

# 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

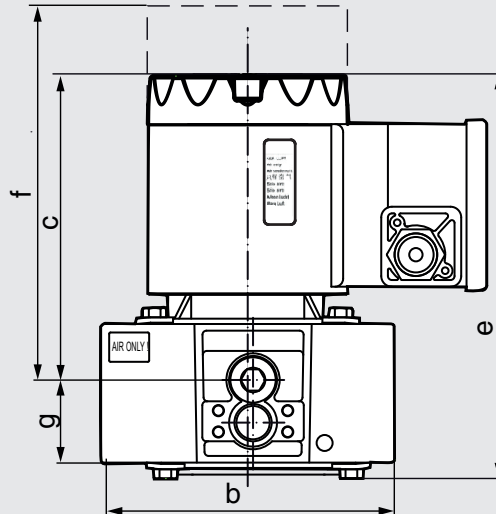
|                                   |                                                                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal diameters                 | 1 1 ½ 2 2 ½                                                                                                                              |
| Pipe thread as per ISO 7/1, Rp    | Connection flange (PN 16) as per DIN EN 1092-1                                                                                           |
| Flange                            |                                                                                                                                          |
| 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<br>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)<br>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                                                                                            |
| 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 Rp 2 1/2                             |
| Accessories                       | K01 closed position signal contact, see Datasheet 12.01 211 202<br>Equipment plug for line socket, DIN 175301-803 215 733                |

| Type       | p <sub>max.</sub> | Rp     | Sole-noid No. | Order No. | P <sub>max.</sub> [VA] | I <sub>max.</sub> ~ (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       |

f = Space requirement for solenoid changing

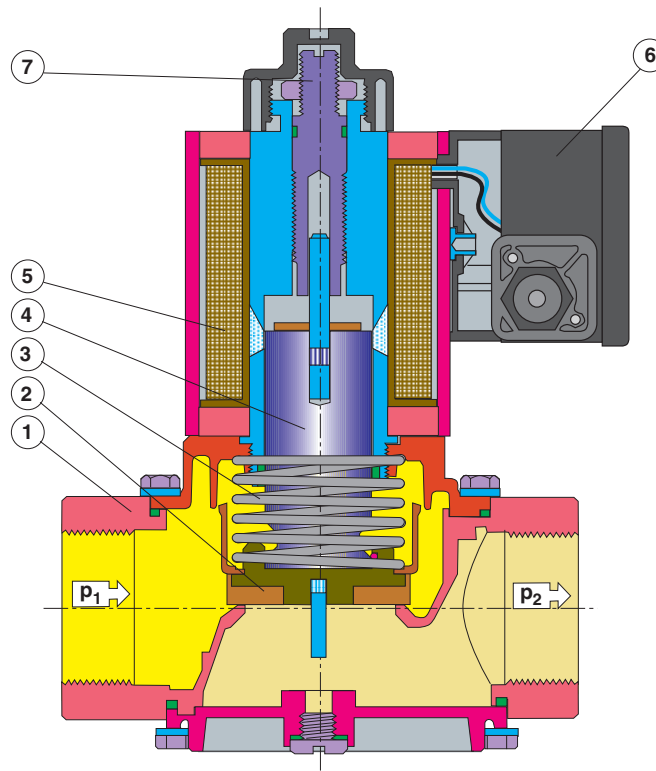
d = largest width

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



d = largest width

### Type LV-D



- |   |                |   |                       |   |               |
|---|----------------|---|-----------------------|---|---------------|
| 1 | Housing        | 4 | Armature              | 7 | Setting       |
| 2 | Valve plate    | 5 | Solenoid coil         |   | - Main volume |
| 3 | Closing spring | 6 | Electrical connection |   |               |

### Functional description

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

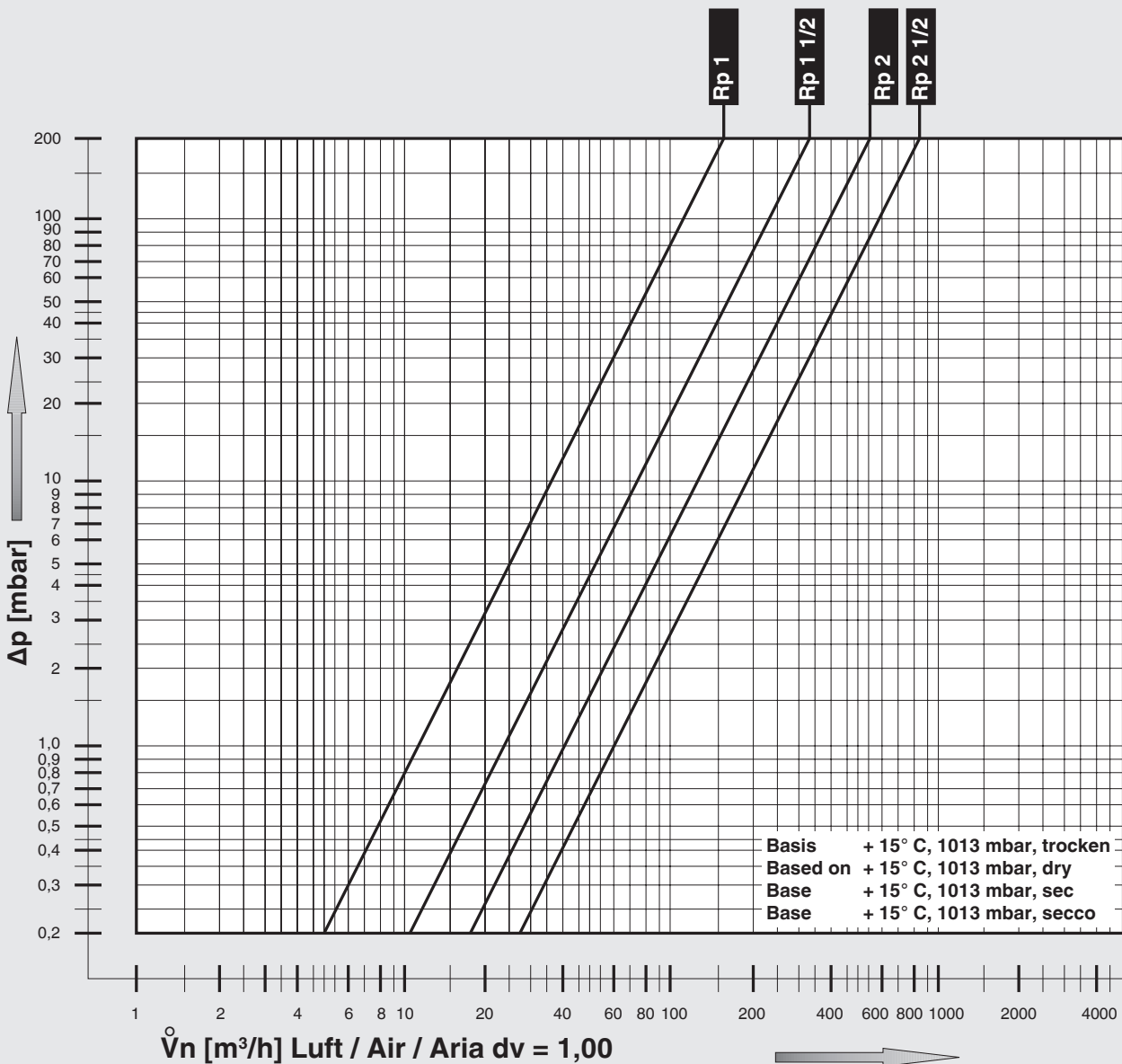
The electromagnetic drive opens 3 ... 4 against the force of the closing spring 3.

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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