



## 2/2-way servo assisted Solenoid Valve for liquids

- Forced coupled diaphragm system
- Short mounting length
- High flow rate ( $K_V$  value)
- Anti-waterhammer
- Diaphragm materials NBR, EPDM, FKM

Type 6213 can be combined with...



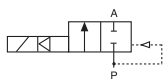
**Type 2508**  
Cable plug



**Type 1078**  
Timer unit

The Type 6213 is a 2/2-way normally closed solenoid valve with a forced coupled diaphragm system. It switches from 0 bar and can be used universally for fluids. For complete opening, a differential pressure of at least 0.1 bar is necessary.

### Circuit function A



Servo-assisted 2/2-way valve; normally closed, with 2-way pilot control

Technical data	
<b>Orifice</b>	DN 10 - 40
<b>Body material</b>	Brass acc. to DIN EN 50930-6, stainless steel 316L (on request)
<b>Coil material</b>	Epoxy, polyamide
<b>Coil insulation class</b>	H (epoxy), B (polyamide)
<b>Inner part of valve</b>	
Brass body	Brass, stainless steel and PPS
Stainless steel body	Stainless steel and PPS (on request)
<b>Seal material</b>	NBR, FKM, EPDM
<b>Media</b>	
NBR	Neutral fluids, water, hydraulic oil, oil without additives
FKM	Per-solutions, hot oils with additives
EPDM	Oil and fat-free fluids
<b>Ambient temperature</b>	Max. +55 °C
<b>Media temperature</b>	
NBR	-10 to +80 °C
FKM	0 to +90 °C with polyamide coil / 0 - 120 °C with epoxy coil
EPDM	-30 to +120 °C with coil for higher temperatures (epoxy)
<b>Voltages</b>	024/DC, 024/50, 230/50, 024/UC (others on request)
<b>Voltage tolerance</b>	±10%
<b>Duty cycle</b>	100% continuous rating
<b>Electrical connection</b>	Tag connector acc. to DIN EN 175301-803 Form A (previously DIN 43650) for cable plug Type 2508 (see Ordering chart for accessory)
<b>Protection class</b>	IP 65 with cable plug
<b>Installation</b>	As required, preferably with actuator upright
<b>Response times<sup>1)</sup></b>	0.1 - 4 seconds (depending on orifice and differential pressure)

<sup>1)</sup> Measured at valve outlet at 6 bar and +20°C

Opening: pressure build-up 0 to 90%

Closing: pressure decay 100 to 10%

Technical data

Power consumption

Orifice [mm]	Port connection	Coil size width [mm]		Power consumption <sup>1)</sup>			Coil insulation class		Weight brass [kg]	
		AC	DC	Inrush AC [VA]	Hold AC [VA/W]	DC [W] (hot coil)	Seal EPDM	Seal NBR and FKM	Coil AC	Coil DC
10	G1/4, G3/8	32	40	34	14/8	10 (11)	H	B	0.33	0.41
10	G1/2	32	40	34	14/8	10 (11)	H	B	0.44	0.52
13	G1/2	32	40	36	14/8	10 (11)	H	B	0.37	0.44
13	G3/4	32	40	36	14/8	10 (11)	H	B	0.49	0.57
20	G3/4	32	40	38	14/8	10 (11)	H	B	0.74	0.82
20	G1	32	40	38	14/8	10 (11)	H	B	0.84	0.92
25	G1	42	42	150	37/16	72/4	H	H	1.6	1.6 <sup>2)</sup>
25	G11/4	42	42	150	37/16	72/4	H	H	1.7	1.7 <sup>2)</sup>
40	G11/2	42	42	190	37/16	72/4	H	H	3.2	3.2 <sup>2)</sup>
40	G2	42	42	190	37/16	72/4	H	H	3.5	3.5 <sup>2)</sup>

<sup>1)</sup> Values in brackets applies at coil temperature 20 °C

<sup>2)</sup> UC-coil

Materials

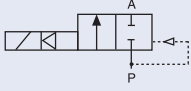
- Locknut:**
  - Brass version: Steel (surface thick-film passivated acc. to Rohs)
  - Stainless steel version: 1.4305 PTFE coated
- Coil Insulation material:** Polyamide or Epoxy
- Stopper:**
  - DN 10-13 mm: 1.4113
  - DN 25-40 mm: 1.4105
- Shading ring:** Cu (copper) (only with AC voltage)
- Plunger:**
  - DN 10-13 mm: 1.4113
  - DN 25-40 mm: 1.4105
- O-rings:** NBR, FKM, EPDM
- Bonnet:** Polyamide
- Plunger seal:** NBR, FKM, EPDM
- Cover:**
  - DN 10-25 mm: 1.4301
  - DN 40: brass
- Function ring:** PPS
- Spring:** 1.4310
- O-ring:** EPDM, NBR, FKM
- Diaphragm:** NBR, FKM, EPDM
- Diaphragm support:** PPS
- Valve body:** Brass or stainless steel 316L

Drawing: Version DN20

DTS 1000115690 EN Version: A Status: RL (released | freigegeben | validé) printed: 28.04.2009

## Ordering chart for valves (other versions on request)

Valves with brass (stainless steel body on request), without cable plug  
DN 10-20

Circuit function	Port connection	Orifice [mm]	Kv value water m <sup>3</sup> /h <sup>1)</sup>	Pressure range [bar] <sup>2)</sup>	Item no. per voltage/frequency [V/Hz]		
					024/DC	024/50	230/50
<b>A</b> 2/2-way valve NC 	<b>Brass body, NBR diaphragm</b> (Polyamide coil)						
	G 1/4	10	1.9	0 - 10	206 718	206 719	206 721
	G 3/8	10	1.9	0 - 10	206 635	206 638	206 640
	G 1/2	10	1.9	0 - 10	206 645	206 646	206 648
	G 1/2	13	3.6	0 - 10	206 641	206 642	206 644
	G 3/4	13	3.6	0 - 10	206 657	206 658	206 660
	G 3/4	20	8.3	0 - 10	206 669	206 670	206 673
	G 1	20	8.3	0 - 10	206 674	206 675	206 677
	<b>Brass body, FKM diaphragm</b> (Polyamide coil)						
	G 1/4	10	1.9	0 - 10	206 722	206 723	206 725
	G 3/8	10	1.9	0 - 10	206 649	206 650	206 652
	G 1/2	10	1.9	0 - 10	206 653	206 654	206 656
	G 1/2	13	3.6	0 - 10	206 661	206 662	206 664
	G 3/4	13	3.6	0 - 10	206 665	206 666	206 668
	G 3/4	20	8.3	0 - 10	206 678	206 679	206 682
	G 1	20	8.3	0 - 10	206 683	206 684	206 687
	<b>Brass body, EPDM diaphragm</b> (Epoxy coil)						
	G 1/4	10	1.9	0 - 10	206 713	206 714	206 716
	G 3/8	10	1.9	0 - 10	206 688	206 689	206 691
	G 1/2	10	1.9	0 - 10	206 692	206 693	206 695
	G 1/2	13	3.6	0 - 10	206 696	206 697	206 699
	G 3/4	13	3.6	0 - 10	206 700	206 701	206 703
	G 3/4	20	8.3	0 - 10	206 704	206 705	206 708
	G 1	20	8.3	0 - 10	206 709	206 710	206 712

<sup>1)</sup> Measured at +20°C, 1 bar <sup>2)</sup> pressure at valve inlet and free outlet<sup>2)</sup> Pressure data [bar]: Overpressure with respect to atmospheric pressure.**Please note** that the cable plug has to be ordered separately, see Ordering chart for accessory and separate datasheet, Type 2508

DN 25-40 (see next page)

Ordering chart for valves (other versions on request)

Valves with brass body, without cable plug  
DN 25-40

Circuit function	Port connection	Orifice [mm]	Kv value water [m <sup>3</sup> /h] <sup>1)</sup>	Pressure range [bar] <sup>2)</sup>	Item no. per voltage/frequency [V/Hz]		
					024/UC *	024/50	230/50
<b>A</b> 2/2-way valve NC 	<b>Brass body, NBR diaphragm (Epoxy coil)</b>						
	G 1	25	11	0 - 10	206 773	206 772	206 775
	G 1 1/4	25	11	0 - 10	206 777	206 776	206 779
	G 1 1/2	40	31	0 - 10	206 798	206 797	206 800
	G 2	40	31	0 - 10	206 802	206 801	206 804
	<b>Brass body, FKM diaphragm (Epoxy coil)</b>						
	G 1	25	11	0 - 10	206 781	206 780	206 783
	G 1 1/4	25	11	0 - 10	206 785	206 784	206 787
	G 1 1/2	40	31	0 - 10	206 806	206 805	206 808
	G 2	40	31	0 - 10	206 810	206 809	206 812
	<b>Brass body, EPDM diaphragm (Epoxy coil)</b>						
	G 1	25	11	0 - 10	206 765	206 764	206 767
	G 1 1/4	25	11	0 - 10	206 769	206 768	206 771
	G 1 1/2	40	31	0 - 10	206 789	206 788	206 792
	G 2	40	31	0 - 10	206 794	206 793	206 796

<sup>1)</sup> Measured at +20°C, 1 bar <sup>2)</sup> pressure at valve inlet and free outlet

<sup>2)</sup> Pressure data [bar]: Overpressure with respect to atmospheric pressure.

**Please note** that the cable plug has to be ordered separately, see Ordering chart for accessory and separate datasheet, Type 2508

**\* For DN 25 and DN 40 with 24 V/UC, a cable plug with an integrated high-power electronics is provided as part of the delivery.**

**i Further versions on request**

**Port connection**  
NPT, Rc

**Voltage**  
Non-standard voltages

**Material**  
Seal: EPDM with KTW approval

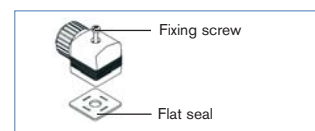
**Temperature**  
FKM version up to +120°C with epoxy coil

**Approvals**  
UL, UR, CSA

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
	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.

Dimensions [mm]

DN 10 - 20

DN 25 - 40

\* For G-thread dimensions F1 and G1 applies.  
 For NPT-thread dimensions F2 and G2 applies.  
 For Rc-thread dimensions F3 and G3 applies.

**Dimensions (AC-coil, 32mm)**

DN	A	B	C	D	E	* G		* NPT		* Rc		H	J	K	L	SW	M
						F1	G1	F2	G2	F3	G3						
10	67.4	78.4	36	45.6	22	12	G 1/4	10	NPT 1/4	9.7	Rc 1/4	32	20.5	45	50	22	3.7
	67.4	78.4			22	12	G 3/8	10.3	NPT 3/8	10.1	Rc 3/8				55	27	
	69.4	82.9			24.5	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2				58	27	
13	78.9	92.4	44.5	56	27.2	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2	32	20.5	45	60	32	3.7
	80.9	96.9			28.5	16	G 3/4	14	NPT 3/4	14.5	Rc 3/4				80	32	
20	93.4	109.4	65	76	37	16	G 3/4	14	NPT 3/4	14.5	Rc 3/4	32	20.5	45	80	32	3.7
	95.9	116.4			37.5	18	G 1	16.8	NPT 1	16.8	Rc 1				80	41	

**Dimensions (DC-coil, 40mm)**

DN	A	B	C	D	E	* G		* NPT		* Rc		H	J	K	L	SW	M
						F1	G1	F2	G2	F3	G3						
10	67.8	78.8	36	45.6	22	12	G 1/4	10	NPT 1/4	9.7	Rc 1/4	40	23.5	51	50	22	3.7
	67.8	78.8			22	12	G 3/8	10.3	NPT 3/8	10.1	Rc 3/8				55	27	
	69.8	83.3			24.5	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2				58	27	
13	79.3	92.8	44.5	56	27.2	14	G 1/2	13.7	NPT 1/2	13.2	Rc 1/2	40	23.5	51	60	32	3.7
	81.3	97.3			28.5	16	G 3/4	14	NPT 3/4	14.5	Rc 3/4				80	32	
20	93.8	109.8	65	76	37	16	G 3/4	14	NPT 3/4	14.5	Rc 3/4	40	23.5	51	80	32	3.7
	96.3	116.8			37.5	18	G 1	16.8	NPT 1	16.8	Rc 1				80	41	

**Dimensions (AC/DC-coil K, 42mm)**

DN	A	B	C	D	E	* G		* NPT		* Rc		L	SW
						F1	G1	F2	G2	F3	G3		
25	136.3	156.8	77	88	43	18	G 1	16.8	NPT 1	16.8	Rc 1	90	41
	141.3	166.3			45	20	G 1 1/4	17.3	NPT 1 1/4	19.1	Rc 1 1/4	95	50
40	152.3	182.3	104.5	177	61	22	G 1 1/2	17.3	NPT 1 1/2	19.1	Rc 1 1/2	126	60
	158.3	193.3			64	24	G 2	17.6	NPT 2	23.4	Rc 2	132	70

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