

Double solenoid valve DN 40 - DN 125 nominal diameters

DMV-D/11
DMV-DLE/11

DUNGS®

7.31



Technical description

The DUNGS double solenoid valve DMV integrates two solenoid valves in one compact fitting.

- Automatic shut-off valves as per DIN EN 161 Class A Group 2.
- Two A valves in one housing
- Double seat valves
- High flow rates
- Max. operating pressure up to 0.5 bar
- Fast closing
- Fast opening (DMV-D/11) or slow opening (DMV-DLE/11) with adjustable fast stroke for start gas volume
- Adjustable main volume
- DC solenoid
- Mountable closed position signal contact
- Compact, light-weight

Application

Double solenoid valves are used where two single valves were mounted previously. In connection with DUNGS gas regulators and additional components, a wide variety of regulating tasks can be performed.

Suitable for gases of families 1, 2, 3 and other neutral gaseous media.

Approvals

EC type test approval as per EC Gas Appliance Directive:

DMV-...5040-5125/11 CE-0085 AN 2801

EC type test approval as per EC Pressure Equipment Directive:

DMV-...5040-5125/11 CE0036

Approvals in other important gas consuming countries.

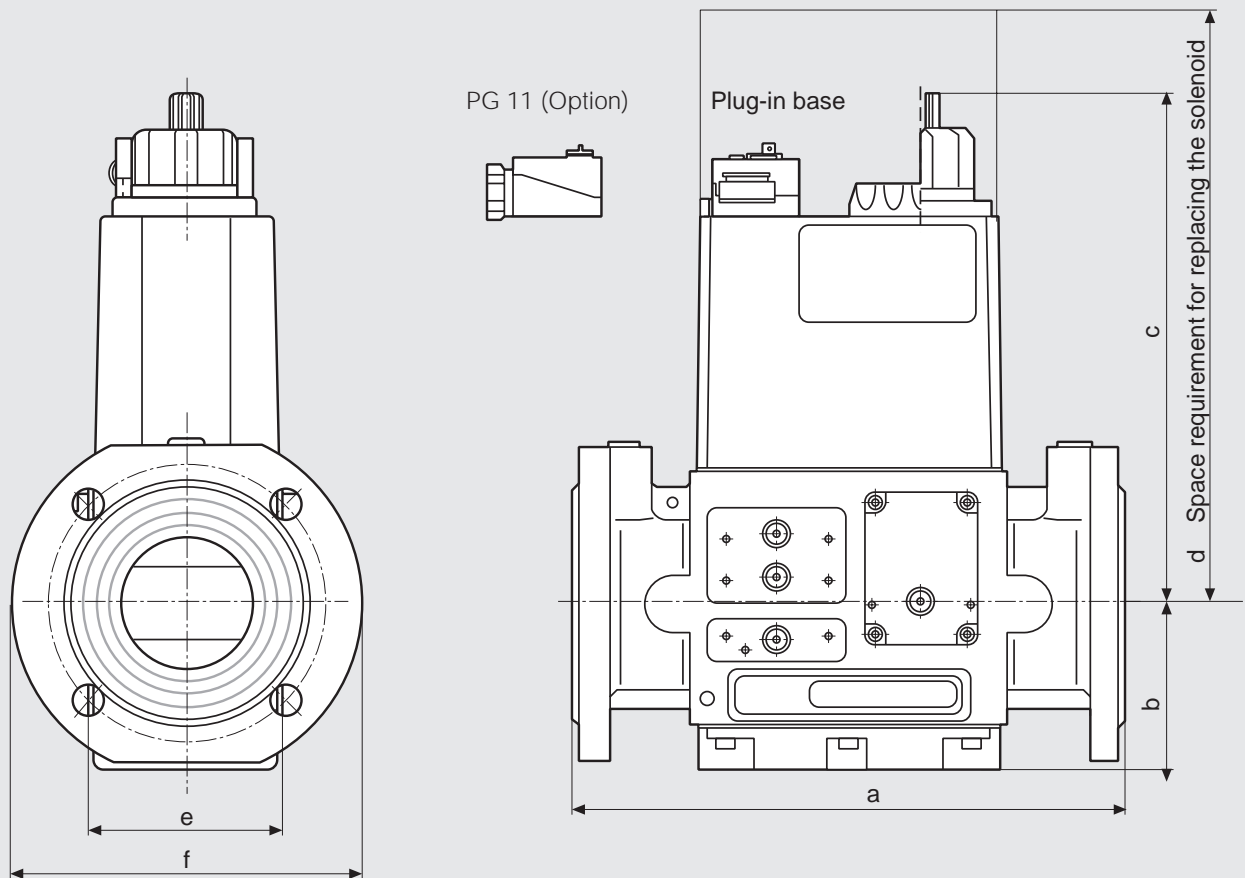
DMV-D/11 Two single-stage solenoid valves normally closed, fast opening, fast closing. Manual limitation of flowing gas volume by main volume setting (D) at valve 1 (V1).

DMV-DLE/11 Two single-stage solenoid valves normally closed, slow opening (L), fast closing. Opening time setting (E) with fast stroke section at valve 2 (V2). Manual limitation of flowing gas volume by main volume setting (D) at valve 1 (V1).

Specifications

Nominal diameters Flange	DN 40 50 65 80 100 125 Connection flange as per DIN 2501 Part 1, to fit preweld flanges as per DIN 2633 (PN 16) DN 40 to DN 125, ISO 7005 - 1 (PN 16), ISO 7005 - 2 (PN 16) Construction length as per DIN 3202 Part 1, row F1 for DN 65 to DN 125																					
Max. operating pressure	500 mbar (50 kPa)																					
Pressure stage	PN 1																					
Solenoid valve V1	Automatic shut-off valve as per EN 161: Class A, Group 2																					
Solenoid valve V2	Automatic shut-off valve as per EN 161: Class A, Group 2																					
Closing time	< 1 s																					
Opening time	DMV-D.../11: < 1 s DMV-DLE.../11: approx. 20 s at room temperature +20°C and without fast stroke																					
Fast stroke	Adjustable up to approx. 70% of total stroke																					
Main valve restrictor	Adjustable																					
Materials of gas conveying parts	Housing: aluminium, steel, no non-ferrous metals Seals at valve seat: NBR basis, suitable for gases as per G260/I																					
Ambient temperature	-15 °C to +60 °C																					
Installation position	Solenoid vertically upright to lying horizontally																					
Dirt trap	Sieve installed. To protect the complete gas train we recommend you to install an upstream gas filter (refer to Datasheet 2.03)																					
Measuring gas connection	G 1/4 DIN ISO 228 centrally upstream of V1 and downstream of V2 G 1/8 DIN ISO 228 on both sides upstream of V1, between V1 and V2, downstream of V2																					
Ignition gas connection	G 3/4 ignition gas flange as per ISO 228, possible on both sides between V1 and V2																					
Voltage/frequency	50 - 60 Hz, 220 V - 240 V AC, -15% +10%, further voltages on request Other preferred voltages: 110 V - 120 V AC, 48 V DC, 24 V - 28 V DC																					
Rating / power consumption at 240 V AC, + 20°C	<table border="1"> <thead> <tr> <th>Version</th> <th>Approx. rating [VA]</th> <th>Approx. operating current [A]</th> </tr> </thead> <tbody> <tr> <td>DMV-D(LE) 5040/11</td> <td>90</td> <td>0.37</td> </tr> <tr> <td>DMV-D(LE) 5050/11</td> <td>90</td> <td>0.37</td> </tr> <tr> <td>DMV-D(LE) 5065/11</td> <td>110</td> <td>0.46</td> </tr> <tr> <td>DMV-D(LE) 5080/11</td> <td>110</td> <td>0.46</td> </tr> <tr> <td>DMV-D(LE) 5100/11</td> <td>135</td> <td>0.56</td> </tr> <tr> <td>DMV-D(LE) 5125/11</td> <td>200</td> <td>0.84</td> </tr> </tbody> </table>	Version	Approx. rating [VA]	Approx. operating current [A]	DMV-D(LE) 5040/11	90	0.37	DMV-D(LE) 5050/11	90	0.37	DMV-D(LE) 5065/11	110	0.46	DMV-D(LE) 5080/11	110	0.46	DMV-D(LE) 5100/11	135	0.56	DMV-D(LE) 5125/11	200	0.84
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Degree of protection/switch-on duration	IP 54 / 100 %																					
Electrical connection	PG* 11 cable gland, plug connection as per DIN EN 175301-803 on request (* = heavy-gauge conduit thread)																					
Radio interference	Degree of interference N																					
Closed position signal contact	Type K01/1 (DIN tested), can be mounted on V1 and V2																					

Dimensions for DMV-D/11 and DMV-DLE/11



Version	Order No. (PG11)	p _{max.} [bar]	Conne- ction DN	Dimensions [mm]						Sole- noid No.	Swit- ching rate/h ¹⁾	Weight [kg]
				a	b	c	d	e	f			
DMV-D 5040/11	224 380	0.5	DN 40	240	62.5	192	330	100	150	1211	1000	7.8
DMV-D 5050/11	224 381	0.5	DN 50	240	73	192	330	100	165	1212	1000	8.3
DMV-D 5065/11	224 382	0.5	DN 65	290	87	251	450	102	185	1411	1000	14.6
DMV-D 5080/11	224 383	0.5	DN 80	310	104	293	510	129	200	1511	1000	23.6
DMV-D 5100/11	224 384	0.5	DN 100	350	119	331	600	143	220	1611	1000	30.6
DMV-D 5125/11	224 385	0.5	DN 125	400	142	412	750	161	255	1711	1000	50.6
DMV-DLE 5040/11	224 923	0.5	DN 40	240	62.5	220	330	100	150	1211	100	7.9
DMV-DLE 5050/11	224 924	0.5	DN 50	240	73	220	330	100	165	1212	100	8.4
DMV-DLE 5065/11	224 925	0.5	DN 65	290	87	269	450	102	185	1411	100	14.8
DMV-DLE 5080/11	224 926	0.5	DN 80	310	104	312	510	129	200	1511	100	24.1
DMV-DLE 5100/11	226 111	0.5	DN 100	350	119	382	600	143	220	1611	100	31.1
DMV-DLE 5125/11	226 107	0.5	DN 125	400	142	462	750	161	255	1711	100	51.1

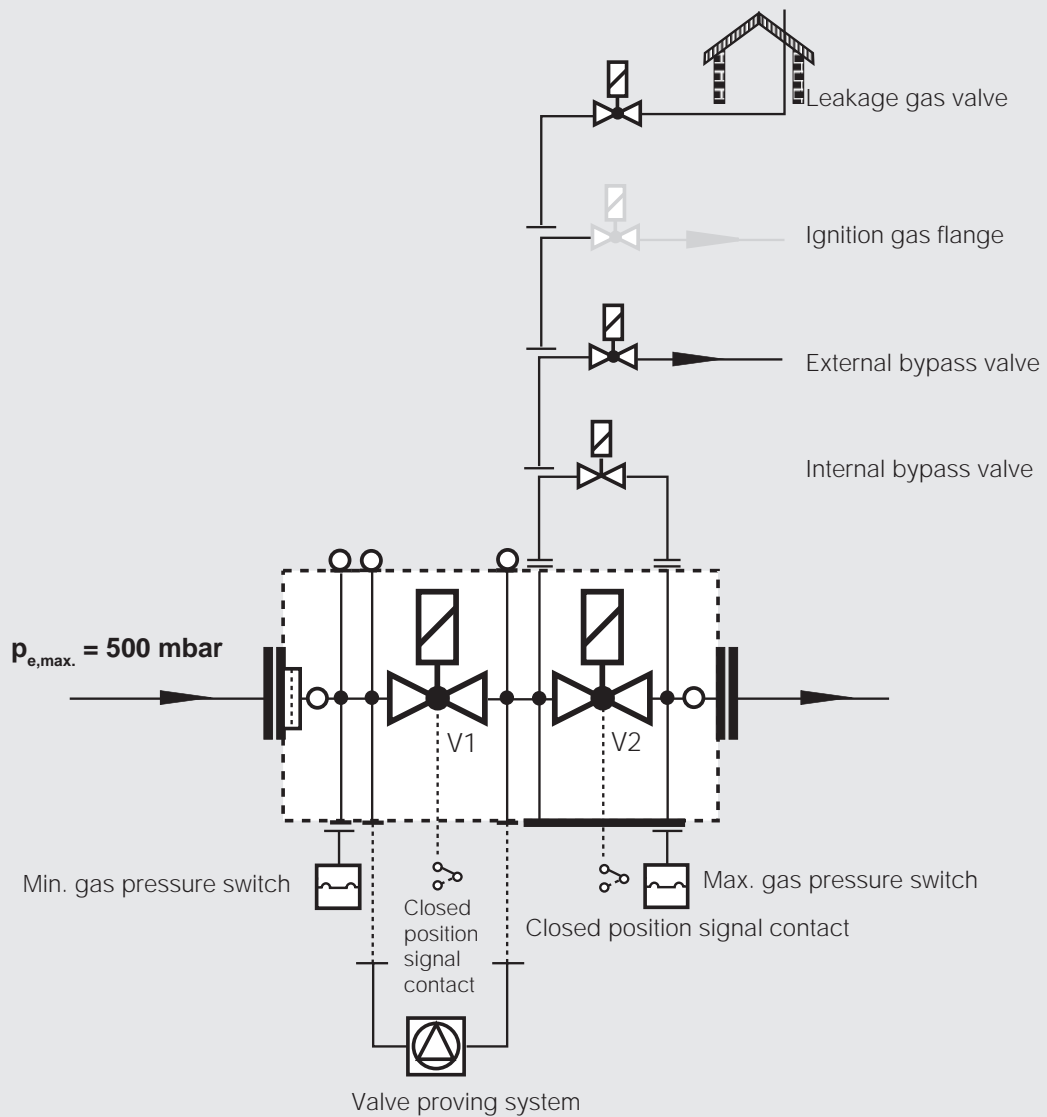
¹⁾ Switching rate of DMV-DLE 50.../11 depends on opening time setting

⚠ Important: Always order, plug connection and system accessories separately.

Equipment variants of DMV.../11 double solenoid valve, single-stage mode	DMV 5040/11 - DMV 5125/11
DMV-D	◆
DMV-DLE	◆
Sieve	◆
Gas pressure switch can be mounted: on flange downstream of sieve downstream of valve 2	-- ◆ ◆
Valve V1, double-seat	◆
Valve V2, double-seat	◆
Valves opening separately	◆
G 3/4 ignition gas flange can be mounted	◆

- ◆ = standard
- (◆) = on request
- = not possible

Double solenoid valve modular system



System accessories

The double solenoid valve is prepared for direct mounting of **DUNGS** system accessories and additional equipment.

Compact pressure switch for multiple actuators GW...A5

Datasheet 5.02

! If a system accessory is added, it may not be possible to mount further devices.

Information on system accessories

VPS 504 valve proving system

Datasheet 8.10

BMV bypass valve for multiple actuators

Datasheet 6.25

Pressure limiter ÜB, NB...A2 for multiple actuators

Datasheet 5.08

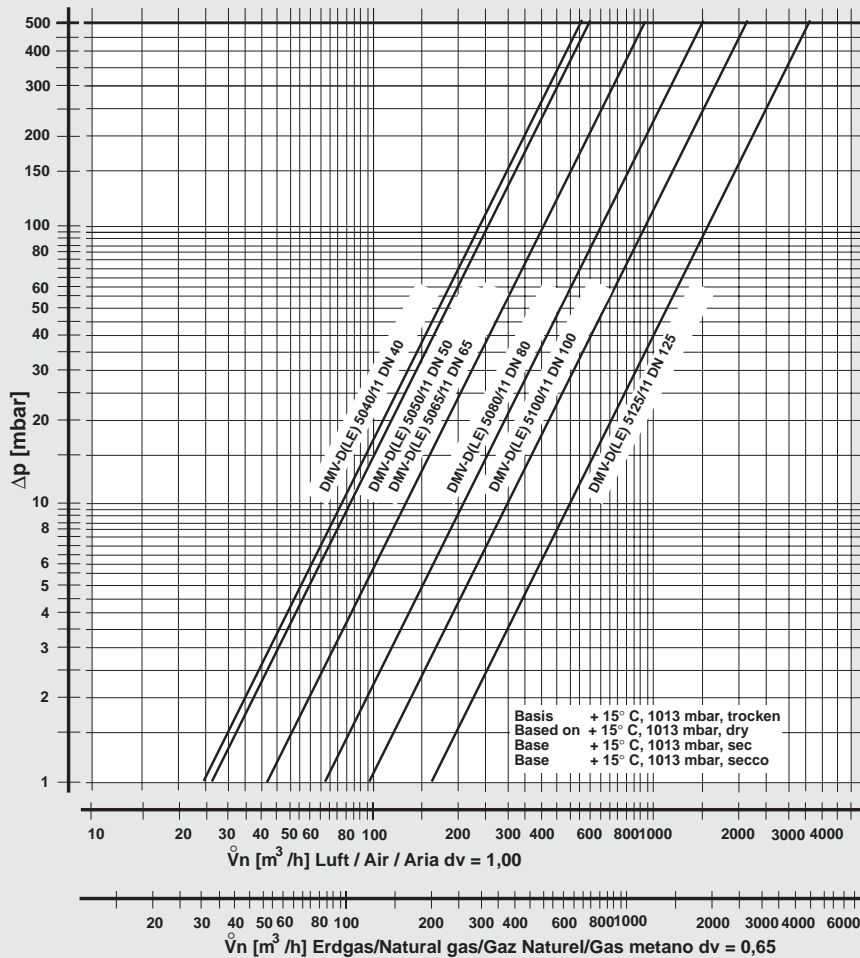
K01/1 closed position signal contact to monitor closed position of valves

Datasheet 12.01

Double solenoid valve
Flow diagram
DN 40 - DN 125
nominal diameters

DMV-D/11
DMV-DLE/11

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$f = \sqrt{\frac{\text{Dichte Luft}}{\text{Dichte des verwendeten Gases}}}$
 Spec. weight air / poids spécifique de l'air / peso specifico aria
 Dichte des verwendeten Gases / Spec. weight of gas used / poids spécifique du gaz utilisé / peso specifico del gas utilizzato

Gas type	Spec. Wgt. [kg/m³]	d_v	f
Nat. gas	0.81	0.65	1.24
City gas	0.58	0.47	1.46
LPG	2.08	1.67	0.77
Air	1.24	1.00	1.00

$$\dot{V}_{\text{verwendetes Gas/gas used/ gaz utilisé/gas utilizzato}} = \dot{V}_{\text{Luft/air/aria}} \times f$$

We reserve the right to make any changes in the interest of technical progress.

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