

Servo-assisted 2/2 way diaphragm valve



Type 6281 can be combined with...



Type 2508
Cable plug

- Servo-assisted diaphragm with diameter of up to DN50
- Vibration-proof, screwed coil system
- Damped design for quiet closing
- Moulded housing with high surface quality
- Service-friendly manual override
- Approvals:

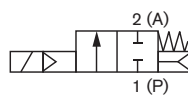
The 6281 valve is a servo-assisted solenoid valve of the S.EV series. A minimum differential pressure is always required for the proper function of the valve. Various diaphragm material combinations and methods of operation are available depending on the application. The standard brass housing satisfies all European drinking water requirements. Dezincification-resistant brass is available for other markets. The housing offering is rounded out by a stainless steel version. The solenoid coils are moulded with a chemically resistant epoxy. For reduced energy requirement, all coils can be delivered with electronic power reduction. The valve can be equipped with manual override for easy maintenance and commissioning. In combination with a plug in accordance with DIN EN 175301-803 Form A, the valves satisfy protection class IP65 – in combination with a stainless steel housing NEMA 4X.

Technical data	
Orifice	DN13 - 50 mm
Body material	Brass acc. to DIN EN 50930-6 (Stainless steel, dezincification resistant on request)
Inner part of valve	Stainless steel, Brass, Plastic (PPS)
Seal material	NBR, EPDM, FKM
Media	
NBR	Neutral fluids, e.g. compressed air, water
EPDM	Oil and fat-free fluids, hot water, acetone, aqueous alkali solution
FKM	Hot air, per-solution
Ambient temperature	max. +55 °C
Media temperature	
NBR	14° to 176 °F (-10° to +80 °C)
EPDM	-22° to 212 °F (-30° to +100 °C)
FKM	32° to 248 °F (0° to +120 °C)
Voltages	024/DC, 024/50-60, 120/50-60, 240/60 (120/60 for B function)
Voltage tolerance	±10%
Duty cycle	100% continuous rating
Electrical connection	Tag connector acc. to DIN EN 175301-803 Form A (previously DIN 43650) for cable plug Type 2508 (see Ordering chart for accessory, p. 5)
Protection class	IP65 with cable plug and cable connection
Installation	As required, preferably with actuator upright
Response times²⁾	0.1-4 seconds (depending on orifice and differential pressure)
Coil isolation class	Epoxy class H

²⁾ Measured at valve outlet at 6 bar and +20 °C. *Opening:* pressure build-up 0 to 90%, *Closing:* pressure decay 100 to 10%

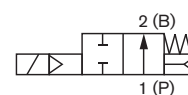
Power consumption		
Inrush	Hold (with coil)	
AC [VA]	AC [VA/W]	DC hot/cold coil [W]
Circuit function A		
24	14/8	8/9.5
Circuit function B		
24	16/7	8/9.5
Circuit function B.../56		
30	24/10	

Circuit function A



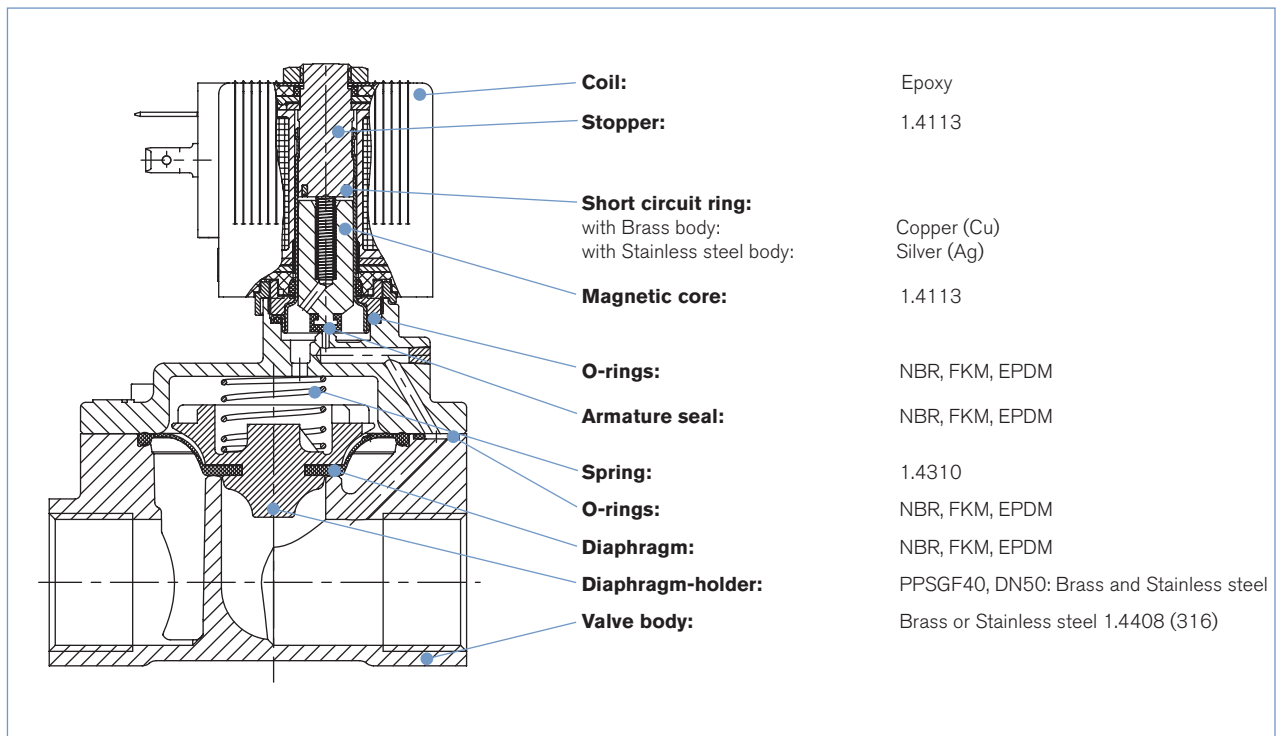
2/2 way valve NC,
normally closed

Circuit function B

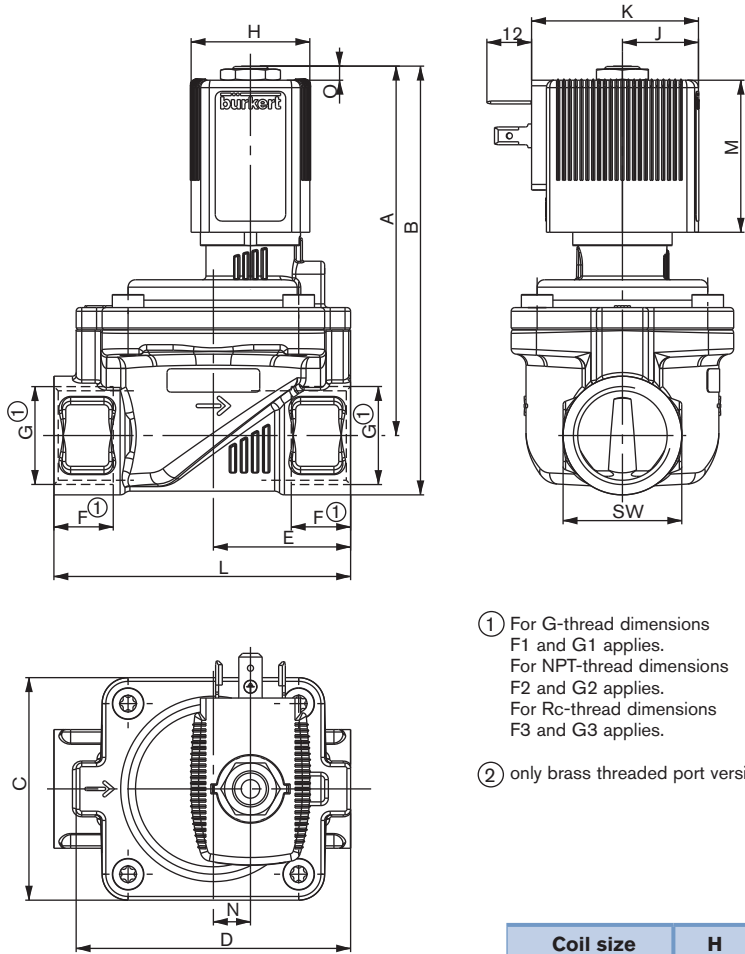


2/2 way valve NO,
normally open

Materials



Dimensions [mm]



- ① For G-thread dimensions
F1 and G1 applies.
For NPT-thread dimensions
F2 and G2 applies.
For Rc-thread dimensions
F3 and G3 applies.
- ② only brass threaded port version

Coil size	H	J	K	M	O
5	32	20.5	45	41	3.4
6	40	23.5	51	41.4	3.8

DN	A	B	C	D	E	* G		* NPT		* Rc		L	SW	N
						F1 ^①	G1 ^①	F2 ^①	G2 ^①	F3 ^①	G3 ^①			
② 13	91.1	104.6	42	54.5	27.25	12	G 3/8	-	-	-	-	58	27	-
					32.5	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2	65	27	
13	93.1	109.1	60	74	37	16	G 3/4	14	NPT 3/4	-	-	65	32	10
					37.5	18	G 1	16.8	NPT 1	-	-	80	41	
20	99.6	115.6	70	85	46	18	G 1	16.8	NPT 1	16.8	Rc 1	95	41	15
					102.1	20	G 1 1/4	17.3	NPT 1 1/4	19.1	Rc 1 1/4	95	50	
② 25	106.6	127.1	99	114	61	20	G 1 1/4	17.3	NPT 1 1/4	19.1	Rc 1 1/4	126	50	23
					111.6	22	G 1 1/2	17.3	NPT 1 1/2	19.1	Rc 1 1/2	126	60	
② 40	120.1	145.1	115	132	64	24	G 2	17.6	NPT 2	23.4	Rc 2	132	70	37
					82	24	G 2	17.6	NPT 2	23.4	Rc 2	164	70	
② 50	119.9	154.9	132	132	89.5	27	G 2 1/2	23.6	NPT 2 1/2	-	-	179	85	37
					119.6	162.1	89.5	27	G 2 1/2	23.6	NPT 2 1/2	-	-	

Ordering chart for valves (other versions on request)

Circuit function A (NC, normally closed), Brass body, Buna seal, UR Approval

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	24V/56	120/56	240/60
A 2/2 way valve NC 	Seal material NBR, Epoxy coil, Medium temperature 14...176 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	264 068	264 072	264 073	264 074
	NPT 3/4	13	4.5	2.9-232	1.30	*	*	*	*
	NPT 3/4	20	10.0	2.9-232	1.96	273 429	273 431	273 432	298 709
	NPT 1	20	10.0	2.9-232	2.20	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	273 433	273 435	273 436	298 907
	NPT 1 1/4	25	14.1	2.9-232	3.30	273 437	273 438	273 440	*
	NPT 1 1/4	40	27.0	2.9-232	5.95		*		
	NPT 1 1/2	40	35.3	2.9-232	6.61	273 441	273 443	273 444	298 745
	NPT 2	40	35.3	2.9-232	7.05	273 445	273 446	273 447	304 988
	NPT 2	50	47.0	2.9-232	9.92	273 448	273 449	273 450	*
	NPT 2 1/2	50	47.0	2.9-232	11.46	*		*	*

* Upon Request

Circuit function B (NO, normally open), Brass body, Buna seal, UR Approval

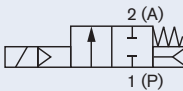
Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/60	120/60	240/60
B 2/2 way valve NO 	Seal material NBR, Epoxy coil, Medium temperature 14...176 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	264 080	264 083	264 084	264 085
	NPT 3/4	13	4.5	2.9-232	1.3	*	*	*	*
	NPT 3/4	20	10.0	2.9-232	1.96	273 471	273 472	273 473	*
	NPT 1	20	10.0	2.9-232	2.2	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	273 474	273 475	273 476	*
	NPT 1 1/4	25	14.1	2.9-232	3.3	273 477	273 478	273 479	*
	NPT 1 1/4	40	27.0	2.9-232	5.95	*	*	*	*
	NPT 1 1/2	40	35.3	2.9-232	6.61	273 480	273 481	273 483	*
	NPT 2	40	35.3	2.9-232	7.05	273 485	273 486	273 487	*
	NPT 2	50	47.0	2.9-232	9.92	273 488	273 489	273 490	*
	NPT 2 1/2	50	47.0	2.9-232	11.46	*	*	*	*

* Upon Request

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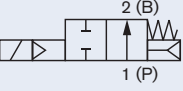
Ordering chart for valves, continued

Circuit function A (NC, normally closed), Brass body, Viton seal, UR Approval

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	24V/56	120/56	240/60
A 2/2 way valve NC 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	273 451	273 452	273 453	306 810
	NPT 3/4	13	4.5	2.9-232	1.3	*	*	*	*
	NPT 3/4	20	10.0	2.9-232	1.96	273 454	273 455	273 456	306 811
	NPT 1	20	10.0	2.9-232	2.2	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	273 457	273 458	273 459	306 812
	NPT 1 1/4	25	14.1	2.9-232	3.3	306 764	306 783	306 838	306 813
	NPT 1 1/4	40	27.0	2.9-232	5.95	*	*	*	*
	NPT 1 1/2	40	35.3	2.9-232	6.61	306 765	306 784	293 689	306 814
	NPT 2	40	35.3	2.9-232	7.05	*	*	*	*
	NPT 2	50	47.0	2.9-232	9.92	306 766	306 785	293 691	306 815
	NPT 2 1/2	50	47.0	2.9-232	11.46	*	*	*	*

* Upon Request

Circuit function B (NO, normally open), Brass body, Viton seal, UR Approval

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/60	240/60
B 2/2 way valve NO 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	306 767	306 786	306 798	306 823
	NPT 3/4	13	4.5	2.9-232	1.3	*	*	*	*
	NPT 3/4	20	10	2.9-232	1.96	306 768	306 787	306 799	306 824
	NPT 1	20	10	2.9-232	2.2	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	306 769	306 788	306 800	306 826
	NPT 1 1/4	25	14.1	2.9-232	3.3	306 770	306 789	306 801	306 827
	NPT 1 1/4	40	27	2.9-232	5.95	*	*	*	*
	NPT 1 1/2	40	35.3	2.9-232	6.61	306 772	306 790	306 802	306 828
	NPT 2	40	35.3	2.9-232	7.05	*	*	*	*
	NPT 2	50	47	2.9-232	9.92	306 773	306 791	306 803	306 829
	NPT 2 1/2	50	47	2.9-232	11.46	*	*	*	*

* Upon Request

Ordering chart for valves, continued

Circuit function A (NC, normally closed), Stainless steel body, Viton seal, UR Approval

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psij]	Weight [kg]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/56	240/60
A 2/2 way valve NC 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 1/2	13	4.5	2.9-232	0.54	307 890	307 907	307 915	306 816
	NPT 3/4	20	10.0	2.9-232	0.86	307 901	307 908	307 916	306 817
	NPT 1	20	10.0	2.9-232	0.97	*	*	*	*
	NPT 1	25	14.1	2.9-232	1.3	307 903	307 909	307 917	306 818
	NPT 1 1/4	25	14.1	2.9-232	1.4	307 904	307 910	307 918	306 820
	NPT 1 1/2	40	35.3	2.9-232	2.8	307 905	307 912	307 919	306 821
	NPT 2	40	35.3	2.9-232	3.0	307 906	307 913	307 920	306 822

* Upon Request

Circuit function B (NO, normally open), Stainless steel body, Viton seal, UR Approval

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/60	240/60
B 2/2 way valve NO 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 1/2	13	4.5	2.9-232	1.19	306 774	306 792	306 804	306 830
	NPT 3/4	20	10	2.9-232	1.9	306 775	306 793	306 805	306 831
	NPT 1	20	10	2.9-232	2.14	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.87	306 776	306 794	306 806	306 832
	NPT 1 1/4	25	14.1	2.9-232	3.09	306 777	306 795	306 807	306 833
	NPT 1 1/2	40	35.3	2.9-232	6.17	306 778	306 796	306 808	306 835
	NPT 2	40	35.3	2.9-232	6.61	306 779	306 797	306 809	306 836

* Upon Request

Ordering chart for valves, continued

Circuit function A (NC, normally closed), Brass body, Viton seal, UL Listed

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psij]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/56	240/60
A 2/2 way valve NC 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	306 547	306 585	306 617	306 644
	NPT 3/4	13	4.5	2.9-232	1.3	*	*	*	*
	NPT 3/4	20	10	2.9-232	1.96	306 548	306 586	306 618	306 645
	NPT 1	20	10	2.9-232	2.2	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	306 552	306 588	306 619	306 646
	NPT 1 1/4	25	14.1	2.9-232	3.3	306 560	306 589	306 620	306 648
	NPT 1 1/4	40	27	2.9-232	5.95	*	*	*	*
	NPT 1 1/2	40	35.3	2.9-232	6.61	306 561	306 592	306 621	306 649
	NPT 2	40	35.3	2.9-232	7.05	*	*	*	*
	NPT 2	50	47	2.9-232	9.92	306 562	306 593	306 622	306 650
	NPT 2 1/2	50	47	2.9-232	11.46	*	*	*	*

* Upon Request

Circuit function B (NO, normally open), Brass body, Viton seal, UL listed

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psij]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/60	240/60
B 2/2 way valve NO 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 3/8	13	4.5	2.9-232	1.27	*	*	*	*
	NPT 1/2	13	4.5	2.9-232	1.19	306 570	306 603	306 630	306 658
	NPT 3/4	13	4.5	2.9-232	1.3	*	*	*	*
	NPT 3/4	20	10	2.9-232	1.96	306 572	306 604	306 631	306 659
	NPT 1	20	10	2.9-232	2.2	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.86	306 573	306 605	306 632	306 661
	NPT 1 1/4	25	14.1	2.9-232	3.3	306 574	306 607	306 633	306 662
	NPT 1 1/4	40	27	2.9-232	5.95	*	*	*	*
	NPT 1 1/2	40	35.3	2.9-232	6.61	306 575	306 608	306 634	306 663
	NPT 2	40	35.3	2.9-232	7.05	*	*	*	*
	NPT 2	50	47	2.9-232	9.92	306 577	306 609	306 635	306 664
	NPT 2 1/2	50	47	2.9-232	11.46	*	*	*	*

* Upon Request

Ordering chart for valves, continued

Circuit function A (NC, normally closed), Stainless steel body, Viton seal, UL listed

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/56	240/60
A 2/2 way valve NC 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 1/2	13	4.5	2.9-232	1.19	306 563	306 595	306 623	306 651
	NPT 3/4	20	10	2.9-232	1.9	306 564	306 596	306 624	306 652
	NPT 1	20	10	2.9-232	2.14	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.87	306 566	306 597	306 625	306 654
	NPT 1 1/4	25	14.1	2.9-232	3.09	306 567	306 599	306 626	306 655
	NPT 1 1/2	40	35.3	2.9-232	6.17	306 568	306 600	306 627	306 656
	NPT 2	40	35.3	2.9-232	6.61	306 569	306 602	306 629	306 657

* Upon Request

Circuit function B (NO, normally open), Stainless steel body, Viton seal, UL listed

Circuit function	Port connection	Orifice [mm]	Cv value water [gpm]	Pressure range [psi]	Weight [lbs]	Item no. per voltage/frequency [V/Hz]			
						024/DC	024/56	120/60	240/60
B 2/2 way valve NO 	Seal material FKM, Epoxy coil, Medium temperature 32...248 °F								
	NPT 1/2	13	4.5	2.9-232	1.19	306 578	306 610	306 637	306 665
	NPT 3/4	20	10	2.9-232	1.9	306 579	306 611	306 638	306 666
	NPT 1	20	10	2.9-232	2.14	*	*	*	*
	NPT 1	25	14.1	2.9-232	2.87	306 580	306 612	306 639	306 667
	NPT 1 1/4	25	14.1	2.9-232	3.09	306 581	306 614	306 640	306 668
	NPT 1 1/2	40	35.3	2.9-232	6.17	306 583	306 615	306 641	306 669
	NPT 2	40	35.3	2.9-232	6.61	306 584	306 616	306 643	306 670

* Upon Request

i Further versions on request

Port connection
Rc, BSPP

Voltage
Further voltages


Approvals
European gas approval
EPDM with KTW W270

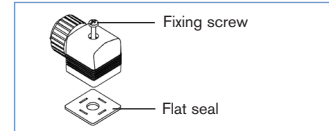
Material
Brass dezincification resistant

Features
Manual Override

Ordering chart for accessory

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

	Circuitry	Voltage / frequency	Item no.
	None (standard)	0 - 250 V AC/DC	008 376
	None (for stainless steel versions)	0 - 250 V AC/DC	132 445
	further versions see datasheet Type 2508		



The delivery of a cable plug includes the flat seal and the fixing screw. For other cable plug versions acc. to DIN EN 175301-803 Form A (previously DIN 43650), see separate datasheet Type 2508.

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