

2/2-Way; G 1/4"-2"; PN 0-10 bar



Advantages/Benefits

- ▶ Waterhammer-free
- ▶ Low noise
- ▶ Zero differential pressure
- ▶ Low maintenance
- ▶ Coil can be locked in 4 x 90° positions, or moved freely between, as required
- ▶ Modular solenoid coil system, different sizes and power ratings
- ▶ Easy coil change
- ▶ Wide range of cable plug options Type 2508

Design/Function

The valves are based on a modular concept comprising three basic elements: Valve assembly, push-over coil and standard cable plug. The servo-system with coupled diaphragm/armature assembly and armature guide tube is mounted on the valve body. The coil is pushed over the armature guide tube and thus isolated from the medium. The medium is only in contact with the valve internals and body.

All valves operate from zero pressure.

A wide selection of pipe and orifice sizes is offered. Valves are available with threaded ports in brass and stainless steel.

To simplify ordering, a wide selection of standard combinations of valve body, push-over coil and standard cable plug can be ordered with one item number.

Cable plug options of Type 2508 and 2511 HL are available to suit special electrical application requirements.

- The modular concept provides flexibility to meet application requirements.

Applications

Fluids

- Hot water up to 120°C
- Oil and fat-free liquids up to 10 bar
- Alkaline washing and bleaching lyes

Applications

- Process systems
- Chemical processing
- Water treatment
- General purpose applications
- Sterilizers
- Public hygiene
- Medical service

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Easy Fluid Control Systems

Solenoid Valve, waterhammer-free, 0-10 bar

General Purpose

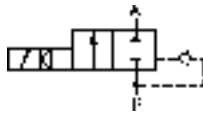
Type 6213
Hot Water Range

Technical Data Type 6213

Circuit function

A 2/2-way, normally closed, with coupled diaphragm

Symbol



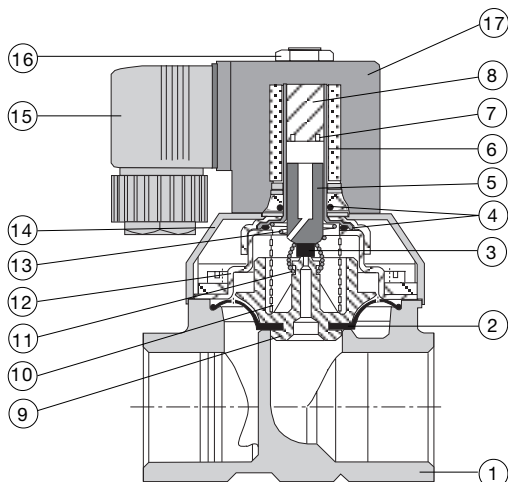
Operating Data (Valve)

Pressure range	0-10 bar
Port connection	G 1/4" - G 2"
Fluid	
Seal material EPDM:	Oil and fat-free liquids, e.g. hot water, washing and bleaching lyes.
Medium temperature	-30 ... +120 °C
Max. ambient temperature	+55 °C
Max. viscosity	21 mm ² /s
Response times	opening: 50- 700 ms ¹⁾ closing: 100-2500 ms ¹⁾ ¹⁾ Depend on orifice, fluid pressure and viscosity.
Installation	as required, but preferably with solenoid system upright.

Operating Data (Actuator)

Operating voltages	
Standard versions:	AC 24, 110, 230 V/50Hz DC 24 V/=*
Heavy duty versions:	AC 24, 110, 230 V/50-60Hz DC 24 V/UC*
	(*incl. DN 25/40 norm. version)
Voltages tolerance	±10 %
Power consumption (AC)	Standard versions:
DN [mm]	10 13 20 25 40
Inrush	34VA 36VA 38VA 160VA 202VA
Hold	14VA/8W 14VA /8W 14VA/8W 38VA/18W 38VA/18W
	Heavy duty versions:
DN [mm]	13 20
Inrush	100VA 150VA
Hold	28VA/15W 38VA/18W
Power consumption (DC)	Standard versions:
DN [mm]	10 13 20
Inrush	10W 10W 10W
Hold	10W 10W 10W
	Heavy duty UC versions: (*incl. DN 25/40 norm. version)
DN [mm]	13 20 (with cable plug 2511 HL)
Inrush	60W 72W
Hold	3W 4W
Duty cycle	100% continuously rated
Cycling rate	up to 15 c.p.m.
Protection class	IP 65
Electr. connection	
	Delivery standard: Cable plug DIN 43 650 A, 0-250 V (other versions see accessories) Cable plug 2511 HL for 24 V/UC heavy duty and 24 V/UC DN25 / DN40

Materials



1	Valve body:	Brass or Stainless Steel
2	Diaphragm:	EPDM
3	Plunger-seal:	EPDM
4	O-rings:	EPDM
5	Plunger:	1.4105
6	Armature guide tube:	1.4301
7	Shading ring:	Cu (copper)
8	Stopper:	1.4105
9	Diaphragm support:	PPSGF40
10	Spring:	1.4310
11	Tension spring:	1.4310
12	Bonnet:	1.4301
13	Taper spring:	1.4310
14	Bonnet:	Durethan BKV30H
15	Cable plug:	PA (Polyamide)
16	Locknut:	9SMnPb28K (surface Zn5glcA)
17	Coil:	Epoxy

Solenoid Valve, waterhammer-free, 0-10 bar

General Purpose

Type 6213

Hot Water Range

Specifications - Ordering Chart (Other Versions on Request)

(with standard-cable plug
0-250 V AC/DC)

Temperature range -30°C ... +120°C; brass body; seal material EPDM

Port connection [Inch]	Orifice [mm]	Kv-value (water) [m³/h]	Pressure Range [bar]	Seal material	Weight [kg]	ITEM - NO.			
						Voltage / Frequency [V/Hz]			
						24/=	24/50	110/50	230/50
G 1/4	10.0	1.8	0-10	EPDM	0.40	139 096 R	139 097 J	139 098 T	139 099 U
G 3/8	10.0	1.8	0-10	EPDM	0.40	135 217 J	135 218 T	135 219 V	135 220 Z
G 1/2	13.0	3.5	0-10	EPDM	0.55	135 226 K	135 227 L	135 228 V	135 229 W
G 3/4	20.0	8.6	0-10	EPDM	1.00	135 234 K	135 235 L	135 236 M	135 237 N
G 1	25.0	11.0	0-10	EPDM	1.70	138 412 R**	135 133 E	135 134 F	135 135 G
G 1 1/4	25.0	11.0	0-10	EPDM	1.70	138 413 J**	135 136 H	135 137 A	135 138 K
G 1 1/2	40.0	30.0	0-10	EPDM	3.60	138 418 X**	135 145 J	135 146 K	135 147 L
G 2	40.0	30.0	0-10	EPDM	3.60	138 419 Y**	135 148 V	135 149 W	135 150 T

** with cable plug type 2511 HL for UC

(with standard-cable plug
0-250 V AC/DC)

Temperature range -30°C ... +120°C; Stainless Steel body; seal material EPDM

Port connection [Inch]	Orifice [mm]	Kv-value (water) [m³/h]	Pressure Range [bar]	Seal material	Weight [kg]	ITEM - NO.			
						Voltage / Frequency [V/Hz]			
						24/=	24/50	110/50	230/50
G 1/4	10.0	1.8	0-10	EPDM	0.40	141 163 S	141 164 T	141 165 U	141 166 V
G 3/8	10.0	1.8	0-10	EPDM	0.40	141 167 W	141 168 F	141 169 G	141 170 D
G 1/2	13.0	3.5	0-10	EPDM	0.55	141 199 X	141 200 L	141 201 H	141 202 A
G 3/4	20.0	8.6	0-10	EPDM	1.10	141 223 W	141 224 X	141 225 Y	141 226 Z

For heavy duty applications:

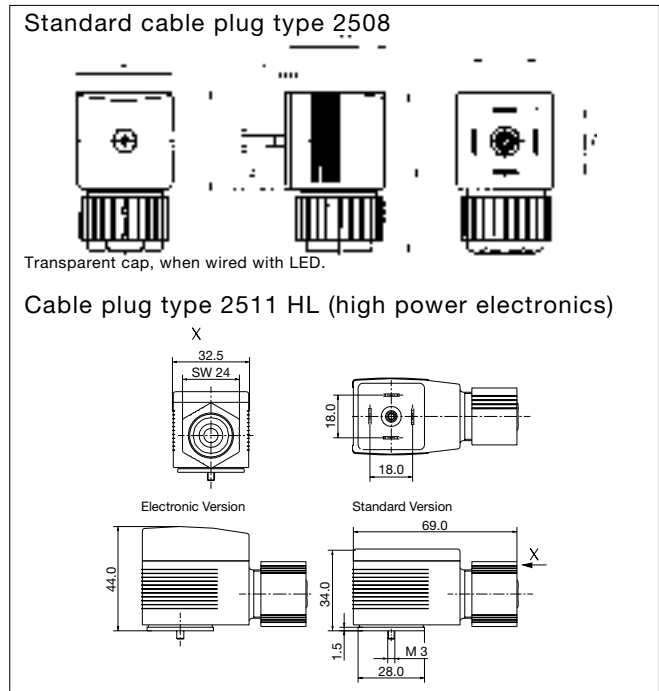
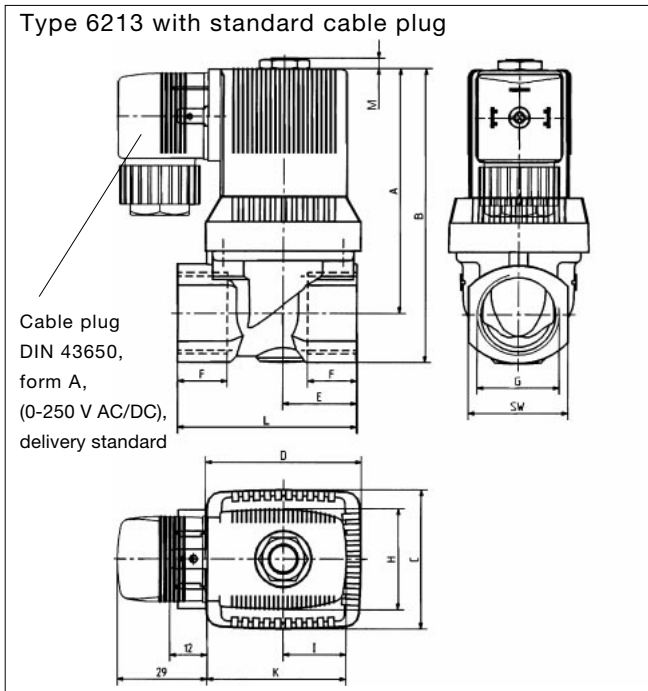
(with standard-cable plug
0-250 V AC/DC)

Temperature range -30°C ... +120°C; Stainless Steel body; seal material EPDM

Port connection [Inch]	Orifice [mm]	Kv-value (water) [m³/h]	Pressure Range [bar]	Seal material	Weight [kg]	ITEM - NO.			
						Voltage / Frequency [V/Hz]			
						24/UC	24/50-60	110/50-60	230/50-60
G 1/2	13.0	3.5	0-10	EPDM	0.78	141 805 X**	141 806 Y	141 807 Z	141 808 A
G 3/4	20.0	8.6	0-10	EPDM	1.47	141 809 B**	141 810 X	141 811 L	141 812 M
G 1	20.0	8.6	0-10	EPDM	1.47	141 813 N**	141 814 P	141 815 Q	141 816 R

** with cable plug type 2511 HL

Dimensions [mm]



Standard versions

Threaded port [inch]	Orifice [mm]	Voltage	A [mm]	B [mm]	H [mm]	I [mm]	K [mm]	C [mm]	D [mm]	E ¹ (Brass) [mm]	E ² (S. St.) [mm]	F [mm]	L ¹ (Brass) [mm]	L ² (S. St.) [mm]	SW [mm]	M [mm]
G 1/4	10.0	AC	68.0	82.0	32.0	20.5	45.0	37.5	38.0	20.0	25.0	12.0	50.0	55.0	27.0	3.5
G 3/8	10.0		68.0	82.0	32.0	20.5	45.0	37.5	38.0	20.0	25.0	12.0	50.0	55.0	27.0	3.5
G 1/2	13.0		79.5	95.5	32.0	20.5	45.0	45.0	50.5	24.0	31.0	14.0	58.0	65.0	32.0	3.5
G 3/4	20.0	DC	95.0	115.5	32.0	20.5	45.0	66.0	66.0	35.0	50.0	16.0	80.0	100.0	41.0	3.5
G 1/4	10.0		68.5	82.5	40.0	23.5	51.0	37.5	38.0	20.0	25.0	12.0	50.0	55.0	27.0	3.5
G 3/8	10.0		68.5	82.5	40.0	23.5	51.0	37.5	38.0	20.0	25.0	12.0	50.0	55.0	27.0	3.5
G 1/2	13.0	AC/UC	80.0	96.0	40.0	23.5	51.0	45.0	50.5	24.0	31.0	14.0	58.0	65.0	32.0	3.5
G 3/4	20.0		95.5	116.0	40.0	23.5	51.0	66.0	66.0	35.0	50.0	16.0	80.0	100.0	41.0	3.5
G 1	25.0		138.0	158.5	49.0	24.5	53.0	78.0	78.0	40.5	-	18.0	95.0	-	41.0	7.0
G 1 1/4	25.0	138.0	163.0	49.0	24.5	53.0	78.0	78.0	40.5	-	20.0	95.0	-	50.0	7.0	
G 1 1/2	40.0	149.5	179.5	49.0	24.5	53.0	104.5	104.5	69.0	-	22.0	132.0	-	60.0	7.0	
G 2	40.0	149.5	184.5	49.0	24.5	53.0	104.5	104.5	69.0	-	24.0	132.0	-	70.0	7.0	

Heavy duty versions

Threaded port [inch]	Orifice [mm]	Voltage	A [mm]	B [mm]	H [mm]	I [mm]	K [mm]	C [mm]	D [mm]	E ¹ (Brass) [mm]	E ² (S. St.) [mm]	F [mm]	L ¹ (Brass) [mm]	L ² (S. St.) [mm]	SW [mm]	M [mm]
G 1/2	13.0	AC/UC	102.5	118.5	43.0	21.5	50.0	45.0	50.5	24.0	31.0	14.0	58.0	65.0	32.0	7.0
G 3/4	20.0		118.0	138.5	49.0	24.5	53.0	66.0	66.0	35.0	50.0	16.0	80.0	100.0	41.0	7.0
G 1	20.0	118.0	138.5	49.0	24.5	53.0	66.0	66.0	35.0	50.0	18.0	80.0	100.0	41.0	7.0	

Ordering Chart for Accessories

A wide selection of further cable plugs is available (see special data sheet Type 2508)