

Dubbelsensor för elektrisk lägesåterkoppling Till Kulventil 546 Pro, 543 Pro och Vridspjällventil 565/567/578

Utförande:

- Tillbehör till kulventil 546 Pro, 543 Pro och vridspjällventil 565/567/578
- Möjliggör elektrisk lägesåterkoppling, inkl. LED, i kombination med GF gränssnittmodul
- IP67 klassning
- Honkontakt och kablar tillgängliga - se 198546150 – 154
- NAMUR version har ATEX och IECEx certifiering
- Dimensioner: Kulventil 546 Pro och 543 Pro DN10-100, Vridspjällventil 565 DN50-300, Vridspjällventil 567/578 DN50-200 och DN350-600

Specifikation

Husmaterial: PBTGF20

Brytarfunktion: 2x normalt öppen (NO)

Utgång typ: PNP eller NPN

Utgång polaritet: DC

Utgång typ: 3-tråd

Driftspänning (U_B): 10... 30V DC

Skydd mot omvänd polaritet: alla anslutningar

Spänningsfall (U_d): $\leq 3V$

Driftström (I_L): 0... 150mA

Off-state ström (I_L): 0... 0.5mA typ. 0.1 μA vid 25°C

Obelastad matningsström (I_0): $\leq 25mA$

Omgivningstemperatur: -25...70°C (-13...158°F)

Anslutning (systemsida): 4-pin, M12 x 1 anslutning

Standards: EN 60947-5-2:2007, EN 60947-5-2/A1:2012 IEC 60947-5-2:2007, IEC 60947-5-2 AMD 1:2012

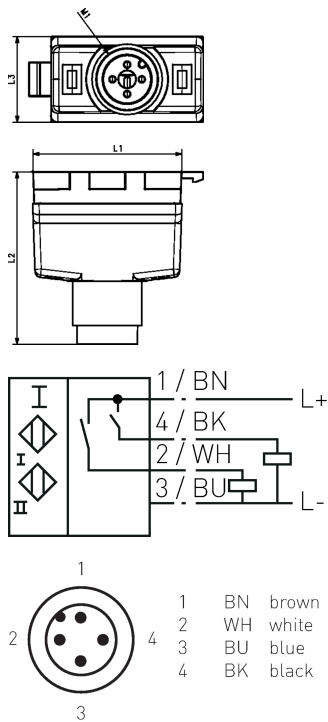
MTTF_d 948 a

Hänvisning:

*NAMUR sensor fungerar ej med 565.

För manuella vridspjällventiler krävs en extra kopplingsring (artikelnummer 199565900-199565003). Ventiler med elektriska eller pneumatiska manöverdon har redan denna kopplingsring förmonterad.

	LED Signalfärg	PNP Artikelnr.	RSK	SP	Vikt (kg)	NPN RSK Artikelnr.
Stängd: grön / Öppen: röd		198 546 001	519 73 49	1	0,050	198 546 005
Stängd: röd / Öppen: grön		198 546 002	519 73 50	1	0,050	198 546 006



***Namur RSK L1 L2 L3 M1**
(Atex) (mm) (mm) (mm)

Artikelnr.

198 546 003	26	30	15	M12
198 546 004	26	30	15	M12

Technical data	PNP/NPN	NAMUR
Technology	Inductive	
Output circuit	PNP, NPN 2x normally open (NO)	NAMUR 2x normally closed (NC)
Hysteresis	Typically 5%	Typically 10%
Switching frequency	<500 Hz	<1000 Hz
Output indicator	Output 1 / 2 Art. Nr. 198546001 PNP LED red / green Art. Nr. 198546002 PNP LED green / red Art. Nr. 198546005 NPN LED red / green Art. Nr. 198546006 NPN LED green / red	Output 1 / 2 LED red / green LED green / red
Voltage supply range +Vs	10...30V DC	8.2 V
Operating current	0...150 mA	
Voltage drop (Ud)	≤3V	
Off-state current (I _r)	0... 0.5mA typ. 0.1 μA at 25°C	
No-load supply current (I ₀)	≤ 25 mA	≥ 3 mA
MTTFd	780 a	2122 a
Short circuit protection		Yes
Reverse polarity protection		Yes
Protection class		IP67
Housing material		PBTGF20
Operating temperature	-25...70 °C (-13...158°F)	
Connection	4-pin, M12x1	
NAMUR Version	Safety Integrity Level: SIL 2	
Approvals/Certificates	IECEx TUR 20.0002X (Ga, Gb, Mb) TÜV 19 ATEX 8467 X(Ga, Gb)	

Tekniska data är ej bindande. De utgör varken uttryckligen garanterade prestanda eller garanterade egenskaper eller en garanterad hållbarhet. Förbehåll för ändringar. I övrigt gäller våra allmänna försäljningsvillkor.

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Double sensor for electrical position feedback



Double sensor

Double sensor, mounted on Butterfly Valve type 565

Double sensor, mounted on Ball Valve Type 546 Pro

Product description

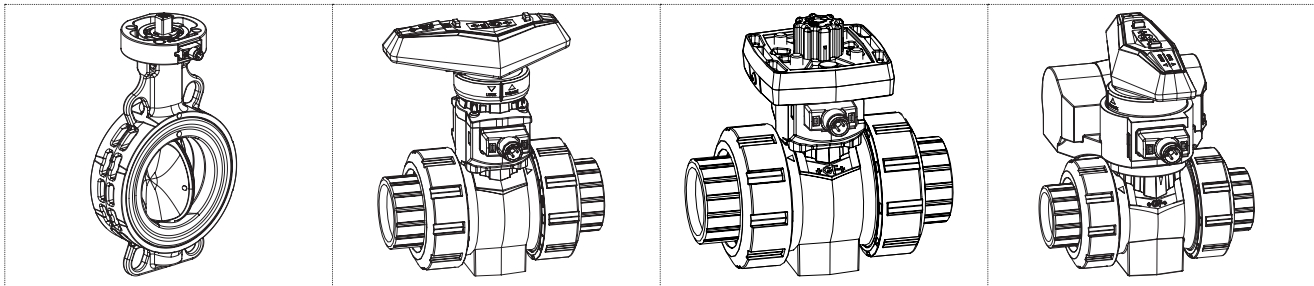
The double sensor is used to signal the closed or open position of a ball valve or a butterfly valve. The switching states are output via two integrated LEDs and forwarded as an electrical signal to a control unit or similar system provided by the customer.

ATEX version: The ATEX double sensor can be used in potentially explosive areas with flammable gas, vapor, mist and dust.

Advantages

- Detection of two switching states open/closed
- Simple installation, without tools
- Switching status indication via integrated green and red LEDs
- Various common versions PNP, NPN, NAMUR, opening and closing procedures available

Applications



Double sensor on butterfly valve Type 565W/Type 565L

Double sensor on ball valve Type 546 Pro/ Type 543 Pro with interface module, manually operated

Double sensor on ball valve type 546 Pro/ type 543 Pro with interface module, automatically actuated

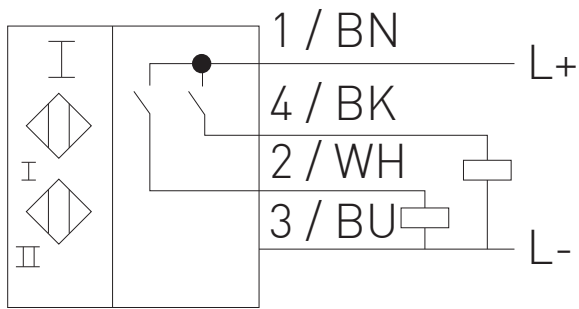
Double sensor on ball valve type 546 Pro/ type 543 Pro with spring return unit

Technical data

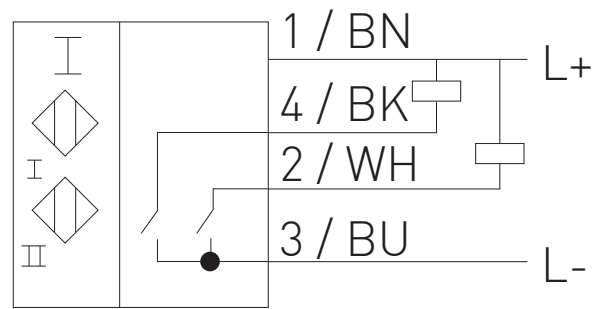
Specifications	PNP/NPN	NAMUR
Technology	Inductive	Inductive
Output circuit	PNP, NPN 2x NO contact	NAMUR 2x NC contact
Hysteresis	Typical 5%	Typical 10%
Switching frequency	<500 Hz	<1000 Hz
Switching status display	Output 1 / 2	Output 1 / 2
Art. Nr. 198546001 PNP	LED red / green	
Art. Nr. 198546002 PNP	LED green / red	
Art. Nr. 198546005 NPN	LED red / green	
Art. Nr. 198546006 NPN	LED green / red	
Art. Nr. 198546003 NAMUR		LED red / green
Art. Nr. 198546004 NAMUR		LED green / red
Supply voltage range +Vs	10...30V DC	8.2 V
Operating current	0...150 mA	
Voltage drop (U _d)	≤3V	
Off-state current (I _r)	0... 0.5mA typ. 0.1 μA bei 25°C	
No-load supply current (I ₀)	≤ 25 mA	≥ 3 mA
MTTF _d	780 a	2122 a
Short-circuit proof		yes
Reverse polarity protected		yes
Protection class		IP67
Housing material		PBTGF20
Operating temperature		-25...70 °C (-13...158°F)
Connection		4-pin, M12x1
NAMUR version Approvals/certificates	Safety integrity level: SIL 2 IECEX TUR 20.0002X (Ga, Gb, Mb) TÜV 19 ATEX 8467 X(Ga, Gb)	

Connection diagrams

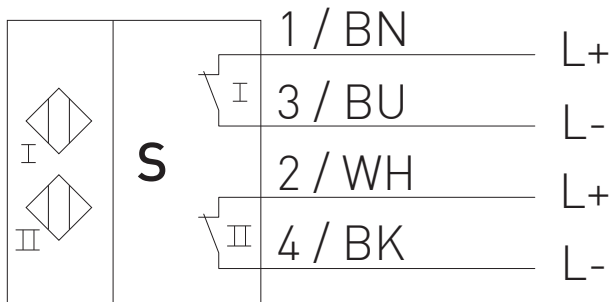
PNP



NPN



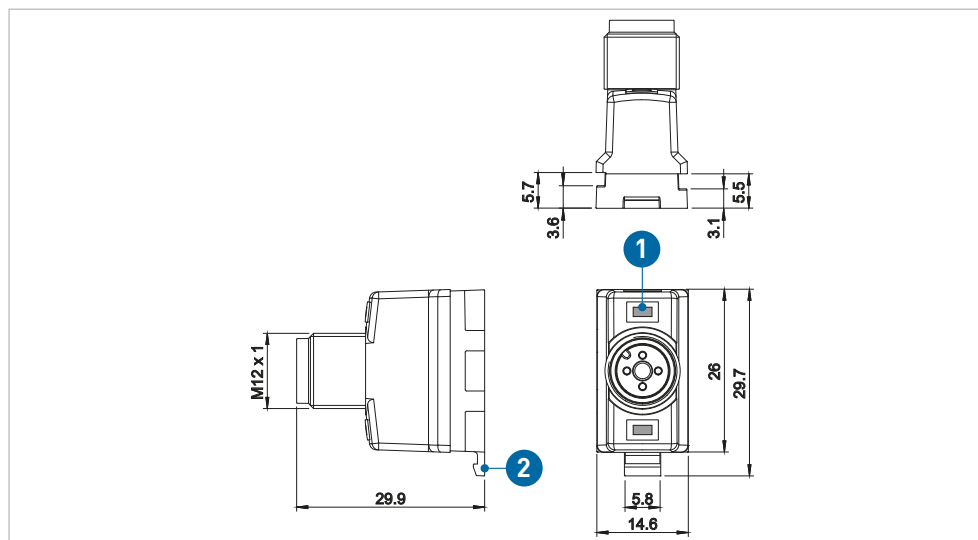
NAMUR



Connector pin assignment


Pin	Color coding	Color	Connector diagram
1	BN	brown	
2	WH	white	
3	BU	blue	
4	BK	black	

Dimensions



- 1 Status LED
- 2 Snapper

Article overview

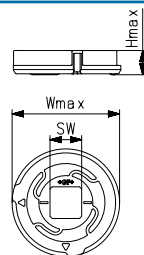
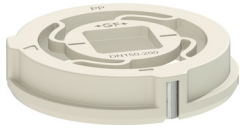
Code	Output circuit	Open Signal Color	Closed Signal Color	Product picture
198 546 001	PNP	LED red	LED green	
198 546 002	PNP	LED green	LED red	
198 546 005	NPN	LED red	LED green	
198 546 006	NPN	LED green	LED red	
198 546 003	NAMUR	LED red	LED green	
198 546 004	NAMUR	LED green	LED red	

Accessories

Suitable connection cables are available as accessories:

Code	LED signal color
198546150	M12x1, 4-pin, plug, without cable
198546151	M12x1, 4-pin, PVC, 5m
198546152	M12x1, 4-pin, PVC, 10m
198546153	M12x1, 4-pin, PUR, 5m
198546154	M12x1, 4-pin, PUR, 10m

Switching ring for double sensor (For manually operated type 565 butterfly valves)

DN (mm)	Code	Acc. to ISO 5211	SW (mm)	Wmax (mm)	Hmax (mm)	Dimensions	Product picture
50 - 80	199 565 900	F07	11	57.7	12.5		
100 - 125	199 565 901	F07	14	57.7	12.5		
150 - 200	199 565 902	F07	17	57.7	12.5		
250 - 300	199 565 903	F10	22.1	79.8	12.5		




The additional switching ring is required for manually operated butterfly valves type 565. The switching ring is already pre-assembled for electrically or pneumatically actuated valves.


Intermediate elements type 567/578

Intermediate elements are required as a connection between type 567/578 valve and Actuator. The intermediate elements include different screws, hexagon nuts, washer, switching rings, etc. (depends on actuator and dimension).


Intermediate elements for Reduction Gear

DN (mm)	Code	Reduction gear	Acc. to ISO 5211	Product picture example
50 - 80	198 000 621	161 483 471	F07	
100 - 125	198 000 622	161 483 471	F07	
150 - 200	198 000 599	161 483 471	F07	
250 - 300	198 000 732	161 483 472	F07	


Intermediate elements for Electric Actuators EA45-250, dEA45-250

DN (mm)	Code	Actuator Type	Acc. to ISO 5211	Product picture example
50 - 65	198 000 943	EA45	F05/F07	
80	198 000 601	xEA120	F07	
100 - 125	198 000 602	xEA120	F07	
150	198 000 600	xEA120	F07	
200 - 250	198 000 603	xEA250	F07	
300	198 000 732	xEA250	F07/F10	

Intermediate elements for Pneumatic Actuators PPA, function FC/F0

DN (mm)	Code	Typ	Acc. to ISO 5211	Product picture example
50 - 65	198 000 950	PPA40	F05/F07	
80	198 000 949	PPA80	F05/F07	
100 - 125	198 000 948	PPA80	F05/F07	

Intermediate elements for Pneumatic Actuators PPA, function DA

DN (mm)	Code	Typ	Acc. to ISO 5211	Product picture example
50 - 65	198 000 950	PPA40	F05/F07	
80	198 000 950	PPA80	F05/F07	
100 - 125	198 000 948	PPA80	F05/F07	

Intermediate elements for Pneumatic Actuators PA30-90, function FC/F0

DN (mm)	Butterfly valve type	Code	Type	Acc. to ISO 5211	Product picture example
50	567/578	198 000 791	PA30	F05/F07	
65	567/578	198 000 791	PA30	F05/F07	
80	567/578	198 000 793	PA35	F05/F07	
100	567/578	198 000 794	PA40	F07	
125	567/578	198 000 795	PA45	F07	
150	567/578	198 000 796	PA50	F07	
200	567/578	198 000 798	PA55	F07	
250	567	198 000 760	PA65	F10	
250	578	198 000 945	PA65	F10	
300	567	198 000 225	PA70	F10	
300	578	198 000 946	PA70	F10	


Intermediate elements for Pneumatic Actuators PA30-90, function DA

DN (mm)	Butterfly valve type	Code	Type	Acc. to ISO 5211	Product picture example
50	567/578	198 000 595	PA35	F05/F07	
65	567/578	198 000 595	PA35	F05/F07	
80	567/578	198 000 791	PA40	F07	
100	567/578	198 000 794	PA45	F07	
125	567/578	198 000 797	PA45	F07	
150	567/578	198 000 796	PA55	F07	
200	567/578	198 000 796	PA55	F07	
250	567	198 000 731	PA65	F10	
250	578	198 000 944	PA65	F10	
300	567	198 000 731	PA65	F10	
300	578	198 000 944	PA65	F10	

Type 543 Pro & type 546 Pro Interface module, manual actuated

The manually operated interface module can be used to transmit the open or closed position of the type 546 Pro or type 543 Pro ball valve to a customer control system via an electrical signal from the double sensor.


DN (mm)	Code
DN10/15	198546102
DN20/25	198546103
DN32/40	198546105
DN50	198546107



Type 543 Pro & type 546 Pro Spring reset unit (dead man's switch)

The spring reset unit (dead man's switch) is installed onto the ball valve type 546 Pro or type 543 Pro and ensures that the ball valve is closed automatically as soon as the handle is released. It is opened against the spring force. The spring reset unit can be used to transmit the open or closed position of the type 546 Pro or type 543 Pro ball valve to a customer control system via an electrical signal from the double sensor.

DN (mm)	Code
DN10/15	198546082
DN20/25	198546083



Type 543 Pro & type 546 Pro Interface module, automatic actuated

With the help of the automatically actuated interface module, electric or pneumatic actuators can be attached on the ball valve type 546 Pro or type 543 Pro, which allows the automation of the ball valve's change of position. In addition, an interface is available for the installation of the double sensor for electrical position feedback.

DN (mm)	Code Pneumatic GF actuators PPA	Code Electric GF actuators EA15/EA25/dEA	Code Ring for type 543 Pro
DN10/15	198546162	198546142	198543000
DN20	198546163	198546143	198543001
DN25	198546164	198546144	198543001
DN32	198546135	198546145	198543002
DN40	198546136	198546146	198543002
DN50	198546137	198546147	198543003



DN (mm)	SW	Code Norm actuators according to ISO 5211
DN10/15	SW09	198546122
DN10/15	SW11/14	198546123
DN20/25	SW09	198546124
DN20/25	SW11/14	198546125
DN32-40	SW11/14	198546126
DN50	SW11/14	198546127



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