

Safety solenoid valve



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 $\frac{3}{8}$ - Rp 2
- suitable for high switching cycle numbers up to Rp 1
- 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.

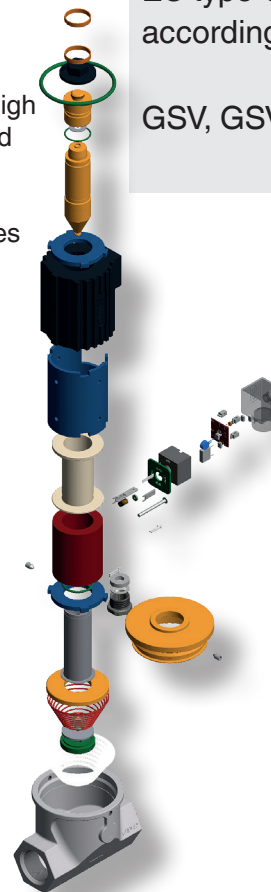
Further area of application for high switching capacities, e.g. pulsed applications (pulse firing).

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





Single-stage solenoid valve as per EN 161

Pipe thread according to DIN 2999	Rp 3/8, Rp 1/2, Rp 3/4, Rp 1, Rp 1 1/2*, Rp 2*
Max. operating pressure	200 mbar (20 kPa)
Solenoid valve	Valve as per EN 161, Class A, Group 2, single-stage operating mode 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 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 GSV-DLE 203-210 50/h GSV 215-220 50/h 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 2021

Type overview GSV

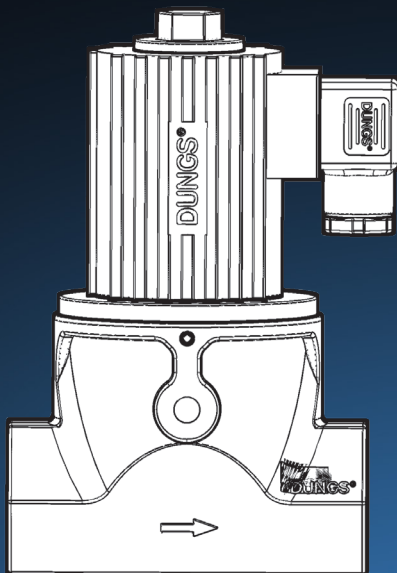


Type	p _{max.} [mbar]	Rp	Order No.	Package unit	P _{max.} [VA]	I _{max.} ~ (AC) 230 V	Opening time
GSV 203	200	Rp ⅜	276028	18 pieces	22	0,10 A	< 1 s
GSV-DLE 203	200	Rp ⅜	276467	18 pieces	22	0,10 A	< 20 s
GSV 205	200	Rp ½	275222	18 pieces	22	0,10 A	< 1 s
GSV-DLE 205	200	Rp ½	276466	18 pieces	22	0,10 A	< 20 s
GSV 207	200	Rp ¾	275807	18 pieces	28	0,13 A	< 1 s
GSV-DLE 207	200	Rp ¾	276199	18 pieces	28	0,13 A	< 20 s
GSV 210	200	Rp 1	273113	18 pieces	28	0,13 A	< 1 s
GSV-DLE 210	200	Rp 1	276073	18 pieces	28	0,13 A	< 20 s

Type	p _{max.} [mbar]	Rp	Order No.	P _{max.} [VA]		I _{max.} ~ (AC) 230 V	
				Inrush	Holding	Inrush	Holding
GSV 215*	200	Rp 1 ½		183	45	0,85	0,42
GSV-LE 215*	200	Rp 1 ½		183	45	0,85	0,42
GSV 220*	200	Rp 2		183	45	0,85	0,42
GSV-LE 220*	200	Rp 2		183	45	0,85	0,42

* available 2021

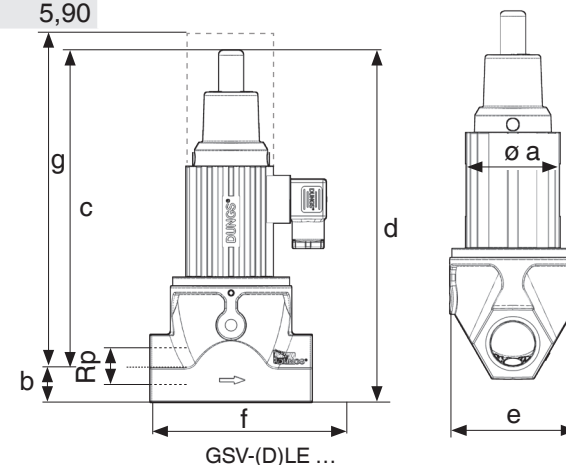
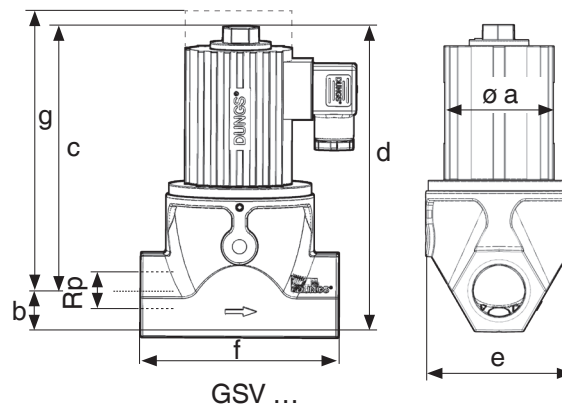
Dimensions GSV



Type	p _{max.} [mbar]	Rp	Dimensions [mm]							Weight [kg]
			ø a	b	c	d	e	f	g**	
GSV 203	200	Rp 3/8	52	16	115	131	52	75	170	1,00
GSV-DLE 203	200	Rp 3/8	52	16	179	195	55	75	210	1,15
GSV 205	200	Rp 1/2	52	16	115	131	55	75	170	1,00
GSV-DLE 205	200	Rp 1/2	52	16	179	195	55	75	210	1,15
GSV 207	200	Rp 3/4	60	23	150	173	83	110	226	2,00
GSV-DLE 207	200	Rp 3/4	60	23	213	236	83	110	245	2,15
GSV 210	200	Rp 1	60	23	150	173	83	110	226	2,00
GSV-DLE 210	200	Rp 1	60	23	213	236	83	110	245	2,15
GSV 215*	200	Rp 1 1/2	85	38	210	248	148	185	312	5,50
GSV-LE 215*	200	Rp 1 1/2	85	38	287	325	148	185	338	5,90
GSV 220*	200	Rp 2	85	38	210	248	148	185	312	5,50
GSV-LE 220*	200	Rp 2	85	38	287	325	148	185	338	5,90

* available 2021

** Space requirement for mounting solenoid

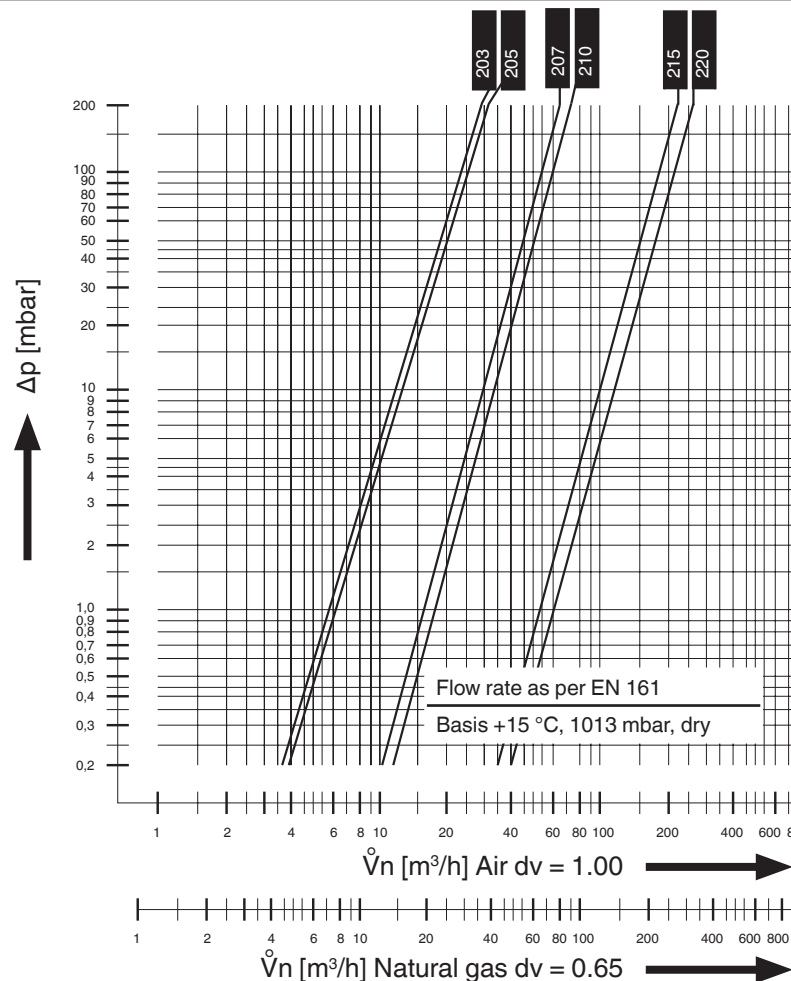


Flow diagram

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

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

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





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

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