

Single-stage air solenoid valves

LV-D/4

LV-D/5

6.50

DUNGS®
Combustion Controls



Technical description

The DUNGS air solenoid valve LV-D/4, LV-D/5 is a single-stage automatic shut-off valve for cold-air operation in industrial burners:

- Max. operating pressure up to 200 mbar (20 kPa)
- normally closed
- fast opening
- Main volume adjustable
- DC solenoid, rectifier wiring with radio interference suppression in terminal box with PG screw union
- Mountable closed position signal contact to monitor closed position of valve (.../5)
- Pipe thread as per ISO 7/1
- Flange connection as per DIN EN 1092-1
- Reliable function, rugged and maintenance-free

- On request, design without non-ferrous metals

Application

The solenoid valve is used for securing, limiting, shutting off and releasing air supply to industrial burners.

LV-D/4 Range of application: for large breaking capacities, e.g. pulsed firing.

The LV-D must not be used for inflammable gases; only non-inflammable inert media are allowed!

LV-D/4, LV-D/5 Single-stage solenoid valve, normally when closed, fast opening, fast closing, manual limitation of flowing air volume by adjusting main volume.

Specifications

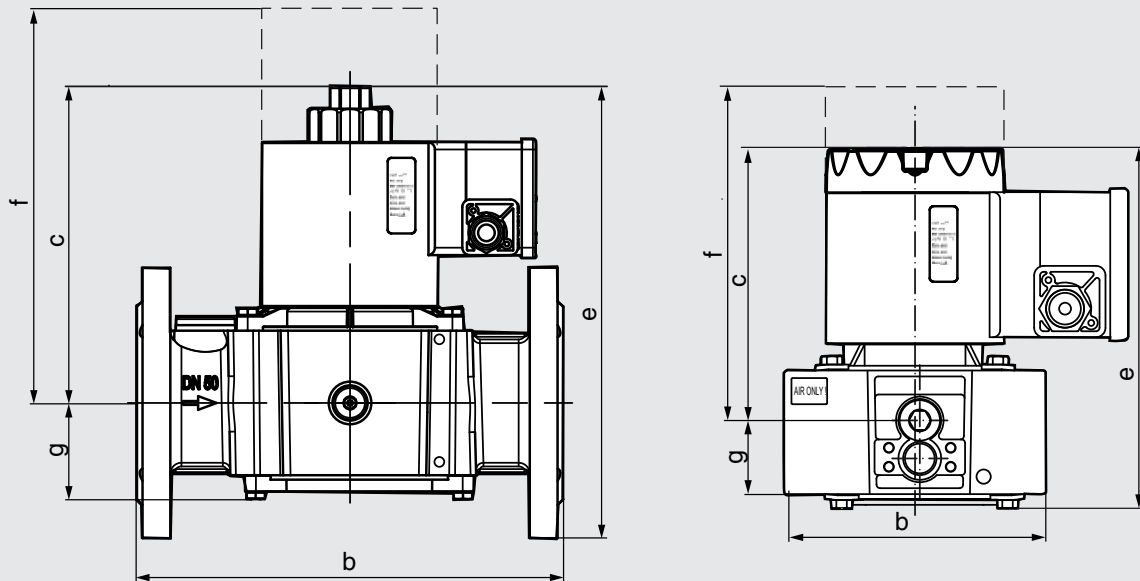
Nominal diameters	50 65 80
Pipe thread as per ISO 7/1, Rp	1 1 ½ 2 2 ½
Flange	Connection flange as per DIN EN 1092-1
Max. operating pressure	up to 200 mbar (20 kPa)
Closing time	< 1 s
Opening time	< 1 s
Main volume	adjustable
Materials of gas-conveying parts	Housing: aluminium, steel, brass Seals: NBR basis
Voltage/frequency	230 V AC (+10 % -15 %); 50-60 Hz - other voltages on request
Rating / power consumption	Refer to type overview
Switch-on duration	100 %
Degree of protection	IP 54
Electrical connection	At screw terminals via PG* 11 cable gland (* = heavy-gauge conduit thread) Plug connection as per DIN 175 0301-803 can be retrofitted
Switching rate	max. 1000/h
Measuring/ignition gas connection	G 1/4 ISO 118, on both sides in inlet section, additionally G 3/4 on input side, form size DN 40 (flange) upwards
Ambient temperature	-15 °C to + 60 °C
Installation position	Solenoid from vertically upright to horizontally lying
Closed position signal contact	mountable
Valve proving system	Type VDK 200 A S02, mountable via G 1/4 test connection, Type VPS 504, mountable with adapter up to DN 80
Accessories	K01 closed position signal contact, see Datasheet 12.01 211 202 Equipment plug for line socket, DIN 175301-803 215 733

Type	p _{max.}	DN / Rp	Sole-noid No.	Order No.	P _{max.} [VA]	I _{max.} ~ (AC) 230 V	Opening time	Dimensions [mm]							Weight [kg]
								a	b	c	d	e	f	g	
LV-D 210/4	200	Rp 1	200	256 437	25	0.15	< 1 s	75	110	135	90	151	200	30	2.45
LV-D 215/4	200	Rp 1 ½	280	256 861	60	0.26	< 1 s	80	150	170	116	200	255	45	4.30
LV-D 220/5	200	Rp 2	300	257 036	60	0.30	< 1 s	95	170	175	130	225	265	50	5.90
LV-D 225/5	200	Rp 2 ½	400	257 037	100	0.48	< 1 s	115	230	220	165	280	325	55	10.90
LV-D 2050/5	200	DN 50	300	249 989	60	0.26	< 1 s	95	230	175	165	245	255	52	7.70
LV-D 2065/5	200	DN 65	400	249 991	100	0.48	< 1 s	115	290	225	190	315	330	55	12.70
LV-D 2080/5	200	DN 80	500	257 038	80	0.42	< 1 s	130	310	250	200	340	375	70	18.50

f = Space requirement for solenoid changing

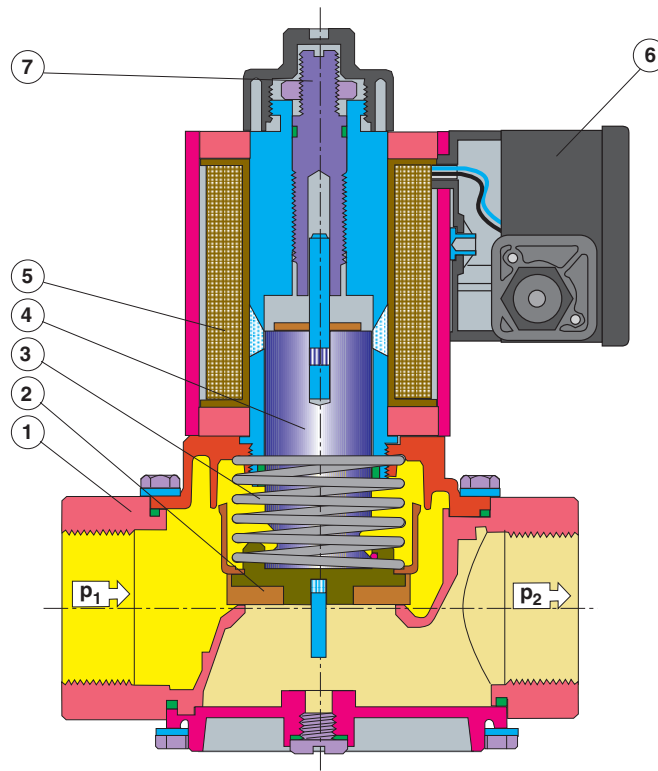
d = largest width

Dimensions [mm]
 LV-D 210 - 215/4
 LV-D 220 - 225/5
 LV-D 2050 - 2080/5



d = largest width

Type LV-D



- | | |
|---|----------------|
| 1 | Housing |
| 2 | Valve plate |
| 3 | Closing spring |

- | | |
|---|-----------------------|
| 4 | Armature |
| 5 | Solenoid coil |
| 6 | Electrical connection |

- | | |
|---|--------------------------|
| 7 | Setting
- Main volume |
|---|--------------------------|

Functional description

The DUNGS air solenoid valve is an automatic shut-off valve operated with auxiliary power.

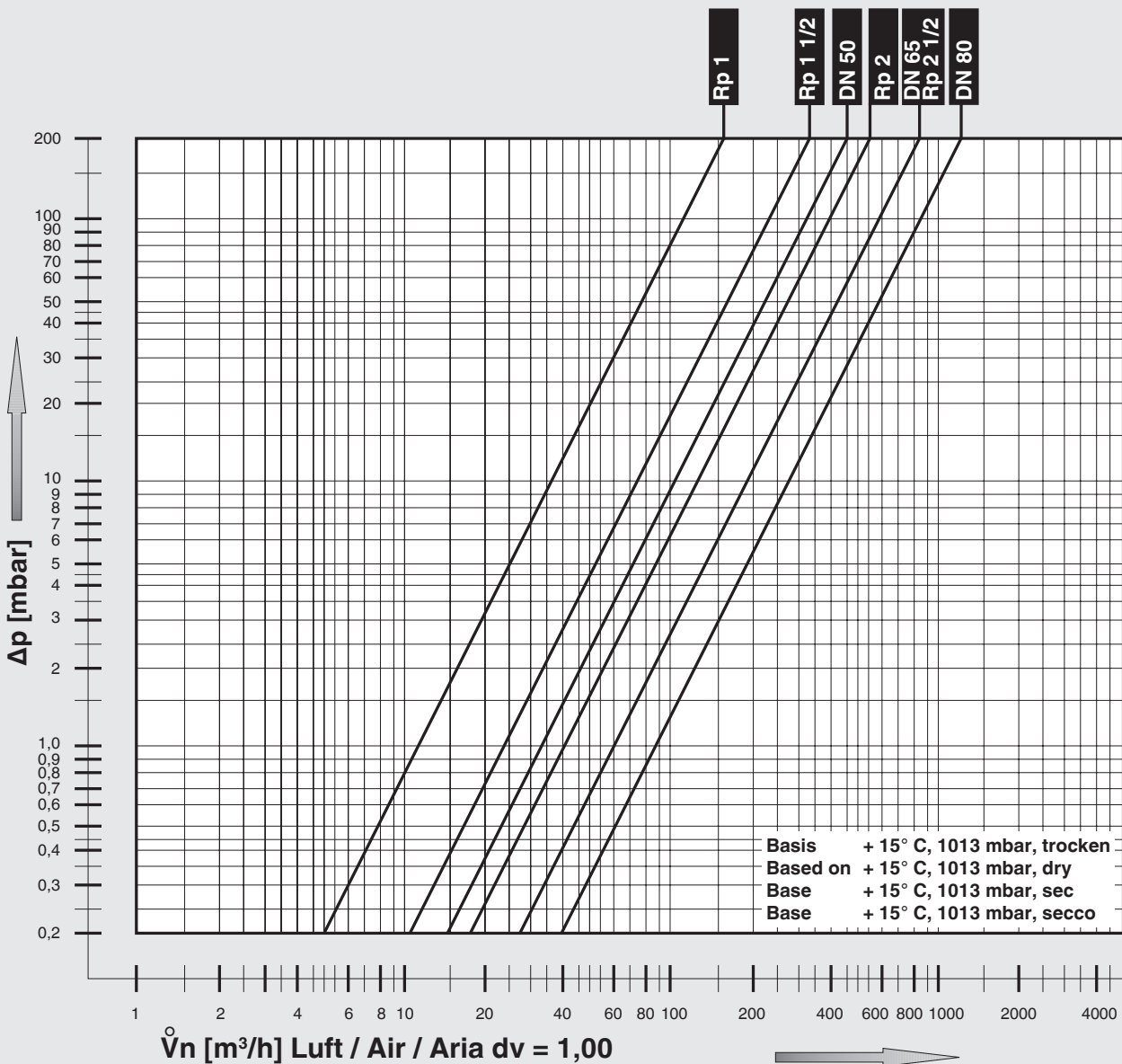
The electromagnetic drive opens 3 ... 4 against the force of the closing spring 3.

The stroke of armature 4 can be limited by the setting screw 7.

If the auxiliary power is interrupted (operating voltage), closing spring 3 closes the valve within 1 second.

The closed position of the valve can be monitored by a mountable closed position signal contact.

Flow diagram



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

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