



Type 6213 can be combined with...



Type 2508



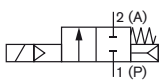
Type 1078

Diaphragm valve 2/2 way servo-assisted

- Servo-assisted diaphragm with diameter from DN10 bis DN40
- Spring coupled diaphragm opens without differential pressure
- Vibration-proof, central screwed coil system
- Damped design for quiet closing
- Compact construction with high flow rate

The 6213 EV valve is a servo-assisted solenoid valve of the S.EV series. The spring coupling of the diaphragm supports the opening process of the valve. In its standard version, the valve is suitable for use in liquids. A minimum differential pressure is required for complete opening. A special version (HP00) which opens the valve without differential pressure is available for gas and vacuum applications. Various diaphragm material combinations are available depending on the application. The standard brass housing satisfies all European drinking water requirements. Lead-free or dezincification-resistant brass types are available for other markets. The housing offering is rounded out by a stainless steel version and cast iron with external thread. You can select solenoid coils which are coated with a highly resistance chemical epoxy. For reduced energy requirement, all coils can be delivered with electronic power reduction. In combination with a plug in accordance with DIN EN 175 301-803 Form A, the valves satisfy protection class IP65 – in combination with a stainless steel housing NEMA 4X.

Circuit function A



2/2 way servo-controlled solenoid valve, normally closed

Technical data	
Orifice	Standard DN10... 40 mm HP00: DN13 ... 20
Body material	Brass acc. to DIN EN 50930-6, stainless steel 1.4408 (316), nickel-plated brass (5µm), gunmetal (external thread)
Inner part of valve	Brass body: Brass, stainless steel and PPS Stainless steel body: Stainless steel and PPS
Seal material	NBR, FKM, EPDM
Medium	NBR: Neutral fluids, water, hydraulic oil, oil without additives FKM: Per-solutions, hot oils with additives EPDM: Oil and fat-free fluids and gases
Ambient temperature	Max. +55 °C
Medium viscosity	Max. 21 mm ² /s
Medium temperature	NBR: -10 ... +80 °C FKM: 0 ... +90 °C with polyamide coil / 0 ... 120 °C with epoxy coil EPDM: -30 ... +90 °C with polyamide coil -30 ... +100 °C with epoxy coil
Voltages	Standard 024/DC, 024/50, 230/50, 110/50, 120/60 HP00: 24 V (50 ... 60 Hz), 230 V (50 ... 60 Hz)
Voltage tolerance	±10 %
Duty cycle	100 % continuous rating
Electrical connection	Tag connector acc. to DIN EN 175 301-803 Form A (see ordering chart for accessories, page 7)
Protection class	IP65 with cable plug
Installation	As required, preferably with actuator upright
Response times¹⁾	0.1 ... 4 sec. (depending on orifice and differential pressure)

¹⁾ Measured at valve outlet at 6 bar and +20 °C

Opening: pressure build-up 0 ... 90 %

Closing: Pressure drop 100 ... 10 %

Technical data

Power consumption

Orifice DN	Port Connection	Coil size width [mm]		Power consumption ¹⁾			Insulation class coil ²⁾		Weight [kg]	
		AC	DC	Inrush AC [VA]	Hold (hot coil) AC [VA/W]	DC [W]	Seal material FKM	Seal material NBR and EPDM	Brass Coil AC	Brass Coil DC
10	G ¼. G ⅜	32	40	34	14/8	10 (11)	H	B	0.33	0.41
10	G ½	32	40	34	14/8	10 (11)	H	B	0.37	0.44
13	G ½	32	40	36	14/8	10 (11)	H	B	0.46	0.54
13	G ¾	32	40	36	14/8	10 (11)	H	B	0.49	0.57
20	G ¾	32	40	38	14/8	10 (11)	H	B	0.74	0.82
20	G 1	32	40	38	14/8	10 (11)	H	B	0.95	1.03
25	G 1	42	65	150	37/16	28 (29)	H	H	1.6	2.2
25	G 1 ¼	42	65	150	37/16	28 (29)	H	H	1.7	2.3
40	G 1 ¼	42	65	190	37/16	28 (29)	H	H	3.2	3.7
40	G 1 ½	42	65	190	37/16	28 (29)	H	H	3.2	3.7
40	G 2	42	65	190	37/16	28 (29)	H	H	3.38	3.9

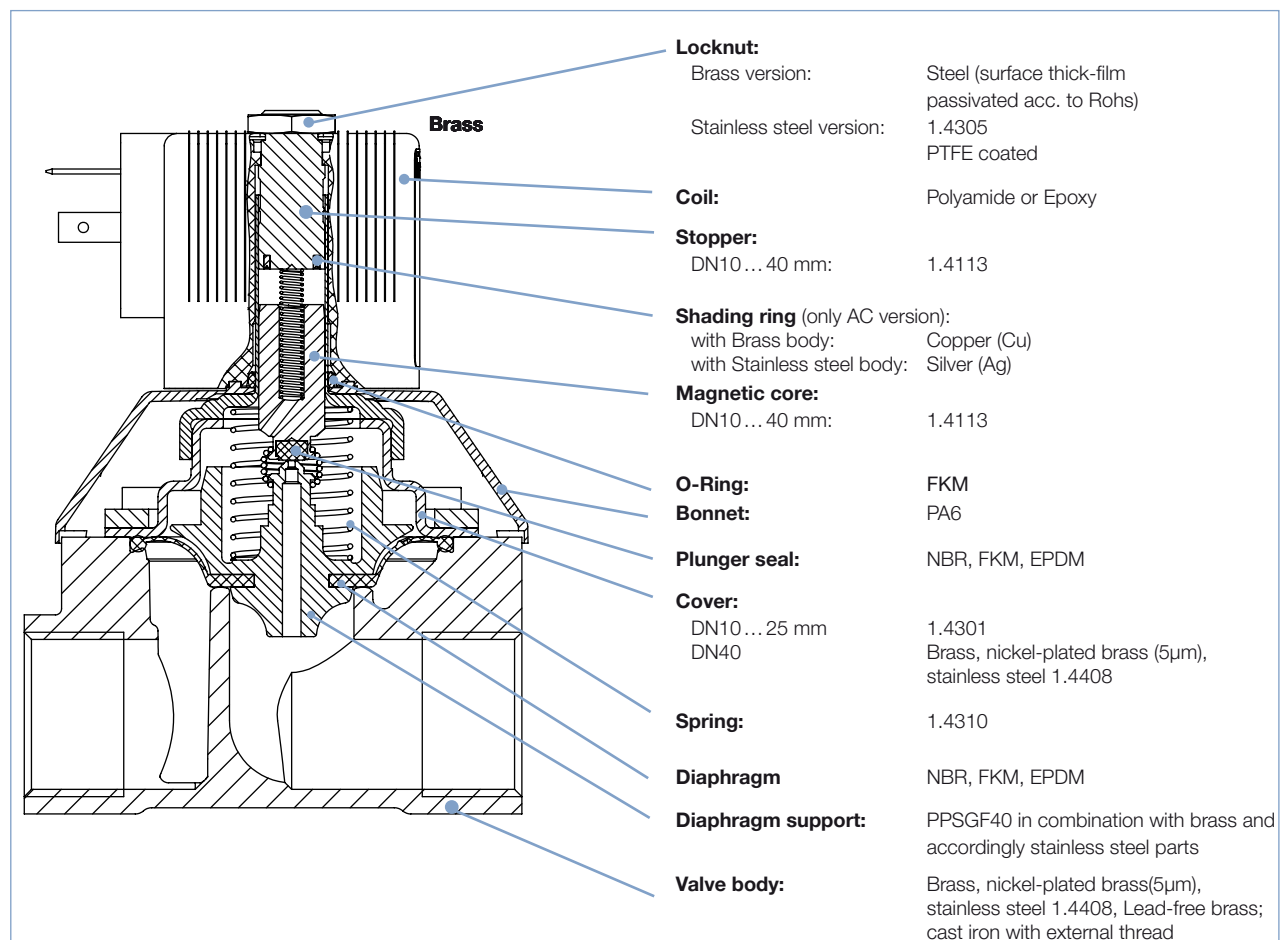
HP00 Power consumption

Orifice DN	Port Connection	Coil size width [mm]		Power consumption ¹⁾			Insulation class coil ²⁾		Weight [kg]	
		AC/DC	AC/DC	Inrush AC [VA]	Hold (hot coil) AC [VA/W]	DC [W]	Seal material FKM	Seal material NBR and EPDM	Brass Coil AC	Brass Coil DC
13	G ½	42		125	37/16	16 (21)	H	H	0.80	0.81
13	G ¾	42		125	37/16	16 (21)	H	H	0.86	0.87
20	G ¾	42		140	37/16	16 (21)	H	H	1.13	1.14
20	G 1	42		140	37/16	16 (21)	H	H	1.30	1.31

¹⁾ Values in brackets applies at coil temperature 20 °C

²⁾ H Epoxy coil, B Polyamide coil

Materials



Dimensions [mm]

coil dimension

coil size	H	J	K	O	M
5	32	20.5	45	41	3.4
6	40	23.5	51	41	3.4
K	42	27	55.5	64	7
L	65	37.5	72	64	7

① The dimensions F1 and G 1 apply to G-threads
 The dimensions F2 and G 2 apply to NPT-threads
 The dimensions F3 and G 3 apply to Rc-threads

② only as brass - thread port version

③ only as stainless steel - thread port version

DN	A	B	C	D	E (MS/VA)	* G		* NPT		* Rc		L (MS/VA)	SW	coil size
						F1 ①	G 1 ①	F2 ①	G 2 ①	F3 ①	G 3 ①			
10	71.1	82.1	36	46	22	12	G ¼	10.0	NPT ¼	-	-	50	22	5 and 6
10 ②	73.1	86.6				12	G ⅝	10.3	NPT ⅝	10.1	Rc ⅝			
10 ③			82.6	95.9	44.5	56.7	27.25	14	G ½	13.7	NPT ½	13.2	Rc ½	55
13 ②	84.6	100.6						14	G ½	13.7	NPT ½	13.2	Rc ½	
13 ③			97.1	113.1	65	76.6	32.5	16	G ¾	14	NPT ¾	14.5	Rc ¾	65
20	99.6	120.1						16	G ¾	14	NPT ¾	14.5	Rc ¾	
20			109.3	122.8	44.5	56	37	18	G 1	16.8	NPT 1	16.8	Rc 1	80
20	123.9	139.9						18	G 1	16.8	NPT 1	16.8	Rc 1	
13 ②			111.3	127.3	65	76.6	27.25	14	G ½	13.7	NPT ½	13.2	Rc ½	58
13 ③	126.4	146.9						14	G ½	13.7	NPT ½	13.2	Rc ½	
13			143.4	163.4	77	88	32.5	16	G ¾	14	NPT ¾	14.5	Rc ¾	65
20	148.3	173.3						16	G ¾	14	NPT ¾	14.5	Rc ¾	
20			153.9	178.9	65	76.6	37	18	G 1	16.8	NPT 1	16.8	Rc 1	80
20	126.4	146.9						18	G 1	16.8	NPT 1	16.8	Rc 1	
25			159.4	189.4	104.5	117	46	20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	95
25	165.4	200.4						20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	
40 ②			159.4	189.4	104.5	117	37	22	G 1½	17.3	NPT 1½	19.1	Rc 1½	80
40	126.4	146.9						22	G 1½	17.3	NPT 1½	19.1	Rc 1½	
40			143.4	163.4	77	88	46	24	G 2	17.6	NPT 2	23.4	Rc 2	95
40	148.3	173.3						24	G 2	17.6	NPT 2	23.4	Rc 2	
40			153.9	178.9	65	76.6	46	20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	95
40	126.4	146.9						20	G 1¼	17.3	NPT 1¼	19.1	Rc 1¼	
40			159.4	189.4	104.5	117	46	22	G 1½	17.3	NPT 1½	19.1	Rc 1½	80
40	126.4	146.9						22	G 1½	17.3	NPT 1½	19.1	Rc 1½	
40			143.4	163.4	77	88	46	24	G 2	17.6	NPT 2	23.4	Rc 2	95
40	148.3	173.3						24	G 2	17.6	NPT 2	23.4	Rc 2	

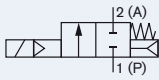
Dimensions [mm] (cont.) cast iron version

HP00 Version
Dimensions (coil, 42 mm)

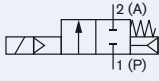
DN	A	B	C	D	2E	* G		* NPT		* Rc		H	J	K	L		M			
					(MS/VA)	F1	G 1	F2	G 2	F3	G 3				(MS/VA)	SW				
20	119.3	139.8	65	76.6	37.5	18	G 1	16.8	NPT 1	16.8	Rc 1	42	27	55.5	80	41	7			
	116.8	132.8			37	16	G ¾	14	NPT ¾	14.5	Rc ¾					32				
13	104.3	120.3	44.5	56	32.5	16	G ¾	14	NPT ¾	14.5	Rc ¾				42	27		55.5	65	32
	102.6	115.6			27.2/32.5	14	G ½	13.7	NPT ½	13.2	Rc ½								58/65	27
					27.2/32.5							58/65	27							

Ordering chart for valves (other versions on request)

Valves with brass body, DN10...40 mm

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h] ¹⁾	Pressure range [bar] ²⁾	Weight [kg] (DC) ³⁾	Article no. per voltage/frequency [V/Hz]			
						024/DC	024/50	230/50	
A 2/2 way servo-controlled solenoid valve, normally closed 	Brass-body, NBR Diaphragm, polyamide coil, medium temperature -10...+80 °C								
	G ¼	10	1.3	0...10	0.3 (0.5)	221674	221675	221677	
	G ¾	10	1.9	0...10	0.3 (0.5)	221598	221599	221601	
	G ½	10	1.9	0...10	0.4 (0.5)	221606	221607	221609	
	G ½	13	3.6	0...10	0.4 (0.5)	221602	221603	221605	
	G ¾	13	3.6	0...10	0.5 (0.6)	221618	221619	221621	
	G ¾	20	8.3	0...10	0.7 (0.8)	221630	221631	221633	
	G 1	20	8.3	0...10	0.9 (1.0)	221634	221635	221637	
	Brass-body, NBR Diaphragm, epoxy coil, medium temperature -10...+80 °C								
	G 1	25	11	0...10	1.6 (2.2)	227533	221725	221728	
	G 1¼	25	11	0...10	1.7 (2.3)	227534	221729	221732	
	G 1¼	40	23	0...10	2.9 (3.4)	270903	270895	270899	
	G 1½	40	30	0...10	3.2 (3.7)	227539	221750	221753	
	G 2	40	30	0...10	3.4 (3.9)	227541	221754	221757	
	Brass-body, FKM Diaphragm, epoxy coil, medium temperature 0...120 °C								
	G ¼	10	1.3	0...10	0.3 (0.5)	221678	221679	221681	
	G ¾	10	1.9	0...10	0.3 (0.5)	221610	221611	221613	
	G ½	10	1.9	0...10	0.4 (0.5)	221614	221615	221617	
	G ½	13	3.6	0...10	0.4 (0.5)	221622	221623	221625	
	G ¾	13	3.6	0...10	0.5 (0.6)	221626	221627	221629	
	G ¾	20	8.3	0...10	0.7 (0.8)	221638	221639	221641	
	G 1	20	8.3	0...10	0.9 (1.0)	221642	221643	221645	
	G 1	25	11	0...10	1.6 (2.2)	227537	221733	221736	
	G 1¼	25	11	0...10	1.7 (2.3)	227538	221737	221740	
	G 1¼	40	23	0...10	2.9 (3.4)	270905	270906	270908	
	G 1½	40	30	0...10	3.2 (3.7)	227544	227724	227726	
G 2	40	30	0...10	3.4 (3.9)	227545	227728	227730		
Brass-body, EPDM Diaphragm, polyamide coil, medium temperature -30...+90 °C									
G ¼	10	1.3	0...10	0.3 (0.4)	221670	221671	221673		
G ¾	10	1.9	0...10	0.3 (0.4)	221646	221647	221649		
G ½	10	1.9	0...10	0.4 (0.5)	221650	221651	221653		
G ½	13	3.6	0...10	0.4 (0.5)	221654	221655	221657		
G ¾	13	3.6	0...10	0.5 (0.6)	221658	221659	221661		
G ¾	20	8.3	0...10	0.7 (0.8)	221662	221663	221665		
G 1	20	8.3	0...10	0.9 (1.0)	221666	221667	221669		
Brass-body, EPDM Diaphragm, epoxy coil, medium temperature -30...+100 °C									
G 1	25	11	0...10	1.6 (2.2)	227535	221717	221720		
G 1¼	25	11	0...10	1.7 (2.3)	227536	221721	221724		
G 1¼	40	23	0...10	2.9 (3.4)	270904	270890	270894		
G 1½	40	30	0...10	3.2 (3.7)	227542	221741	221745		
G 2	40	30	0...10	3.4 (3.9)	227543	221746	221749		
Gunmetal housing with external thread, EPDM Diaphragm, epoxy coil, medium temperature -30...+100 °C⁵⁾									
G ½	10	1.9	0...10	0.4	311670	311674	311679		
G ¾	13	3.6	0...10	0.6	311681	311684	311688		
G 1	20	8.3	0...10	1.1	311691	311693	311696		

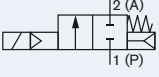
DN13...20 mm HPOO version

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h] ¹⁾	Pressure range [bar] ²⁾	Weight [kg] (DC)	Article no. per voltage/frequency [V/Hz]			
						024/DC	024/50-60	230/50-60	
A 2/2 way servo-controlled solenoid valve, normally closed 	Brass-body, FKM Diaphragm, epoxy coil, medium temperature 0...+120 °C								
	G ½	13	3.6	0...10	0.8	221706	221705	231574	
	G ¾	20	8.3	0...10	1.3	221712	221711	221713	
	G 1	20	8.3	0...10	1.4	221715	221714	221716	
	Brass-body, EPDM Diaphragm, epoxy coil, medium temperature -30...+100 °C								
	G ½	13	3.6	0...10	0.8	221694	221693	221695	
	G ¾	20	8.3	0...10	1.3	208422	221699	189592	
	G 1	20	8.3	0...10	1.4	221703	221702	221704	
	Gunmetal housing with external thread, EPDM Diaphragm, epoxy coil, medium temperature -30...+100 °C⁵⁾								
	G ¾	13	3.6	0...10	0.6	312248	312249	312250	
	G 1	20	8.3	0...10	1.3	312244	312246	312247	

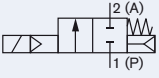
¹⁾ Measured at +20 °C, 1 bar²⁾ pressure at valve inlet and free outlet²⁾ Pressure data [bar]: Overpressure with respect to atmospheric pressure³⁾ The values in brackets regarding the weight apply to the DC version⁴⁾ A minimum differential pressure of 0.5 bar is required for full (100%) opening⁵⁾ Approved for drinking water according to KTW and W270

Ordering chart for valves (other versions on request)

Valves with Stainless steel body;
DN10...40 mm

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h] ¹⁾	Pressure range [bar] ²⁾	Weight [kg] (DC) ³⁾	Article no. per voltage/frequency [V/Hz]			
						024/DC	024/50	230/50	
A 2/2 way servo-controlled solenoid valve, normally closed 	Stainless steel-body, NBR Diaphragm, polyamide coil, medium temperature -10...80 °C								
	G 3/8	10	1.9	0...10	0.3 (0.4)	222150	222151	222152	
	G 1/2	13	3.6	0...10	0.4 (0.5)	222156	222157	222158	
	G 3/4	20	8.3	0...10	0.7 (0.8)	222168	222169	222170	
	G 1	20	8.3	0...10	0.9 (1.0)	222171	222172	222173	
	Stainless steel body, NBR Diaphragm, epoxy coil, medium temperature -10...+80 °C								
	G 1	25	11	0...10	1.6 (2.2)	227546	228429	222193	
	G 1 1/4	25	11	0...10	1.7 (2.3)	227547	228432	222197	
	G 1 1/2	40	30	0...10	3.2 (3.7)	227552	228435	222201	
	G 2	40	30	0...10	3.4 (3.9)	227554	228438	222205	
	Stainless steel body, FKM Diaphragm, epoxy coil, medium temperature 0...120 °C								
	G 3/8	10	1.9	0...10	0.3 (0.4)	221758	221759	221761	
	G 1/2	13	3.6	0...10	0.4 (0.5)	221762	221763	221765	
	G 3/4	20	8.3	0...10	0.7 (0.8)	222122	222123	222125	
	G 1	20	8.3	0...10	0.9 (1.0)	222126	222127	222129	
	G 1	25	11	0...10	1.6 (2.2)	227550	228430	222143	
	G 1 1/4	25	11	0...10	1.7 (2.3)	227551	228433	222145	
	G 1 1/2	40	30	0...10	3.2 (3.7)	227557	228436	222147	
	G 2	40	30	0...10	3.4 (3.9)	227558	228439	222149	
	Stainless steel-body, EPDM Diaphragm, polyamide coil, medium temperature -30...90 °C								
G 3/8	10	1.9	0...10	0.3 (0.4)	222153	222154	222155		
G 1/2	13	3.6	0...10	0.4 (0.5)	222159	222160	222161		
G 3/4	20	8.3	0...10	0.7 (0.8)	222174	222175	222176		
G 1	20	8.3	0...10	0.9 (1.0)	222177	222178	222179		
Stainless steel-body, EPDM Diaphragm, epoxy coil, medium temperature -30...+100 °C									
G 1	25	11	0...10	1.6 (2.2)	227548	228431	222195		
G 1 1/4	25	11	0...10	1.7 (2.3)	227549	228434	222199		
G 1 1/2	40	30	0...10	3.2 (3.7)	227555	228437	222203		
G 2	40	30	0...10	3.4 (3.9)	227556	228440	222207		

DN13...20 mm HPOO version

Circuit function	Port connection	Orifice [mm]	K _v value water [m ³ /h] ¹⁾	Pressure range [bar] ²⁾	Weight [kg] (DC)	Article no. per voltage/frequency [V/Hz]			
						024/DC	024/50 - 60	230/50 - 60	
A 2/2 way servo-controlled solenoid valve, normally closed 	Stainless steel body, FKM Diaphragm, epoxy coil, medium temperature 0...120 °C								
	G 1/2	13	3.6	0...10	0.8	208694	220585	205351	
	G 3/4	20	8.3	0...10	1.3	222137	222136	222138	
	G 1	20	8.3	0...10	1.4	222140	222139	222141	
	Stainless steel-body, EPDM Diaphragm, epoxy coil, medium temperature -30...100 °C								
	G 1/2	13	3.6	0...10	0.8	213132	222166	220584	
	G 3/4	20	8.3	0...10	1.3	222186	222187	222188	
G 1	20	8.3	0...10	1.4	222189	222190	222191		

¹⁾ Measured at +20 °C, 1 bar²⁾ pressure at valve inlet and free outlet.²⁾ Pressure data [bar]: Overpressure with respect to atmospheric pressure.³⁾ The values in brackets regarding the weight apply to the DC version.⁴⁾ A minimum differential pressure of 0.5 bar is required for full (100%) opening.

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

i Further versions on request



Port connection
NPT, Rc, GS



Temperature
Special temperature ranges



Voltages
further Voltages available



Body material
Brass dezincification resistant
nickel-plated brass (5µm)
gunmetal



Approvals

Safety shut-off valve for firing systems acc. to DIN EN ISO 23553-1
drinking water approval acc. to KTW/W270
VDE Approval acc. to DIN EN 60730 (VDE0631)
Watermark Licence
UL(UL-listed) approval (MH10753)
UR(UL-recognized) approval
NEMA 250 Type 4X
NSF61 drinking water approval USA



**Orifice DN10 in brass and stainless steel is also available in explosion proof version
Explosion protected approvals**

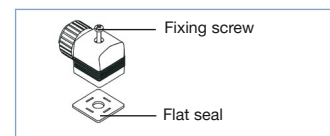
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II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135 °C Db

IECEX: IECEX PTB 14.0049 X
Ex mb IIC T4 Gb
Ex mb IIIC T135 °C Db

Ordering chart for accessories

Cable plug Type 2508 according to DIN EN 175 301-803 Form A


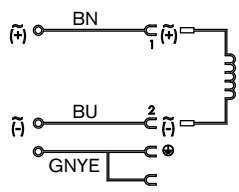




	Circuitry	Voltage / frequency	Article no.
	None (standard)	0 ... 250 V AC/DC	008376 
further versions see datasheet Type 2508			



The delivery of a cable plug includes the flat seal and the fixing screw.
For further versions see datasheet Type 2508

Cable plug Type 2513 acc. to DIN EN 175 301-803, Form A

Meets the requirements of ATEX category 3 GD

		Cable length [mm]	Article no. [in mm]
		12000	260893 
		5000	260892 
		3000	260891 
		300	260890 

To find your nearest Bürkert facility, click on the orange box → www.buerkert.com

In case of special application conditions,
please consult for advice.

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