

Servo-assisted 2/2-way piston valve



Type 6240 can be combined with...



Type 2508

Cable plug



Type 1078

Timer control



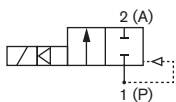
Type 2511

Cable plug

- Servo-assisted and compact piston valve with diameter of up to DN 13
- Vibration-resistant, screwed coil system
- Increased leak-tightness with welded plunger guiding tube
- Safe opening with hard-coupled piston system
- Explosion proof versions

The 6240 valve is a servo-assisted plunger valve. The stopper and plunger guiding tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. The housing design and surface quality enable maximum flow rates. The coils are moulded with chemically resistant epoxy. An optional sliding ring bearings increases the life cycle with dry gases. 'Kick and Drop' electronics are available for over-excitation (plug 2511) and reduced electrical power consumption in operation. In combination with a plug in accordance with DIN EN 17301-803 Form A, the valves satisfy protection class IP65. Stainless steel valves satisfy NEMA 4X.

Circuit function A



2/2-way valve, NC

Technical data

Port connections	G 1/4, G 3/8, G 1/2
Orifice	DN 6.0, DN 12.0
Body material	Brass, Stainless steel
Coil material	Epoxy
Coil insulation class	Class H
Seal material	FKM, PTFE/FKM and PTFE/PEEK for high temperature and high pressure versions (EPDM on request)
Medium	Neutral gases and liquids, such as e.g. compressed air, water, hydraulic oil Steam and hot medium
High temperature version	
Viscosity	max. 21 mm ² /sec
Medium temperature	
FKM	-10 °C to +140 °C
PTFE/PEEK DN6	-40 °C to +180 °C
PTFE/PEEK DN12	-40 °C to +140 °C
EPDM	-30 °C to +120 °C (on request)
Ambient temperature	max. 55 °C
Operating voltage	24V DC, 24V/50Hz, 230/50Hz (others on request)
Voltage tolerance	±10%
Duty cycle	100% continuous rating
Electrical connection	Tag connector acc. DIN EN 175 301-803 Form A for cable plug Type 2508 (see ordering chart for accessories) ATEX/IECEx version with 3 m moulded cable
Protection class	IP 65 with cable plug
Weight	AC 8W, DC 10W (300g); AC 18W, DC 16W (800g)
Installation	As required, preferably with actuator upright

Technical data, cont.

Orifice	Coil size	Power consumption				Response times	
		Inrush AC	Hold AC	DC (hot / cold coil)		Opening	Closing
[mm]	[mm]	[VA]	[VA/W]	[W]	[W]	[ms]	[ms]
6	32	32	18	8	10/12	10-20	40-50
6	40	40	23	10	12/14	10-20	40-50
12	42	105	37	18	16/21	20-40	80-100

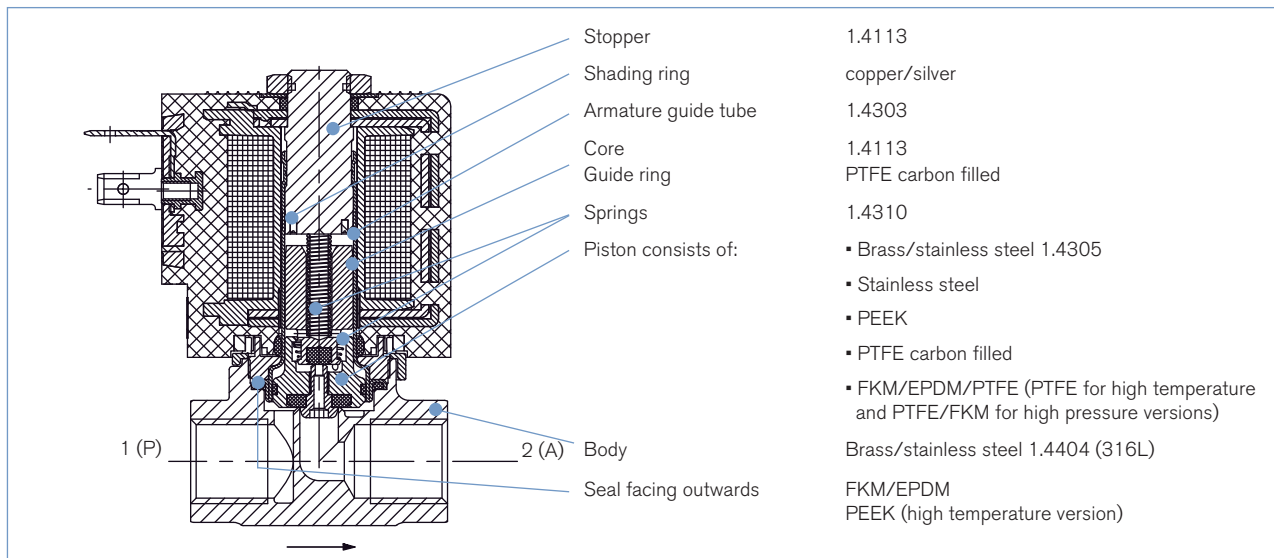
Response times [ms]:

Measured at the outlet with 6 bar inlet pressure at 20°C

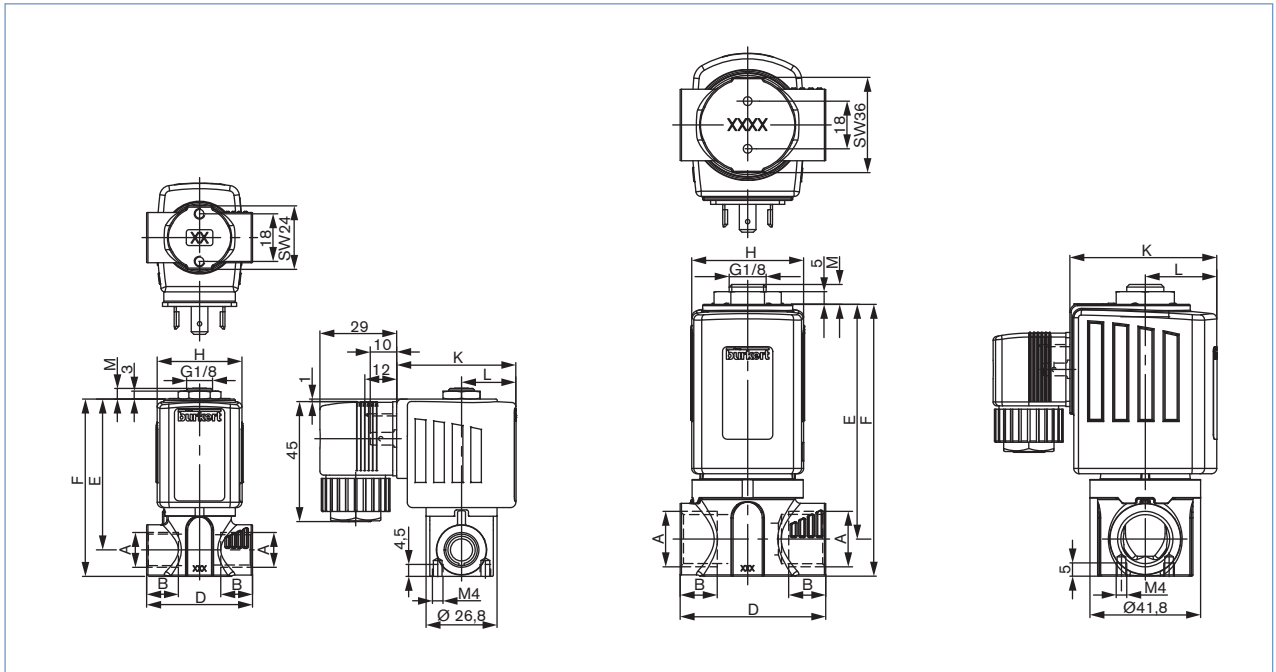
Opening: Pressure build-up 0 to 90%

Closing: Pressure decrease 100 to 10%

Material



Dimensions [mm]



A	DN	B	D	E	F	M	H	K	L	Weight
Body connection	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g]
Threaded port										
G 1/4	6	12	40	57,3	67,3	3,7	32	45,0	20,5	304
G 1/4	6	12	40	57,3	67,3	3,7	40	51,0	23,5	382
G 3/8	6	12	50	58,3	70,3	3,7	32	45,0	20,5	346
G 3/8	6	12	50	58,3	70,3	3,7	40	51,0	23,5	424
G 1/2	12	12	55	89,0	103,0	7,5	42	55,5	27,0	800

Ordering chart for valves (other versions on request)

6240 valve with FKM seal material

Circuit function	Port connection	Orifice [mm]	Kv value water [m ³ /h]	Pressure range ¹⁾ [bar]	Coil size [mm]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/50	230/50	
A 2/2-way valve NC 	Brass body								
	G 1/4	6.0	0.6	0-16	32	177 800	177 801	177 802	
	G 3/8	6.0	0.6	0-16	32	177 803	177 804	177 805	
	Stainless steel body								
	G 1/4	6.0	0.6	0-16	32	177 806	177 807	177 808	
	G 1/2	12,0	2,2	0-16	42	238 632	238 633	238 634	

High temperature version, all valves with PTFE/PEEK seal, stainless steel body, without cable plug

Circuit function	Port connection	Orifice [mm]	Kv value water [m ³ /h]	Pressure range ¹⁾ [bar]	Coil size [mm]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/50	230/50	
A 2/2-way valve NC 	Medium temperature -40 to +180 °C								
	G 1/4	6,0	0,6	0-16	32	184 739	184 740	184 741	
	Medium temperature -40 to +140 °C								
	G 1/2	12,0	2,2	0-25	42	238 638	238 639	238 640	

High pressure version, all valves with PTFE/FKM seal, brass body, without cable plug

Circuit function	Port connection	Orifice [mm]	Kv value water [m ³ /h]	Pressure range ¹⁾ [bar]		Coil size [mm]	Item no. per voltage/frequency [V/Hz]		
				liquid medium	gaseous medium		024/DC	024/50	230/50
A 2/2-way valve NC 	G 1/4	6.0	0.6	0-25	0-40	40	184 742	184 743	184 744
	G 3/8	6.0	0.6	0-25	0-40	40	184 745	184 746	184 747

¹⁾ Overpressure to the atmospheric pressure

Please note: The cable plug must be ordered separately (see page 3 or the datasheet for Type 2508)

Materials for ATEX/IECEX m

Labels in diagram: Stopper, Shading ring, Armature guide tube, Core, Guide ring, Springs, Piston consists of, 1 (P), 2 (A), Body, Seal facig outwards.

Material specifications:

- Stopper: 1.4113
- Shading ring: copper/silver
- Armature guide tube: 1.4303
- Core: 1.4113
- Guide ring: PTFE carbon filled
- Springs: 1.4310
- Piston consists of:
 - Brass/stainless steel 1.4305
 - Stainless steel
 - PEEK
 - PTFE carbon filled
 - FKM/EPDM/PTFE (PTFE for high temps. and PTFE/FKM for high pressure version)
- Body: Brass/stainless steel 1.4404 (316L)
- Seal facig outwards: FKM/EPDM/ PEEK (high temperature version)

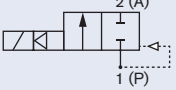
Dimensions for ATEX/IECEX m [mm]

Dimensions shown in drawings: G1/8, 3.5, 41.3, M4x4.5 tief, A, 18, 24, SW14, 40, 74.8, 12, D, E, F.

A Body connection	DN [mm]	D [mm]	E [mm]	F [mm]
Threaded				
G 1/4	6	40	57.3	67.3
G 1/4	6	40	57.3	67.3
G 3/8	6	50	58.3	70.3
G 3/8	6	50	58.3	70.3

Ordering chart for ATEX/IECEX

6240 valve, Ex m II T4 with moulded cable (3m)

Circuit function	Port connection	Orifice [mm]	Kv-value water [m ³ /h]	Pressure range ¹⁾ [bar]	Coil size [mm]	Item no. per voltage/frequency [V/Hz]		
						024/UC	230/50UC	
A 2/2-Wege-Ventil NC 	Messinggehäuse							
	G 1/4	6,0	0,6	0-16	40	278 716	278 717	
	G 3/8	6,0	0,6	0-16	40	on request	278 720	
	Edelstahlgehäuse							
	G 1/4	6,0	0,6	0-16	40	278 718	278 719	
	G 3/8	6,0	0,6	0-16	40	278 721	auf Anfrage	

The maximum fluid temperature must not in any case exceed the permissible temperature class (T4 135 °C, 100 °C T5, T6 85 °C), of minus 5 K.

Explosion-proof approvals

ATEX: PTB 14 ATEX 2023 X

II 2G Ex mb IIC T4 Gb

II 2D Ex mb IIIC T135 °C Db

IECEX: IECEX PTB 14.0049 X

Ex mb IIC T4 Gb

Ex mb IIIC T135 °C Db

 Further versions on request


Materials

Seal: EPDM



Port Connection

NPT, Stainless steel version with G 3/8 connection



Voltage

Other operating voltages




Approvals

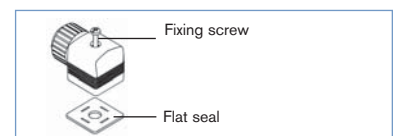
Gas transportation DIN EN 3394-1

Ordering chart for accessories

Cable plug Type 2508 according to DIN EN 175301-803 Form A

The delivery of a cable plug includes the flat seal and the fixing screw. For other versions of cable plugs see data sheet Type 2508

	Circuitry	Voltage / frequency	Item no.
	None (standard)	0 - 250 V AC/DC	008 376
	with LED	12 - 24 V AC/DC	008 360
	with LED and varistor	12 - 24 V AC/DC	008 367
	with rectifier, LED and varistor	12 - 24 V AC/DC	008 363
	with LED	200 - 240 V	008 362
	with LED and varistor	200 - 240 V	008 369
	further versions see datasheet Type 2508		



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please consult for advice.

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