




2/2-Way; 3/8" NPT - 2" NPT; 0-145 PSI



Advantages/Benefits

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

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 coil is also sealed at both ends to prevent exposure to the environment.

All valves operate with zero pressure differential.

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 250°F
- Oil and fat-free liquids up to 145 PSI
- Alkaline washing and bleaching lyes

Applications

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

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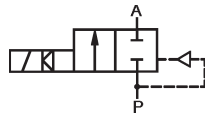
burkert
Fluid Control Systems

Technical Data

Circuit Function – A

2/2-way, normally closed, with 2-way pilot control and coupled solenoid system

Symbol



Operating Data (Valve)

Pressure range	0-145 PSI
Port connection	1/4" NPT - 2" NPT
Fluid	Seal material EPDM: Oil and fat-free liquids, e.g. hot water, washing and bleaching lyes.
Medium temperature	-22°F to 250°F
Maximum ambient temperature	131°F
Maximum viscosity	21 cSt
Response times	opening: 50-700 ms ¹⁾ closing: 100-2500 ms ¹⁾ <small>¹⁾Depends on orifice, fluid pressure and viscosity.</small>
Installation	As required, but preferably with solenoid system upright

Operating Data (Actuator)

Operating voltages	Standard versions: AC 24, 120, 240 V/60 Hz DC 24 VDC* (*3/8" to 3/4" orifice only)
Heavy-duty versions:	AC 24, 120, 240 V/50-60 Hz DC 24 V/UC ¹⁾
Voltages tolerance	±10%
Power consumption (AC)	Standard versions:

Orifice	3/8"	1/2"	3/4"	1"	1-1/2"
Inrush	34VA	36VA	38VA	160VA	202VA
Hold	14VA/8W	14VA/8W	14VA/8W	38VA/18W	38VA/18W

Heavy-duty versions:

Orifice	1/2"	3/4"
Inrush	100VA	150VA
Hold	28VA/15W	38VA/18W

Power consumption (DC) Standard versions:

Orifice	3/8"	1/2"	3/4"
Inrush	10W	10W	10W
Hold	10W	10W	10W

Heavy-duty versions¹⁾

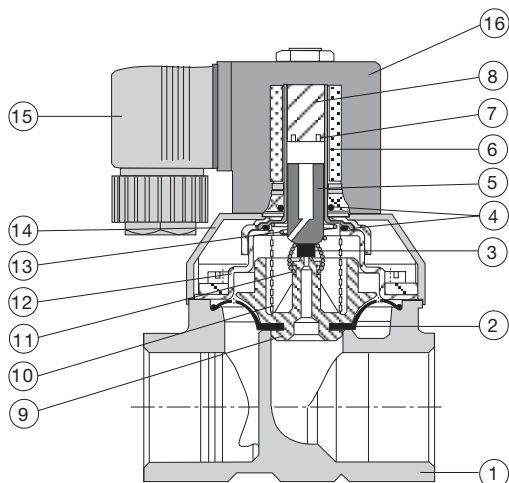
Orifice	1/2"	3/4"
Inrush	60W	72W
Hold	3W	4W

Duty cycle	100% continuously rated
Cycling rate	up to 15 c.p.m.
Protection class	NEMA 4
Electrical 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 1" to 1-1/2" orifice

¹⁾ including 1" and 1-1/2" orifice standard version

Materials



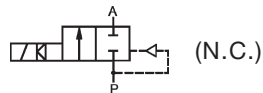
1	Valve body:	Brass or 316L Stainless Steel
2	Diaphragm:	NBR, FKM
3	Plunger-seal:	NBR, FKM
4	O-rings:	NBR, FKM
5	Plunger:	430F Stainless Steel
6	Armature guide tube:	304 Stainless Steel
7	Shading ring:	Copper
8	Stopper:	430F Stainless Steel
9	Diaphragm support:	PPSGF40
10	Spring:	301 Stainless Steel
11	Tension spring:	301 Stainless Steel
12	Bonnet:	304 Stainless Steel
13	Taper spring:	301 Stainless Steel
14	Bonnet:	Durethan BKV30H
15	Cable plug:	PA (Polyamide)
16	Coil:	Epoxy

Solenoid Valve – Waterhammer-Free, 0-145 PSI

General Purpose

Type 6213
Hot Water Range

Specifications - Ordering Chart (Other Versions on Request)



U.L. Listed

with 1/2" conduit plug Type 1053
0-250 V AC/DC

Brass Body, EPDM Seal

Port Connection [NPT]	Orifice [inch]	C _v	Pressure Range [PSI]	Weight [lbs.]	Item No. Voltage / Frequency			
					24/DC	24/60	120/60	240/60
3/8"	3/8	2.4	0 - 145	0.9	457 187 Q	457 188 Z	457 189 S	457 190 X
1/2"	1/2	4.2	0 - 145	1.2	457 191 L	457 192 M	457 193 N	457 194 P
3/4"	3/4	10.5	0 - 145	2.2	457 195 Q	457 196 R	457 197 J	457 198 T
1"	1	12.9	0 - 145	3.7	—	457 351 B	457 352 C	457 353 D
1-1/4"	1	12.9	0 - 145	3.7	—	457 354 E	457 355 F	457 356 G
1-1/2"	1-1/2	35.1	0 - 145	7.9	—	457 357 N	457 358 J	457 359 K
2"	1-1/2	35.1	0 - 145	7.9	—	457 360 Q	457 361 D	457 362 E

Stainless Steel Body, EPDM Seal

Port Connection [NPT]	Orifice [inch]	C _v	Pressure Range [PSI]	Weight [lbs.]	Item No. Voltage / Frequency			
					24/DC	24/60	120/60	240/60
1/4"	3/8	2.4	0 - 145	0.9	458 776 N	458 777 P	458 778 Y	458 779 Z
3/8"	3/8	2.4	0 - 145	0.9	458 780 P	458 781 C	458 782 D	458 783 E
1/2"	1/2	4.2	0 - 145	1.2	458 784 F	458 785 G	458 786 H	458 787 A
3/4"	3/4	10.5	0 - 145	2.2	458 788 K	458 789 L	458 790 R	458 791 E
1"	3/4	10.5	0 - 145	3.7	458 792 F	458 792 G	458 794 H	458 795 A

U.L. Recognized

with standard-cable plug, Type 2508
0-250 V AC/DC

Brass Body, EPDM Seal

Port Connection [NPT]	Orifice [inch]	C _v	Pressure Range [PSI]	Weight [lbs.]	Item No. Voltage / Frequency			
					24/DC	24/60	120/60	240/60
1/4"	3/8	2.4	0 - 145	0.9	458 086 X	458 087 Y	458 088 H	458 089 A
3/8"	3/8	2.4	0 - 145	0.9	457 175 T	457 176 U	457 177 V	457 178 E
1/2"	1/2	4.2	0 - 145	1.2	457 179 F	457 180 V	457 181 J	457 182 K
3/4"	3/4	10.5	0 - 145	2.2	457 183 L	457 184 M	457 185 N	457 186 P
1"	1	12.9	0 - 145	3.7	457 984 P	457 234 W	457 235 X	457 236 Y
1-1/4"	1	12.9	0 - 145	3.7	457 985 Q	457 237 Z	457 238 A	457 239 B
1-1/2"	1-1/2	35.1	0 - 145	7.9	457 986 R	457 240 Q	457 241 D	457 242 E
2"	1-1/2	35.1	0 - 145	7.9	457 987 J	457 243 F	457 244 G	457 245 H

Stainless Steel Body, EPDM Seal

Port Connection [NPT]	Orifice [inch]	C _v	Pressure Range [PSI]	Weight [lbs.]	Item No. Voltage / Frequency			
					24/DC	24/60	120/60	240/60
1/4"	3/8	2.4	0 - 145	0.9	458 712 E	458 713 F	458 714 G	458 715 H
3/8"	3/8	2.4	0 - 145	0.9	458 716 A	458 717 B	458 718 L	458 719 M
1/2"	1/2	4.2	0 - 145	1.2	458 720 J	458 721 F	458 722 G	458 723 H
3/4"	3/4	10.5	0 - 145	2.2	458 724 A	458 725 B	458 726 C	458 727 D
1"	3/4	10.5	0 - 145	3.7	458 728 N	458 729 P	458 730 L	458 731 H

U.L. Recognized

with Type 2511 plug for UC coil
0-250 V AC/DC

Heavy Duty Version

Stainless Steel Body, EPDM Seal

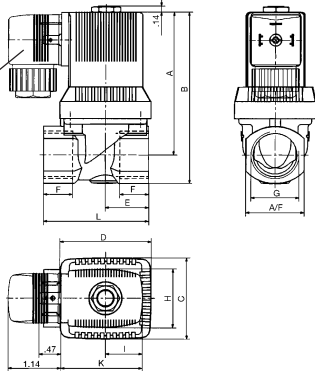
Port Connection [NPT]	Orifice [inch]	C _v	Pressure Range [PSI]	Weight [lbs.]	Item No. Voltage / Frequency			
					24/DC	24/60	120/60	240/60
1/2"	1/2	4.2	0 - 145	1.2	458 752 N	458 753 P	458 754 Q	458 755 R
3/4"	3/4	10.5	0 - 145	2.2	458 756 J	458 757 K	458 758 U	458 759 V
1"	3/4	10.5	0 - 145	3.7	458 760 S	458 761 P	458 762 Q	458 763 R

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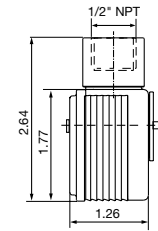
Dimensions (inch)

Type 6213 with standard cable plug

Cable plug
DIN 43 650,
form A,
(0-250 V AC/DC),
delivery standard



U.L. Listed with
conduit plug Type 1053
(0-250 V AC/DC)



Cable plug Type 2511 HL (high power electronics)

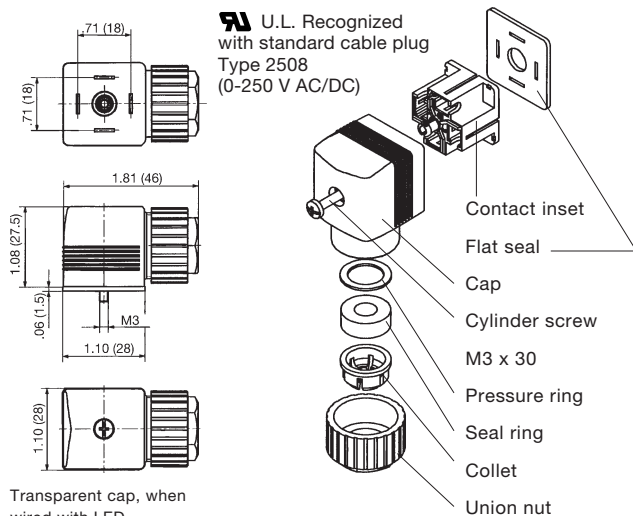
Standard Versions

Threaded Port [NPT]	Orifice [inch]	Voltage	A [inch]	B [inch]	H [inch]	I [inch]	K [inch]	C [inch]	D [inch]	E ¹ (Brass) [inch]	E ² (S.S.) [inch]	F [inch]	L ¹ (Brass) [inch]	L ² (S.S.) [inch]	SW [inch]	M [inch]
1/4"	3/8	AC	2.67	3.22	1.25	0.80	1.77	1.47	1.49	0.78	0.98	0.47	1.96	2.16	1.06	0.13
3/8"	3/8	AC	2.67	3.22	1.25	0.80	1.77	1.47	1.49	0.78	0.98	0.47	1.96	2.16	1.06	0.13
1/2"	1/2	AC	3.13	3.75	1.25	0.80	1.77	1.77	1.98	0.94	1.22	0.55	2.28	2.55	1.25	0.13
3/4"	3/4	AC	3.74	4.54	1.25	0.80	1.77	2.59	2.59	1.37	1.96	0.63	3.14	3.93	1.61	0.13
1/4"	3/8	DC	2.69	3.24	1.50	0.92	2.00	1.47	1.49	0.78	0.98	0.47	1.96	2.16	1.06	0.13
3/8"	3/8	DC	2.69	3.24	1.50	0.92	2.00	1.47	1.49	0.78	0.98	0.47	1.96	2.16	1.06	0.13
1/2"	1/2	DC	3.14	3.77	1.50	0.92	2.00	1.77	1.98	0.94	1.22	0.55	2.28	2.55	1.25	0.13
3/4"	3/4	DC	3.75	4.56	1.50	0.92	2.00	2.59	2.59	1.37	1.96	0.63	3.14	3.93	1.61	0.13
1"	1	AC/UC	5.43	6.24	2.00	1.92	2.08	3.07	3.07	1.59	—	0.70	3.74	—	1.61	0.27
1-1/4"	1	AC/UC	5.43	6.41	2.00	1.92	2.08	3.07	3.07	1.59	—	0.78	3.74	—	1.96	0.27
1-1/2"	1-1/2	AC/UC	5.88	7.06	2.00	1.92	2.08	4.11	4.11	2.71	—	0.86	5.19	—	2.36	0.27
2"	1-1/2	AC/UC	5.88	7.26	2.00	1.92	2.08	4.11	4.11	2.71	—	0.94	5.19	—	2.75	0.27

Heavy-Duty Versions

Threaded Port [NPT]	Orifice [inch]	Voltage	A [inch]	B [inch]	H [inch]	I [inch]	K [inch]	C [inch]	D [inch]	E ¹ (Brass) [inch]	E ² (S.S.) [inch]	F [inch]	L ¹ (Brass) [inch]	L ² (S.S.) [inch]	SW [inch]	M [inch]
1/2"	1/2	AC/UC	4.03	4.66	1.69	0.84	1.96	1.77	1.98	0.94	1.22	0.55	2.28	2.55	1.25	0.27
3/4"	3/4	AC/UC	4.64	5.45	1.92	0.96	2.08	2.59	2.59	1.37	1.96	0.63	3.14	3.93	1.61	0.27
1"	3/4	AC/UC	4.64	5.45	1.92	0.96	2.08	2.59	2.59	1.37	1.96	0.70	3.14	3.93	1.61	0.27

Dimensions Accessories [Inch (mm)]



Ordering Chart for Accessories

Device/Accessory	Features	Item No.
Cable Plugs Type 2508	Standard cable plug, 0-250 V AC/DC (standard delivery) ¹⁾	008 376 N
	with LED, 12-24 V AC/DC	008 360 S
	with LED, 100-120 V AC/DC	008 361 P
	with LED + varistor, 12-24 V AC/DC	008 367 M
	with LED + varistor, 100-120 V AC/DC	008 368 W
Type 1053	with LED + varistor, 200-240 V AC/DC	008 369 X
	U.L. Listed 1/2" conduit plug	006 508 A
Type 2511 HL	with electronics for UC coil, 24-48V AC/DC	138 307 G

¹⁾ The standard cable plug (0-250 V AC/DC), Item No. 008 376 N is part of the standard delivery. Order optional cable plugs using separate item no.

For additional cable plug selections, see data sheet Type 2508