# GSV

## Safety solenoid valve

DUNGS®
Combustion Controls

Safety solenoid valve
Type GSV, GSV-LE, GSV-DLE

Single-stage solenoid valve

EC type-examination certificate
according to Gas Equipment Regulation
In compliance with EN 161/ISO 23551-1

- Max. operating pressure 200 mbar (20 kPa)
- Closed when de-energised
- GSV: fast opening
- GSV-LE: slow opening (LE) with adjustable fast stroke for start gas volume
- GSV-DLE: Main volume (D) adjustable, slow opening
- DC solenoid, rectifier circuit in the line socket
- Pipe thread as per ISO 7/1: Rp ⅜ - Rp 2
- Reliable function, rugged and maintenance-free

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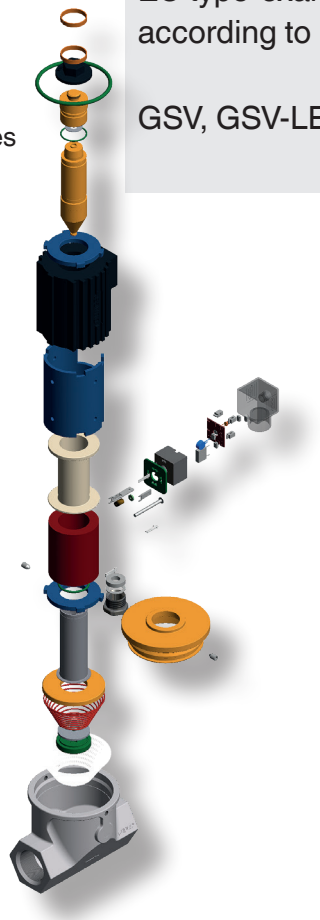
## GSV (Gas-Safety Valve)

The DUNGS safety solenoid valve GSV, GSV-LE, GSV-DLE is a single-stage automatic shut-off valve as per EN 161 for gas burners and gas equipment.

### Application

Solenoid valve for securing, limiting, shutting off and releasing gas supply to gas burners and gas appliances.

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



### Approval

EC type-examination certificate
according to EC - Gas Equipment Regulation.

GSV, GSV-LE, GSV-DLE CE-0123CT1427

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## Single-stage solenoid valve as per EN 161

| | |
|---|---|
| Pipe thread according to DIN 2999 | Rp ⅜, Rp ½, Rp ¾, Rp 1, Rp 1 ½*, Rp 2* |
| Max. operating pressure | 200 mbar (20 kPa) |
| Solenoid valve | Valve as per EN 161, Class A, Group 2, single-stage operating mode<br>ISO 23551-1 |
| Closing time | < 1 s |
| Opening time | < 1 s, on GSV-LE/GSV-DLE approx. 20 s at room temperature 20 °C |
| Main gas volume adjustment | manually adjustable on GSV-DLE Rp 3/8-Rp 1 |
| Materials of the gas-carrying parts | Housing: aluminium, steel, brass<br>Seals: NBR |
| Voltage/frequency | ~(AC) 230 V (+10 % ... -15 %) 50 - 60 Hz |
| Output/current draw | see Type overview |
| Duty cycle | 100 % ED |
| Protection class | IP 54 according to IEC 529 (DIN EN 60529) |
| Electrical connection | Line socket according to DIN EN 175301-803 with integrated rectifier circuit |
| Frequency of operation | GSV 203-210 1000/h<br>GSV-DLE 203-210 50/h<br>GSV 215-220 50/h<br>GSV-LE 215-220 50/h |
| Dirt trap | integrated dirt trap, mesh size 800 µm |
| Ambient temperature | -15 °C to +60 °C |
| Installation position | Solenoid vertically upright to lying horizontally |

* available 2020

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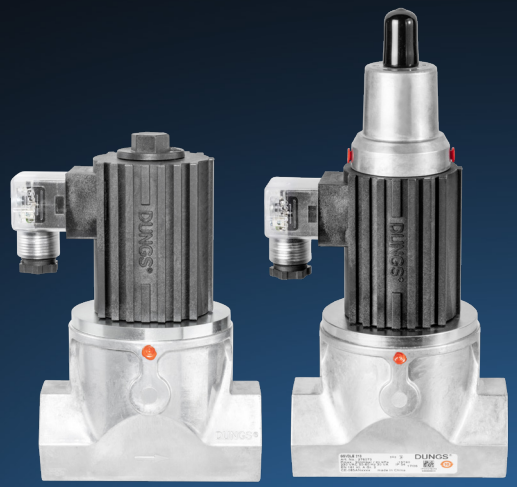

| Type | $p_{max.}$ [mbar] | Rp | Order No. | Package unit | $P_{max.}$ [VA] | $I_{max.}$ ~ (AC) 230 V | Opening time | Weight [kg] |
|---|---|---|---|---|---|---|---|---|
| **GSV 203** | 200 | Rp ⅜ | 276028 | 18 pieces | 22 | 0,10 A | < 1 s | 1,00 |
| **GSV-DLE 203** | 200 | Rp ⅜ | 276467 | 18 pieces | 22 | 0,10 A | < 20 s | 1,15 |
| **GSV 205** | 200 | Rp ½ | 275222 | 18 pieces | 22 | 0,10 A | < 1 s | 1,00 |
| **GSV-DLE 205** | 200 | Rp ½ | 276466 | 18 pieces | 22 | 0,10 A | < 20 s | 1,15 |
| **GSV 207** | 200 | Rp ¾ | 275807 | 18 pieces | 28 | 0,13 A | < 1 s | 2,00 |
| **GSV-DLE 207** | 200 | Rp ¾ | 276199 | 18 pieces | 28 | 0,13 A | < 20 s | 2,15 |
| **GSV 210** | 200 | Rp 1 | 273113 | 18 pieces | 28 | 0,13 A | < 1 s | 2,00 |
| **GSV-DLE 210** | 200 | Rp 1 | 276073 | 18 pieces | 28 | 0,13 A | < 20 s | 2,15 |

| Type | $p_{max.}$ [mbar] | Rp | Order No. | $P_{max.}$ [VA] | | $I_{max.}$ ~ (AC) 230 V | | Opening time | Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Inrush | Holding | Inrush | Holding | | |
| **GSV 215*** | 200 | Rp 1 ½ | | 183 | 45 | 0,85 | 0,42 | < 1 s | 5,5 |
| **GSV-LE 215*** | 200 | Rp 1 ½ | | 183 | 45 | 0,85 | 0,42 | < 20 s | 5,9 |
| **GSV 220*** | 200 | Rp 2 | | 183 | 45 | 0,85 | 0,42 | < 1 s | 5,5 |
| **GSV-LE 220*** | 200 | Rp 2 | | 183 | 45 | 0,85 | 0,42 | < 20 s | 5,9 |

* available 2020

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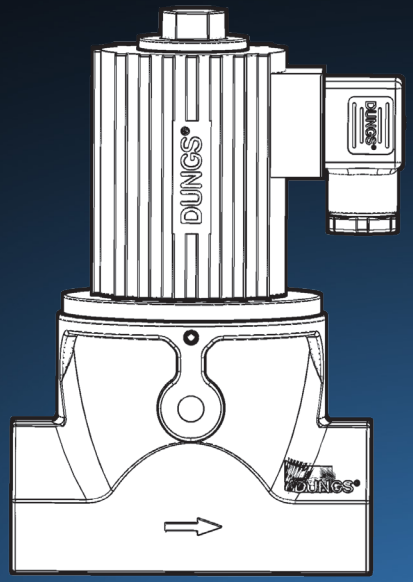
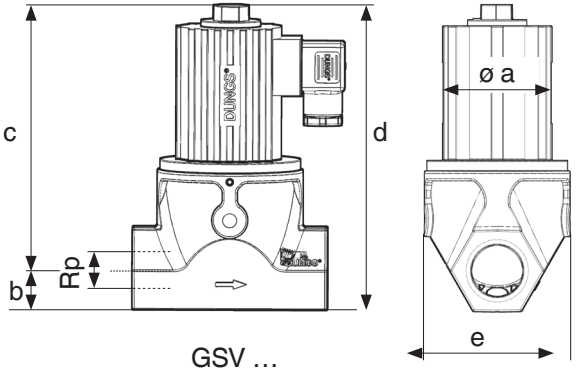
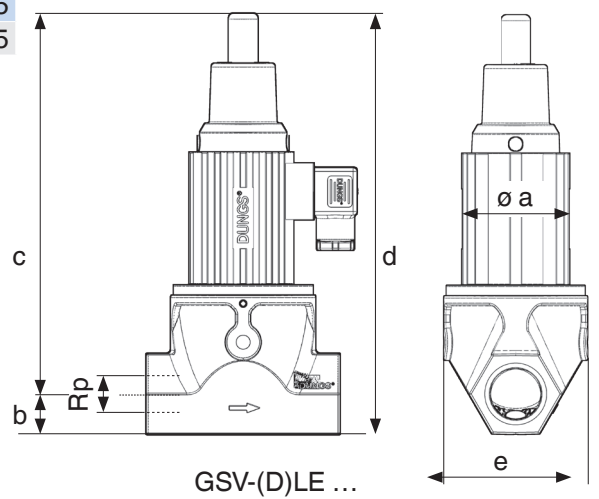



| Type | $p_{max.}$ [mbar] | Rp | Dimensions [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | ø a | b | c | d | e | f |
| **GSV 203** | 200 | Rp ⅜ | 52 | 16 | 115 | 131 | 52 | 75 |
| **GSV-DLE 203** | 200 | Rp ⅜ | 52 | 16 | 179 | 195 | 52 | 75 |
| **GSV 205** | 200 | Rp ½ | 52 | 16 | 115 | 131 | 52 | 75 |
| **GSV-DLE 205** | 200 | Rp ½ | 52 | 16 | 179 | 195 | 52 | 75 |
| **GSV 207** | 200 | Rp ¾ | 60 | 23 | 150 | 173 | 82 | 110 |
| **GSV-DLE 207** | 200 | Rp ¾ | 60 | 23 | 213 | 236 | 82 | 110 |
| **GSV 210** | 200 | Rp 1 | 60 | 23 | 150 | 173 | 82 | 110 |
| **GSV-DLE 210** | 200 | Rp 1 | 60 | 23 | 213 | 236 | 82 | 110 |
| **GSV 215*** | 200 | Rp 1 ½ | 85 | 38 | 210 | 248 | 148 | 185 |
| **GSV-LE 215*** | 200 | Rp 1 ½ | 85 | 38 | 277 | 315 | 148 | 185 |
| **GSV 220*** | 200 | Rp 2 | 85 | 38 | 210 | 248 | 148 | 185 |
| **GSV-LE 220*** | 200 | Rp 2 | 85 | 38 | 277 | 315 | 148 | 185 |

* available 2020




GSV …



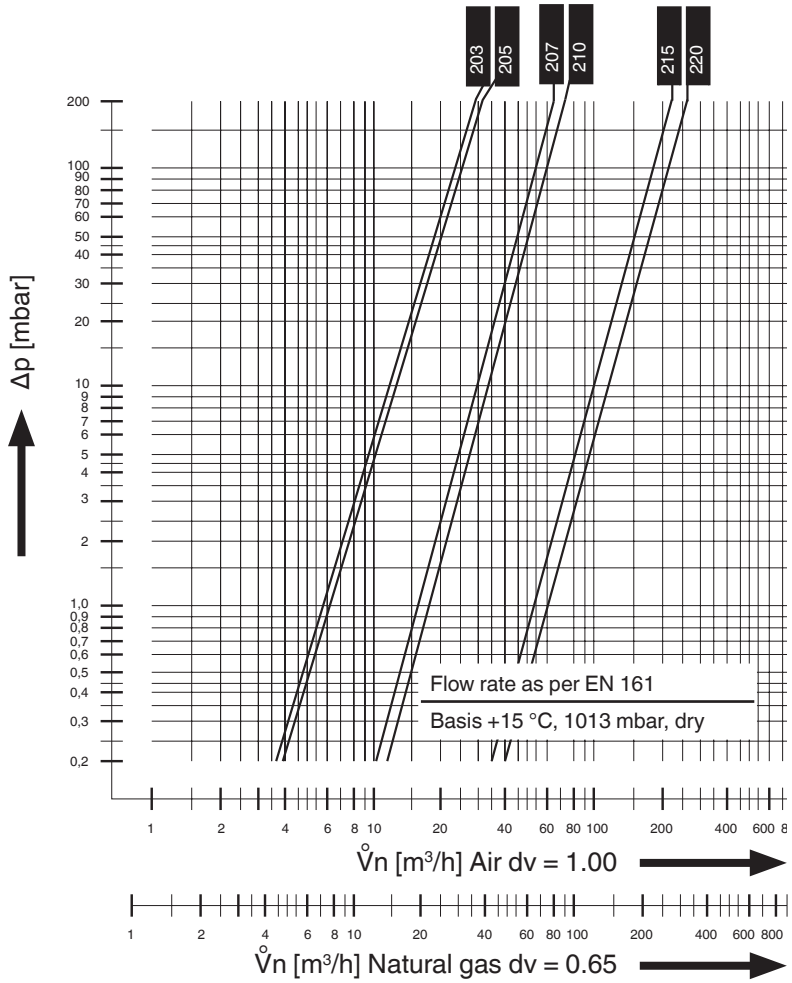

GSV-(D)LE …

## Flow diagram

| Type of gas | Spec. [kg/m³] | dv | f |
|---|---|---|---|
| **Natural gas** | 0.81 | 0.65 | 1.24 |
| **City gas** | 0.58 | 0.47 | 1.46 |
| **Liquid gas** | 2.08 | 1.67 | 0.77 |
| **Air** | 1.24 | 1.00 | 1.00 |

$$\dot{V}_{used\ gas} = \dot{V}_{air} \times f$$

$$f = \sqrt{\frac{\text{air density}}{\text{density of the gas used}}}$$




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

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