts valve seat:	Housing: Gaskets on valve seat	Aluminium, steel NBR basis suitable for gases to G260/1 brass free (DMV: Viton as special equipment)			

Ambient temperature - 15°C to + 60°C

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# Fittings for gas

Multifunction assembly (screwed) consisting of:

- Double solenoid valve to EN 161 (Class A)
- Servo assisted pressure regulator to DIN EN 88-1
- Fine mesh filter

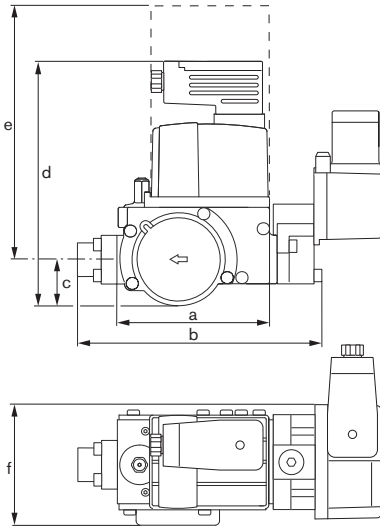
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## Function

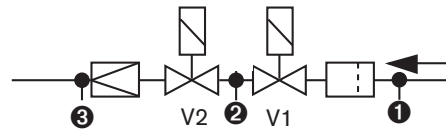
### W-MF DLE 055 D01 S20

Two single stage solenoid valves, normally closed, fast opening, fast closing with servo assisted pressure regulator for pressure regulation and filter. The valves can only be controlled together. With connection pressures >50 mbar an FRS should be fitted.

## Installation dimensions W-MF DLE 055 D01 S20

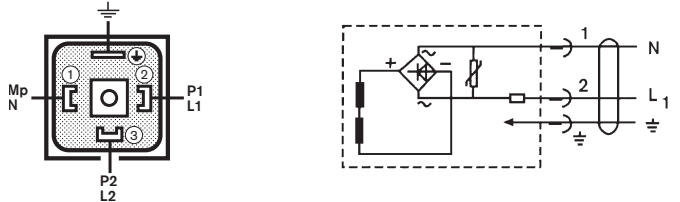


## Pressure test



Test point 1: Pressure into V1  
 Test point 2: Pressure between V1 and V2  
 Test point 3: Gas setting pressure

## Electrical connection



## DN 3/4" with screwed connection

### Technical data

Media dry  
 Gases to DVGW work sheet G 260/l, as well as sewage and bio gas with max. 0.1 vol. % H<sub>2</sub>S  
 Max. oper. pressure 65 mbar  
 Solenoid valve Valve to EN 161, Class A  
 Material of gas Housing: Aluminium, steel, free from non ferrous metals  
 carrying parts Gasket: NBR, Cork

Voltage/Frequency ~ (AC) 50-60 Hz 230 V (+10% - 15%)  
 Type of protection IP 54  
 Electrical connection Plug connection to DIN EN 175 301-803  
 Test gas connection G1/8 DIN 150 228 On valve inlet centre  
 Ambient temp. -15° C to +60° C  
 Mounting position Solenoid vertical or horizontal

Regulating pressure range 3-15 mbar

Application:  
 The multi function assembly is used on WG5/1A LN.

### Dimensions

Type	Rp	Opening time	Installation dimensions [mm]						Rating/elec. consumption ~(AC) 230 V; + 20°C	Weight kg	Product ID No.	Order No. ①
			a	b	c	d	e	f				
MBC-65	Rp 1/2	< 1 s	105	148	31	160	226	76	18 VA	1.5	CE-0085 AU 0377	605 240

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

① Connection flanges are accessories and not included in the order number.

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# Fittings for gas

Multifunction assembly (screwed) consisting of:

- Double solenoid valve to EN 161 (Class A)
- Servo assisted pressure regulator to DIN EN 88-1
- Fine mesh filter

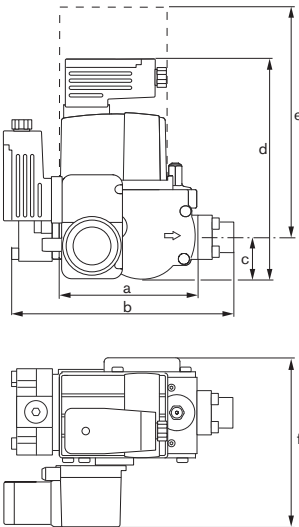
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## Function

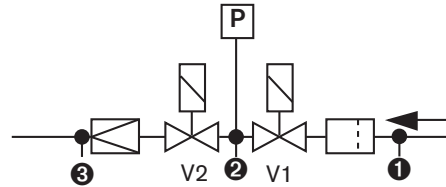
### W-MF DLE 055 D01 S22

Two single stage solenoid valves, normally closed, fast opening, fast closing with servo assisted pressure regulator for pressure regulation and filter. The valves can be controlled independently, whereby valve proving can be carried out using the pressure switch in the centre and the W-FM20. With connection pressures >50 mbar an FRS should be fitted.

### Installation dimensions W-MF DLE 055 D01 S22

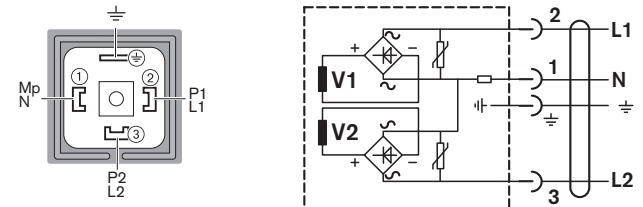


### Pressure test



Test point 1: Pressure into V1  
 Test point 2: Pressure between V1 and V2  
 Test point 3: Gas setting pressure

### Electrical connection



### DN 3/4" with screwed connection

#### Technical data:

Meda dry  
 Gases to DVGW work sheet G 260/l, as well as sewage and bio gas with max. 0.1 vol. % H<sub>2</sub>S  
 Max. oper. pressure 65 mbar  
 Solenoid valve Valve to EN 161, Class A  
 Material of gas Housing: Aluminium, steel, free from non ferrous metals  
 carrying parts Gaskets: NBR, Cork

Voltage/frequency ~ (AC) 50-60 Hz 230 V (+10% - 15%)  
 Type of protection IP 54  
 Electrical connection Plug connection to DIN EN 175 301-803  
 Test gas connection G1/8 DIN 150 228  
 Ambient temp. -15° C to +60° C  
 Mounting position Solenoid vertical or horizontal

Regulating 3-15 mbar pressure range

Application:  
 The multi function assembly is used on WG10/0-D ZM-LN.

### Dimensions

Type	Rp	Opening time	Installation dimension [mm]						Rating/elec. consumption ~(AC) 230 V; + 20°C	Weight kg	Product ID No.	Order No. ①
			a	b	c	d	e	f				
MBC-65	Rp 1/2	< 1 s	105	148	31	160	226	123	25 VA	1.5	CE-0085 AU 0377	605 284

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

① Connection flanges are accessories and not included in the order number.

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# Fittings for gas

Double gas valves (DMV) to EN 161 (Class A) flanged

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## Function

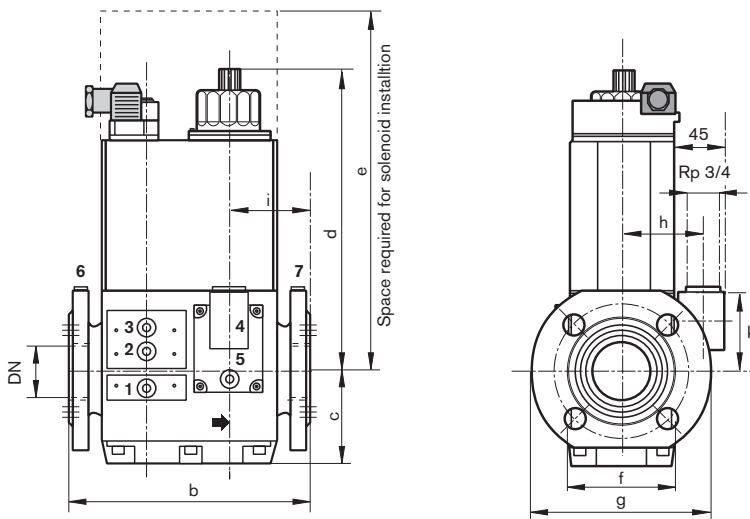
### DMV-D/11

Two single stage solenoid valve, normally closed, fast opening, fast closing, manual limiting of gas throughput incorporated via main flow adjustment on valve 1 (V1).

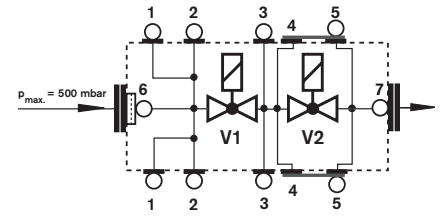
**LE function** possible by fitting a hydraulic damper. Two single stage solenoid valves, normally closed, slow opening, fast closing.

Opening time setting with initial lift range on valve 2 (V2), main flow adjustment at valve 1 (V1).

## Installation dimensions DMV-D/11 and DMV-DLE/11



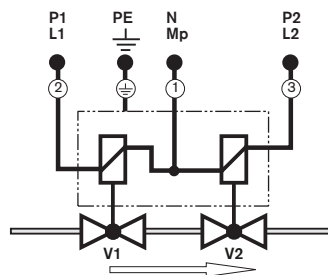
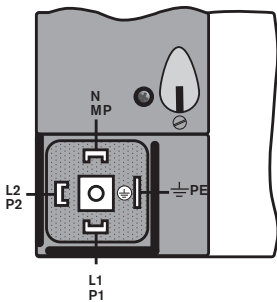
## Pressure test



## Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 4 Ignition gas outlet
- 5 Pressure after V2
- 6 Inlet flange connection
- 7 Outlet flange connection

## Electrical connection



**Pressure test:** Pos. 1, 2, 3, 5 Rp 1/8  
Pos. 6, 7 Rp 1/4

## Dimensions

Type	Connection	Dimensions in mm		Dimensions in mm							Weight kg	Solenoid No.	Rating (VA)	Product ID No.	Order No.
		b	c	d	e	f	g	h	i	k					
DMV-D 5040/11	DN 40	240	79	213	372	90	150	69	87	62	9.0	1212	80	CE-0085 AN 2801	151 331 2615/2
DMV-D 5050/11	DN 50	240	79	213	372	90	165	69	87	62	9.4	1212	80	CE-0085 AN 2801	151 331 2617/2
DMV-D 5065/11	DN 65	290	87	251	431	102	185	75	107	68	14.7	1411	100	CE-0085 AN 2801	151 331 2619/2
DMV-D 5080/11	DN 80	310	104	293	490	129	200	88	107	85	23.7	1511	100	CE-0085 AN 2801	151 331 2621/2
DMV-D 5100/11	DN 100	350	119	330	552	143	220	96	119	95	30.7	1611	110	CE-0085 AN 2801	151 331 2623/2
DMV-D 5125/11	DN 125	400	142	412	693	161	255	105	131	101	50.7	1711	150	CE-0085 AN 2801	151 331 2625/2

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# Fittings for gas

Double gas valve (DMV 5xxx/11) to EN 161 (Class A) flanged

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## Accessories

Hydraulic damper	for DMV ...	Order No.
H 12/5	5040/11	605 237
H 12/5	5050/11	605 237
H 11/5	5065/11	605 238
H 11/5	5080/11	605 238
H 10/5	5100/11	605 239
H 10/5	5125/11	605 239

## Technische Daten

Nominal diameter flanges	DN 40 50 65 80 100 125 Connection flanges to DIN EN 1092-1	Ambient temperature	- 15°C bis + 60°C
Media	Gases to DVGW work sheet G 260/I, Biogas with up to 0.1% v H <sub>2</sub> S dry	Installation position	Solenoid vertical or horizontal
Max. operating pressure	500 mbar	Strainer	Integral sieve
Solenoid valve 1 (V1)	automatic shut off valve to EN 161: Class A,	Burner pressure monitoring P <sub>Br</sub>	Connection to V2
Solenoid valve 2 (V2)	automatic shut off valve to EN 161: Class A,	Voltage/frequency	~ (AC) 50-60 Hz 220V - 240V -15% +10%, other voltages on request, Available voltages: ~ (AC) 110V - 120V
Closing time	< 1s	Rating/consumption	with ~ (AC) 240V; + 20°C; see type overview
Opening time	DMV-D: < 1s DMV-DLE: appeox. 20s at room temperature 20°C and without quick action stroke	Type of protection/switch on duration	IP 54 / 100% ED
Quick action stroke (on LE...)	Manually adjustable up to 70% of the total stroke	Electrical connection	Plug connection to DIN EN175301-803
Main flow restrictor	Manually adjustable on V1	Interference protection	Interference degree N
Materials of the gas carrying parts	Housing: Aluminium, steel Gaskets on valve seat: NBR basis suitable for gases to G260/1 non ferrous metal (Viton as special version)	Limit contact	Type K01/1 (DIN tested), can be connected to an V1 and V2
Ignition gas connection	Rp 3/4 is fitted as standard and can be fitted to both sides.		

# Fittings for gas

Double gas valves (DMV 5xxx/12) to EN 161 (Class A) flanged

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## Technical data

Nominal diameter flanges	DN 65 80 100 Connection flanges to DIN EN 1092-1	Ambient temperature	- 15°C bis + 60°C
Media	Gases to DVGW work sheet G 260/I, Biogas with up to 0.1% v H <sub>2</sub> S dry	Installation position	Solenoid vertical or horizontal
Max. operating pressure	500 mbar	Strainer	Integral sieve
Solenoid valve 1 (V1)	automatic shut off valve to EN 161: Class A,	Burner pressure monitoring P <sub>Br</sub>	Connection to V2
Solenoid valve 2 (V2)	automatic shut off valve to EN 161: Class A,	Voltage/frequency	~ (AC) 50-60 Hz 220V - 240V -15% + 10%, other voltages on request, Available voltages: ~ (AC) 110V - 120V
Closing time	< 1 s	Rating/consumption	with ~ (AC) 240V; + 20°C; see type overview
Opening time	DMV: < 1s	Type of protection/switch on duration	IP 54 / 100% ED
Materials of the gas carrying parts	Housing: Aluminium, steel Gaskets NBR basis suitable for on valve seat: gases to G260/1 non ferrous metal (Viton as special version)	Electrical connection	Plug connection to DIN EN175301-803
Ignition gas connection	Rp 3/4 is fitted as standard and can be fitted to both sides.	Interference protection	Interference degree N
		Limit contact	Type K01/1 (DIN tested), can be connected to an V1 and V2

# Fittings for gas

## Double gas valve (DMV) to EN 161 (Class A) flanged

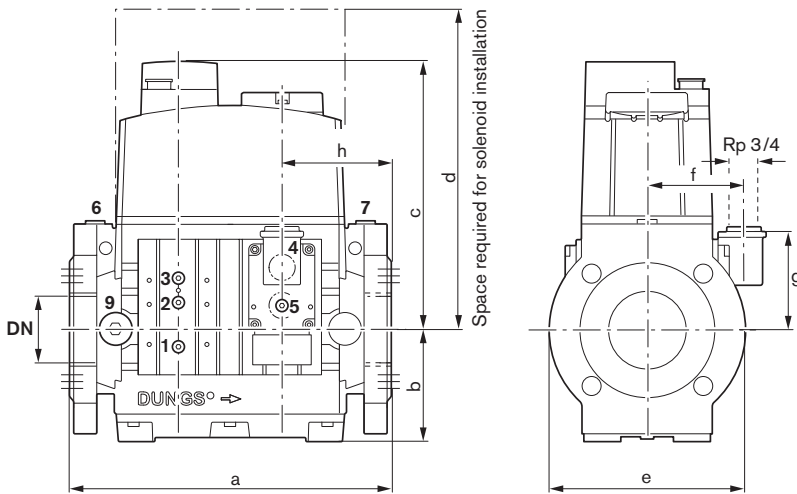
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### Function

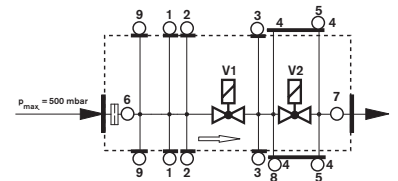
#### DMV/12

Two single stage solenoid valves, normally closed, fast opening, fast closing.

### Installation dimensions DMV 5.../12



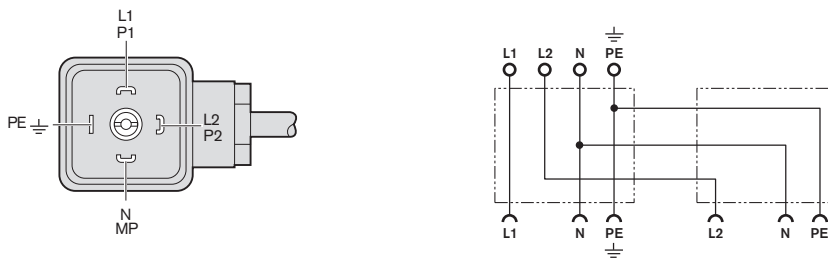
### Pressure test



### Legend

- 1,2 Pressure into V1
- 3 Pressure between V1 and V2
- 4 Ignition gas outlet
- 5 Pressure after V2
- 6 Inlet flange connection
- 7 Outlet flange connection

### Electrical connection



**Pressure test:** Pos. 1, 2, 3, 5 Rp 1/8  
Pos. 6, 7 Rp 1/4

Rating (W) t = 3s	Rating (VA) oper.	Product ID No.
2 x 95	50	CE-0085BO 0236
2 x 125	50	CE-0085BO 0236
2 x 130	50	CE-0085BO 0236

### Dimensions

Type	Connection	Dimensions in mm								Weight kg	Solenoid No.	Order No.
		a	b	c	d	e	f	g	h			
DMV-5065/12	DN 65	290	104	246	365	185	89	87	97	16.6	1511/2P	151 333 2601/2
DMV-5080/12	DN 80	310	119	292	450	200	96	94	107	23.9	1611/2P	151 333 2603/2
DMV-5100/12	DN 100	350	142	329	500	220	105	104	127	29.2	1711/2P	151 333 2605/2

Dimensions given are approx. values. We reserve the right to make changes in line with future developments.

# Fittings for gas

Double gas valves (VGD 40... + 2 x SKP15) to EN 161 (Class A) flanged

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## Technical data

Nominal diameter flanges	DN 125 150 Connection flanges to DIN EN 1092-1	Ambient temperature	- 15°C bis + 60°C
Media	Gases to DVGW work sheet G 260/I, Biogas with up to 0.1% v H <sub>2</sub> S dry	Installation position	Solenoid vertical or horizontal
Max. operating pressure	500 mbar	Strainer	Integral sieve, also on ignition gas flange
Solenoid valve 1 (V1)	automatic shut off valve to EN 161: Class A,	Burner pressure monitoring P <sub>Br</sub>	Connection to V2
Solenoid valve 2 (V2)	automatic shut off valve to EN 161: Class A,	Voltage/frequency	~ (AC) 50-60 Hz 220V - 240V -15% + 10%, other voltages on request, Available voltages: ~ (AC) 110V - 120V
Closing time	< 1 s	Rating/consumption	with ~ (AC) 240V; + 20°C; see type overview
Opening time	max. 10 s (depending on nom. diam. of valve)	Type of protection/switch on duration	IP 54 / 100% ED
Materials of the gas carrying parts	Housing: Aluminium, steel Gaskets NBR basis suitable for on valve seat: gases to G260/1 non ferrous metal (Viton as special version)	Electrical connection	Plug connection to DIN EN175301-803
Ignition gas connection	Rp 3/4 is fitted as standard and can be fitted to both sides.	Interference protection	Interference degree N
		Limit contact	Type K01/1 (DIN tested), can be connected to an V1 and V2

# Fittings for gas

Double gas valve to EN 161 (Class A) flanged

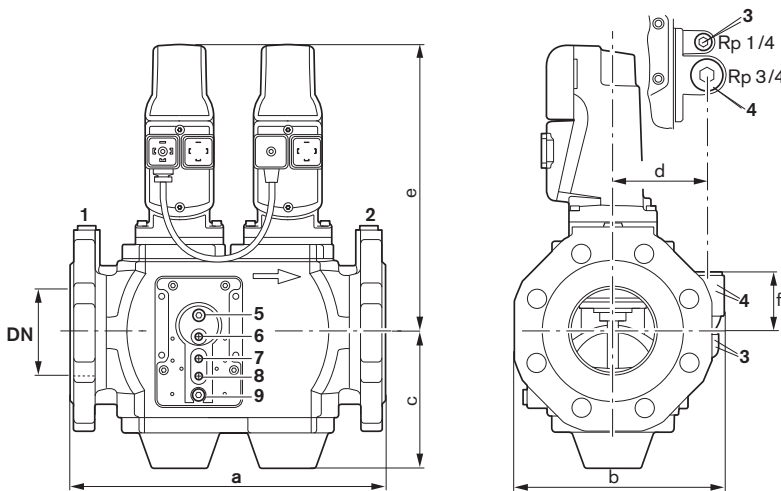
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## Function

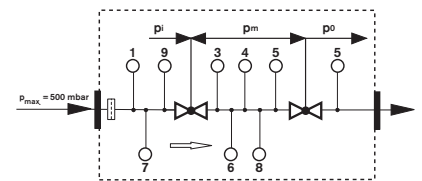
### VGD40... + 2x SKP15

Two single stage shut off valves normally closed with electro-hydraulic drive, damped opening characteristics, fast closing.

## Installation dimensions VGD40... + 2 x SKP15



## Pressure test

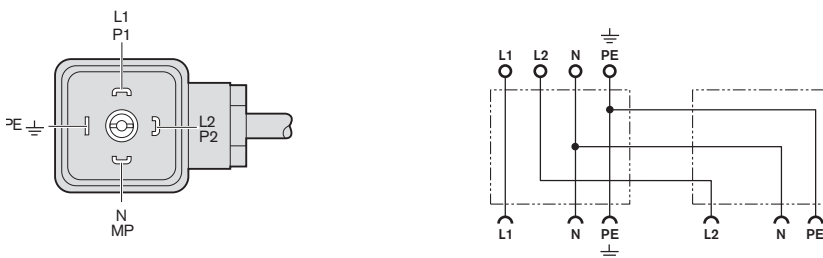


## Legend

- 7,9 Pressure into V1
- 5,6,8 Pressure between V1 and V2
- 3,4 Ignition gas outlet
- 1 Inlet flange connection
- 2 Outlet flange connection  
(Pressure after V2)

<b>Pressure test:</b> Pos. 5,9	Rp 1/8
Pos. 1,2,3	Rp 1/4
Pos. 6,7,8	M4

## Electrical connection



## Dimensions

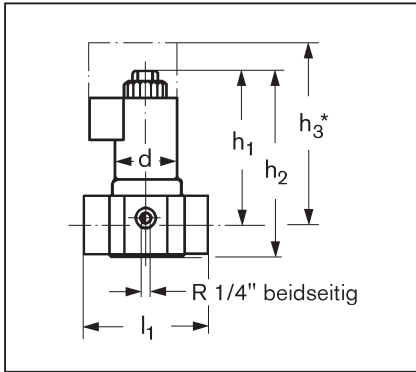
Type	Connection	Dimensions in mm						Weight kg	Rating (VA)	Product ID No.	Order No.
		a	b	c	d	e	f				
VGD40.125	DN 125	400	255	175	119	316	31	20.4	27 VA	CE-0085 B06144	151 333 2654/2
VGD40.150	DN 150	480	293	188	140	333	20	26.3	27 VA	CE-0085 B06144	151 333 2656/2

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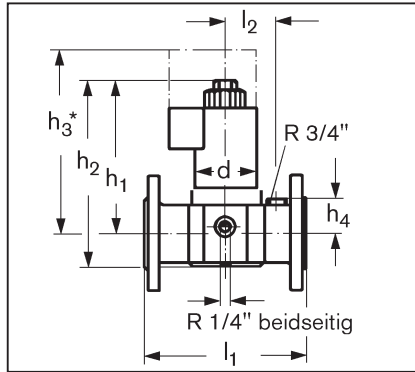
# Fittings for gas

## Gas solenoid valve to EN 161 (Class A)

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DN 1/2" ... 2" with screwed connection



DN 40...150 with flange connection  
DIN 2633 PN 16

### Description

Single stage solenoid valves, normally closed, fast opening, fast closing. The coil is DC, the AC mains voltage is converted by an integral rectifier with protective switching.

### Setting the main flow volume

The setting knob can be adjusted using a screwdriver once the cover has been removed and the lock nut has been loosened. Clockwise rotation = smaller gas volume  
Anticlockwise rotation = larger gas volume

The main flow restrictor is supplied fully open. Once setting has been completed successfully tighten lock nut and secure the cover.

### Technical data:

Media dry \_\_\_\_\_: Gases to DVGW work sheet G 260/1, gases with max. 0.1 vol. % H<sub>2</sub>S  
Max. oper. pressure\_ : 500 mbar  
Solenoid valve \_\_\_\_\_: Valve to EN 161, Class A  
Pressure stage \_\_\_\_\_: PN 1  
Material of gas \_\_\_\_\_: Housing: Aluminium, carrying parts \_\_\_\_\_: Steel, non ferrous metal  
Gaskets: NBR  
Voltages/frequency\_ : ~ (AC) 230 V (+10%-15%); 50-60 Hz - other voltages on request  
Type of protection \_\_\_: IP 54, IP 65 on request

Electrical connection : to screw terminals via PG 11  
Test and ignition \_\_\_\_\_: G 1/4 DIN ISO 228  
gas connection \_\_\_\_\_: both sides of the valve body inlet side, additionally inlet side G 3/4, from DN 40 (flange)  
Ambient temp. \_\_\_\_\_: -15° C to + 60° C  
Installation position \_\_\_: Solenoid vertical  
Limit contact \_\_\_\_\_: Type K01/1 DIN tested can be fitted to DN 10 - DN 150

### Dimensions for screwed connection

Type	DN	d	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub> *	Weight kg	Coil No.	Rating approx. (VA)	Product ID No.	Order No. Reg. No.
MVD 505/5	1/2"	50	75	90	113	135	2.1	100	18	CE 0085AO 3219	605 452
MVD 507/5	3/4"	75	100	130	155	188	4.8	200	25	CE 0085AO 3219	605 453
MVD 510/5	1"	75	110	130	160	188	4.9	200	25	CE 0085AO 3219	605 454
MVD 515/5	1 1/2"	95	150	170	205	255	6.4	300	60	CE 0085AO 3219	605 455
MVD 520/5	2"	115	170	190	235	300	7.4	400	100	CE 0085AO 3219	605 456

### Dimensions for flanged connections

Type	DN	d	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub> *	Weight kg	Coil No.	Rating approx. (VA)	Product ID No.	Order No.** Reg. No.
MVD 5040/5	40	95	200	170	205	255	7,9	300	60	CE 0085AO 3219	151 330 2630/2
MVD 5050/5	50	115	230	190	235	300	10,5	400	100	CE 0085AO 3219	151 330 2631/2
MVD 5065/5	65	130	290	235	295	370	21,0	500	80	CE 0085AO 3219	151 330 2632/2
MVD 5080/5	80	150	310	290	360	465	24,2	550	100	CE 0085AO 3219	151 330 2633/2
MVD 5100/5	100	170	350	365	445	540	29,8	60E	90	CE 0085AO 3219	151 330 2634/2
MV 5125/5-S	125	170	400	412	465	585	56,0	60S	90	CE 0085AO 3219	151 330 2636/2
MV 5150/5-S	150	170	480	445	610	620	90,0	61S	90	CE 0085AO 3219	151 330 2638/2

\* Dimensions for coil installation

\*\* with screws, nuts and seals for one connection point

Dimensions are approx. values.

We reserve the right to make changes in line with future development

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# Fittings for gas

## Gas solenoid valve (Class A)

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### Function

#### SV-D 507

Single stage solenoid valve, normally closed, fast opening, fast closing. The coil is DC, the AC mains voltage is converted by an integral rectifier with protective switching.

### Setting the main gas flow

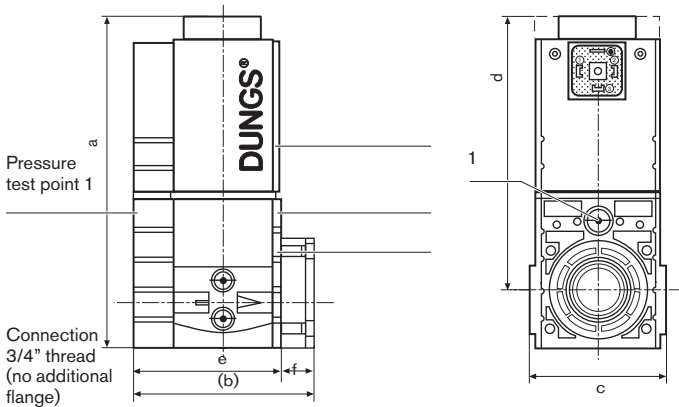
The setting knob can be adjusted once the counter sunk screw on the cover has been loosened.

Clockwise rotation = smaller gas volume

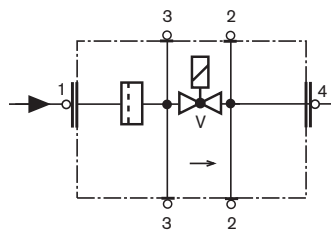
Anticlockwise rotation = larger gas volume

The main flow restrictor is supplied fully open. Once setting has been completed successfully re-tighten counter sunk screw.

### Installation dimensions SV-D 507



### Pressure test



### Legend

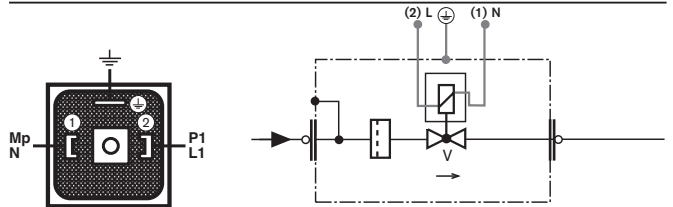
1 Pressure into valve

### Pressure test:

Pos. 1

Rp 1/8

### Electrical connection



### DN 3/4" screwed connection

#### Technical data:

Media dry Gases to DVGW work sheet G 260/I, as well as sewage and bio gas with max. 0.1 vol. % H<sub>2</sub>S  
 Max. oper. pressure 500 mbar  
 Solenoid valve Valve to EN 161, Class A  
 Pressure stage PN1  
 Material of gas carrying parts Housing: Aluminium, steel, non ferrous metal  
 Gaskets: NBR

Voltage/frequency ~ (AC) 50-60 Hz 230 V (+10% - 15%); additional voltages on request  
 Rating/electrical consumption 20 VA/0,08 A at 20°C and 230 VAC  
 Type of protection IP 65  
 Electrical connection Plug connection to DIN EN 175 301-803  
 Test gas G1/8 DIN 150 228  
 connection on valve inlet centre

Ambient temp. -15° C to +60° C  
 Installation position Solenoid vertical or horizontal  
 Limit contact Type K01/1 DIN tested,

#### Application:

The solenoid valve is used as single valve in gas ignition lines.

### Dimensions for screwed connections:

Type	DN	a	b	c	d	e	Weight kg	Coil No.	Product ID No.	Order No.
SV-D 507	3/4"	156	92	62	200	75	1.6	020	CE 0085 BM0332	605 550

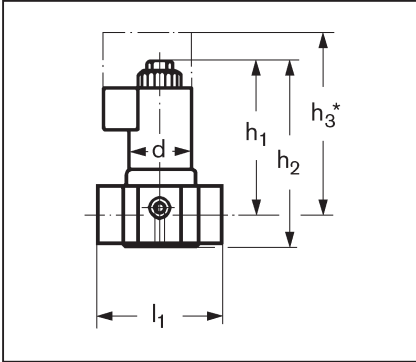
Dimensions are approx. values. We reserve the right to make changes in line with future developments.

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 Technical folder 674 GB, December 2008  
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# Fittins for gas

Gas solenoid valve to EN 161 as a gas vent valve (normally open)

– weishaupt –



DN 3/4" with screwed connection

**Technical data:**

Media dry Gases to DVGW work sheet G 260/l, gases with max. 0.1 vol. % H<sub>2</sub>S  
 Max. oper. pressure 500 mbar  
 Solenoid valve Valve to EN 161, Class A  
 Pressure stage PN1  
 Material of gas carrying parts Housing: Aluminium, steel, non ferrous metal  
 Gaskets: NBR

Voltage/frequency ~ (AC) 50-60 Hz 230 V (+10% - 15%); other voltages on request  
 Rating/electrical consumption 15 VA/0,08 A at 20°C and 230 VAC  
 Type of protection IP 54, IP 65 on request  
 Electrical connection to screw terminals via cable entry PG 11  
 Test/ignition gas connection G1/4 ISO 228 both side in outlet range

Ambient temp. -15° C to +60° C  
 Installation position Solenoid vertical  
 Limit contact Type K01/1 DIN tested, can be fitted to LGV 5.../5

**Application:**  
 This vent gas solenoid valves is used to shut off and release preset gas volumes.

**Dimensions for screwed connections**

Type	DN	d	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub> *	Weight kg	Coil No.	Product ID No.	Order No.
LGV 507/5	3/4"	50	100	112	137	170	1.5	100	CE 0085AP 0224	605 707

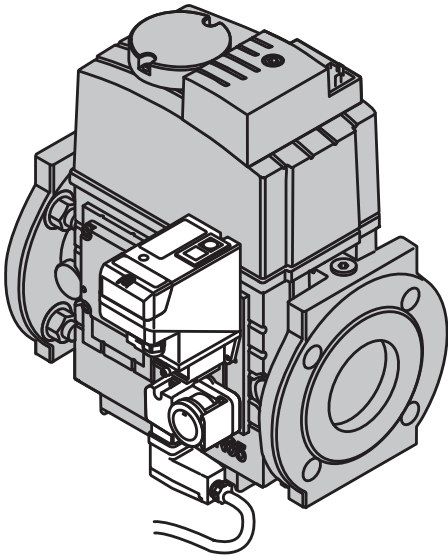
Dimensions are approx. values.  
 We reserve the right to make changes in line with future developments.



# Fittings for gas

Weishaupt valve proving system VPS 504 Series 03 and 04

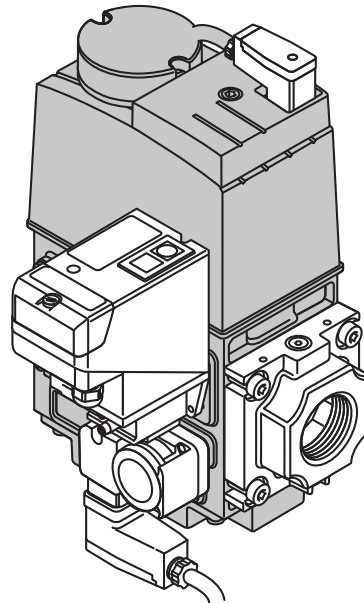
– weishaupt –



Series 04

## Function

The valve proving system type VPS 504 operates to the pressure build up principle. The programmer is activated at heat demand, valve proving is carried out at each burner start. The VPS 504 carries out a self-test



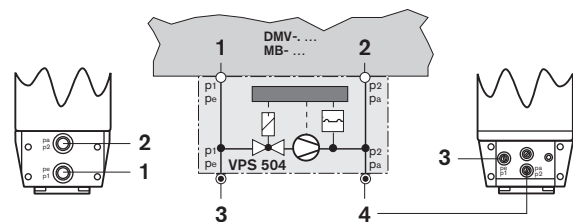
Series 03 for gas burner WG

## Technical data

Max. operating pressure	500 mbar	Fusing fitted to housing	T6.3 L 250 V
Test volume	≤ 4.0 l	Switching current	Operating output max. 1 A
Pressure increase via integral pump	≈ 20 mbar	Release time	Lockout output max. 1 A
Voltage/frequency	~(AC) 230 V - 15 %... to 240 V + 10 % / 50 Hz or ~(AC) 110 V / 50 Hz	Sensitivity limit	≈ 10 - 26 s
Type of protection/ Series 03	IP 40 / 100 % ED	Max. number of test cycles	50 /h
switching duration Series 04	IP 54 / 100 % ED	Ambient temperature	20 /h
Pre-fusing (supplied by others)	10 A F or 6.3 A T	Installation position	-15 °C ... +60 °C vertical or horizontal

## Pressure test points

- 1 Connection  $p_e$ ,  $p_1$
- 2 Connection  $p_a$ ,  $p_2$
- 3, 4 Test point



# Fittings for gas

Weishauptb valve proving system VPS 504 Series 03 and 04

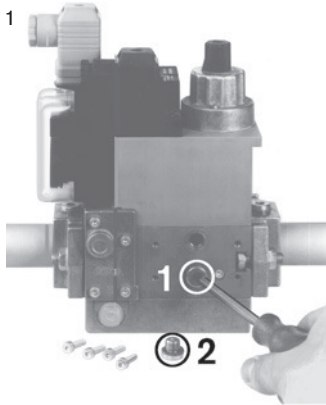
– weishaupt –

## Installation

1. Isolate gas supply.
2. Isolate electrical supply.
3. Remove cover screws 1, 2, picture 1

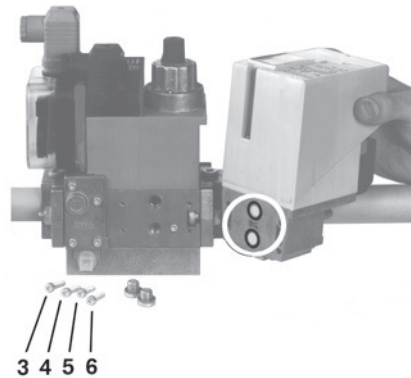
MB-...D(LE) / DMV-D 503 to 520,  
W-MF507 u. 512

Pict. 1



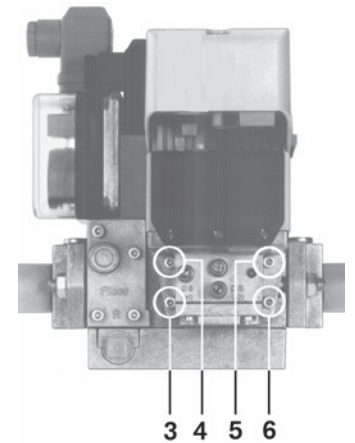
4. Fit sealing rings (10.5 x 2.25) into the VPS 504, picture 2.
5. Screw in screws 3, 4, 5, 6 (M4 x 16),

Pict. 2



6. Carry out soundness and function test once this work is complete.

Pict. 3

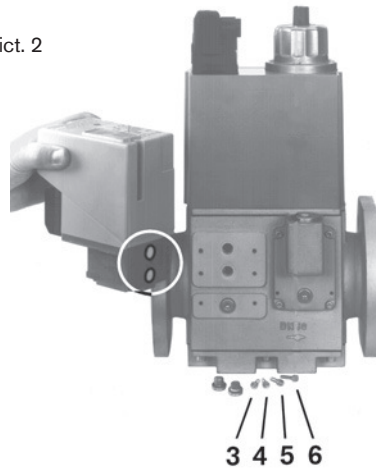


DMV-.../11  
DMV-.../12

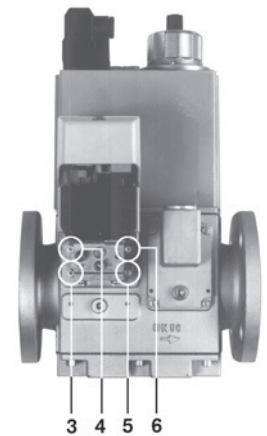
Pict. 1



Pict. 2



Pict. 3



### Notes

- Properly tighten cover screw and connecting screw, avoiding over tightening. Observe material pairing pressure cast - steel!
- Protect flange surface. Tighten screws in diagonally opposite sequence.
- The unit must not be used as a lever.

- When work on the VPS 504 is complete carry out a soundness test and function test.
- Ensure gas tight sealing when changing parts

# Valve train for gas

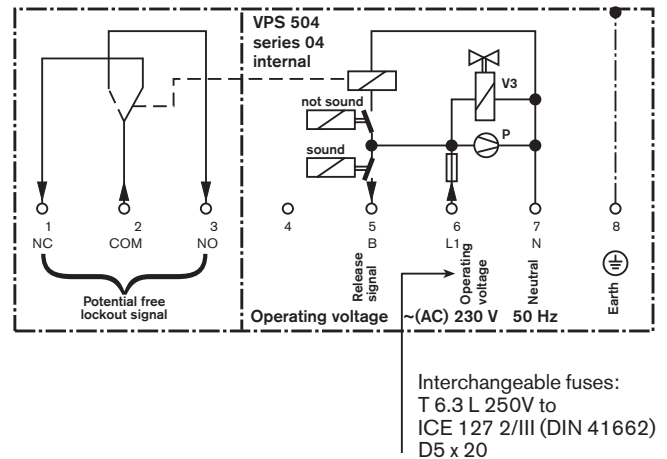
Weishaupt valve proving system VPS 504 Series 03 and 04

– weishaupt –

## Electrical connection VPS 504 Series 04

With cable gland PG 13.5 and connection to screw terminals.

Potential free relay contacts must only be used for signalling and never for burner control!



## Electrical connection VPS 504 series 03 for gas burner WG

The VPS is connected in series between the temperature controller and the burner control via a 7 pin plug connection. The designation of the plug between the burner and boiler is to DIN 4791. Contact designation see connection diagram.

If the heat appliance is wired to DIN 4791, rewiring of the burner or boiler is not required. The "burner plug" is connected to the flying lead of the VPS.

The "VPS plug" is connected to the flying lead of the heat appliance.

### Additional switch characteristic

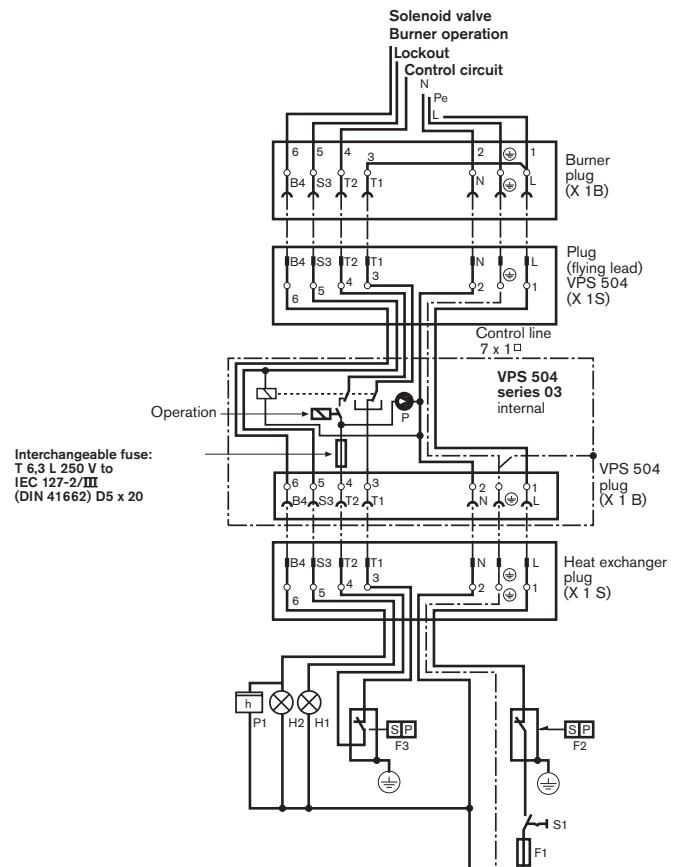
If a lockout signal is present at S3 an additional relay in the VPS bridges out the control circuit on the burner side, at the same time the operating voltage of the VPS is isolated.

Once the burner lockout has been rectified the valve proving system is restarted - see connection diagram on the right.

Only the lockout signal given by the burner control of the burner must be connected to connection S3. Non compliance could lead to personal injury and damage to equipment, therefore this instruction must be followed.

- F1 Fuse
- F2 Controller or limiter
- F3 Controller
- H1 Signal lockout
- H2 Signal operation

- P1 Operating hours counter stage 1
- S1 Switch
- X1B Plug connection socket
- X1S Plug connection plug

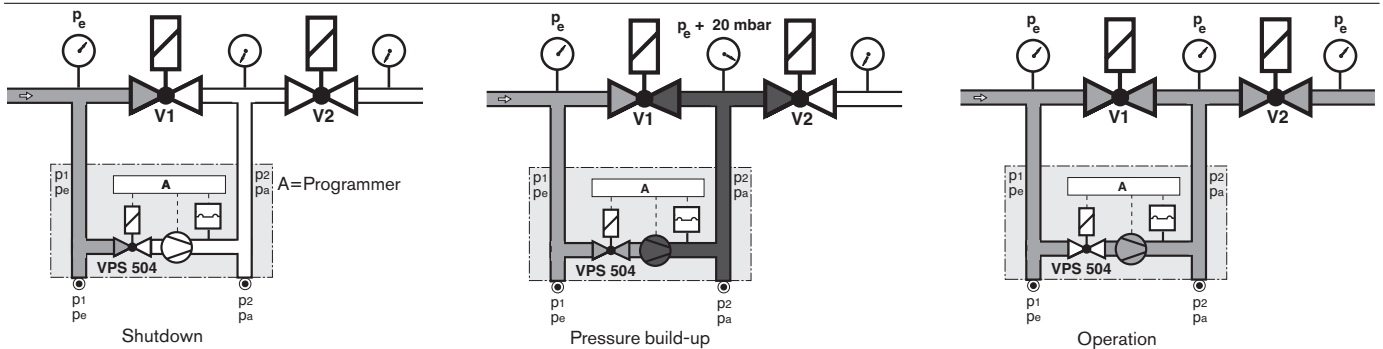


# Fittings for gas

Weishaupt valve proving system VPS 504 Series 03 and 04

– weishaupt –

## Sequence of operation



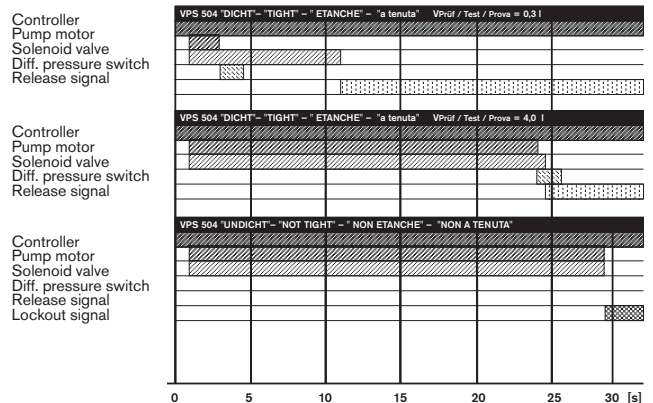
## Programme sequence

Shut down condition: Valve 1 and valve 2 are closed.

Pressure build-up: The integral motorised pump increases the gas pressure in the test section by approx. 20 mbar when compared to the pressure  $p_e$  on the inlet side of valve 1. During the test phase the inbuilt differential pressure switch checked the test section for soundness. Once the test pressure has been attained, the pump is switched off (end of test phase). The release time (20 to 26 secs.) depends on the test volume (max. 4.0 l).

If the test section is sound, the contact to the burner control is released after a max. 26 secs. The yellow signalling lamp is illuminated. If the test section is not sound, or if the pressure increase of + 20 mbar is not attained during the test phase (max. 26 secs.), the VPS 504 goes to lock out. The red signalling lamp is illuminated as long as contact is made by the controller (heat demand).

**An automatic restart is carried out following short term voltage loss during the test phase or during burner operation.**



# Fittings for gas

Weishaupt valve proving system VPS 504 Series 03 and 04

– weishaupt –

## Release time $t_F$

Time required by the VPS 504 to carry out a complete test cycle. The release time of the VPS 504 depends on the **test volume and inlet pressure**:

$V_{\text{test}} < 1.5 \text{ l}$	$V_{\text{test}} > 1.5 \text{ l}$
$p_e > 20 - 500 \text{ mbar}$	$p_e > 20 \text{ mbar}$
$t_F \approx 10 \text{ s}$	$t_F > 10 \text{ s}$

$t_{F \text{ max}} / \text{VPS 504} \approx 26 \text{ s}$

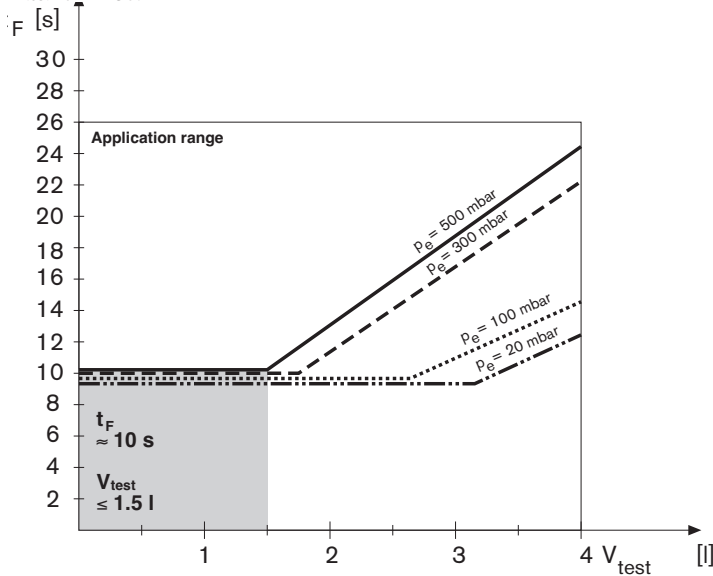
## Test time $P_t$

Pumping time of motor pump

## Test volume $V_{\text{test}}$

Volume between V1 on the outlet side and V2 on the inlet side

$V_{\text{test max}} / \text{VPS 504} = 4 \text{ l}$



## Test volume of the valves

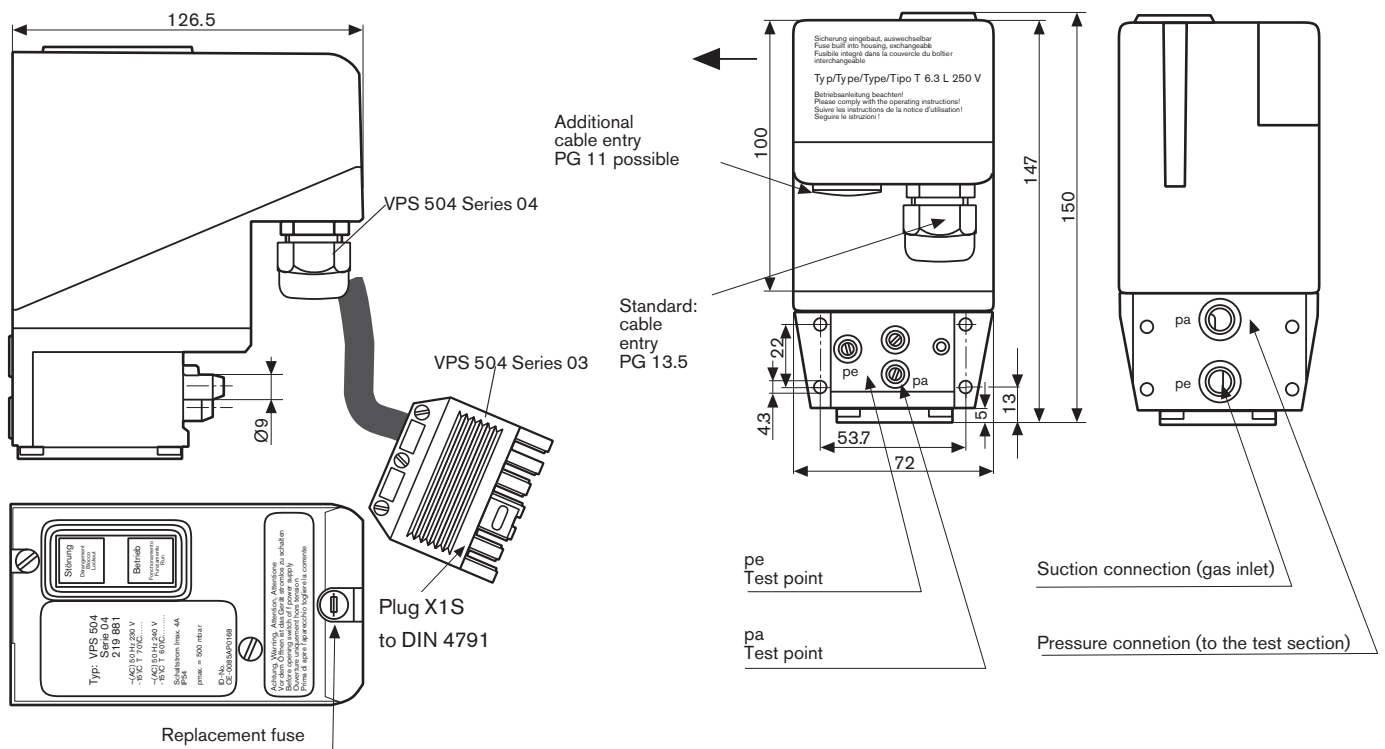
Type	Rp/DN	Test volume
DMV-D(LE) 503/11	Rp 3/8	0.09 l
DMV-D(LE) 507/11	Rp 3/4	0.09 l
DMV-D(LE) 512/11	Rp 1 1/4	0.25 l
DMV-D(LE) 520/11	Rp 2	0.25 l
DMV-D(LE) 5040/11	DN 40	0.36 l
DMV-D(LE) 5050/11	DN 50	0.36 l
DMV-D(LE) 5065/11	DN 65	0.60 l
DMV-D(LE) 5080/11	DN 80	1.70 l
DMV-D(LE) 5100/11	DN 100	2.30 l
DMV-D(LE) 5125/11	DN 125	3.75 l
MB-D(LE) 403	Rp 3/8	0.02 l
MB-D(LE) 405	Rp 1/2	0.11 l
MB-D(LE) 407	Rp 3/4	0.12 l
MB-D(LE) 410	Rp 1	0.25 l
MB-D(LE) 412	RP 1 1/4	0.28 l
W-MF 507	Rp 3/4	0.05 l
W-MF 512	Rp 1 1/4	0.08 l
DMV 525/12	Rp 2	0.44 l
DMV 5065/12	DN 65	1.45 l
DMV 5080/12	DN 80	2.28 l
DMV 5100/12	DN 100	3.55 l

# Fittings for gas

Weishaupt valve proving system VPS 504 Series 03 and 04

– weishaupt –

## Installation dimensions S03/S04



# Fittings for gas

Weishaupt valve proving system type W-DK 3/01S-2, with venting into the combustion chamber

– weishaupt –

The Weishaupt valve proving system W-DK 3/01 is used with valve trains VGD40.125 and 150 in conjunction with mechanical compound regulation, as well as with simultaneous burners and on customer request. As the W-DK 3/01 with venting into the combustion chamber now has CE approval, it is also used as a replacement for WDK 02 with diaphragm pump on MVD.

## Construction

The valve proving system W-DK3/01 consists of two main part:

- Programmer fitted into the control panel of the plant
- Gas pressure switch fitted to the test section between the solenoid valves

## Function

The soundness of the solenoid valves in the gas valve train is checked prior to each burner start

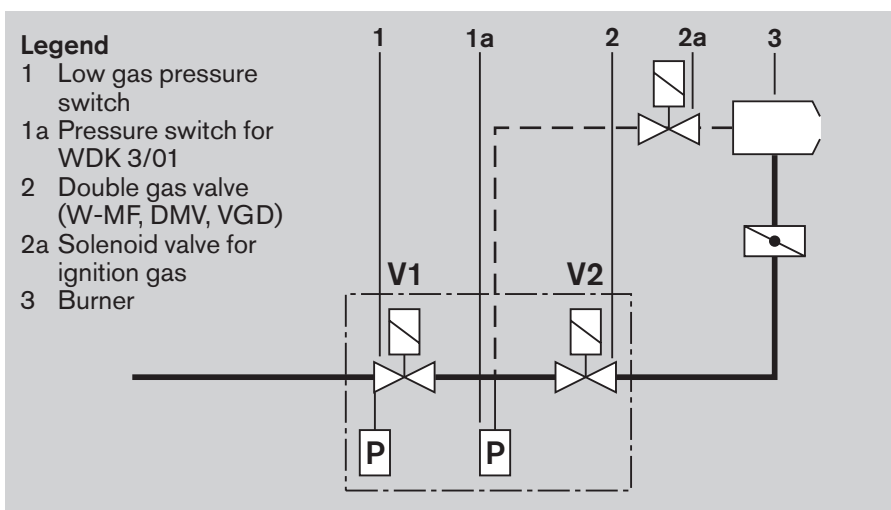
## Operation

**Test phase 1:** At the start of pre-purge both solenoid valves are closed. The second solenoid valve is then opened briefly to vent the section between the valves. If pressure builds up, possibly due to the first solenoid valve leaking, the pressure increase is detected by the gas pressure switch.

**Test phase 2:** If the first solenoid valve is gas tight, it is opened momentarily. Gas pressure is now in the section between the two solenoid valves. Now a test is carried out to establish if the pressure in the test section reduces. The test program is controlled by the programmer.

## Test result

If a pressure increase (test phase 1) or a pressure decrease (test phase 2) is detected, the burner cannot start. Otherwise the solenoid valves are sound and the burner starts.



Gas valve train with valve proving system W-DK 3/01

## Technical data

Weishaupt valve proving system	Type	W-DK 3/01
Test label	CE-PIN	CE-0085BN0181
Mains voltage	V	230 ± 15 %
Frequency	Hz	50 or 60
Fusing	in accordance with the pre-fusing of the burner control	
Permissible ambient temperature	°C	- 10 to +60
<b>Programmer</b>	Order No.	109 000 0117/2
Test times		
- Pressure switch test with/without pressure	secs.	8
- Fill test section	secs.	2
- Test time with test pressure	secs.	9
Type of protection		IP40
Consumption	VA	approx. 4
Installation		optional
Weight	kg	0.790
<b>Pressure switch</b>	Type	GW50 A5/1, A6/1
	Order No.	691 378, 691 381
Setting range	mbar	5 to 50
<b>Pressure switch</b>	Type	GW150 A5/1, A6/1
	Order No.	691 379, 691 382
Setting range	mbar	10 to 150
Controller for valve proving (to be fitted into control panel), consists of:		
Control lamp "Lockout", push button "Reset", programmer (wiring only)		
Space required for controller	cm <sup>2</sup>	260

# Fittings for gas

Weishaupt valve proving system type W-DK 3/01S-2, for gas valve trains with vent line

– weishaupt –

The Weishaupt valve proving system W-DK 3/01 is used on gas valve trains with single solenoid valves. A vent valve (leakage gas valve) and a valve leakage indicator are required with this type of valve proving system..

## Construction

The valve proving system W-DK3/01 consists of four main parts:

- Programmer fitted into control panel of plant
- Gas pressure switch fitted to the test section between the solenoid valves
- Vent valve (normally open) fitted into the vent line
- Leakage indicator fitted into the vent line

## Function

The tightness of the solenoid valves in the gas valve train is checked prior to each burner start.

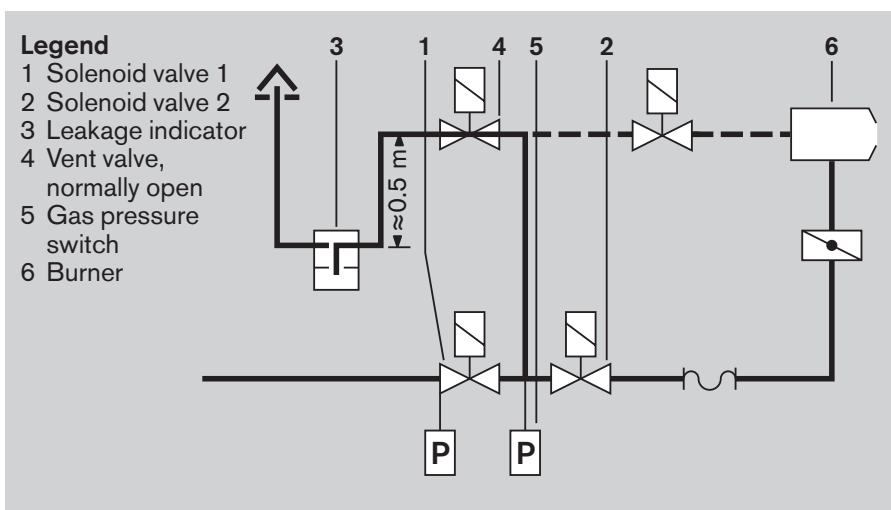
## Operation

**Test phase 1:** During pre-purge, all three solenoid valves are closed. If pressure builds up due possibly to the first valve leaking, the pressure increase is detected by the gas pressure switch.

**Test phase 2:** If the first solenoid valve is gas tight, it is opened momentarily, but the vent valve remains closed. Gas pressure is now in the section between the three solenoid valves. It is tested for a reduction in pressure in the test section. The test time is carried out by the programmer.

## Test results

If a pressure increase (test phase 1) or pressure decrease (test phase 2) is detected, the burner start is inhibited. Otherwise the solenoid valves are tight and the burner starts.



Gas valve train with valve proving system W-DK 3/01

## Technical data

Weishaupt valve proving system	Type	W-DK 3/01
Test label	CE-PIN	CE-0085BN0181
Mains voltage	V	230 ± 15 %
Frequency	Hz	50 or 60
Fusing	in accordance with the pre-fusing of the burner control	
Permissible ambient temperature	°C	- 10 to +60
<b>Programmer</b>	Order No.	109 000 0117/2
Test times		
– Pressure switch test with/without pressure	secs.	8
– Fill test section	secs.	2
– Test time with test pressure	secs.	9
Type of protection		IP40
Consumption	VA	approx. 4
Installation		optional
Weight	kg	0.790
<b>Pressure switch</b>	Type	GW50 A6/1
	Order No.	691 381
Setting range	mbar	5 to 50
<b>Pressure switch</b>	Type	GW150 A6/1
	Order No.	691 382
Setting range	mbar	10 to 150
<b>Vent valve</b>	Type	LGV 507/5
	Order No.	605 707
Nominal diameter	R	3/4"
Weight	kg	1.200
<b>Leakage indicator</b>	Order No.	151 327 8501/0
Nominal diameter	R	3/4"
Weight (without glycerine)	kg	0.875

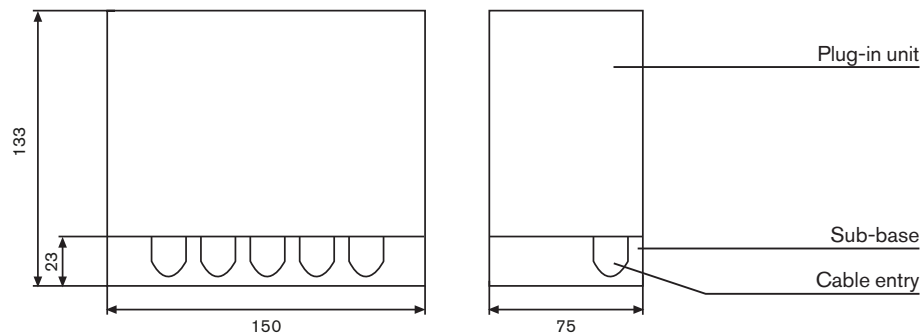
Program controller for valve proving (to be fitted into control panel), consists of:  
 "Valve proving fault", push button "Reset VP fault", programmer (only fitting and wiring)  
 Space required for controller cm<sup>2</sup> 260



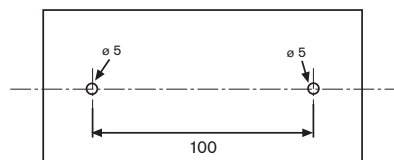
# Fittings for gas

Weishaupt valve proving system type W-DK 3/01

– weishaupt –



Fitting dimensions



Dimensions (in mm)

## Cause and rectification of lockouts

Time of lockout	Possible fault
Controller is closed, valve proving is not started (yellow operating lamp is not illuminated)	Check connection to terminal 12, valve proving programmer defective
Lockout at beginning of depressurised test phase, burner is switched off (lockout lamp only on, once the burner control has returned to start position)	Test pressure switch not connected correctly, test section has not been vented
Lockout during depressurised test phase, burner is switched off (lockout lamp only on, once the burner control has returned to start position)	Pressure switch switch point exceeded = pressure increase in the test section, solenoid valve V1 is not sound
Lockout immediately after the test section has been filled, burner is switched off (lockout lamp only on, once the burner control has returned to start position)	Solenoid valve V1 not opened for filling, check valve and connection; test pressure switch has not switched over, check pressure switch
Lockout during test time pressure phase burner is switched off (lockout lamp only on, once the burner control has returned to start position)	Pressure switch switch point not reached = pressure decrease in test section, leakage at valve V2, at vent valve or at the test section

# Fittings for gas

## Weishaupt leakage indicator for gas and dual fuel burners

– weishaupt –

### Description

The leakage indicator consists of a Plexiglas cylinder with upper part (1) and a closing bottom part (2), and is filled with glycerine up to the top edge of the internal Plexiglas sleeve (5). When filling attention should be paid that the glycerine is between the two fill markings (9). Over-filling could lead to glycerine escaping into the solenoid valves and thus cause lockouts. The vent line outlet is immersed (4) into the glycerine.

If the first solenoid valve is leaking, the leaking gas is clearly visible in the form of bubbles, which rise in the liquid during burner shutdown.

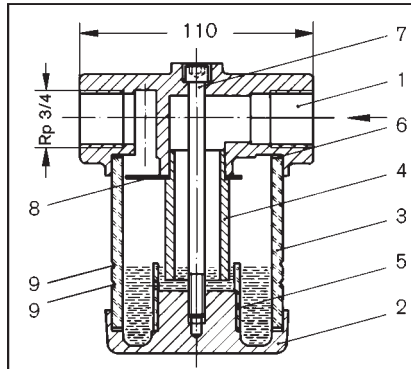
The unit has been constructed in such a way that the glycerine cannot be forced into the vent pipeline during gas pressure surges.

This unit offers the additional advantage in that at longer shutdown periods, air cannot enter the pipeline between the valves. Therefore any burner delivery with gas vent solenoid valve is supplied with this leakage indicator.

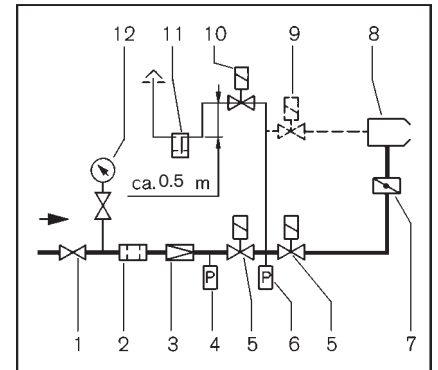
As the schematic shows, the indicator is fitted into a vertical pipe, which is installed approx. 0.5 m lower than the gas vent valve. This ensures that glycerine cannot escape into the gas vent valve. During pressure surges, the glycerine is forced back into the unit. If possible, the unit should be installed at eye level.

### Technical data:

Media dry	Gases to DVGW worksheet G260
Nominal diameter	R 3/4"
Length	110 mm
Width / ø	86 mm
Height	140 mm
Weight (empty)	0.875 kg
Filling	Glycerine
Installation	Vertical
Max. operating press.	0.5 bar
Max. operating temp.	70°C
Order No.	151 327 8501/0



- 1 Upper part
- 2 Closing part
- 3 Inspection tube
- 4 Immersion tube
- 5 Plexi sleeve
- 6 Sealing ring
- 7 Cylinder screw
- 8 Splash guard
- 9 Fill marking



- 1 Ball valve
- 2 Gas filter
- 3 Pressure regulator
- 4 Low gas pressure regulator
- 5 Solenoid valve
- 6 Gas pressure switch for valve proving
- 7 Gas butterfly valve
- 8 Burner
- 9 Solenoid valve for ignition gas
- 10 Solenoid vent valve
- 11 Leakage indicator

# Fittings for gas

## Pressure switch for gas type GW

– weishaupt –

### Application

- to monitor the minimum or maximum gas pressure on gas burners for gases to G260/1
- GW...A5/1 for mounting to double gas valves DMV ● GW...A6/1 for mounting to double gas valves as well as solenoid valves MV/MVD ● suitable for installations to TRD604 sheet 1 and sheet 2 section 5 (pressure switches of special design)

### Technical description

- single action pressure switch in the positive pressure range ● complies with the requirements to EN1854 ● control mechanism responds to positive pressure, and switches a circuit on, off or over if the set value is exceeded or not reached ● cover made of heavy duty clear plastic ● the switch point set is visible externally ● self locking setting wheel ● low switch differential

### Installation position:

optional

### Materials

Gas carrying housing: Aluminium pressure cast  
Diaphragm: NBR-Basis  
Protective cover: Polycarbonate

### Technical data

Type of protection \_\_\_\_\_ IP54  
Ambient temperature \_\_\_\_\_ -15°C...+70°C  
Nominal current at 250V \_\_\_\_\_ 10 A cos φ = 1 (AC) \_\_\_\_\_ 3A cos φ = 0.6

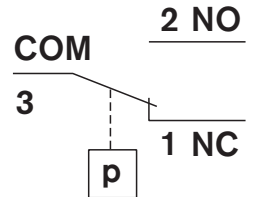
### Media connection

GW...A5/1 \_\_\_\_\_ O ring flange connection  
GW...A6/1 \_\_\_\_\_ Internal thread G 1/4"

### Switch functions

with increasing pressure:  
3-1 NC opens  
3-2 NO closes

with decreasing pressure:  
3-1 NC closes  
3-2 NO opens



Type	Setting range mbar	Switch differential	Max. excess operating pressure mbar	Product ID Number	Order No.
GW 50 A5/1	5...50	≤ 2.5	500	CE-0085 AO 3220	691 378
GW 150 A5/1	5...150	≤ 5	500	CE-0085 AO 3220	691 379
GW 500 A5/1	100...500	≤ 15	600	CE-0085 AO 3220	691 380
GW 50 A6/1	5...50	≤ 2.5	500	CE-0085 AO 3220	691 381
GW 150 A6/1	5...150	≤ 5	500	CE-0085 AO 3220	691 382
GW 500 A6/1	100...500	≤ 15	600	CE-0085 AO 3220	691 383

### Double gas pressure switch with GW...A6/1

If required, two pressure switches can be screwed together with two M5 cheese head screws with nuts and sealing ring. The setting of a minimum and maximum gas pressure switch can be set totally separately and independent of each other.

### Connection parts for double pressure switch for GW...A6/1

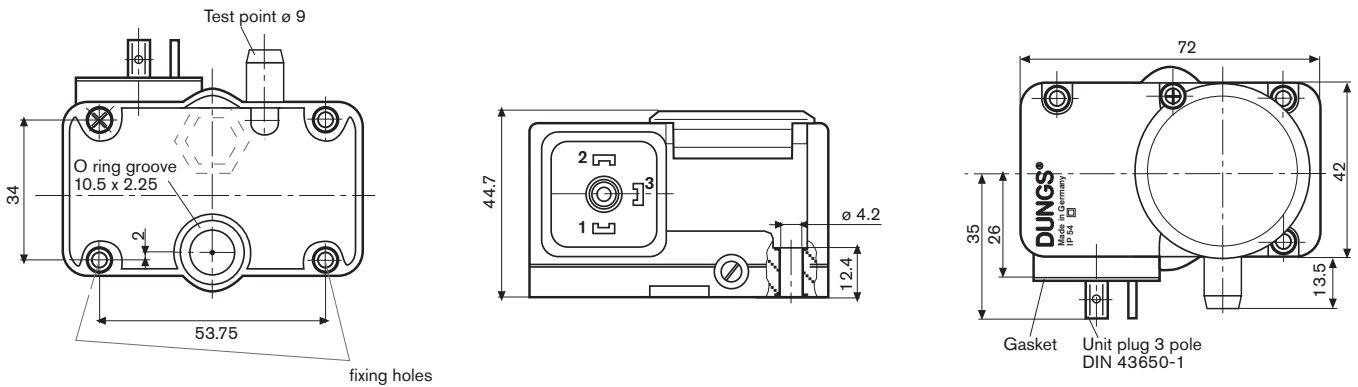
	Order No.
2 off screws M5 x 12 DIN 912	402 207
2 off hexagonal nuts M5	411 203
1 off O ring 15 x 2	445 069

# Fittings for gas

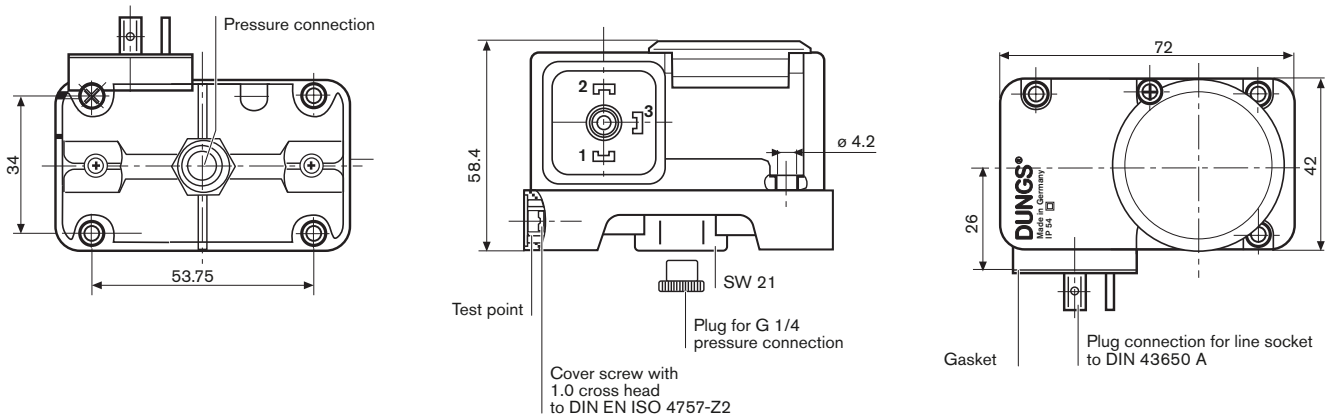
Pressure switch for gas type GW

– weishaupt –

## Dimensions



GW...A5/1 (for connection to DMV valve)



GW...A6/1 (i.e. as additional pressure switch)

# Fittings for gas

## Pressure switches for gas type ÜB and NB

– weishaupt –

### General

The construction and operation meet the requirements of DIN 3398 and EN 1854.

Adjustment of the setting values is carried out in mbar on a clearly laid out, easily accessible, user-friendly scale disc.

### Application

Gas pressure switches types ÜB (max.) and NB (min.) remain at lockout if the preset value is exceeded or not attained.

Type ÜB switches and locks out if pressure increases.

Type NB switches and locks out if pressure decreases.

The lockout is indicated at the pressure switch by an illuminated neon lamp.

Reset is possible by pressing an integral push button, but only after the pressure has returned to normal setting operation.

The pressure switches type ÜB and NB are required to comply with regulations of some European countries.

The general notes, construction characteristics and technical data are the same as those for gas pressure switches types GW (see 7-2.13 Sheets 1 and 2).

### Important construction characteristics

- Cover made of shock proof, clear plastic.
- Self-locking setting wheel
- Low switch differential due to low friction switch system.

### Technical data

Type of protection \_\_\_\_\_ IP54  
 Ambient temperature \_\_\_\_\_ -15°C to +60°C  
 Media connection \_\_\_\_\_ internal thread R 1/4" with GW...A4

Media connection \_\_\_\_\_ flange sealing with GW...A2

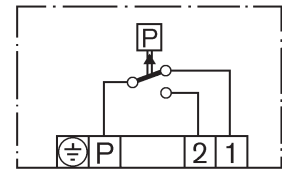
Electrical connection \_\_\_\_\_ to VDE

Voltage max. \_\_\_\_\_ 250 V alternating current

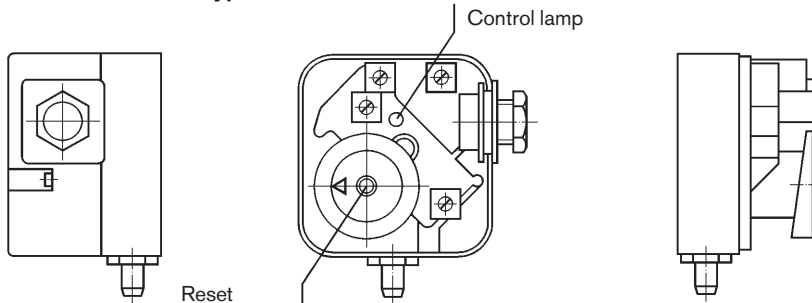
Switch rating \_\_\_\_\_ Ohm load 5A at 250 V

Inductive load \_\_\_\_\_ cos phi = 0.63 A at 250 V

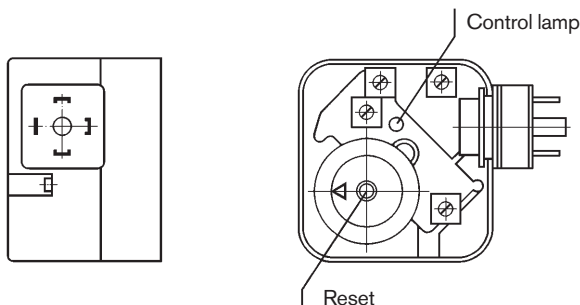
Connection \_\_\_\_\_ PG 11 or plug



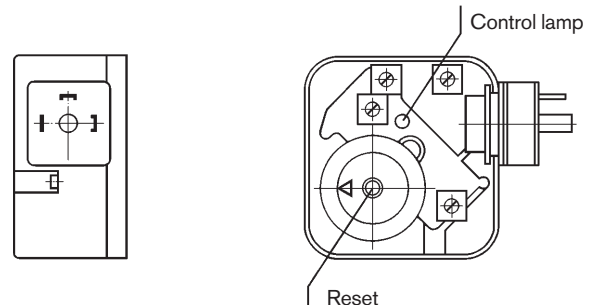
### Pressure switch types ÜB ... A4 and NB ... A4



### Pressure switch types ÜB ... A4 with plug



### Pressure switch types NB ... A2 with plug



### Type overview

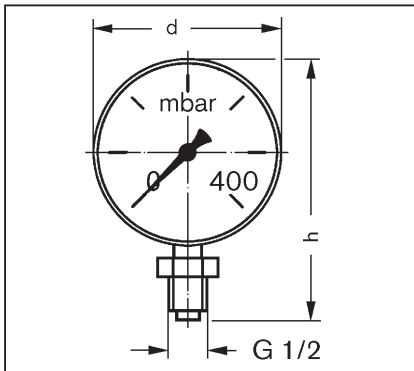
Type	Setting range mbar	Switch differential mbar	Max. operating pressure mbar	Weight kg	DVGW Reg. No.	Order No.
ÜB 50 A4	2.5 – 50	1	400	0.3	CE-0085 AO 3220	691 362
NB 50 A4	2.5 – 50	1	400	0.3	CE-0085 AO 3220	691 363
ÜB 50 A4 (with plug)	2.5 – 50	1	400	0.3	CE-0085 AO 3220	691 360
NB 50 A2 (with plug)	2.5 – 50	1	400	0.3	CE-0085 AO 3220	691 361

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 Technical folder 674 GB, June 2003  
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# Fittings for gas

## Pressure gauge for gas

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Bellow spring press. gauge 0 – 400 mbar to EN 837-3  
Bourdon tube press. gauge 0 – 10 mbar to EN 837-1

### Bellow spring pressure gauge

Pressure gauge with bellow spring for measuring of gaseous media.

### Indication accuracy

Class 1.5 – the indication error at each point of the indicating range can be 1.5% of the scale limit value. With calibration verification.

### Temperature rating

-20°C ... + 60°C.

### Permitted application range

– Upper limit at standby loading of 0.75 times scale limit value.

### Bourdon tube pressure gauge

Pressure gauge with bourdon tube to measure gaseous media.

### Indication accuracy

Class 1.5 – the indication error at each point of the indicating range can be 1.5% of the scale limit value. With calibration verification.

### Temperature rating

-20°C ... + 60°C.

### Permitted application range

– Upper limit at standby loading of 0.75 times scale limit value.

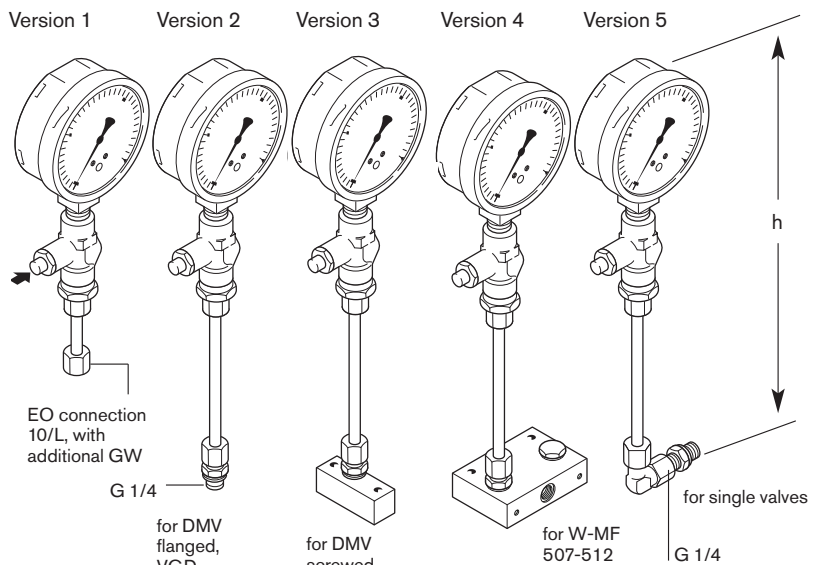
### General

To EN676 "Automatic forced draught burners for gaseous fuels", test points or pressure gauges must be fitted to check the connection pressure. The pressure gauge in its various versions can be connected to the gas valve train in such a way that the connection pressure can be established.

### Push button valve G 1/2

Max. operating pressure 4 bar  
Prod. ID No. CE-0085 AQ 0985.

\* Version with ball valve instead of push button valve  
max. operating pressure 16 bar  
Prod. ID No. CE-0085 AS0288



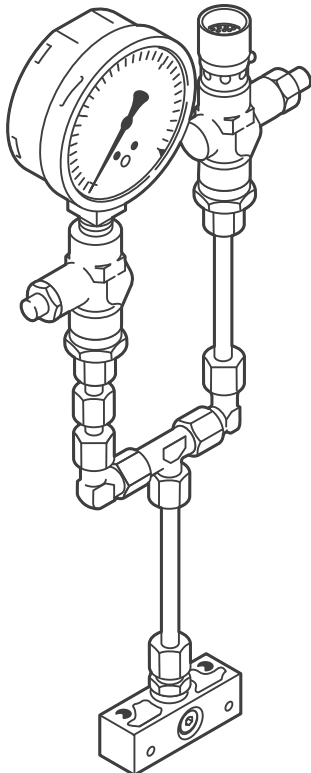
Range	Setting range	Dimensions d [ mm ]	h [ mm ]	Weight approx. kg	Order No.	Type of protection
0 – 25 mbar	0 – 18 mbar	100	140	0.5	641 143	IP54
0 – 60 mbar	0 – 45 mbar	100	140	0.5	641 144	IP54
0 – 160 mbar	0 – 120 mbar	100	140	0.5	641 145	IP54
0 – 400 mbar	0 – 300 mbar	100	140	0.5	641 146	IP54
0 – 1.6 bar	0 – 1.2 bar	100	140	0.5	641 148	IP44
0 – 2.5 bar	0 – 1.8 bar	100	140	0.5	641 149	IP44
0 – 4.0 bar	0 – 3.0 bar	100	140	0.5	641 150	IP44
0 – 6.0 bar	0 – 4.5 bar	100	140	0.5	641 151	IP44
0 – 10.0 bar	0 – 7.5 bar	100	140	0.5	641 152	IP44
<b>Pressure gauge complete in version 1</b>						
0 – 25 mbar	0 – 18 mbar	100	~ 250	1.5	151 336 2694/2	
0 – 60 mbar	0 – 45 mbar	100	~ 250	1.5	151 336 2695/2	
0 – 160 mbar	0 – 120 mbar	100	~ 250	1.5	151 336 2696/2	
0 – 400 mbar	0 – 300 mbar	100	~ 250	1.5	151 336 2697/2	
<b>Pressure gauge complete in version 2</b>						
0 – 25 mbar	0 – 18 mbar	100	~ 350	1.5	151 336 2676/2	
0 – 60 mbar	0 – 45 mbar	100	~ 350	1.5	151 336 2677/2	
0 – 160 mbar	0 – 120 mbar	100	~ 350	1.5	151 336 2678/2	
0 – 400 mbar	0 – 300 mbar	100	~ 350	1.5	151 336 2679/2	
0 – 1.6 bar	0 – 1.2 bar	100	~ 350	1.5	151 336 2680/2	
0 – 2.5 bar	0 – 1.8 bar	100	~ 350	1.5	151 336 2681/2	
0 – 4.0 bar	0 – 3.0 bar	100	~ 350	1.5	151 336 2682/2	
0 – 6.0 bar	0 – 4.0 bar	100	~ 350	1.5	151 336 2683/2	
0 – 10.0 bar	0 – 7.5 bar *	100	~ 350	1.5	151 327 2618/2	
<b>Pressure gauge complete in version 3</b>						
0 – 25 mbar	0 – 18 mbar	100	~ 350	1.5	151 336 2687/2	
0 – 60 mbar	0 – 45 mbar	100	~ 350	1.5	151 336 2688/2	
0 – 160 mbar	0 – 120 mbar	100	~ 350	1.5	151 336 2689/2	
0 – 400 mbar	0 – 300 mbar	100	~ 350	1.5	151 336 2690/2	
<b>Pressure gauge complete in version 4</b>						
0 – 25 mbar	0 – 18 mbar	100	~ 330	1.5	230 110 2602/2	
0 – 60 mbar	0 – 45 mbar	100	~ 330	1.5	230 110 2603/2	
0 – 160 mbar	0 – 120 mbar	100	~ 330	1.5	230 110 2604/2	
0 – 400 mbar	0 – 300 mbar	100	~ 330	1.5	230 110 2605/2	
<b>Pressure gauge complete in version 5</b>						
0 – 25 mbar	0 – 18 mbar	100	~ 350	1.5	151 327 2609/2	
0 – 60 mbar	0 – 45 mbar	100	~ 350	1.5	151 327 2640/2	
0 – 160 mbar	0 – 120 mbar	100	~ 350	1.5	151 327 2641/2	
0 – 400 mbar	0 – 300 mbar	100	~ 350	1.5	151 327 2642/2	
0 – 1.6 bar	0 – 1.2 bar	100	~ 350	1.5	151 330 2612/2	
0 – 2.5 bar	0 – 1.8 bar	100	~ 350	1.5	151 330 2613/2	
0 – 4.0 bar	0 – 3.0 bar	100	~ 350	1.5	151 330 2614/2	

# Fittings for gas

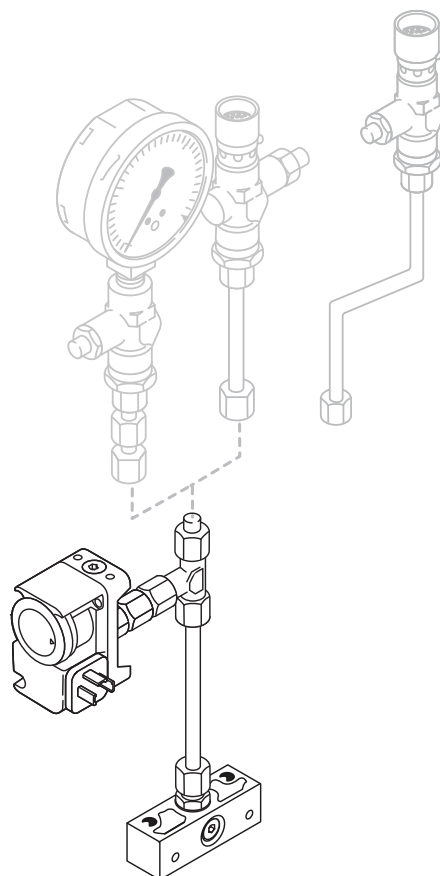
Combination example DMV screwed  
Pressure Gauge / Test Burner / High Gas Pressure Switch

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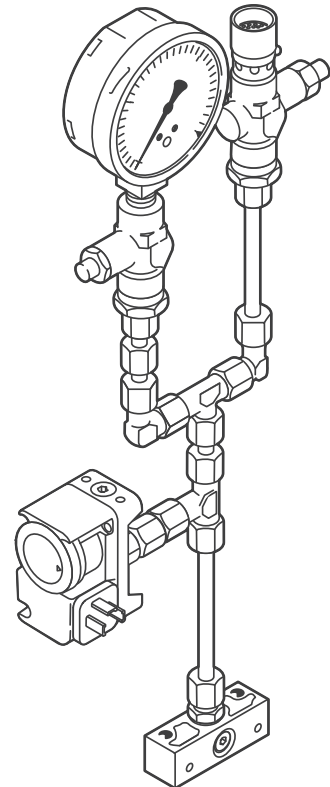
Picture 1



Picture 2



Picture 3



## Accessories required

	Picture 1:	Picture 2**:	Picture 3:
Pressure gauge *:	vers. 1	–	vers. 1
Test burner:	151 336 26 75/2	–	151 336 26 75/2
Max.-GW ..A6/1:	–	Add. price burner	add. price burner
Mounting parts:	151 336 26 85/2	–	151 336 26 86/2

## Note:

For burner versions without Max.-GW (high gas pressure switch) and only a pressure gauge or a test burner version 3 as per sheet 7-2.15 and 7-2.16 applies.

*)	Pressure gauge	Version 1
	0 - 25 mbar	151 336 26 94/2
	0 - 60 mbar	151 336 26 95/2
	0 - 160 mbar	151 336 26 96/2
	0 - 400 mbar	151 336 26 97/2

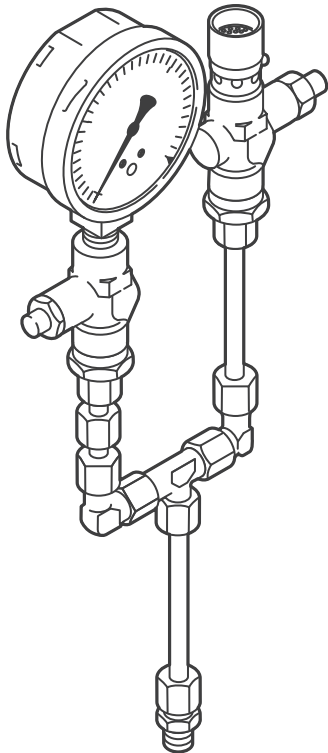
\*\*) With add. price Max. GW (high gas pressure switch) an optional pressure gauge or test burner (vers. 1) can be ordered as accessory.

# Fittings for gas

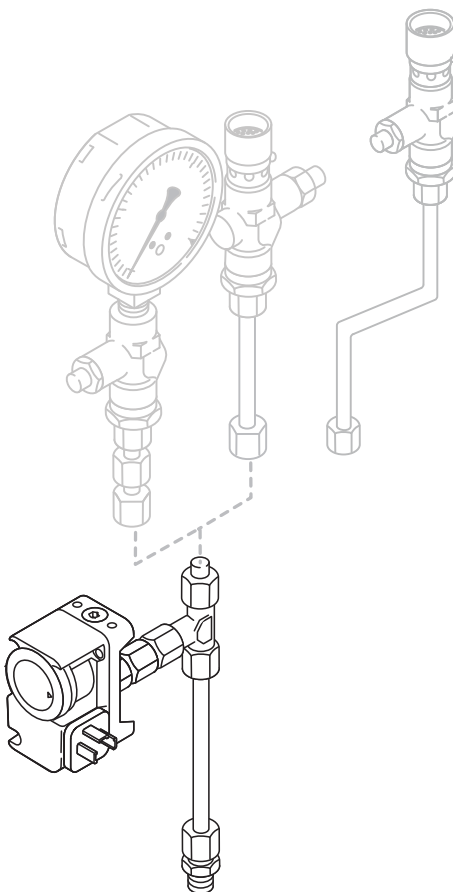
Combination example DMV flanged, VGD  
Pressure Gauge / Test Burner / High Gas Pressure Switch

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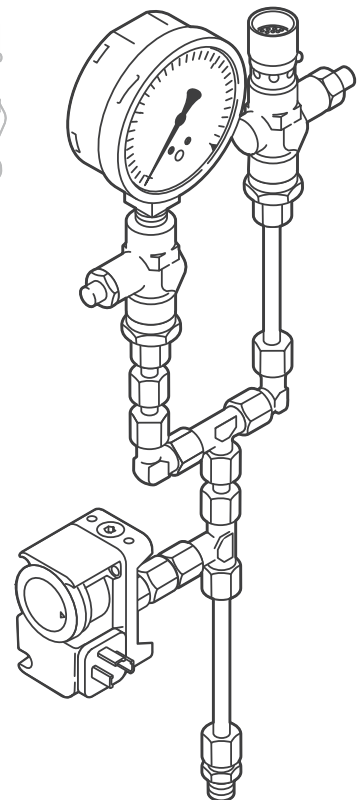
Picture 4



Picture 5



Picture 6



## Accessories required

	Picture 4:	Picture 5**:	Picture 6:
Pressure gauge *:	Vers. 1	–	Vers. 1
Test burner:	151 336 26 75/2	–	151 336 26 75/2
Max.-GW ..A6/1:	–	Add. price burner	Add. price burner
Mounting parts:	151 336 26 84/2	–	151 336 26 86/2

## Note:

For burner versions without Max.-GW (high gas pressure switch) and only a pressure gauge or a test burner version 2 as per sheet 7-2.15 and 7-2.16 applies.

*)	Pressure gauge	Version 1
	0 - 25 mbar	151 336 26 94/2
	0 - 60 mbar	151 336 26 95/2
	0 - 160 mbar	151 336 26 96/2
	0 - 400 mbar	151 336 26 97/2

\*\*\*) With add. price Max.-GW (high gas pressure switch) an optional pressure gauge or test burner (vers. 1) can be ordered as accessory.



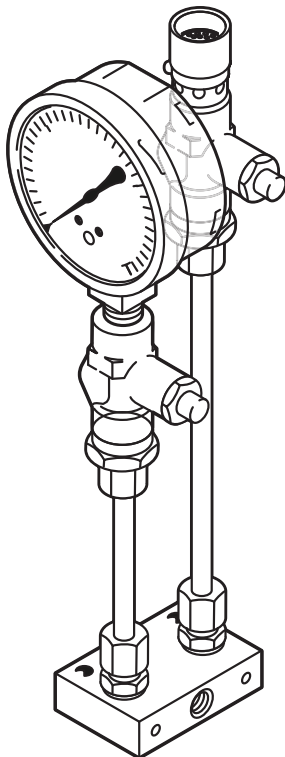
# Fittings for gas

Combination example W-MF

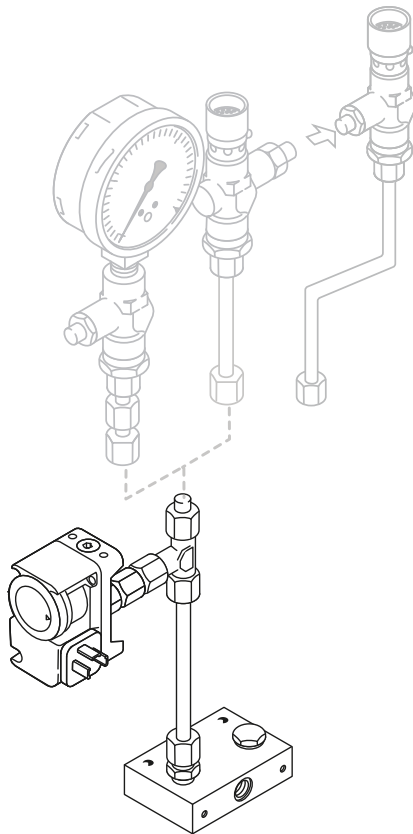
Pressure Gauge / Test Burner / High Gas Pressure Switch

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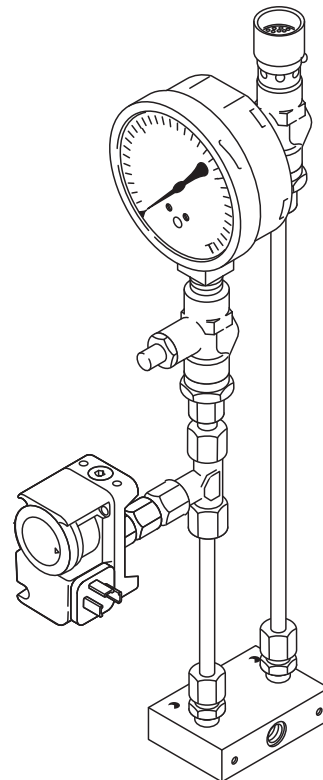
Picture 7



Picture 8



Picture 9



## Accessories required

	Picture 7:	Picture 8**:	Picture 9:
Pressure gauge *:	Vers. 4	–	Vers. 1
Test burner:	250 104 26 04/2	–	250 104 26 04/2
Max.-GW ..A6/1:	–	Add. price burner	Add. price burner

### Note:

For burner versions without Max.-GW (high gas pressure switch) and only a pressure gauge or a test burner version 4 as per sheet 7-2.15 and 7-2.16 applies.

*)	Pressure gauge	Vers. 1	Vers. 4
	0 - 25 mbar	151 336 26 94/2	230 110 26 02/2
	0 - 60 mbar	151 336 26 95/2	230 110 26 03/2
	0 - 160 mbar	151 336 26 96/2	230 110 26 04/2
	0 - 400 mbar	151 336 26 97/2	230 110 26 05/2

\*\*)

With add. price Max.-GW (high gas pressure switch) an optional pressure gauge or test burner (vers. 1) can be ordered as accessory.

# Fittings for gas

## Test burner

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### General

Gas lines have to be purged. They have to be purged through with gas until the air or inert gas present has been expelled from the line. This work is carried out by the gas authority. TRD 412 "Gas combustion on steam boilers" section 4.5.1 also points out that gas lines have to be purged and if necessary drained of water. Venting of the purged gases must not be into the combustion chamber. There must be connections for test equipment, for example to establish the presence of combustible gas mixtures once purging has been completed.

If work has been carried out on the gas pipework, i.e. to exchange fittings or gas meter, the burner must only be re-commissioned once the gas authority has purged the relevant line sections.

### Application

Prior to commissioning or following work on the gas train assembly with parts being replaced purging has to be carried out prior to the burner being restarted. Please note instructions given in the installation and operating manual of the burner

Purging should be done with a hose leading to safe atmosphere until the air present has been expelled from the line.

**Following this a test burner can be used to establish if combustible gas is present.**

### Construction characteristics

Adjustable primary air and double flame flashback protection. The gas flows at high velocity through the nozzle into the mixing head and using an injector effect, induces primary air. A stable flame is established at the burner's flame tip.

Self-closing push button valve.

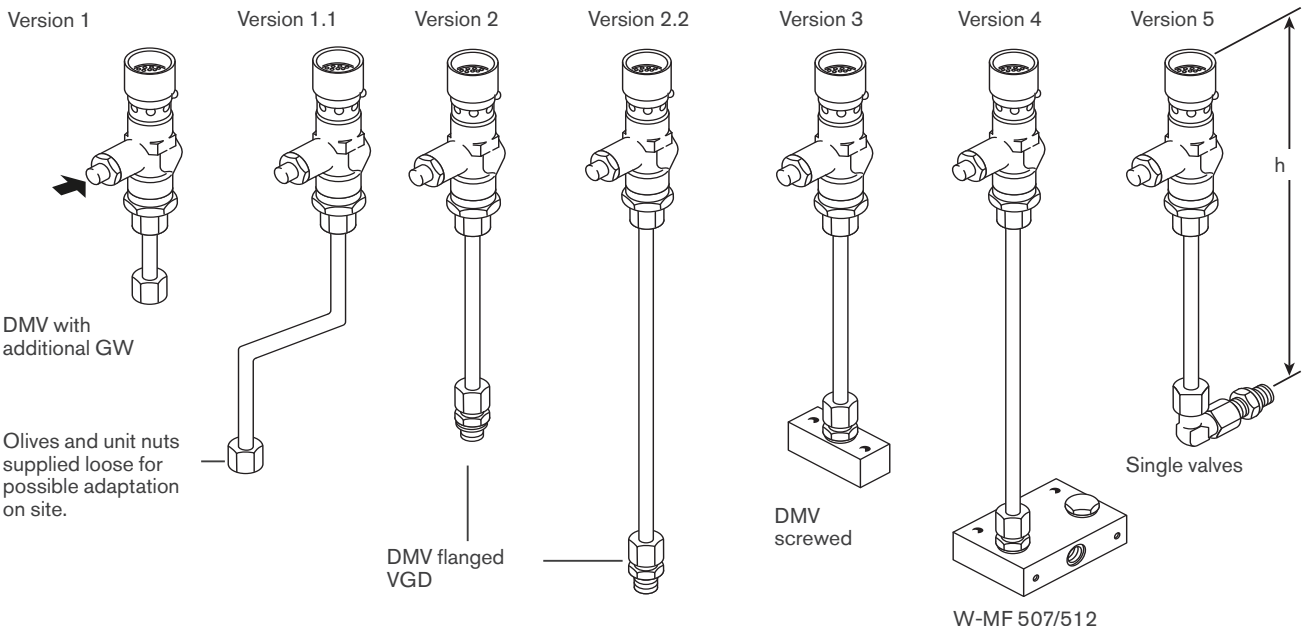
### Operation

Operate push button valve. The test burner is ignited with closed primary air setting. Along, yellow flame is established. Open primary air setting. The flame gets smaller, is blue in colour and burns stable. A slight flame noise is audible.

### Technical data

Type WPB 1	Order No.	h [ mm ]
Version 1	151 336 26 75/2	170
Version 1.1	150 808 26 31/2	260
Version 2	151 336 26 73/2	250
Version 2.1	250 104 26 04/2	340
Version 3	151 336 26 74/2	250
Version 4	230 110 26 01/2	340
Version 5	151 327 26 21/2	250
Gas types	to DVGW work sheet G 260/I	
Gas pressures	min. 5 mbar, max. 500 mbar	

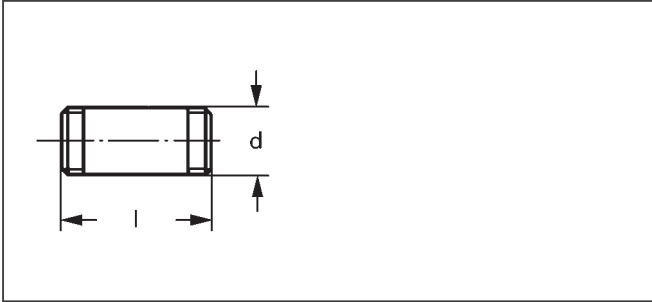
Gas nozzle diameter \_\_\_\_\_ 0.8 mm  
 Ambient temperature \_\_\_\_\_ -20°C + 60°C  
 Push button valve \_\_\_\_\_ max. 4 bar, CE 0085 AQ 0985  
 Weight \_\_\_\_\_ 0.7 kg



# Fittings for gas

Connection parts for accessory fittings (screwed)

– weishaupt –



**Note:**

The average screw in length (l) is

R 3/8"	= 7
R 1/4"	= 10
R 1/2"	= 13
R 3/4"	= 15
R 1"	= 17
R 1 1/2"	= 19
R 2"	= 24

Double nipple d	l	Order No.	Description
R 1/4"	50	13900026017	R 1/4 X 50
R 1/4"	160	13900026347	R 1/4 X 160
R 3/8"	50	13900026027	R 3/8 X 50
R 3/8"	100	13900026617	R 3/8 X 100
R 3/8"	160	13900026437	R 3/8 X 160
R 3/8"	200	13900026047	R 3/8 X 200
R 3/8"	250	13900026337	R 3/8 X 250
R 3/8"	415	13900026447	R 3/8 X 415
R 1/2"	30	13900026637	R 1/2 X 30
R 1/2"	40	13900026547	R 1/2 X 40
R 1/2"	50	13900026057	R 1/2 X 50
R 1/2"	60	13900026647	R 1/2 X 60
R 1/2"	70	13900026067	R 1/2 X 70
R 1/2"	75	13900026527	R 1/2 X 75
R 1/2"	80	13900026077	R 1/2 X 80
R 1/2"	100	13900026557	R 1/2 X 100
R 1/2"	125	13900026687	R 1/2 X 125
R 1/2"	150	13900026657	R 1/2 X 150
R 1/2"	175	13900026537	R 1/2 X 175
R 1/2"	180	13900026087	R 1/2 X 180
R 1/2"	200	13900026097	R 1/2 X 200
R 1/2"	250	13900026297	R 1/2 X 250
R 1/2"	300	13900026307	R 1/2 X 300
R 1/2"	320	13900026107	R 1/2 X 320
R 1/2"	400	13900026467	R 1/2 X 400
R 3/4"	40	13900026827	R 3/4 X 40
R 3/4"	50	13900026117	R 3/4 X 50
R 3/4"	60	13900026917	R 3/4 X 60
R 3/4"	70	13900026927	R 3/4 X 70
R 3/4"	80	13900026127	R 3/4 X 80
R 3/4"	90	13900026937	R 3/4 X 90
R 3/4"	100	13900026627	R 3/4 X 100
R 3/4"	110	13900026947	R 3/4 X 110
R 3/4"	120	13900026567	R 3/4 X 120
R 3/4"	130	13900026957	R 3/4 X 130
R 3/4"	140	13900026967	R 3/4 X 140
R 3/4"	150	13900026667	R 3/4 X 150
R 3/4"	160	13900026137	R 3/4 X 160
R 3/4"	170	13900026597	R 3/4 X 170
R 3/4"	180	13900026147	R 3/4 X 180
R 3/4"	190	13900026977	R 3/4 X 190
R 3/4"	200	13900026157	R 3/4 X 200
R 3/4"	210	13900026507	R 3/4 X 210
R 3/4"	225	13900026167	R 3/4 X 225
R 3/4"	250	13900026477	R 3/4 X 250
R 3/4"	300	13900026317	R 3/4 X 300
R 3/4"	390	13900026837	R 3/4 X 390

Double nipple d	l	Order No.	Description
R 1"	40	13900026847	R 1 X 40
R 1"	50	13900026177	R 1 X 50
R 1"	80	13900026397	R 1 X 80
R 1"	100	13900026187	R 1 X 100
R 1"	120	13900026197	R 1 X 120
R 1"	160	13900026207	R 1 X 160
R 1"	180	13900026407	R 1 X 180
R 1"	200	13900026217	R 1 X 200
R 1"	220	13900026607	R 1 X 220
R 1"	250	13900026487	R 1 X 250
R 1"	300	13900026327	R 1 X 300
R 1"	335	13900026577	R 1 X 335
R 1"	375	13900026857	R 1 X 375
R 1"	400	13900026807	R 1 X 400
R 1 1/2"	50	13900026227	R 1 1/2 X 50
R 1 1/2"	80	13900026677	R 1 1/2 X 80
R 1 1/2"	120	13900026237	R 1 1/2 X 120
R 1 1/2"	160	13900026247	R 1 1/2 X 160
R 1 1/2"	200	13900026257	R 1 1/2 X 200
R 1 1/2"	250	13900026517	R 1 1/2 X 250
R 1 1/2"	340	13900026817	R 1 1/2 X 340
R 2"	80	13900026267	R 2 X 80
R 2"	120	13900026697	R 2 X 120
R 2"	160	13900026277	R 2 X 160
R 2"	200	13900026287	R 2 X 200
R 2"	250	13900026707	R 2 X 250

**Double nipple coated with Loctite 5061**

d	l	Order No.
R 1/2"	50	13900026717
R 3/4"	50	13900026727
R 3/4"	80	13900026787
R 1"	50	13900026737
R 1"	80	13900026747

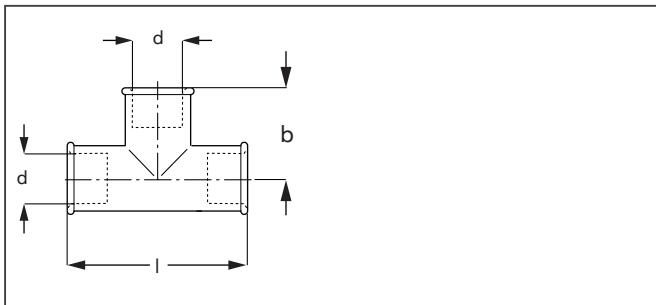
**Double nipple with NPT thread on one side**

d	l	Order No.	Description
R 1/4"	50	13900026882	R 1/4 X 1/4 NPT X 50
R 3/8"	120	13900026752	R 3/8 X 3/8 NPT X 120
R 1"	120	13900026762	R 1 X 1 NPT X 120
R 1 1/2"	120	13900026772	R 1 1/2 X 1 1/2 NPT X 120
R 2"	120	13900026792	R 2 X 2 NPT X 120

# Fittings for gas

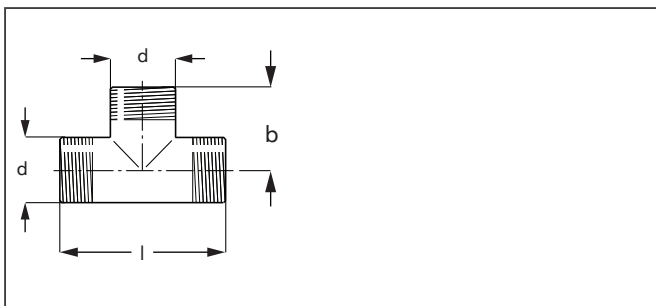
Connection parts for accessory fittings (screwed)

– weishaupt –



**T piece 10242 internal thread No. 130**

d	l	b	Order No.	Description
R 1/2"	56	28	453628	1/2-Zn-A EN10242
R 3/4"	66	33	453608	3/4-Zn-A EN10242
R 1"	76	38	453606	1-Zn-A EN10242
R 1 1/2"	100	50	453609	1 1/2-Zn-A EN10242
R 2"	116	58	453610	2-Zn-A EN10242



**T piece DIN 2950 external thread No. 135**

d	l	b	Order No.	Description
R 1/2"	74	37	453612	R 1/2 Nr.135
R 3/4"	86	43	453613	R 3/4 Nr.135
R 1"	96	48	453614	R 1 Nr.135



**Socket M2 EN 10242 No. 270**

d	l	Order No.	Description
R 1/2"	36	453500	1/2-Zn-A EN 10242
R 3/4"	39	453524	3/4-Zn-A EN 10242
R 1"	45	453514	1-Zn-A EN 10242
R 1 1/2"	55	453515	1 1/2-Zn-A EN 10242
R 2"	65	453516	2-Zn-A EN 10242

**Note:**

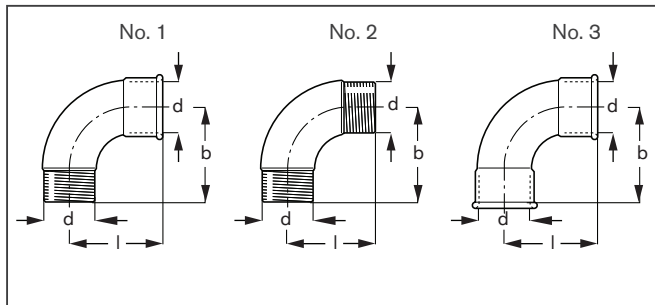
The average screw in length (l1) is

R 3/8"	= 7
R 1/2"	= 10
R 1/2"	= 13
R 3/4"	= 15
R 1"	= 17
R 1 1/2"	= 19
R 2"	= 24

# Fittings for gas

Connection parts for accessory fittings (screwed)

– weishaupt –



**Elbow long G4 EN 10242 No. 1**

d	l	b	Order No.	Description
R 1/2"	55	48	453230	1/2-Zn-A EN 10242
R 3/4"	69	60	453231	3/4-Zn-A EN 10242
R 1"	85	75	453218	1-Zn-A EN 10242
R 1 1/4"	104	96	453233	1 1/4-Zn-A EN 10242
R 1 1/2"	116	105	453219	1 1/2-Zn-A EN 10242
R 2"	140	130	453220	2-Zn-A EN 10242

**Elbow long G8 EN10242 No. 2**

d	l	b	Order No.	Description
R 1/2"	48	48	453228	1/2-Zn-A EN 10242
R 3/4"	60	60	453229	3/4-Zn-A EN 10242
R 1"	75	75	453223	1-Zn-A EN 10242
R 1 1/4"	95	95	453334	1 1/4-Zn-A EN 10242
R 1 1/2"	105	105	453224	1 1/2-Zn-A EN 10242
R 2"	130	130	453225	2-Zn-A EN 10242

**Elbow long G1 EN10242 No. 3**

d	l	b	Order No.	Description
R 1"	85	85	453268	1-Zn-A EN 10242
R 1 1/2"	116	116	453264	1 1/2-Zn-A EN 10242
R 2"	140	140	453265	2-Zn-A EN 10242

**Note:**

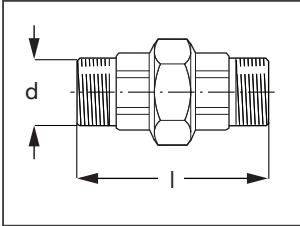
The average screw in length (l1) is

R 3/8"	= 7
R 1/2"	= 10
R 3/4"	= 13
R 1"	= 15
R 1 1/4"	= 17
R 1 1/2"	= 19
R 2"	= 24

# Fittings for gas

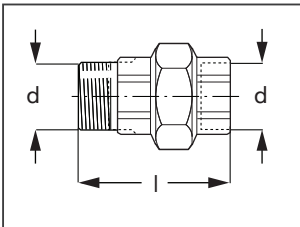
Connection parts for accessory fittings (screwed)

– weishaupt –



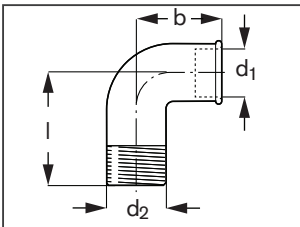
**Screwed union flat sealing external/external thread DIN2950 No. 336**

d	l	Order No.	Description
R 1/2"	84	453407	R 1/2 flat sealing No. 336
R 3/4"	92	453404	R 3/4 flat sealing No. 336
R 1"	105	453405	R 1 flat sealing No. 336
R 1 1/4"	123	453408	R 1 1/4 flat sealing No. 336
R 1 1/2"	115	453406	R 1 1/2 flat sealing No. 336



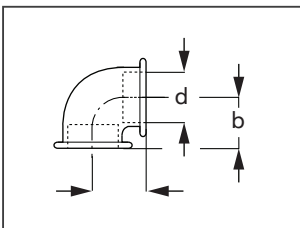
**Screwed union U2 EN10242 No. 331**

d	l	Order No.	Description
R 3/8"	58	453402	3/8-Zn-A EN 10242
R 1/2"	66	453411	1/2-Zn-A EN 10242
R 3/4"	72	453401	3/4-Zn-A EN 10242
R 1"	80	453400	1-Zn-A EN 10242
R 2"	106	453412	2-Zn-A EN 10242



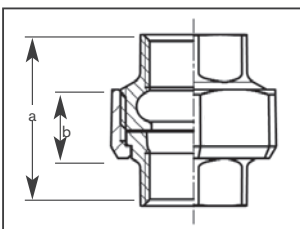
**Elbow A4 EN10242 No. 92**

d	l	b	Order No.	Description
R 1/2"	37	28	453100	1/2 X 1/2-Zn-A EN 10242
R 3/4"	43	33	453135	3/4 X 3/4-Zn-A EN 10242
R 1"	52	38	453106	1X 1-Zn-A EN 10242
R 1 1/4"	60	45	453153	1 1/4 X 1 1/4-Zn-A EN 10242
R 1 1/2"	65	50	453155	1 1/2 X 1 1/2-Zn-A EN 10242



**Elbow A1 EN10242 No. 90**

d	l	b	Order No.	Description
R 1/4"	21	21	453144	1/4-Zn-A EN 10242
R 3/8"	25	25	453103	3/8-Zn-A EN 10242
R 1/2"	28	28	453104	1/2-Zn-A EN 10242
R 3/4"	33	33	453143	3/4-Zn-A EN 10242
R 1"	38	38	453123	1-Zn-A EN 10242
R 1 1/2"	50	50	453137	1 1/2-Zn-A EN 10242
R 2"	58	58	453112	2-Zn-A EN 10242



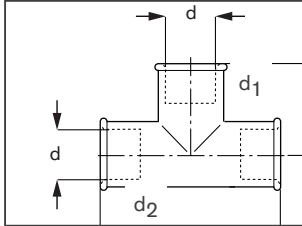
**Screwed union U1, flat sealing, with internal thread without seal**

d	a	b	Order No.
R 3/4"	52	22	453420
R 1"	59	25	453428
R 1 1/2"	70	32	453427

# Fittings for gas

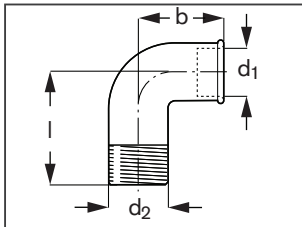
Connection parts for accessory fittings (screwed)

– weishaupt –



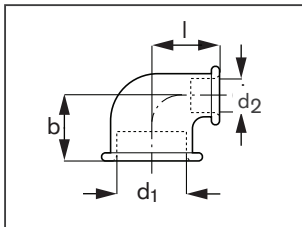
**Elbow external thread reduced, internal thread A4 EN10242 No. 92**

d1	d2	l	b	Order No.	Description
R 3/8"	R 1/2"	40	30	453134	3/8 X 1/2-Zn-A EN 10242
R 1"	R 3/4"	47	37	453105	1 X 3/4-Zn-A EN 10242
R 1 1/4"	R 1"	55	40	453154	1 1/4 X 1-Zn-A EN 10242
R 1 1/2"	R 1"	62	47	453151	1 1/2 X 1-Zn-A EN 10242
R 1 3/4"	R 1 1/4"	64	52	453148	1 3/4 X 1 1/4-Zn-A EN 10242



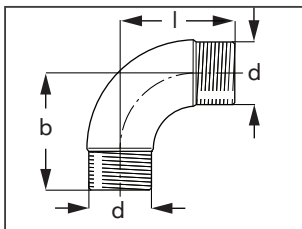
**Elbow internal thread reduced, external thread No. 92**

d1	d2	l	b	Order No.	Description
R 3/8"	R 1/2"	36	28	453150	3/8 X 1/2-Zn-A No. 92
R 1/2"	R 3/4"	40	34	453102	1/2 X 3/4-Zn-A No. 92
R 3/4"	R 1"	50	40	453136	3/4 X 1-Zn-A No. 92
R 1"	R 1 1/4"	57	55	453127	1 X 1 1/4-Zn-A No. 92



**Elbow reduced A1 EN10242 No. 90**

d1	d2	l	b	Order No.	Description
R 1"	R 1/2"	34	32	453108	1 X 1/2-Zn-A EN10242
R 1"	R 3/4"	36	35	453125	1 X 3/4-Zn-A EN10242
R 1 1/4"	R 3/4"	41	36	453129	1 1/4 X 3/4-Zn-A EN10242
R 1 1/4"	R 1"	43	39	453130	1 1/4 X 1-Zn-A EN10242
R 1 1/2"	R 3/4"	44	38	453138	1 1/2 X 3/4-Zn-A EN10242
R 1 1/2"	R 1"	46	42	453124	1 1/2 X 1-Zn-A EN10242
R 2"	R 1"	52	44	453115	2 X 1-Zn-A EN10242
R 2"	R 1 1/4"	54	48	453131	2 X 1 1/4-Zn-A EN10242
R 2"	R 1 1/2"	55	52	453116	2 X 1 1/2-Zn-A EN10242



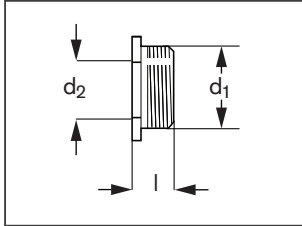
**Elbow external thread DIN2950 No. 94**

d	l	b	Order No.	Description
R 1/2"	38	38	453139	R 1/2 Nr. 94
R 1"	47	47	453141	R 1 Nr. 94

# Fittings for gas

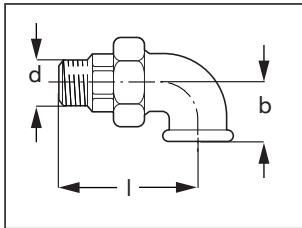
Connection parts for accessory fittings (screwed)

– weishaupt –



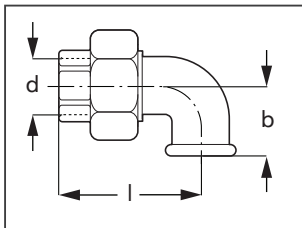
**Bush N4 EN10242 No. 241**

d1	d2	l	Order No.	Description
R 1/2"	R 1/8"	24	453738	1/8 X 1/2-Zn-A EN10242
R 1/2"	R 3/8"	24	453701	3/8 X 1/2-Zn-A EN10242
R 3/4"	R 1/2"	26	453084	1/2 X 3/4-Zn-A EN10242
R 1"	R 1/2"	29	453735	1/2 X 1-Zn-A EN10242
R 1"	R 3/4"	29	453086	3/4 X 1-Zn-A EN10242
R 1 1/2"	R 3/4"	31	453085	3/4 X 1 1/2-Zn-A EN10242
R 1 1/2"	R 1"	31	453713	1 X 1 1/2-Zn-A EN10242
R 2"	R 3/4"	48	453710	3/4 X 2-Zn-A EN10242
R 2"	R 1"	37	453719	1 X 2-Zn-A EN10242
R 2"	R 1 1/2"	37	453718	1 1/2 X 2-Zn-A EN10242
R 2 1/2"	R 2"	40	453714	2 X 2 1/2-Zn-A EN10242



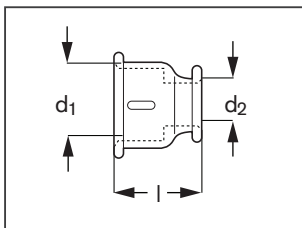
**Union elbow UA2 EN10242 No. 97**

d	l	b	Order No.	Description
R 3/8"	65	25	453419	3/8-Zn-A EN10242
R 1/2"	76	28	453421	1/2-Zn-A EN10242
R 3/4"	82	33	453422	3/4-Zn-A EN10242
R 1"	94	38	453423	1-Zn-A EN10242
R 1 1/2"	109	42	453426	1 1/2-Zn-A EN10242
R 1 1/2"	115	50	453424	1 1/2-Zn-A EN10242
R 2"	128	58	453425	2-Zn-A EN10242



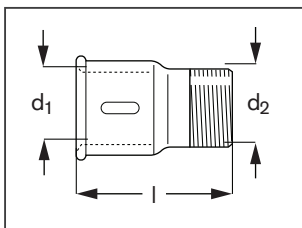
**Union elbow UA1 EN10242 No. 96**

d	l	b	Order No.	Description
R 1/2"	58	28	453415	1/2-Zn-A EN10242
R 3/4"	62	33	453417	3/4-Zn-A EN10242
R 1"	72	38	453418	1-Zn-A EN10242
R 1 1/2"	90	50	453266	1 1/2-Zn-A EN10242
R 2"	100	58	453267	2-Zn-A EN10242



**Socket M2 EN10242 No. 240**

d1	d2	l	Order No.	Description
R 3/4"	R 1/2"	39	453730	3/4 X 1/2-Zn-A EN10242



**Socket M4 EN10242 No. 246**

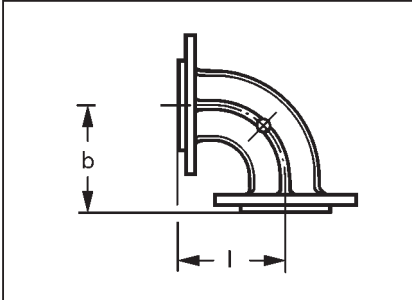
d1	d2	l	Order No.	Description
R 3/4"	R 1/2"	48	453724	3/4 X 1/2-Zn-A EN10242
R 1"	R 3/4"	55	453741	1 X 3/4-Zn-A EN10242
R 1 1/2"	R 1"	63	453746	1 1/2 X 1-Zn-A EN10242
R 2"	R 1"	70	453747	2 X 1-Zn-A EN10242
R 2"	R 1 1/2"	70	453745	2 X 1 1/2-Zn-A EN10242



# Fittings for gas

## Connection parts for accessory fittings (flanged)

– weishaupt –



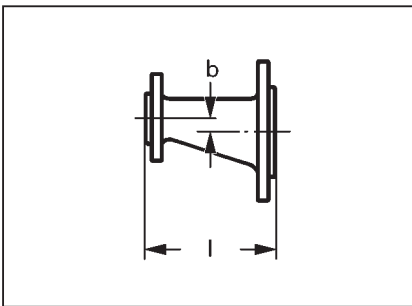
### 90° flanged aluminium bend (permissible max. operating pressure 3 bar)

Unsuitable for fitting upstream of the high gas pressure regulator.

Flange connection: DIN 2633 PN16

DN	l	b	Weight kg *	Order No.
25	90	90	1.3	151 330 2606/2
40	110	110	2.4	151 330 2607/2
50	120	120	3.0	151 329 2652/2
65	140	140	3.9	151 329 2653/2
80	165	165	5.0	151 329 2682/2
100	205	205	7.6	151 329 2655/2
125	245	245	10.2	151 329 2656/2
150	283	283	15.2	151 329 2657/2

Supplied with screws, nuts and sealing ring for one flange joint



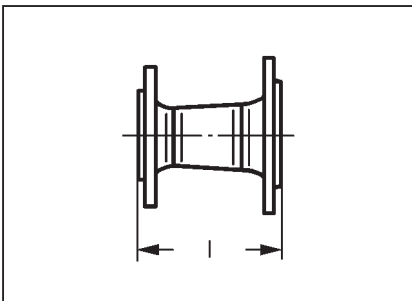
### Flanged aluminium eccentric reducer (permissible max. operating pressure 3 bar)

Unsuitable for fitting upstream of the high gas pressure regulator.

Flange connection: DIN 2633 PN16

DN <sub>1</sub>	DN <sub>2</sub>	l	b	Weight kg *	Order No.
25	40	144	7.5	2.6	151 329 2630/2
25	50	159	12.5	2.7	151 329 2631/2
25	65	172	20.0	3.3	151 329 2632/2
25	80	177	27.5	3.7	151 329 2683/2
40	50	163	5.0	3.7	151 329 2634/2
40	65	177	12.5	4.1	151 329 2635/2
40	80	181	20.0	4.4	151 329 2684/2
40	100	195	31.0	6.0	151 329 2637/2
50	65	180	7.5	4.4	151 329 2638/2
50	80	185	15.0	5.1	151 329 2685/2
50	100	197	26.0	6.3	151 329 2640/2
65	80	185	7.5	5.1	151 329 2686/2
65	100	197	18.5	6.6	151 329 2642/2
65	125	227	31.0	7.7	151 329 2643/2
80	100	207	11.0	7.0	151 329 2687/2
80	125	232	23.5	8.2	151 329 2688/2
100	125	234	12.5	9.4	151 329 2646/2
100	150	247	26.5	12.0	151 329 2647/2
125	150	250	14.0	12.8	151 329 2648/2

Supplied with screws, nuts and sealing ring for two flange joints



### Flanged concentric reducer in steel, grey iron, ductile cast iron

(permissible max. operating pressure 16 bar)

Flange connection: DIN 2633 PN16

DN <sub>1</sub>	DN <sub>2</sub>	l	Material	Weight kg *	Order No.
25	40	150	steel	4.5	151 327 2671/2
25	50	165	steel	5.3	151 327 2680/2
25	65	173	steel	6.0	151 330 2620/2
25	80	182	steel	7.0	151 330 2621/2
40	50	200	grey cast iron	7.0	151 330 2625/2
50	65	200	grey cast iron	9.0	151 327 2682/2
50	80	200	duct. grey cast iron	7.2	151 329 2689/2
50	100	200	duct. grey cast iron	8.1	151 327 2644/2
65	80	200	duct. grey cast iron	8.2	151 330 2608/2
80	100	200	duct. grey cast iron	9.3	151 329 2690/2
80	125	200	duct. grey cast iron	10.5	151 327 2691/2
80	150	200	duct. grey cast iron	12.0	151 330 2622/2
100	125	200	duct. grey cast iron	11.4	151 327 2689/2
100	150	200	duct. grey cast iron	12.8	151 328 2626/2
125	150	200	duct. grey cast iron	14.1	151 330 2623/2

Supplied with screws, nuts and sealing ring for two flange joint

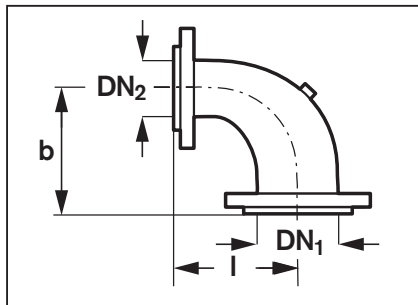
Dimensions are approx. values. We reserve the right to make changes in line with future development.

\* The weights given include screws, nuts and sealing rings.

# Fittings for gas

Connection parts for accessory fittings (flanged)

– weishaupt –



*Dimensions are approx. values. We reserve the right to make changes in line with future development.*

## Flanged aluminium concentric reducer

(permissible max. operating pressure 3 bar)

Unsuitable for fitting upstream of the high gas pressure regulator.

Flange connection: DIN 2633 PN16

DN <sub>1</sub>	DN <sub>2</sub>	l	b	Weight kg	Order No.
65	40	110	140	2.9	151 332 26132
65	50	120	140	3.1	151 332 26012
80	50	120	165	3.5	151 332 26022
80	65	140	165	4.1	151 332 26032
100	50	120	205	4.3	151 332 26042
100	65	140	205	4.6	151 332 26052
100	80	165	205	5.2	151 332 26062
125	50	140	245	5.6	151 332 26072
125	65	140	245	6.0	151 332 26082
125	80	165	245	6.5	151 332 26092
125	100	205	245	7.3	151 332 26102
150	100	205	283	8.5	151 332 26112
150	125	245	283	9.4	151 332 26122

Supplied without connection parts, connection parts required see accessories list,  
Print No. 212

# Fittings for gas

Connection parts for accessory fittings (flanged)

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## Screwed flange with turned joint face to DIN-EN 1092-1

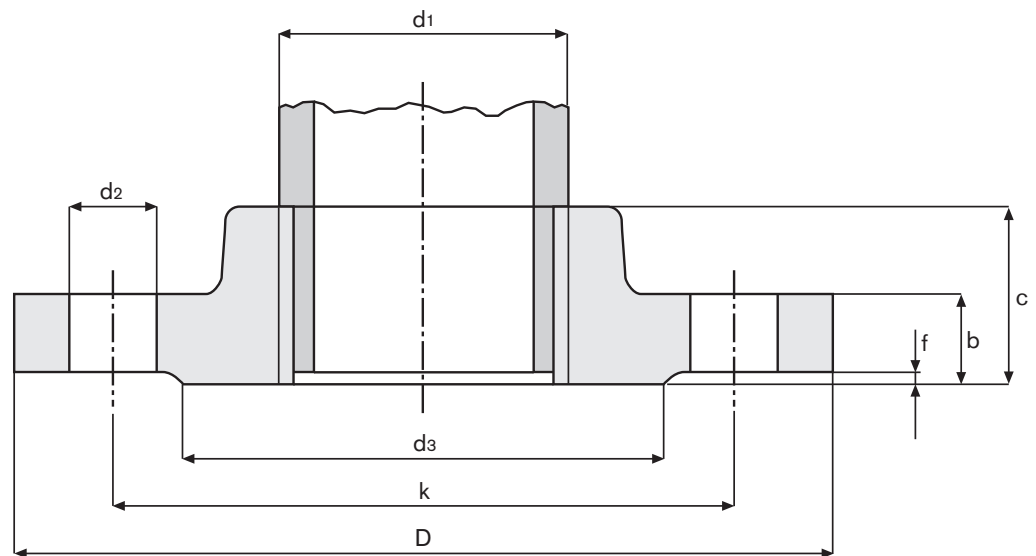
### Application range

Low pressure up to 500 mbar

### Joining

For of joint face to  
DIN EN 1092-1

Joint face to Form B1



### Example:

Description of a screwed flange type 13 with joint face form B1 with turned joint face for a pipe with nominal diameter 25, PN40, made from material P250GH: Flange EN 1092-1/13/B1/DN25/PN40/P250GH

Nom. diam./ PN	d <sub>1</sub> mm	Withworth pipe thread DIN 2999	FLANGE				Joint face		Screws			Weight of flange kg	Order No.
			D mm	b mm	k mm	c mm	d <sub>3</sub> mm	f mm	Qty.	Thread size	d <sub>2</sub> mm		
15/40	22	R 1/2	95	16	65	22	45	2	4	M 12	14	0.68	452 916
20/40	26,9	R 3/4	105	18	75	26	58	2	4	M 12	14	0.91	452 924
25/40	33,7	R 1	115	18	85	28	68	2	4	M 12	14	1.10	452 925
40/40	48,3	R 1 1/2	150	18	110	32	88	3	4	M 16	18	1.78	452 920
50/16	60,3	R 2	165	18	125	28	102	3	4	M 16	18	2.43	452 921
65*	76,1	R 2	180	20	145	32	122	3	4	M 16	18	1.32	1513362618/7
80*	88,9	R 2	200	20	160	32	138	3	8	M 16	18	1.58	1513362620/7
65/16	76,1	R 2 1/2	185	18	145	32	122	3	8	M 16	18	3.22	452 922
80/16	88,9	R 3	200	20	160	34	138	3	8	M 16	18	4.04	452 923

\* Material: EN 755 3.1645

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# Fittings for gas

Connection parts for accessory fittings (flanged)

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## Welding flange to DIN EN1092-1

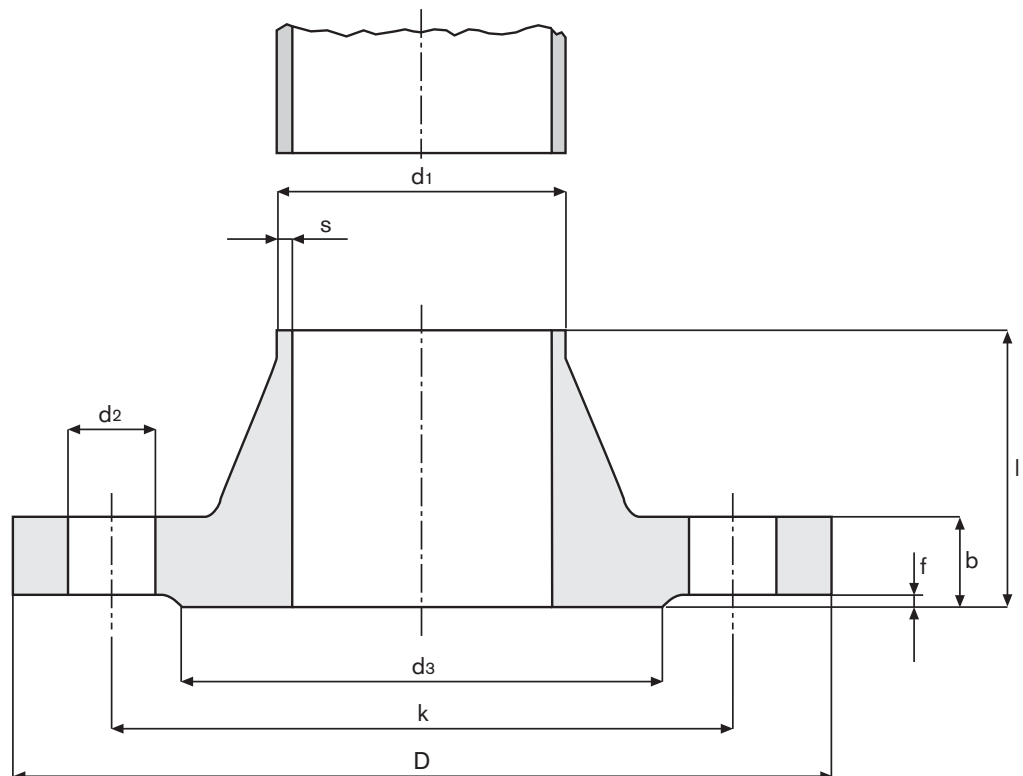
### Application range

Permissible maximum operating pressure 16 bar

### Joining

Gasket area to DIN EN 1092-1

Joint face to form B1



### Example:

Description of a welding flange type 11 with joint face form B1, nominal diameter DN 100, PN 16, made of material P 250GH  
Flange EN 1092-1/11/B1/DN 100/PN16/P250GH

Pipe NW/PN mm	Flange d <sub>1</sub> *) mm	Flange				Prep. s mm	Joint face			Screws		Weight of flange kg	Order No.
		D mm	b mm	øk mm	l mm		d <sub>3</sub> mm	f mm	Qty.	Thread size	d <sub>2</sub> mm		
20/40	26.9	105	18	75	40	2,3	58	2	4	M12	14	0.952	452 940
25/40	33.7	115	18	85	40	2,6	68	2	4	M12	14	1.14	452 941
32/40	42.4	140	18	100	42	2,6	78	2	4	M16	18	1.65	452 901
40/40	48.3	150	18	110	45	2,6	88	3	4	M16	18	1.86	452 942
50/40	60.3	165	18	125	45	2,9	102	3	4	M16	18	2.53	452 936
65/16	76.1	185	18	145	45	2,9	122	3	4	M16	18	3.06	452 910
80/16	88.9	200	20	160	50	3,2	138	3	8	M16	18	3.70	452 911
100/16	114.3	220	20	180	52	3,6	158	3	8	M16	18	4.62	452 913
125/16	139.7	250	22	210	55	4,0	188	3	8	M16	18	6.30	452 914
150/16	168.3	285	22	240	55	4,5	212	3	8	M20	22	7.75	452 918

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# Fittings for gas

Connection parts for accessory fittings (flanged)

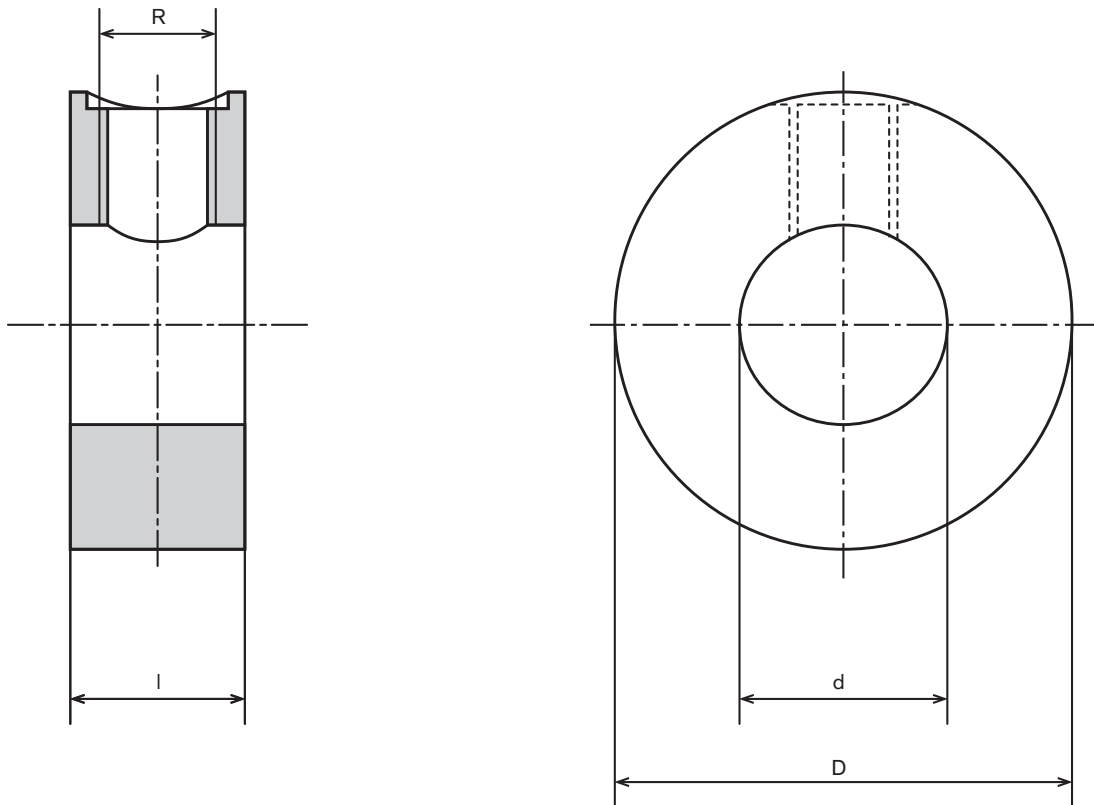
– weishaupt –

## Intermediate ring

### Description

Intermediate ring for mounting between flanges to provide a connection for either ignition gas, vent gas or pressure gauge

Nominal pressure max. 4 bar



DN	D mm	d mm	l mm	R	Weight kg	Order No.
25	70	25	40	3/4"	0.825	151 336 2667/2
40	94	40	40	3/4"	1.520	151 327 2625/2
50	109	50	40	3/4"	1.700	151 327 2674/2
65	129	70	40	3/4"	1.900	151 327 2675/2
80	144	85	40	3/4"	2.060	151 327 2676/2
100	164	105	40	3/4"	3.280	151 327 2677/2
125	194	125	40	3/4"	3.800	151 327 2678/2
150	218	160	40	3/4"	5.475	270 805 2616/2

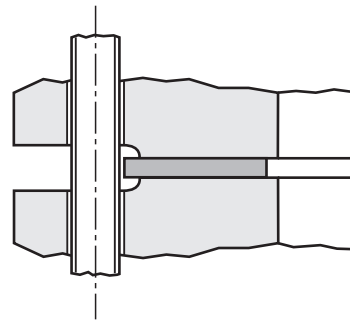
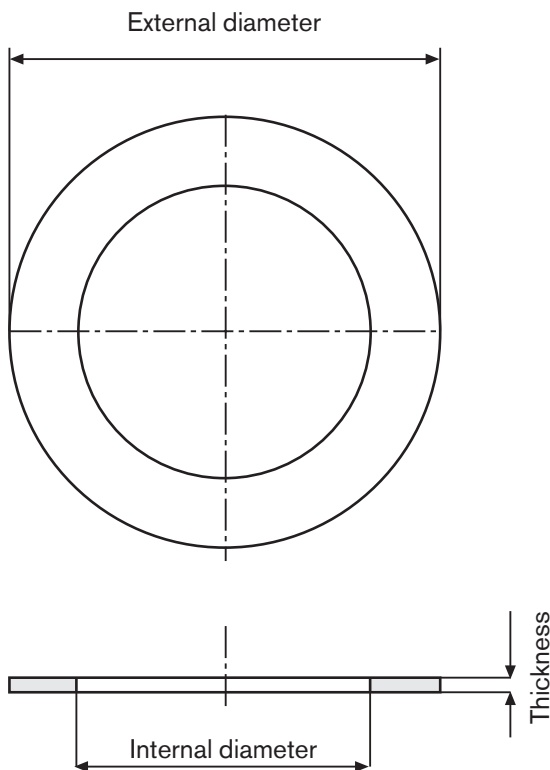
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# Fittings for gas

Connection parts for accessory fittings (flanged)

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Flange gasket to EN 1514-1 for flange connection  
Nominal pressure 16 bar



**Example:**

Flat gasket form IBC to EN 1514-1 for flange sealing surface form C to DIN 2526 or form B to prEN 1092-1.

DN	Internal diameter [ mm ]	External diameter [ mm ]	Thickness [ mm ]	Order No.
20	28	53	2	441 013
25	35	70	2	441 858
25/40*	49	70	2	441 851
40	49	92	2	441 859
50	61	107	2	441 860
65	77	127	2	441 861
80	90	142	2	441 044
100	115	162	2	441 045
125	141	192	2	441 046
150	169	218	2	441 047

Flat gaskets made of Tesnit BA-U, up to 16 bar (100 bar) and 150°C with gas, 40 bar and 180°C with oil

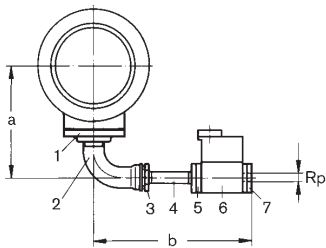
\*) Used with WM-G10/1 vers. ZMI valve train R1 ½

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

## – weishaupt –

### Size 1

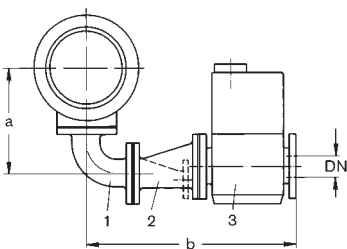


- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

Valve train	Head conn.	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	Pos. 1								
3/4	DN25-Rp1	R-Rp1	–	R1x160	507-Rp1	507/11	507-Rp3/4	213	351
1	DN25-Rp1	R-Rp1	–	R1x160	512-Rp1	512/11	512-Rp1	213	385
1 1/2	DN25-Rp1	R-Rp1	–	R1x160	520-Rp1	520/11	520-Rp1 1/2	213	412
2	DN25-Rp1	R-Rp1	–	R1x160	520-Rp1	520/11	520-Rp2	213	412

Dimensions in mm, dimensions are approx. values

### Size 1



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 DMV

Valve train	Head conn DN	Pos. 2	Pos. 3	a	b
DN	Pos. 1				
65	25	25/65	5065/11	221	556
80	25	25/80	5080/11	221	581

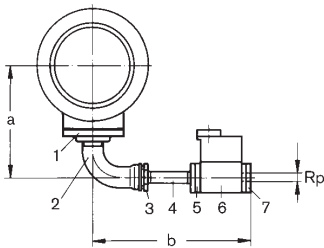
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

## – weishaupt –

### Size 3

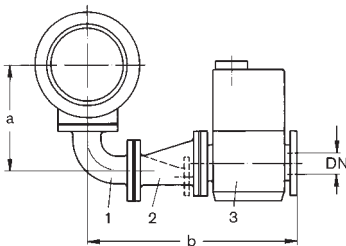


- 1 Threaded flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

Valve train	Head conn.	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	Pos. 1								
3/4	DN40-Rp1 1/2	R-Rp1 1/2	R1 1/2xR1	R1x160	507-Rp1	507/11	507-Rp3/4	254	394
1	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	512-Rp1 1/2	512/11	512-Rp1	254	412
1 1/2	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	520-Rp1 1/2	520/11	520-Rp1 1/2	254	439
2	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	520-Rp1 1/2	520/11	520-Rp2	254	439

Dimensions in mm, dimensions are approx. values

### Size 3



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 DMV

Valve train	Head conn. DN	Pos. 2	Pos. 3	a	b
DN	Pos. 1				
65	40	40/ 65	5065/11	252	581
80	40	40/ 80	5080/11	252	605
100	40	40/100	5100/11	252	658

Dimensions in mm, dimensions are approx. values

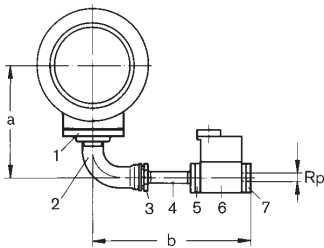


# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

## – weishaupt –

### Size 5

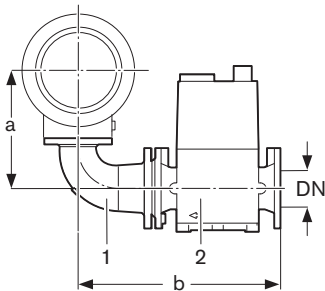


- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
3/4	DN50-Rp2	R-Rp2	R2xR1	R1x160	507-Rp1	507/11	507-Rp3/4	298	418
1	DN50-Rp2	R-Rp2	–	R2x160	512-Rp2	512/11	512-Rp1	298	426
1 1/2	DN50-Rp2	R-Rp2	–	R2x160	520-Rp2	520/11	520-Rp1 1/2	298	453
2	DN50-Rp2	R-Rp2	–	R2x160	520-Rp2	520/11	520-Rp2	298	453

Dimensions in mm, dimensions are approx. values

### Size 5



- 1 Reducing flange elbow
- 2 DMV

Valve train	Head conn. DN Pos. 1	Pos. 2	a	b
DN				
65	50/65	5065/11	284	432
80	50/80	5080/11	284	477
100	50/100	5100/11	284	557

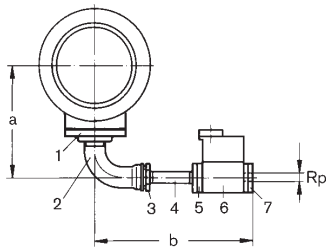
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 7 and 8



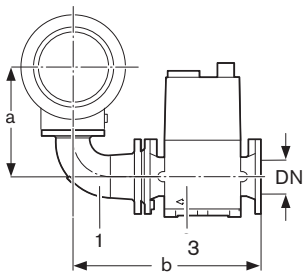
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
1 **	DN65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	512-Rp1	322	442
1 1/2	DN65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	322	455
2	DN65-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	322	495

Dimensions in mm, dimensions are approx. values \*\* only for size 7

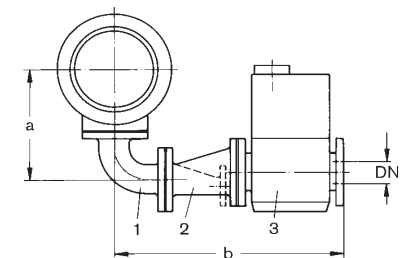
## Size 7 and 8

Picture 1



- 1 Flange elbow/reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN Pos. 1	Pos. 2	Pos. 3	a	b
1	65	65/ 65	–	5065/12	324	432
	80	65/ 80	–	5080/12	324	477
	100	65/100	–	5100/12	324	557
2	125	65/ 65	65/125	VGD40.125	324	771

Dimensions in mm, dimensions are approx. values see note below

**Note:**

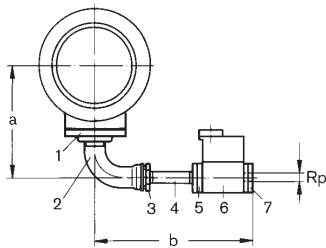
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

–weishaupt–

## Size 9 and 10



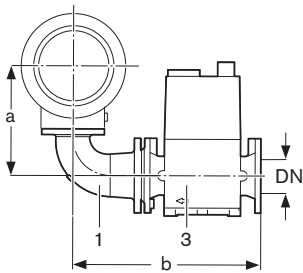
- 1 Screwed flanged
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
1 1/2	DN 80-Rp2	R-Rp2	-	R2x 160	520-Rp2	W-MF 512	520-Rp1 1/2	352	455
2	DN 80-Rp2	R-Rp2	-	R2x 160	525-Rp2	DMV 525/12	525-Rp2	352	495

Dimensions in mm, dimensions are approx. values

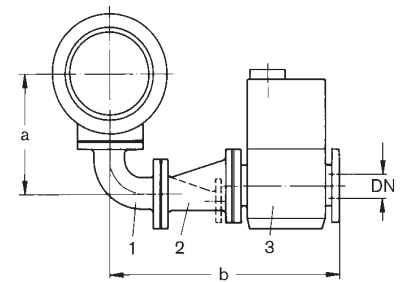
## Size 9 and 10

Picture 1



- 1 Flange elbow/Reducing elbow
- 2 Reducing flange eccentric
- 2 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN Pos. 1	Pos. 2	Pos. 3	a	b
1	65	80/ 65	-	5065/12	379	432
	80	80/ 80	-	5080/12	379	477
	100	80/100	-	5100/12	379	557
2	125	80/ 80	80/125	VGD40.125	379	801

Dimensions in mm, dimensions are approx. values see note below

**Note:**

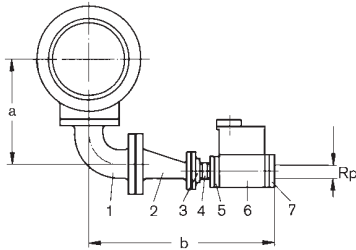
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 11



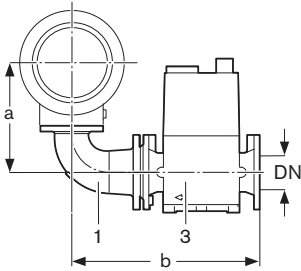
- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Screwed flange
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn.								a	b
R	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7			
1 1/2	100	100/40	40-R1 1/2	R1 1/2x50	520-Rp1 1/2	W-MF 512	520-Rp1 1/2	479	645	
2	100	100/50	50-R2	R2x80	525-Rp2	DMV 525/12	525-Rp2	479	709	

Dimensions in mm, dimensions are approx. values

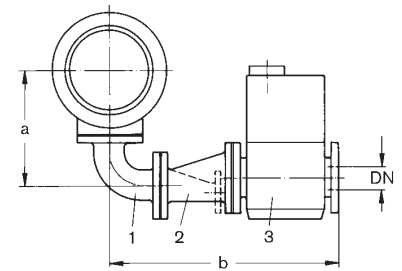
## Size 11

Picture 1



- 1 Flange elbow/reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN			a	b
		Pos. 1	Pos. 2	Pos. 3		
1	65	100/ 65	–	5065/12	479	432
	80	100/ 80	–	5080/12	479	477
	100	100/100	–	5100/12	479	557
2	125	100/100	100/125	VGD40.125	479	843

Dimensions in mm, dimensions are approx. values see note below

**Note:**

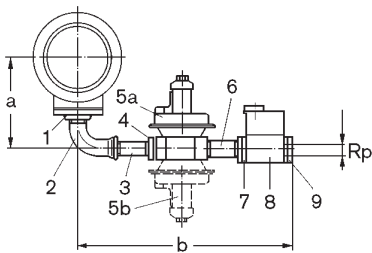
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMA und ZMI

– weishaupt –

## Size 1 ZMA/ZMI



- 1 Screwed flange
- 2 Elbow long
- 3 Double nipple
- 4 Reducing nipple
- 5a FRS vers. ZMA
- 5b FRS vers. ZMI
- 6 Double nipple
- 7 DMV flange
- 8 DMV
- 9 DMV flange

Valve train	Head conn.		Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
	Pos. 1	Pos. 2									
R	DN25-Rp1	R-Rp1	R1x100	-	510	R1x50	512-Rp1	512/11	512-R1	213	451
1 1/2	DN25-Rp1	R-Rp1	R1x100	R1 1/2 x R1	515	R1 1/2x120	520-Rp11/2	520/11	520-R1 1/2	213	596
2	DN25-Rp1	R-Rp1	R1x100	R2 x R1	520	R2x160	520-Rp2	520/11	520-R2	213	646

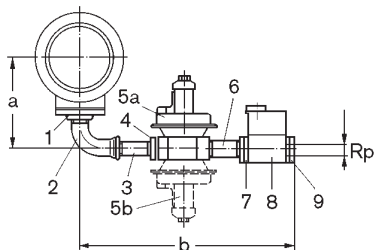
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMA and ZMI

– weishaupt –

## Size 3 ZMA/ZMI



- 1 Screwed flange
- 2 Elbow long
- 3 Double nipple
- 4 Reducing nipple
- 5a FRS vers. ZMA
- 5b FRS vers. ZMI
- 6 Double nipple
- 7 DMV flange
- 8 DMV
- 9 DMV flange

Valve train	Head conn.		Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
R	Pos. 1		R-Rp									
1	DN 40-Rp1 1/2	1 1/2	R1 1/2x160	-	515	R1 1/2x120	512-Rp1 1/2	512/11	512-R1	254	644	
1 1/2	DN 40-Rp1 1/2	1 1/2	R1 1/2x160	-	515	R1 1/2x120	520-Rp1 1/2	520/11	520-R1 1/2	254	671	
2	DN 40-Rp1 1/2	1 1/2	R1 1/2x160	R2xR1 1/2	520	R2x160	520-Rp2	520/11	520-R2	254	733	

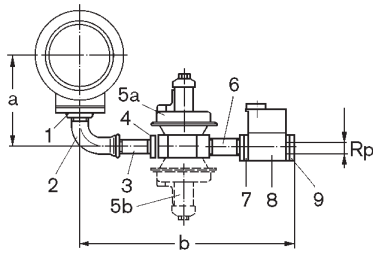
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMA and ZMI

– weishaupt –

## Size 5 ZMA/ZMI

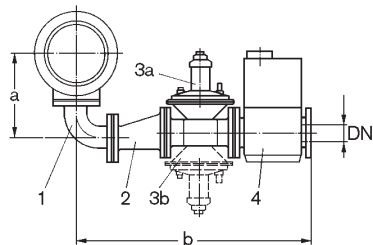


- 1 Screwed flange
- 2 Elbow long
- 3 Double nipple
- 4 Reducing nipple
- 5a FRS vers. ZMA
- 5b FRS vers. ZMI
- 6 Double nipple
- 7 DMV flange
- 8 DMV
- 9 DMV flange

Valve train	Head conn.	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
R	Pos. 1										
1	DN 50-Rp2	R-Rp2	R2x200	–	520	R2x160	512-Rp2	512/11	512-Rp1	298	748
1 1/2	DN 50-Rp2	R-Rp2	R2x200	–	520	R2x160	520-Rp2	520/11	520-Rp1 1/2	298	775
2	DN 50-Rp2	R-Rp2	R2x200	–	520	R2x160	520-Rp2	520/11	520-Rp2	298	775

Dimensions in mm, dimensions are approx. values

## Picture 1



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3a FRS vers. ZMA
- 3b FRS vers. ZMI
- 4 DMV

ZMA	Valve train	Picture	Head conn. DN		Pos. 3	Pos. 4	Pos. 5	a	b
	DN		Pos. 1	Pos. 2					
	65	1	50	50/65	5065	5065/11	–	284	886
ZMI	Valve train	Picture	Head conn. DN		Pos. 3	Pos. 4	a	b	
	DN		Pos. 1	Pos. 2					
	65	1	50	50/65	5065	5065/11	284	886	

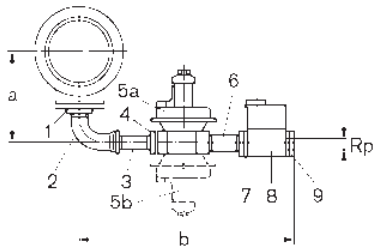
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMA and ZMI

– weishaupt –

## Size 7 ZMA/ZMI



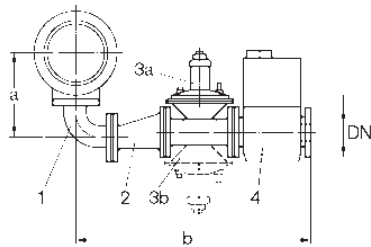
- 1 Screwed flange
- 2 Elbow long
- 3 Double nipple
- 4 Reducing nipple
- 5a FRS vers. ZMA
- 5b FRS vers. ZMI
- 6 Double nipple
- 7 DMV flange
- 8 DMV
- 9 DMV flange

Valve train	Head conn. R	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
R	Pos. 1											
1*	DN 65-Rp2	R-Rp2	R2x200	–	520	R2x160	520-Rp2	W-MF 512	512-Rp1		322	764
1 1/2	DN 65-Rp2	R-Rp2	R2x200	–	520	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2		322	777
2	DN 65-Rp2	R-Rp2	R2x200	–	520	R2x160	525-Rp2	DMV 525/12	525-Rp2		322	814

\* only for vers. ZMA

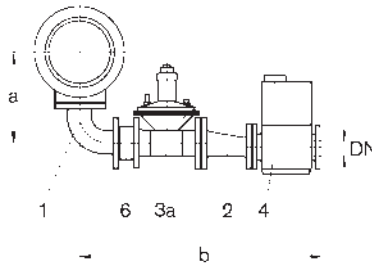
Dimensions in mm, dimensions are approx. values

Picture 1



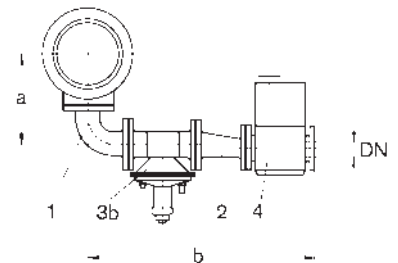
- 1 Flange elbow
- 2 Reducing flange eccentric
- 3a FRS vers. ZMA

Picture 2



- 3b FRS vers. ZMI
- 4 DMV

Picture 3



- 5 GW
- 6 Spacer ring

ZMA	Valve train DN	Picture	Head conn. DN				Pos. 6	a	b
			Pos. 1	Pos. 2	Pos. 3	Pos. 4			
	65	2	65	–	5065	5065/12	65	324	768
	80	1	65	65/ 80	5080	5080/12	–	324	951
	100	1	65	65/100	5100	5100/12	–	324	1043

ZMI	Valve train DN	Picture	Head conn. DN				a	b
			Pos. 1	Pos. 2	Pos. 3	Pos. 4		
	65	3	65	–	5065	5065/12	324	724
	80	1	65	65/ 80	5080	5080/12	324	951
	100	1	65	65/100	5100	5100/12	324	1043

Dimensions in mm, dimensions are approx. values

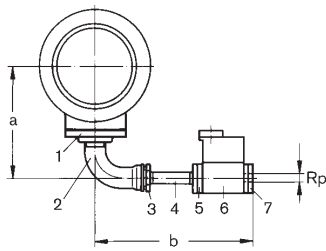


# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WM-G 10/1 ZM, WM-G 10/2, WM-GL 10/1 and /2

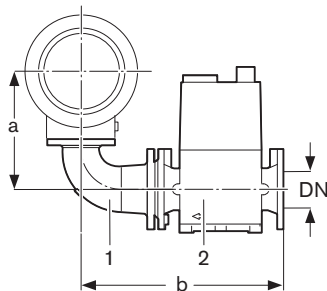


- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn.	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	Pos. 1								
3/4	DN40-Rp1 1/2	R-Rp1 1/2	R1 1/2xR1	R1x160	507-Rp1	W-MF 507	507-Rp3/4	254	397
1	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	512-Rp1 1/2	W-MF 512	512-Rp1	254	428
1 1/2	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	520-Rp1 1/2	W-MF 512	520-Rp1 1/2	254	441
2	DN40-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	525-Rp1 1/2	DMV 525/12	525-Rp2	254	481

Dimensions in mm, dimensions are approx. values

## Size WM-G (L) 10/2



- 1 Reducing flange elbow
- 2 DMV

Valve train	Head conn. DN	Pos. 2	a	b
DN	Pos. 1			
65	40/ 65	5065/12	252	432

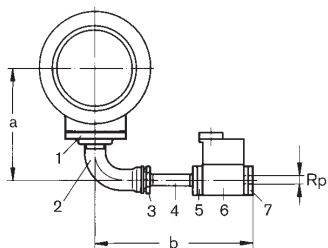
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WM-G 10/1 ZM-LN



- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn.	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	Pos. 1									
3/4	DN25-Rp1	R-Rp1	–	R1x160	507-Rp1	W-MF 507	507-Rp3/4		213	354
1	DN25-Rp1	R-Rp1	–	R1x160	512-Rp1	W-MF 512	512-Rp1		213	387
1 1/2	DN25-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	520-Rp1 1/2	W-MF 512	520-Rp1 1/2		213	441
2	DN25-Rp1 1/2	R-Rp1 1/2	–	R1 1/2x160	525-Rp1 1/2	DMV 525/12	525-Rp2		213	481

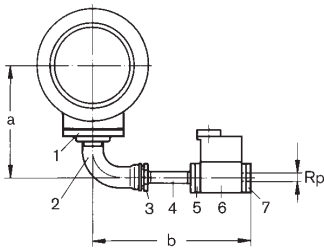
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WM-G(L) 10/3 u. 10/4

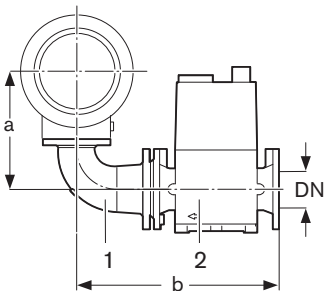


- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	DN50-Rp2	R-Rp2	R2xR1	R1x160	507-Rp1	W-MF 507	507-Rp3/4	298	422
3/4	DN50-Rp2	R-Rp2	–	R2x160	512-Rp2	W-MF 512	512-Rp1	298	442
1	DN50-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	298	455
1 1/2	DN50-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	298	495
2	DN50-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	298	495

Dimensions in mm, dimensions are approx. values

## Size WM-G(L)10/3 and 10/4



- 1 Reducing flange elbow
- 2 DMV

Valve train	Head conn. DN Pos. 1	Pos. 2	a	b
DN	50/ 65	5065/12	284	432
	50/ 80	5080/12	284	477
	50/100	5100/12	284	557

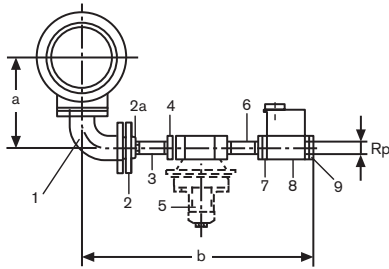
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMI

– weishaupt –

## Size WM-G 10/1 u. /2 ZMI

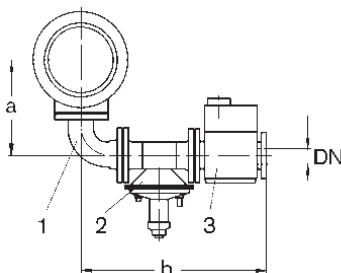


- 1 Flanschbogen
- 2 Gewindeflansch
- 2a Reduktionsnippel
- 3 Doppelnippel
- 4 Reduktionsnippel
- 5 FRS
- 6 Doppelnippel
- 7 DMV-Flansch
- 8 W-MF/DMV
- 9 DMV Flansch

Valve train	Head conn.	Pos. 2	Pos. 2a	Pos. 3	Pos. 4	Pos. 5
R	Pos. 1					
3/4	DN40	DN40-Rp1 1/2	R1 1/2-3/4	R3/4 x 120	–	507
1	DN40	DN40-Rp1 1/2	R1 1/2-1	R1 x 120	–	510
1 1/2	DN40	DN40-Rp1 1/2	–	R1 1/2 x 120	–	515
2	DN40	DN40-Rp1 1/2	–	R1 1/2 x 120	R2 x R1 1/2	520
		Pos. 6	Pos. 7	Pos. 8	Pos. 9	a
		R3/4 x 80	507-Rp3/4	W-MF507	507-Rp3/4	254
		R1 x 80	512-Rp1	W-MF512	512-Rp1	254
		R1 1/2 x 80	520-Rp1 1/2	W-MF512	520-Rp1 1/2	254
		R2 x 120	525-Rp2	DMV525/12	525-Rp2	254
						b
						533
						568
						615
						742

Dimensions in mm, dimensions are approx. values

## Size WM-G 10/2 ZMI



- 1 Reducing flange elbow
- 2 FRS vers. ZMI
- 3 DMV

Valve train	Head conn. DN	Pos. 2	Pos. 3	a	b
DN	Pos. 1				
65	40/65	5065	5065/12	252	724

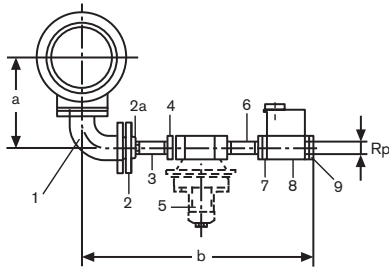
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMI

– weishaupt –

## Size WM-G10/3 and 10/4 ZMI



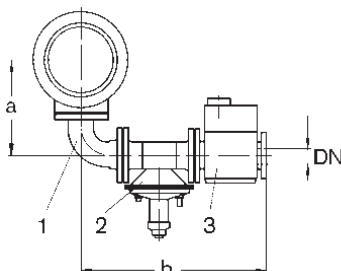
- 1 Flange elbow
- 2 Screwed flange
- 2a Reducing nipple
- 3 Double nipple
- 4 Reducing nipple
- 5 FRS
- 6 Double nipple
- 7 DMV flange
- 8 W-MF/DMV
- 9 DMV flange

Valve train	Head conn.	Pos. 1	Pos. 2	Pos. 2a	Pos. 3	Pos. 4	Pos. 5
R	Pos. 1						
3/4*	DN50	DN50-Rp2	R2-3/4	R3/4 x 120	–	–	507
1	DN50	DN50-Rp2	R2-1	R1 x 120	–	–	510
1 1/2	DN50	DN50-Rp2	R2-1 1/2	R1 1/2 x 120	–	–	515
2	DN50	DN50-Rp2	–	R2 x 120	–	–	520
		Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
		R3/4 x 80	507-Rp3/4	W-MF507	507-Rp3/4	298	557
		R1 x 80	512-Rp1	W-MF512	512-Rp1	298	615
		R1 1/2 x 80	520-Rp1 1/2	W-MF512	520-Rp1 1/2	298	640
		R2 x 120	525-Rp2	DMV525/12	525-Rp2	298	707

\* This nominal diameter only available with size 10/3.

Dimensions in mm, dimensions are approx. values

## Size WM-G10/3 and 10/4 ZMI



- 1 Reducing flange elbow
- 2 FRS vers. ZMI
- 3 DMV
- 4 GW

Valve train	Connection parts DN			a	b
DN	Pos. 1	Pos. 2	Pos. 3		
65	50/65	5065	5065/12	284	724
80	50/80	5080	5080/12	284	789

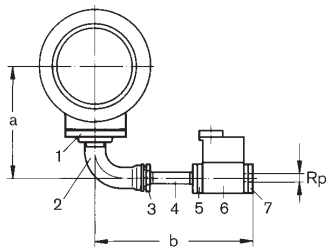
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WM-G (L) 20



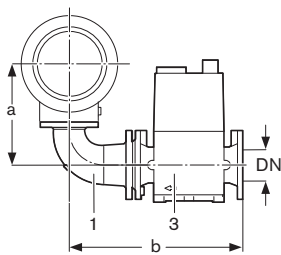
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
1	DN65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	512-Rp1	322	442
1 1/2	DN65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	322	455
2	DN65-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	322	495

Dimensions in mm, dimensions are approx. values

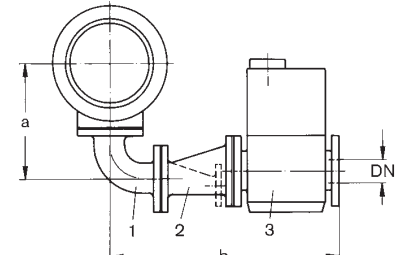
## Size WM-G (L) 20

Picture 1



- 1 Flange elbow/reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Valve train	Head conn. DN	Pos. 1	Pos. 2	Pos. 3	a	b
1	65	65/ 65	–	5065/12	324	432
	80	65/ 80	–	5080/12	324	477
	100	65/100	–	5100/12	324	557
2	125	65/ 65	65/125	VGD40.125	324	771

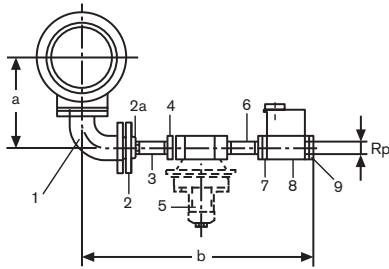
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners  
version ZMI

– weishaupt –

## Size WM-G20/2 ZMI

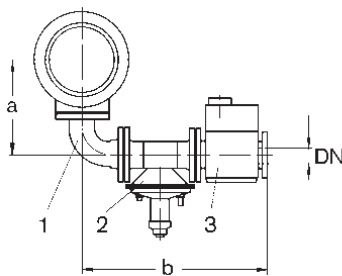


- 1 Flange elbow
- 2 Screwed flange
- 2a Reducing nipple
- 3 Double nipple
- 4 Reducing nipple
- 5 FRS
- 6 Double nipple
- 7 DMV flange
- 8 W-MF/DMV
- 9 DMV flange

Valve train	Head conn.					
R	Pos. 1	Pos. 2	Pos. 2a	Pos. 3	Pos. 4	Pos. 5
1	DN65	DN65-Rp2	R2-1	R1 x 120	–	510
1 1/2	DN65	DN65-Rp2	R2-1 1/2	R1 1/2 x 120	–	515
2	DN65	DN65-Rp2	–	R2 x 120	–	520
	Pos. 6	Pos. 7	Pos. 8	Pos. 9	a	b
	R1 x 80	512-Rp1	W-MF512	512-Rp1	298	587
	R1 1/2 x 80	520-Rp1 1/2	W-MF512	520-Rp1 1/2	298	677
	R2 x 120	525-Rp2	DMV525/12	525-Rp2	298	692

Dimensions in mm, dimensions are approx. values

## Size WM-G20/2 ZMI



- 1 Flange elbow / Reducing flange elbow
- 2 FRS vers. ZMI
- 3 DMV
- 4 GW

Valve train	Connection parts DN			a	b
DN	Pos. 1	Pos. 2	Pos. 3		
65	65	5065	5065/12	284	724
80	65/80	5080	5080/12	284	789
100	65/100	5100	5100/12	284	909
125	65/125	5125	5125/12	284	1049

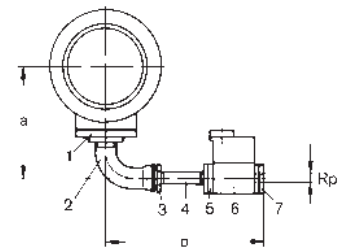
Dimensions in mm, dimensions are approx. values

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WM-G (L) 30



- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF/DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
1 <sup>1)</sup>	DN80-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	512-Rp1	352	442
1 1/2	DN80-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	352 <sup>2)</sup>	455
2	DN80-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	352 <sup>2)</sup>	495

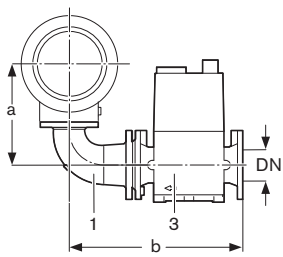
1) Only with WM-G(L) 30/1+2

2) With WM-G(L) 30/3: 372mm

Dimensions in mm, dimensions are approx. values

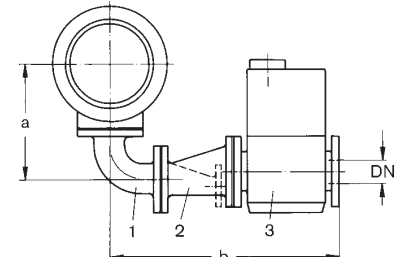
## Size WM-G (L) 30

Picture 1



- 1 Flange elbow/Reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Valve train	Head conn. DN	Pos. 1	Pos. 2	Pos. 3	a	b
1	65	80/ 65	–	5065/12	379 <sup>3)</sup>	432
	80	80	–	5080/12	379 <sup>3)</sup>	477
	100	80/100	–	5100/12	379 <sup>3)</sup>	557
2	125	80	80/125	VG40.125	379 <sup>3)</sup>	801
	150 <sup>4)</sup>	80/100	100/150	VG40.150	399	936

3) With WM-G(L) 30/3: 399mm

4) Only with WM-G(L) 30/3

Dimensions in mm, dimensions are approx. values

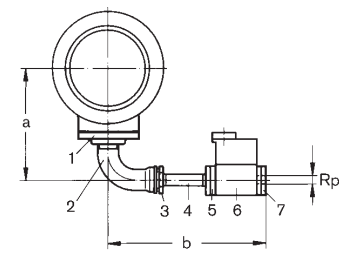


# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 30/2 and 40/1



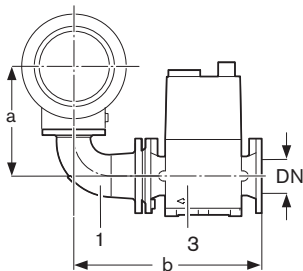
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF / DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
1 1/2	50-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	343	455
2	50-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	343	495

Dimensions in mm, dimensions are approx. values

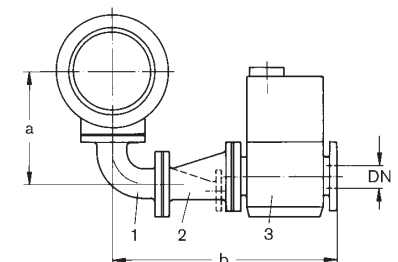
## Size 30/2 und 40/1

Picture 1



- 1 Flange elbow / Reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN Pos. 1	Pos. 2	Pos. 3	a	b
1	65	50/ 65	–	DMV 5065/12	329	432
	80	50/ 80	–	DMV 5080/12	329	477
	100	65/100	–	DMV 5100/12	329	557
2	125	50/ 65	65/125	VGD 40.125	329	771

Dimensions in mm, dimensions are approx. values see note below

**Note:**

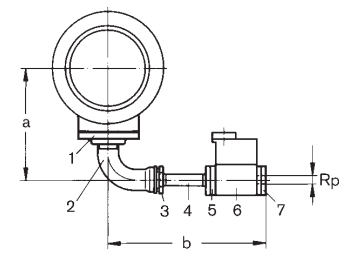
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 40/2 and 50/1



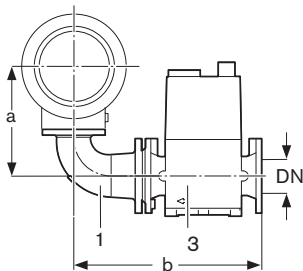
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
1 1/2	65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	367	455
2	65-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	367	495

Dimensions in mm, dimensions are approx. values

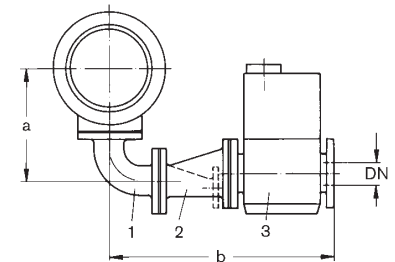
## Size 40/2 and 50/1

Picture 1



- 1 Flange elbow / Reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN Pos. 1	Pos. 2	Pos. 3	a	b
1	65	65/ 65	–	DMV 5065/12	369	432
	80	65/ 80	–	DMV 5080/12	369	477
	100	65/100	–	DMV 5100/12	369	557
2	125	65/ 65	65/125	VGD 40.125	369	771

Dimensions in mm, dimensions are approx. values see note below

**Note:**

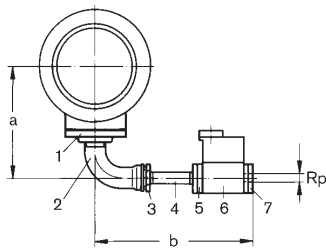
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 50/2



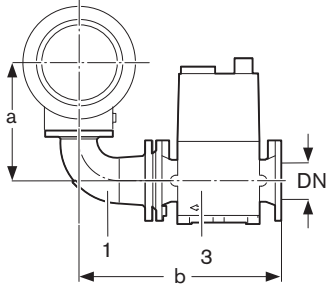
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	DN 80-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF512	520-Rp1 1/2	397	455
1 1/2	DN 80-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV525/12	525-Rp2	397	495

Dimensions in mm, dimensions are approx. values

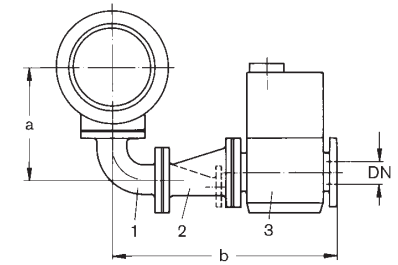
## Size 50/2

Picture 1



- 1 Flange elbow / Reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN Pos. 1	Pos. 2	Pos. 3	a	b
1	65	80/ 65	–	DMV 5065/12	424	432
	80	80/ 80	–	DMV 5080/12	425	477
	100	80/100	–	DMV 5100/12	424	557
2	125	80/ 80	80/125	VGD 40.125	424	801
	150	80/100	100/150	VGD 40.130	424	936

Dimensions in mm, dimensions are approx. values see note below

**Note:**

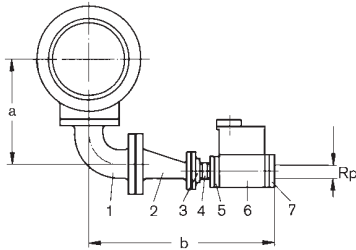
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size 60 and 70



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Screwed flange
- 4 Double nipple
- 5 DMV flange
- 6 DMV
- 7 DMV flange

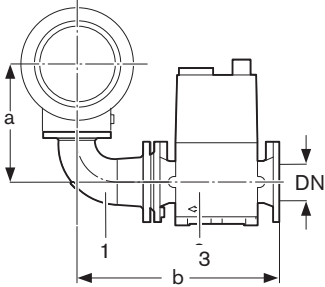
Valve train    Head conn.

R	Pos. 1	Pos. 2	Pos. 3	Pos.4	Pos. 5	Pos. 6	Pos. 7	a	b
2	DN100	100/50	50-Rp2	R2x80	525-Rp2	DMV525/12	525-Rp2	*	709

\* for size 60/2-A, 70/1-B: 509 mm; size 70/2-A: 524 mm; size 70/3, 70/4: 559 mm  
Dimensions in mm, dimensions are approx. values

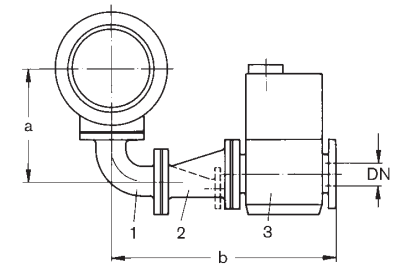
## Size 60 and 70

Picture 1



- 1 Flange elbow/Reducing flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Picture	Valve train DN	Head conn. DN			a	b
		Pos. 1	Pos. 2	Pos. 3		
1	65	100/ 65	–	DMV 5065/12	*	432
	80	100/ 80	–	DMV 5080/12	*	477
	100	100/100	–	DMV 5100/12	*	557
2	125	100/100	100/125	VGD 40.125	*	843
	150	100/100	100/150	VGD 40.150	*	936

\* for size 60/2-A, 70/1-B: 509 mm; size 70/2-A: 524 mm; size 70/3, 70/4: 559 mm  
Dimensions in mm, dimensions are approx. values see note below

**Note:**

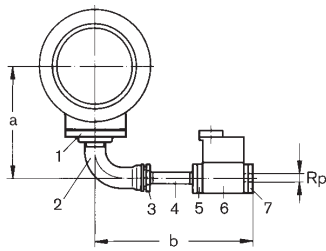
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WKG(L) 40



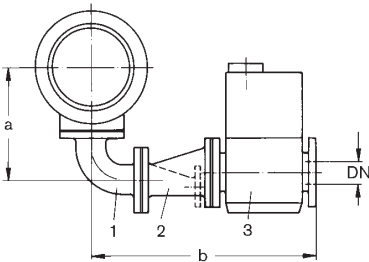
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF / DMV
- 7 DMV flange

Valve train	Head conn. Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R									
1 1/2	65-Rp2	R-Rp2	–	R2x160	520-Rp2	W-MF 512	520-Rp1 1/2	397	455
2	65-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV 525/12	525-Rp2	397	495

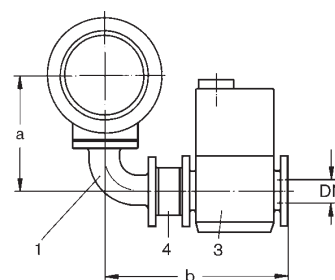
Dimensions in mm, dimensions are approx. values

## Size WKG(L) 40

Picture 1



Picture 2



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve
- 4 Reducer ring WKG 40 and WKG 50,  
40 mm wide

Valve train	Head conn. DN	Pos. 1	Pos. 2	Pos. 3	Pos. 4	a	b
DN	Pict.						
65	2	65	–	DMV 5065/12	65	384	474
80	1	65	65/ 80	DMV 5080/12	–	384	639
100	1	65	65/100	DMV 5100/12	–	384	691
125	1	65	65/125	VGD 40.125	–	384	771

Dimensions in mm, dimensions are approx. values see note below

**Note:**

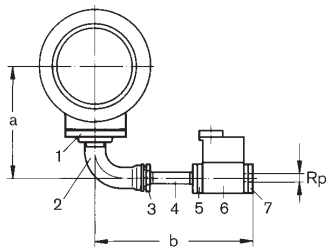
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

## Size WKG(L) 50



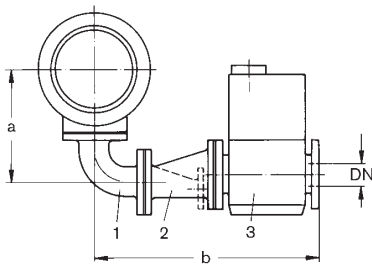
- 1 Screwed flange
- 2 Elbow long
- 3 Reducing nipple
- 4 Double nipple
- 5 DMV flange
- 6 W-MF / DMV
- 7 DMV flange

Valve train	Head conn.	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	a	b
R	Pos. 1								
2	DN 80-Rp2	R-Rp2	–	R2x160	525-Rp2	DMV525/12	525-Rp2	397	495

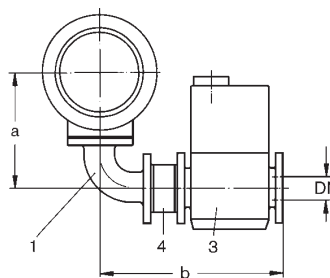
Dimensions in mm, dimensions are approx. values

## Size WKG(L) 50

Picture 1



Picture 2



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve
- 4 Spacer ring WKG 40 and WKG 50, 40 mm wide

Valve train	Head conn. DN	Pos. 1	Pos. 2	Pos. 3	Pos. 4	a	b
DN	Pict.						
65	1	80	80/ 65	DMV 5065/12	–	464	644
80	2	80	–	DMV 5080/12	80	464	520
100	1	80	80/100	DMV 5100/12	–	464	726
125	1	80	80/125	VG D 40.125	–	464	801

Dimensions in mm, dimensions are approx. values see note below

**Note:**

An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

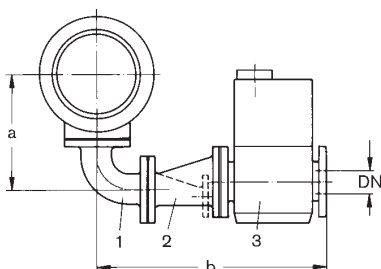
# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

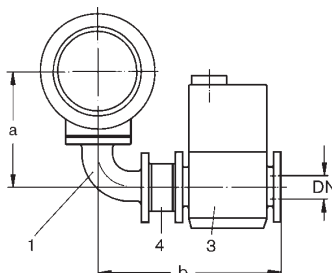
– weishaupt –

## Size WKG(L) 70

Picture 1



Picture 2



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve
- 4 Reducer ring 80 mm wide

Valve train DN	Pict.	Head conn. DN		Pos. 3	Pos. 4	a	b
		Pos. 1	Pos. 2				
65	1	100	100/ 65	5065/12	–	589	696
80	1	100	100/ 80	5080/12	–	589	726
100	2	100	–	5100/12	DN 100	589	640
125	1	100	100/125	VG40.125	–	589	843
150	1	100	100/150	VG40.150	–	589	936

Dimensions in mm, dimensions are approx. values see note below

**Note:**

An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.

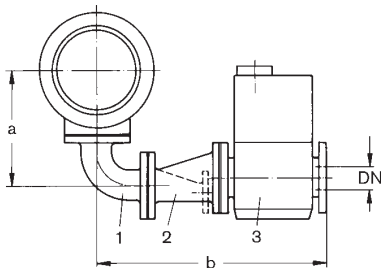
# Fittings for gas

Gas connection dimensions for gas and dual fuel burners

– weishaupt –

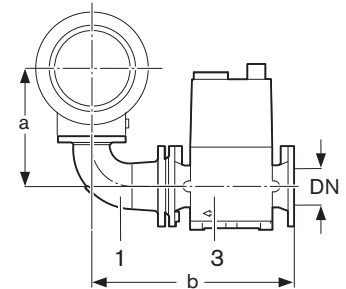
## Size WKG(L) 80

Picture 1



- 1 Flange elbow
- 2 Reducing flange eccentric
- 3 Double gas valve

Picture 2



Valve train DN	Head conn. DN Bild	Pos. 1	Pos. 2	Pos. 3	a	b
100	1	150	150/100	5100/12	741	884
125	1	150	150/125	VG40.125	741	937
150	2	150	–	VG40.150	741	767

Dimensions in mm, dimensions are approx. values, see note below

**Note:**

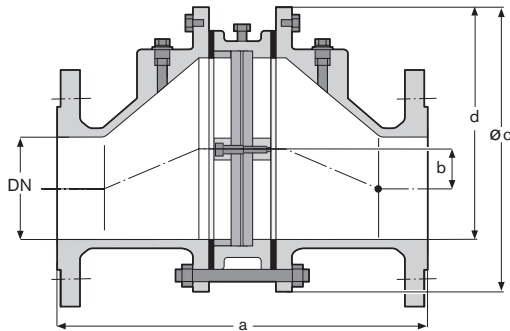
An SV-D 507 and double nipple R 3/4 x 200 are supplied as standard for ignition gas connection without LN.  
The ignition gas line to the DMV valve is supplied by others.



# Fitting for gas

Flame flashback protection (flanged)  
Type FA-E

– weishaupt –



## Description:

A flame arrester is used with sewage and bio gases to arrest flame flash-back. The design of the protection is based on EN 12874 and is used as a protection system in accordance with European Explosion Protection Guideline 94/9/EC. The protection needs to be fitted as close as possible to the source of ignition (in front of gas butterfly valve,  $l/d < 50$ ). The connection pipework's nominal diameter between the outlet of the flame trap and entry to the burner must not be a greater diameter than that of the flame trap. On burners with ignition gas valves an additional flame trap will be required on the ignition gas line. Further details can be obtained from the manufacturer's literature covering installation and service. The units provide continuous flame flashback protection, no other thermal monitoring is required.

Installation example

## Technical data:

Max. operating pressure:	900 mbar
Max. gas temperature:	60°C
Installation position:	horizontal as shown in drawing or in vertical pipe (DN125, DN150 horizontal only as shown in drawing)
Flange connection:	to DIN EN 1092-1 (replacement for DIN2633)
Housing material:	0.7040
Separator:	1.4571
Filter cage:	1.0619
Flame filter material:	1.4310
Mesh width:	0.7 mm
Flame filter:	2 fold
Throughput media:	Sewage and bio gas, with max. 0.1% H <sub>2</sub> S, dry
Ex group:	I

## Dimensions

Type	DN	a	b	c	d	Weight kg	EC Type test certification	Order No.
FA-E40 I-P1,2	40	310	30	210	135	20	IBExU 06 ATEX 2133 X	1513512674/2
FA-E50 I-P1,2	50	315	30	210	135	21	IBExU 06 ATEX 2133 X	1513512675/2
FA-E65 I-P1,2	65	360	40	250	165	29	IBExU 06 ATEX 2133 X	1513512676/2
FA-E80 I-P1,2	80	365	40	250	165	31	IBExU 06 ATEX 2133 X	1513512677/2
FA-E100 I-P1,2	100	370	40	275	177,5	43	IBExU 06 ATEX 2133 X	1513512678/2
FA-E125 I-P1,2	125	435	65	385	257,5	75	IBExU 06 ATEX 2133 X	1513512679/2
FA-E150 I-P1,2	150	440	65	385	257,5	81	IBExU 06 ATEX 2133 X	1513512680/2

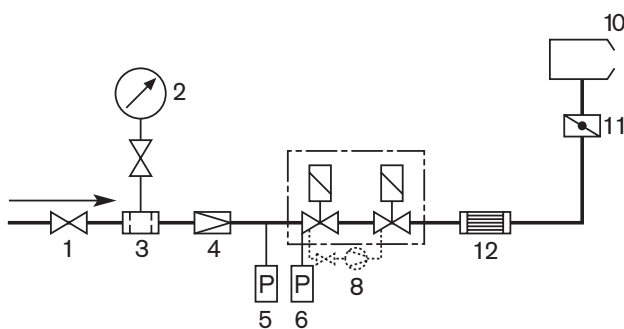
With screws, nuts and sealing rings for one face joint

# Fittings for gas

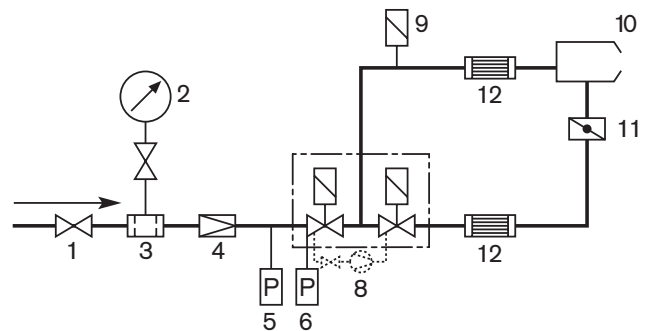
## Flame flashback protection

– weishaupt –

Function diagram



Function diagram



- 1 Isolating valve
- 2 Pressure gauge with push button valve
- 3 Gas filter
- 4 Pressure regulator
- 5 High gas pressure switch (TRD only)
- 6 Low gas pressure switch
- 7 Double solenoid valve DMV with limit switch
- 8 VPS valve proving
- 9 Ignition gas valve (from size 8 only)
- 10 Burner
- 11 Gas butterfly valve
- 12 Flame flashback protection (optional with sewage gas)

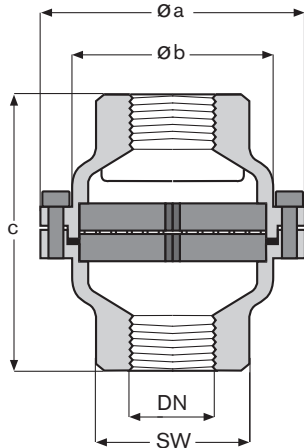
Gas supply is possible from the right or the left. If necessary, the T piece and flange elbow can be rotated by 180°.

For further information regarding installation and for installation examples of the various gas valve trains see installation and operating instructions.

# Fittings for gas

Flame flashback protection (screwed)  
Type FA-G

– weishaupt –



## Description

A flame arrester is used with sewage and bio gases to arrest flame flashback. The design of the protection is based on EN 12874 and is used as a protection system in accordance with European Explosion Protection Guideline 94/9/EC. The protection needs to be fitted as close as possible to the source of ignition (in front of gas butterfly valve,  $l/d < 50$ ). The connection pipework's nominal diameter between the outlet of the flame trap and entry to the burner must not be a greater diameter than that of the flame trap. On burners with ignition gas valves an additional flame trap will be required on the ignition gas line. Further details can be obtained from the manufacturer's literature covering installation and service.

## Technical data:

Max. operating pressure: 3/4" and 1":400 mbar , 1 1/2" and 2":500 mbar  
Max. gas temperature: 60°C  
Installation position: optional  
Housing material: 1.0619  
Flame filter material: 1.4571  
Mesh width: 0.7 mm  
Flame filter: 2 fold  
Throughput media: Sewage and bio gas, with max. 0.1% H<sub>2</sub>S, dry  
Ex Group: IIA

## Dimensions

Type	DN	a	b	c	SW	Weight kg	EC Type test certification	Order No.
FA-G20 IIA-P1.4	3/4"	80	55	100	32	1.7	BAM01ATEX0009 X	640 530
FA-G25 IIA-P1.4	1"	100	76	110	50	2.5	BAM01ATEX0009 X	640 531
FA-G40 IIA-P1.5	1 1/2"	155	124	170	75	8.0	IBExU 04ATEX 2043 X	640 539
FA-G50 IIA-P 1.5	2"	155	124	170	75	8.0	IBExU 04ATEX 2043 X	640 540

# Fittings for gas

Flame flashback protection  
Type FA-G

– weishaupt –

## Pressure loss

	Composition of gas			
	50	60	70	80
CH4 [%v]	50	60	70	80
CO2 [%v]	50	40	30	20
Hi [kWh/mn <sup>3</sup> ]	4.98	5.98	6.97	7.97
d [-]	1.042	0.945	0.847	0.75
Wi [kWh/mn <sup>3</sup> ]	4.88	6.15	7.58	9.2

Burner rating [kW]	Throughput relating to air			
	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]
20	0.1	0.1	0.0	0.0
40	0.1	0.1	0.1	0.1
60	0.2	0.2	0.1	0.1
80	0.3	0.2	0.2	0.1
100	0.3	0.3	0.2	0.2
150	0.5	0.4	0.3	0.3
200	0.7	0.5	0.4	0.4
300	1.0	0.8	0.7	0.5
400	1.4	1.1	0.9	0.7
500	1.7	1.4	1.1	0.9
600	2.0	1.6	1.3	1.1
700	2.4	1.9	1.5	1.3
800	2.7	2.2	1.8	1.4
1000	3.4	2.7	2.2	1.8
1300	4.4	3.5	2.9	2.4
1600	5.5	4.3	3.5	2.9

Throughput relating to air [m <sup>3</sup> /min]	Pressure loss			
	FA-G-20 IIA [mbar]	FA-G-25 IIA [mbar]	FA-G-40 IIA [mbar]	FA-G-50 IIA [mbar]
0.1	0.8	0.2	0.0	0.0
0.2	2.7	0.6	0.1	0.1
0.3	5.6	1.2	0.2	0.2
0.4	9.4	2.1	0.4	0.3
0.5	13.9	3.1	0.6	0.4
0.6	19.2	4.3	0.8	0.6
0.7	25.3	5.6	1.1	0.7
0.8	-	7.2	1.4	0.9
0.9	-	8.8	1.7	1.2
1.0	-	10.7	2.1	1.4
1.5	-	22.0	4.3	2.9
2.0	-	-	7.3	4.9
2.5	-	-	10.9	7.3
3.0	-	-	15.2	10.1
3.5	-	-	20.0	13.3
4.0	-	-	25.5	16.9
4.5	-	-	-	20.8
5.0	-	-	-	25.2
5.5	-	-	-	29.8
19.0	-	-	-	-
20.0	-	-	-	-

### Example:

Sewage gas with CH4 content 60%v, CO<sub>2</sub> 40%v

Burner rating 200 kW

Nominal diameter of valve train 1"

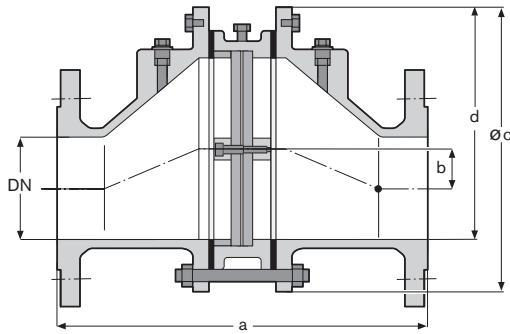
Result: Pressure loss 3.1 mbar

Intermediate values can be interpolated linear

# Fitting for gas

Flame flashback protection (flanged)  
Type FA-E

– weishaupt –



## Description:

A flame arrester is used with sewage and bio gases to arrest flame flash-back. The design of the protection is based on EN 12874 and is used as a protection system in accordance with European Explosion Protection Guideline 94/9/EC. The protection needs to be fitted as close as possible to the source of ignition (in front of gas butterfly valve,  $l/d < 50$ ). The connection pipework's nominal diameter between the outlet of the flame trap and entry to the burner must not be a greater diameter than that of the flame trap. On burners with ignition gas valves an additional flame trap will be required on the ignition gas line. Further details can be obtained from the manufacturer's literature covering installation and service. The units provide continuous flame flashback protection, no other thermal monitoring is required

Installation example

## Technical data:

Max. operating pressure:	900 mbar
Max. gas temperature:	60°C
Installation position:	horizontal as shown in drawing or in vertical pipe (DN125, DN150 horizontal only as shown in drawing)
Flange connection:	to DIN EN 1092-1 (replacement for DIN2633)
Housing material:	0.7040
Separator:	1.4571
Filter cage:	1.0619
Flame filter material:	1.4310
Mesh width:	0.7 mm
Flame filter:	2 fold
Throughput media:	Sewage and bio gas, with max. 0.1% H <sub>2</sub> S, dry
Ex group:	I

## Dimensions

Type	DN	a	b	c	d	Weight kg	EC Type test certification	Order No.
FA-E40 I-P1,2	40	310	30	210	135	20	IBExU 06 ATEX 2133 X	1513512674/2
FA-E50 I-P1,2	50	315	30	210	135	21	IBExU 06 ATEX 2133 X	1513512675/2
FA-E65 I-P1,2	65	360	40	250	165	29	IBExU 06 ATEX 2133 X	1513512676/2
FA-E80 I-P1,2	80	365	40	250	165	31	IBExU 06 ATEX 2133 X	1513512677/2
FA-E100 I-P1,2	100	370	40	275	177,5	43	IBExU 06 ATEX 2133 X	1513512678/2
FA-E125 I-P1,2	125	435	65	385	257,5	75	IBExU 06 ATEX 2133 X	1513512679/2
FA-E150 I-P1,2	150	440	65	385	257,5	81	IBExU 06 ATEX 2133 X	1513512680/2

With screws, nuts and sealing rings for one face joint

# Fittings for gas

Flame flashback protection  
Type FA-E

– weishaupt –

## Pressure loss

	Composition of gas			
	50	60	70	80
CH <sub>4</sub> [%v]	50	60	70	80
CO <sub>2</sub> [%v]	50	40	30	20
Hi [kWh/mn <sup>3</sup> ]	4.98	5.98	6.97	7.97
d [-]	1.042	0.945	0.847	0.75
Wi [kWh/mn <sup>3</sup> ]	4.88	6.15	7.58	9.2

Burner rating [kW]	Throughput relating to air			
	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]	[m <sup>3</sup> /min]
100	0.3	0.3	0.2	0.2
150	0.5	0.4	0.3	0.3
200	0.7	0.5	0.4	0.4
300	1.0	0.8	0.7	0.5
400	1.4	1.1	0.9	0.7
500	1.7	1.4	1.1	0.9
600	2.0	1.6	1.3	1.1
700	2.4	1.9	1.5	1.3
800	2.7	2.2	1.8	1.4
900	3.1	2.4	2.0	1.6
1000	3.4	2.7	2.2	1.8
2000	6.8	5.4	4.4	3.6
3000	10.2	8.1	6.6	5.4
4000	13.7	10.8	8.8	7.2
5000	17.1	13.5	11.0	9.1
6000	20.5	16.3	13.2	10.9

### Example:

Sewage gas with CH<sub>4</sub> content 60%v. CO<sub>2</sub> 40%v  
Burner rating 600 kW  
Nominal diameter of valve train 65  
Result: Pressure loss 1.1 mbar  
Intermediate values can be interpolated linear

Throughput relative to air [m <sup>3</sup> /min]	Pressure loss			
	FA-E-40 I and FA-E-50 I [mbar]	FA-E-65 I and FA-E-80 I [mbar]	FA-E-100 I [mbar]	FA-E-125 I and FA-E-150 I [mbar]
0.5	0.4	0.2	0.1	0.0
1.0	1.3	0.5	0.3	0.1
1.5	2.5	1.0	0.5	0.2
2.0	4.1	1.6	0.8	0.3
2.5	5.9	2.2	1.1	0.4
3.0	7.9	3.0	1.5	0.5
3.5	10.2	3.8	1.9	0.6
4.0	12.6	4.6	2.3	0.8
4.5	15.3	5.6	2.7	0.9
5.0	18.2	6.6	3.2	1.1
6.0	24.5	8.8	4.3	1.5
7.0	-	11.2	5.5	1.8
8.0	-	13.8	6.7	2.3
9.0	-	16.6	8.1	2.7
10.0	-	19.6	9.5	3.2
11.0	-	22.7	11.1	3.7
12.0	-	26.1	12.7	4.2
13.0	-	29.6	14.4	4.8
14.0	-	-	16.1	5.4
15.0	-	-	18.0	6.0
16.0	-	-	19.9	6.6
17.0	-	-	21.8	7.2
18.0	-	-	23.9	7.9
19.0	-	-	25.9	8.6
20.0	-	-	28.1	9.3

# Accessories

## Burner controls, valve proving systems and controllers

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### Oil and gas burner controls

### Flame sensor

Manufacturer	Type	Variety	DIN CERTCO Reg. No. DIN EN 230 Oil burners to EN 267/ DIN 4787	Product -ID Number DIN EN 298 Gas burners to EN 676	Safety times during start up	Response time at flame failure during operation	Purging of the combustion space prior to oil or gas release	Manufacturer	Type	Variety
Siemens Landis & Staefa *	LOA 24.171 B27	Oil burner control	5F033/98	–	< 10 secs.	< 1 secs.	approx. 15 secs.	Siemens Landis & Staefa	QRB 1 or QRB 1A,B,C	
	LOA 24.571 C27		5F033/98	–	< 10 secs.	< 1 secs.	approx. 5 secs.			
	LOA 25.173 C27		12/86 0144	–	< 10 secs.	< 1 secs.	approx. 15 secs.			
	LOA 26.171 A27		5F033/98	–	< 10 secs.	< 1 secs.	approx. 15 secs.			
	LOA 44.252 A27		5F032/98	–	< 5 secs.	< 1 secs.	approx. 25 secs.			
Siemens Landis & Staefa *	LAL2.14 Series 02	Oil burner control	5F027/98	–	< 4 secs.	< 1 secs.	10 secs.	Siemens Landis & Staefa	QRB 1 or RAR 7	Resistance light sensor Selenium cell
Siemens Landis & Staefa *	LAL2.25 Series 02	Oil burner control	5F027/98	–	< 5 secs.	< 1 secs.	22.5 secs.	Siemens Landis & Staefa	QRB 1 oders RAR 7	Resistance light sensor Selenium cell
Siemens Landis & Staefa *	LAL2.65 Series 02	Oil burner control	5F027/98	–	< 5 secs.	< 1 secs.	67.5 secs.	Siemens Landis & Staefa	QRB 1 oders RAR 7	Resistance light sensor Selenium cell
Siemens Landis & Staefa *	LAL3.25 Series 02 without extraneous light lockout	Oil burner control	Test number 12/81 0106	–	< 5 secs.	< 1 secs.	22.5 secs.	Siemens Landis & Staefa	QRB 1 oders RAR 7	Resistance light sensor Selenium cell
Siemens Landis & Staefa *	LGB22.330 A270	Gas / oil burner control	5F015/98W (with UV-addition)	CE-0085 AO 0087	< 3 secs.	< 1 secs.	60 secs.	Weishaupt Landis & Staefa	– ORA2	Ionisation electrode UV cell
Siemens Landis & Staefa *	LFL1.122 Series 02	Gas / oil burner control	5F091/95	CE-0085 AP 0001	< 2 secs.	< 1 secs.	10 secs.	Weishaupt	–	Ionisation electrode UV cell
Siemens Landis & Staefa *	LFL1.322 Series 02	Gas / oil burner control	5F091/95	CE-0085 AP 0001	< 2 secs.	< 1 secs.	36 secs.	Siemens Landis & Staefa Weishaupt	– ORA2	Ionisation electrode UV cell
Siemens Landis & Staefa *	LFL1.622 Series 02	Gas / oil burner control	5F091/95	CE-0085 AP 0001	< 2 secs.	< 1 secs.	66 secs.	Siemens Landis & Staefa Weishaupt	– ORA2	Ionisation electrode UV cell
Satronic	MMI962.1	Gas burner control		CE-0063 AR 1587	< 2.8/4 secs.	< 1 secs.	30 secs.	Weishaupt	–	Ionisation electrode
Siemens Landis & Staefa *	W-FM 05 (LMO82.100A21/N)	Gas / oil burner control	tested together with WL5+ WG5		< 3/5 secs.	< 1 secs.	25/18 secs.	Weishaupt	–	Ionisation electrode Resistance light sensor
Siemens Landis & Staefa *	W-FM 10	Gas / oil burner control	tested together with WL10/20 + WG10/20 tested 5F201/01	CE-0085 BM 0519	< 3/5 secs.	< 1 secs.	25/7 secs.	Siemens Landis & Staefa	QRB1	Resistance light sensor Ionisation electrode
Siemens Landis & Staefa *	W-FM 100	Gas / oil burner control	5F193/200	CE-0085 BL0373	< 2 secs.	< 1 secs.	20 secs.	Siemens Landis & Staefa	QRI2A2	Infrared sensor
								Weishaupt	–	Ionisation electrode

Permissible ambient temperature - -20°C to 60°C  
 during transport and storage - -50°C to 60°C (\* to -50°C)

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 Technical folder 674 GB, June 2003  
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# Accessories

## Burner controls

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### Oil and gas burner controls for continuous operation

(continued)

### Flame sensor

Manufacturer	Type	Variety	DIN CERTCO Reg. No. DIN EN 230 Oil burners to EN 267/ DIN 4787	Product -ID Number DIN EN 298 Gas burners to EN 676	Safety times during start up	Response time at flame failure during operation	Purging of the combustion space prior to oil or gas release	Manufacturer	Type	Variety
Dungs	W-FM20	Gas / oil burner control	5F133/97	CE-0085 AS0310	3/5 secs.	< 1 secs.	15 secs.	Siemens Landis & Staefa	QRB 1	Resistance light sensor
Dungs	W-FM20	Gas / oil burner control	5F133/97	CE-0085 AS0310	< 5 secs.	< 1 secs.	15 secs.	Weishaupt	–	Ionisation electrode
Siemens Landis & Staefa	LOK 16.250*	Oil burner control, self monitoring	5F003/97 (DB; W)	–	< 5 secs.	< 1 secs.	22.5 secs.	Siemens Landis & Staefa	RAR 7	Selenium cell
Siemens Landis & Staefa	LOK 16.140 A27*		5F003/97 (DB; S)	–	< 5 secs.	< 1 secs.	10 secs.	Siemens Landis & Staefa	RAR 7	Selenium cell
Siemens Landis & Staefa	LOK 16.650 A27*		5F003/97 (DB; W)	–	< 5 secs.	< 1 secs.	67.5 secs.	Siemens Landis & Staefa	RAR 7	Selenium cell
Siemens Landis & Staefa	LGK 16.322*	Gas / oil burner control, self monitoring	5F018/98 (DB; W)	CE-0085 AO 0103	< 2 secs.	< 1 secs.	36 secs.	Siemens Landis & Staefa Weishaupt	QRA 53 and QRA 55 –	UV cell Ionisation electrode
Siemens Landis & Staefa	LGK 16.122 A27*		5F018/98 (DB; S)	CE-0085 AO 0103	< 2 secs.	< 1 secs.	10 secs.	Siemens Landis & Staefa Weishaupt	QRA 53 and QRA 55 –	UV cells Ionisation electrode
Siemens Landis & Staefa	LGK 16.622*		5F018/98 (DB; W)	CE-0085 AO 0103	< 2 secs.	< 1 secs.	66 secs.	Siemens Landis & Staefa Weishaupt	QRA 53 and QRA 55 –	UV cell Ionisation electrode

\* The requirements to TRD 604 for 72 hours operation without continuous supervision are fulfilled

Permissible ambient temperature -20°C to 60°C  
during transport and storage -50°C to 60°C



# Accessories

## Burner controls, valve proving systems and controllers Important technical data

– weishaupt –

### Valve proving system (programmer)

Manufacturer	Type	CE - PIN	Test time Pressure test	Pump time
Weishaupt	W-DK 3/01 S-2	CE-0085BN 0181	9 secs.	Test without pressure 9 secs.
Dungs	VPS 504 Series 03, 04	CE-0085AP 0168	10 - 30 secs. (time to burner release)	Test volume ≤ 4 l

### Controller

#### Controller KS 40-108

(for two stage, three stage and modulating burners)

External dimensions: Front 96 x 48 mm, installation depth 118 mm  
Installation aperture: 92+0.8 x 45+0.6 mm  
Perm. temp. range: 0...max. 60°C operation  
Type of protection to DIN 40050 (IEC 529) front IP 65, housing IP 20

Output: 3 relay outputs, assigned via unit configuration  
Supply of measurement transducer P 30-w 18 V=

Input: Select multi-function input via unit configuration, e.g.:  
PT 100 0 - 400°C  
Thermocouple type L 900°C  
type K 0-1350°C  
Voltage input (pressure transducer P 30-w) 0...10V  
Remote transmitter 50 - 30 - 50 Ω

Auxiliary energy 90V...260V AC, 48...62 Hz

Input 2: Analogue current input 0/4-20 mA (ext. setpoint default)

#### Controller KS 40-102

(for burners with analogue ratings input e.g. W-FM 100/200, DLU, parallel operation)

External dimensions: Front 96 x 48 mm, installation depth 118 mm  
Installation aperture: 92+0.8 x 45+0.6 mm  
Perm. temp. range: 0...max. 60°C operation  
Type of protection to DIN 40050 (IEC 529) front IP 65, housing IP 20  
Auxiliary energy 90V...260V AC, 48...62 Hz

Output: 2 relay outputs, 1 analogue output 0/2-10V or 0/4-20mA  
Supply of measurement transducer P 30-w 18 V=

Input 1: Select multi-function input via unit configuration, e.g.:  
PT 100 -200 - 850°C  
Thermocouple type L, J, K, N, S, R  
Voltage input (pressure transducer P 30-w) 0.2...10 V  
Current input 0/4...20 mA

Input 2: Analogue current input 0/4-20 mA (ext. setpoint default)

# Accessories

## Air pressure switch

– weishaupt –

### General

The construction and function corresponds to the requirements of DIN 3398 Part 2 and EN 1854.

The switch point is adjusted on a clearly arranged, easy to operate mbar scale disc. Pressure switches without scale disc are fixed and without adjustment..

### Application

On gas burners: to monitor air pressure (fan pressure).

On oil burners with separate pump: to monitor air pressure.

### Important construction details

- Cover, upper and lower part made of shock proof plastic.
- Adjustable switch point legible from the outside on the scale disc
- Setting wheel with self-locking mechanism
- Small switch differential because of frictionless, supported switch system
- Differential pressure connection

### Test key

Air pressure switches with code "P" have a test key for function control.

When the key is activated the connection to the fan is closed and at the same time the diaphragm space is de-pressurised.

This testing facility meets the requirements to TRD.

### Technical data LGW A1

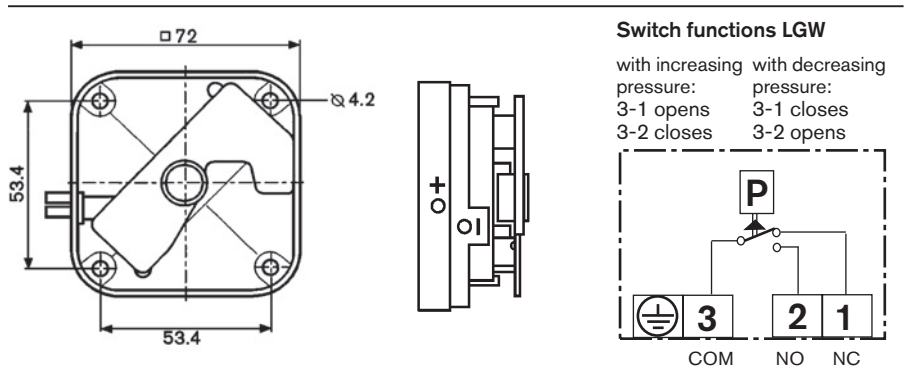
Ambient temperature \_\_\_\_\_ –15°C to +60°C  
 Electrical connection \_\_\_\_\_ to VDE  
 Max. voltage \_\_\_\_\_ 250 V alternating current  
 Switch load \_\_\_\_\_ ohmic load 5A at 250 V  
 Inductive load 3A \_\_\_\_\_ cos phi = 0.6 at 250 V

### Technical data LGW A2P and LGW A2

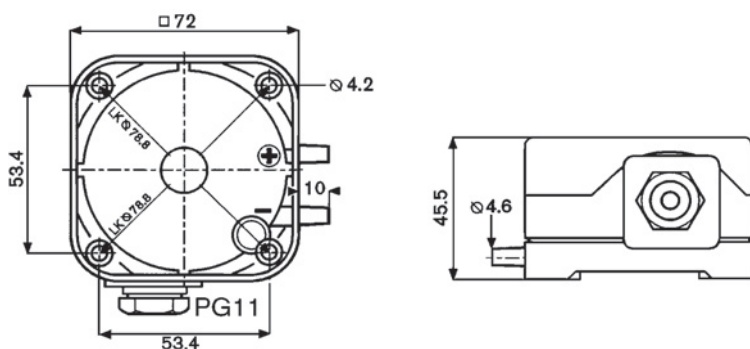
Ambient temperature \_\_\_\_\_ –15°C to +60°C  
 Electrical connection \_\_\_\_\_ to VDE  
 Max. voltage \_\_\_\_\_ 250 V alternating current  
 Switch rating \_\_\_\_\_ ohmic load 5A at 250 V  
 Inductive load 3A \_\_\_\_\_ cos phi = 0.6 at 250 V  
 Connection electrically via \_\_\_\_\_ PG 11  
 Type of protection \_\_\_\_\_ IP 54

**Note: These units are pressure switches of special construction to TRD 604 Sheet. 1 and Sheet 2, section 5.**

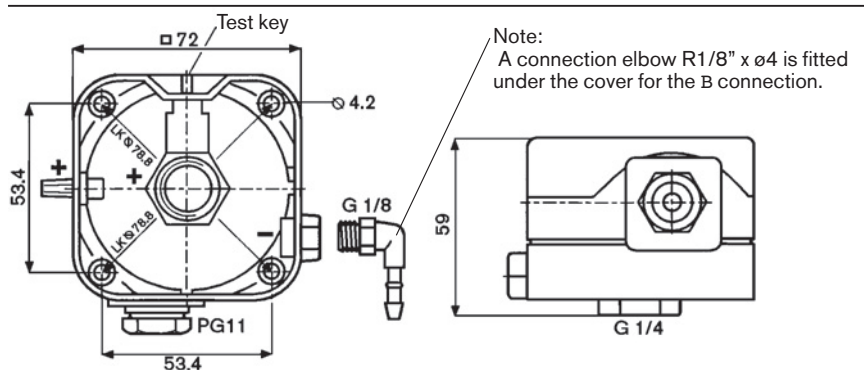
TÜV test code see table.



Pressure switch type LGW A1 without setting wheel (fixed), without cover



Pressure switch type LGW A2 without setting wheel and cover



Pressure switch type LGW A2P with setting wheel and test key, with cover

# Accessories

## Air pressure switch

– weishaupt –

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### Type overview

Type	Setting range mbar	Switch differential mbar	Max. operating pressure mbar	Weight kg	Product ID No.	TÜV test number	Used on burners	Order No.
LGW 3 A1	0.4 - 3	≤ 0.3	400	0.090	CE 0085 AQ 0673	12/94 0161	WG5/10	691 343
LGW 10 A1	1.0 - 10	≤ 0.5	400	0.090	CE 0085 AQ 0673	12/94 0161	WG20	691 441
LGW 10 A2	1.0 - 10	≤ 0.5	500	0.090	CE 0085 AQ 0673	12/94 0162	WG30/40	691 370
LGW 50 A2	2.5 - 50	≤ 1.0	500	0.090	CE 0085 AQ 0673	12/94 0162	WGL30	691 371
LGW 3 A2P	0.4 - 3	≤ 0.3	500	0.100	CE 0085 AQ 0673	12/94 0163	Speed control	691 372
LGW 50 A2P	2.5 - 50	≤ 1.0	500	0.100	CE 0085 AQ 0673	12/94 0163	G + WK Range	691 373