

Type 0330



## 5. Device/Process connections

### 5.1. PIN assignment standard version

**Note:**

The pin assignment (marked No. 1, 2 and 3 in the drawing) depends on the circuit function. In the table, compare the respective pin assignment with the corresponding circuit function.

Circuit function	Connection 1	Connection 2	Connection 3	2 way	3 way
A	P	A	-		
B	B	P	-		
C	P	A	R		
D	R	B	P		
E	P1	A	P2		
F	A	P	B		
T	NC	I <sub>N</sub> /OUT	NO		

### 5.2. PIN assignment explosion proof version

**Note:**

The pin assignment (marked No. 1, 2 and 3 in the drawing) depends on the circuit function. In the table, compare the respective pin assignment with the corresponding circuit function.

Circuit function	Connec-tion 1	Connec-tion 2	Connec-tion 3	2 way	3 way
A	P	A	-		
B	B	P	-		
C	P	A	R		
D	R	B	P		
E	P1	A	P2		
F	A	P	B		
T	NC	I <sub>N</sub> /OUT	NO		

DTS 1000079488 EN Version: Y Status: RL (released | freigegeben | valide) printed: 02.02.2021

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## 6. Performance specifications

### 6.1. Pressure range and flow rate

Standard version

Circuit function	DN	K <sub>v</sub> value water		Pressure range <sup>1)</sup>		
		DC	AC (50 or 60 Hz)	Standard <sup>2)</sup>	Vacuum <sup>3)</sup>	Impulse <sup>4)</sup>
		[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[bar]	[bar]	[bar]
<b>Metal body</b>						
A / B / C / D / F	2.0	0.08	0.11	0...16 <sup>5)</sup>	-0.98...10	0...16 <sup>5)</sup>
	3.0	0.14	0.18	0...10	-0.98...6	0...10
	4.0	0.17	0.23	0...5	-0.98...3	0...5
	5.0	0.29	0.29	0...2.5	-0.98...1	0...2.5
E	2.0	0.08	0.11	0...10	-0.98...8	0...10
	3.0	0.14	0.18	0...6	-0.98...5	0...6
	4.0	0.17	0.23	0...3	-0.98...2.5	0...3
	5.0	0.29	0.29	0...1.5	-0.98...1	0...1
T	2.0	0.08	0.11	0...12	-0.98...8	0...10
	3.0	0.14	0.18	0...8	-0.98...5	0...6
	4.0	0.17	0.23	0...4	-0.98...2.5	0...5
	5.0	0.29	0.29	0...2.5	-0.98...1	-

Circuit function	DN	K <sub>v</sub> value water <sup>6)</sup> [m <sup>3</sup> /h]	Pressure range <sup>1)</sup>			
			Standard <sup>2)</sup> AC [50 or 60 Hz] [bar]	Standard <sup>2)</sup> DC [bar]	Vacuum <sup>3)</sup> [bar]	Impulse <sup>4)</sup> [bar]
			<b>Plastic body</b>			
A / B / C / D / F	2.0	0.13	0...16 <sup>5)</sup>	0...12	-0.98...10	0...12
	3.0	0.25	0...10	0...8	-0.98...6	0...8
	4.0	0.30	0...5	0...4	-0.98...3	0...4
	5.0	0.40	0...4.5	0...3	-0.98...1	0...3
E / T	2.0	0.13	0...10	0...7	-0.98...7	0...7
	3.0	0.25	0...6	0...4	-0.98...5	0...4
	4.0	0.30	0...3	0...2	-0.98...2.5	0...2

1.) Pressure values with respect to atmospheric pressure (deviating pressure range for 5 W version)

2.) Rated power consumption 8 W

3.) Vacuum possible for all seal materials

4.) Inrush power 11 W

5.) For seal material FKM and FFKM the max. medium pressure is 12 bar

6.) At frequency DC the K<sub>v</sub> value is reduced till 10 % to fulfil the function

### Use in other circuit functions

The compression springs installed in the valves differ depending on the circuit function. When used in other circuit functions, the permissible operating pressure changes according to the following table.

Circuit function	Max. operating pressure [bar] when using the valve in a new circuit function																	
	Orifice DN 2						Orifice DN 3						Orifice DN 4					
	A <sup>1)</sup>	B <sup>1)</sup>	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
<b>Metal body (8 W respectively 11 W)</b>																		
C	16	1.5	16	1.5	1.5	16	10	1	10	1	1	10	5	0.8	5	0.8	0.8	5
D	4	16	4.5	16	4	4	2.5	10	2.5	10	2	3	2	5	2	5	2	2
T	8	8	10	10	10	8	6	6	6	6	6	6	3	3	3	3	3	3
<b>Plastic body (8 W respectively 11 W)</b>																		
C	16	1.5	16	1.5	1.5	16	10	1	10	1	1	10	5	0.8	5	0.8	0.8	5
D	4	16	4.5	16	4	4	2.5	10	2.5	10	2	3	2	5	2	5	2	2
F	16	1.5	10	1.5	1.5	16	6	1	6	1	1	10	4	1	4	1	1	5

1.) For circuit function A and B the valve must be connected acc. to the pin assignment of 3/2 way valve.

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## Explosion proof version

Circuit function	DN	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range <sup>1.) 2.)</sup>	
			Standard	Vacuum
			[bar]	[bar]
<b>Metal body</b>				
A / B / C / D / F	2.0	0.11	0...16	-0.98...10
	3.0	0.18	0...10	-0.98...6
	4.0	0.23	0...5	-0.98...3
	5.0	0.29	0...4	-0.98...2.5
E	2.0	0.11	0...10	-0.98...8
	3.0	0.18	0...6	-0.98...5
	4.0	0.23	0...3.5	-0.98...2.5
	5.0	0.29	0...3	-0.98...2
T	2.0	0.11	0...10	-0.98...8
	3.0	0.18	0...6	-0.98...5

Circuit function	DN	K <sub>v</sub> value water [m <sup>3</sup> /h]	Pressure range <sup>1.) 2.)</sup>	
			Standard	Vacuum
			[bar]	[bar]
<b>Plastic body</b>				
A / B / C / D / F	2.0	0.13	0...16	-0.98...10
	3.0	0.25	0...10	-0.98...6
	4.0	0.30	0...5	-0.98...3
	5.0	0.40	0...4.5	-0.98...1
E / T	2.0	0.13	0...10	-0.98...7
	3.0	0.25	0...6	-0.98...5
	4.0	0.30	0...3	-0.98...2.5

1.) Devices with FKM or FFKM diaphragm are reduced to a max. pressure of 12 bar.

2.) Pressure data: Measured as overpressure to the atmospheric pressure

## Use in other circuit functions

The compression springs installed in the valves differ depending on the circuit function. When used in other circuit functions, the permissible operating pressure changes according to the following table.

Circuit function	Max. operating pressure [bar] when using the valve in a new circuit function																	
	Orifice DN 2						Orifice DN 3						Orifice DN 4					
	A <sup>1.)</sup>	B <sup>1.)</sup>	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
<b>Metal body (8 W respectively 11 W)</b>																		
C	16	1.5	16	1.5	1.5	16	10	1	10	1	1	10	5	0.8	5	0.8	0.8	5
D	4	16	4.5	16	4	4	2.5	10	2.5	10	2	3	2	5	2	5	2	2
T	8	8	10	10	10	8	6	6	6	6	6	6	3	3	3	3	3	3
<b>Plastic body (8 W respectively 11 W)</b>																		
C	16	1.5	16	1.5	1.5	16	10	1	10	1	1	10	5	0.8	5	0.8	0.8	5
D	4	16	4.5	16	4	4	2.5	10	2.5	10	2	3	2	5	2	5	2	2
F	16	1.5	10	1.5	1.5	16	6	1	6	1	1	10	4	1	4	1	1	5

1.) For circuit function A and B the valve must be connected acc. to the pin assignment of 3/2 way valve.

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## 7. Product accessories

### 7.1. Accessories standard version

Option	Variable Code	Description
Impulse version	CF02	Bistable magnetic system with inrush and drop-off coil; continuous operation or operation with short current pulses (min. 150 ms) possible
Oxygen versions	NL02	Suitable for applications with oxygen (non-metal materials that are in contact with the medium, are tested and approved according to BAM)
Increased purity requirements e.g. oil, grease and silicone-free	NL50/NL05	Wetted parts are specially cleaned and packaged in accordance with the valves
Increased tightness requirements	PCxx	Standard units are tested at $10^{-2}$ mbar x l/sec; feasible up to $10^{-6}$ mbar
Electrical feedback	LF02/LF03	See <b>Type 1060</b> ▶. Function as opener, closer or toggle switch depending on the connection (no IP65 achievable)
High-power electronics	CZ05	Inrush power 60 W, nominal holding current 3 W; with plastic versions 100 % duty cycle is now feasible
Vacuum version	NA02	Suitable for vacuums up to -0.98 bar
Increased purity and tightness requirements	NA03	Wetted parts are specially cleaned and leak tested to $10^{-4}$ mbar x l/sec
Increased purity and tightness requirements and vacuum version	NA01	Wetted parts are specially cleaned and leak tested up to $10^{-4}$ mbar x l/sec and suited for vacuum up to -0.98 bar
Coil with reduced power (5 W)	–	Devices have lower pressure range; with plastic versions 100 % duty cycle is now feasible
Cable plug	JHxx/JGxx/ JFxx	Cable plug is part of the delivery. Cable plug versions (acc. to DIN EN 175301 - 803 Form A), see datasheet <b>Type 2518</b> ▶ and <b>Type 2509</b> ▶
Approvals	PD01	CSA General Purpose valve
	PD02	UR (UL-recognized)/CSA approval
	PD07	DNV-GL (formerly Germanischer Lloyd)
	PR05	cFMus approved coil Class I, Division 1, Groups A, B, C and D - T4 Class II, Division 1, Groups E, F and G - T4 Class III, Division 1 - T4 Class I, Zone 1, AEx mb IIC T4 Gb, Zone 21 AEx mb IIIC T130 C Db Ex mb IIC T4 Gb; Ex mb IIIC T130 C Db
	PE95	UL (UL-listed) approval
	PU15	UL listed for Hazardous Locations for USA and Canada, Class I, Zone 1, AEx eb mb IIC T4; Zone 21, AEx mb tb IIIC T130 °C / Class I, Div 2, Group A,B,C,D; Class II+III, Div 2, Group F,G
PX41	EPS 16 ATEX 1111 X/IECEx EPS 16.0049X, 2G T4 IIC/2D T130 °C IIIC, Tamb -40 °C bis +60 °C, single and block mounting	
Possible conformities (depending on the assembly)	–	EAC, drinking water, FDA

### 7.2. Accessories explosion proof version

Option	Variable Code	Description
Oxygen versions	NL02	Suitable for applications with oxygen (non-metal materials that are in contact with the medium, are tested and approved according to BAM)
Increased purity requirements e.g. oil, grease and silicone-free	NL50/NL05	Wetted parts are specially cleaned and packaged in accordance with the valves
Increased hermetic requirements	PCxx	Standard units are tested at $10^{-2}$ mbar x l / sec; feasible up to $10^{-6}$ mbar
Vacuum version	NA02	Suitable for vacuums up to -0.98 bar
Increased purity and hermetic requirements	NA03	Wetted parts are specially cleaned and leak tested to $10^{-4}$ mbar x l/sec
Increased purity and hermetic requirements and vacuum version	NA01	Wetted parts are specially cleaned and leak tested up to $10^{-4}$ mbar x l/sec and suited for vacuum up to -0.98 bar
Electrical feedback	CF15	Coil with intrinsically safe proximity switches (PTB 00 ATEX 2048X) instead of manual override

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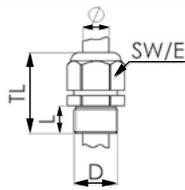
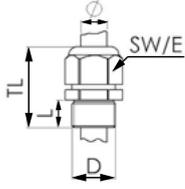
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7.3. Cable glands for ATEX/IECEX terminal box

Note:

A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at a surcharge, see "8.4. Ordering chart accessories" on page 17.

Description	Ex approvals		Dimensions										
	Certification	Identification											
Ex cable gland, Brass, nickel-plated, 6...13 mm 	PTB 04 ATEX 1112 X, IECEx PTB 13.0027X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table border="1"> <tr><td>TL</td><td>29...37 mm</td></tr> <tr><td>L</td><td>6 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>27 mm</td></tr> </table>	TL	29...37 mm	L	6 mm	D	20 mm	SW	24 mm	E	27 mm
TL	29...37 mm												
L	6 mm												
D	20 mm												
SW	24 mm												
E	27 mm												
Ex cable gland, Polyamide, 7...13 mm 	PTB 13 ATEX 1015 X, IECEx PTB 13.0034X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table border="1"> <tr><td>TL</td><td>36...45 mm</td></tr> <tr><td>L</td><td>10 mm</td></tr> <tr><td>D</td><td>20 mm</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>28 mm</td></tr> </table>	TL	36...45 mm	L	10 mm	D	20 mm	SW	24 mm	E	28 mm
TL	36...45 mm												
L	10 mm												
D	20 mm												
SW	24 mm												
E	28 mm												

7.4. Special tool to turn the junction box

Note:

This special tool is not supplied with the valve (see "8.4. Ordering chart accessories" on page 17).

Description	Components of the set
Set SC02-AC10 	<ul style="list-style-type: none"> <li>• Special wrench</li> <li>• Service manual</li> </ul>

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## 8. Ordering information

### 8.1. Bürkert eShop – Easy ordering and quick delivery



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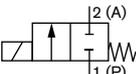
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### 8.3. Ordering chart

#### Standard version

##### Note:

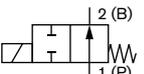
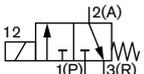
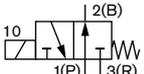
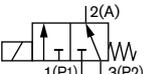
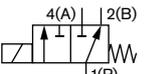
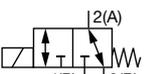
- All devices with connection thread G 1/4, manual override and cable plug **Type 2518** ▶.
- Further versions on request
- Products with reduced delivery time

Circuit function	Orifice [mm]	Seal material	Housing or seat material	Article no. per voltage/frequency [V/Hz]		
				024/DC	024/50	230/50
<b>A<sup>1)</sup>, solenoid valve</b> 2/2 way Direct-acting Normally closed 	3.0	FKM	Brass	020293	022883	124909
	3.0	FKM	Stainless steel	020292	023984	024563
	3.0	FKM	PP	018410	088496	045653
	3.0	FKM	PVDF	018188	020286	069006
	3.0	NBR	Brass	020294	086553	024902
	3.0	EPDM	PP	067214	022105	062398
	4.0	FKM	Brass	024019	025246	124912
	4.0	FKM	Stainless steel	018276	018857	020873
	4.0	FKM	PP	062695	043005	063116
	4.0	FKM	PVDF	023472	069079	087837
	4.0	NBR	Brass	025084	–	046007
	4.0	EPDM	PP	021660	067731	063118
	4.0	EPDM	PVDF	057573	–	125507
	5.0	FKM	PP	062624	067007	022619
	5.0	FKM	PVDF	064512	–	063786
	5.0	EPDM	PP	061321	054261	049969
	5.0	EPDM	PVDF	120184	059802	130117

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Circuit function	Orifice [mm]	Seal material	Housing or seat material	Article no. per voltage/frequency [V/Hz]		
				024/DC	024/50	230/50
<b>B<sup>1)</sup>, solenoid valve</b> 2/2 way Direct-acting Normally opened	3.0	FKM	Brass	141917	130146	141919
	4.0	FKM	Brass	141920	141921	141923
	3.0	FKM	Stainless steel	141928	141929	141931
	4.0	FKM	Stainless steel	141932	141933	141935
						
<b>C, solenoid valve</b> 3/2 way Direct-acting Normally closed	2.0	NBR	Brass	041103	042129	041105
	3.0	NBR	Brass	041107	041108	041116
	3.0	FKM	Stainless steel	052344	045024	052059
	4.0	NBR	Brass	042218	042695	042329
	4.0	FKM	Stainless steel	050483	043324	050979
	4.0	FKM	PP	-	088420	-
	4.0	FKM	PVDF	055788	-	019078
	4.0	EPDM	PP	-	-	063625
						
<b>D, solenoid valve</b> 3/2 way Direct-acting Normally opened	2.0	NBR	Brass	056984	041858	041137
	3.0	NBR	Brass	041139	041141	041147
	4.0	NBR	Brass	043129	042696	042903
						
<b>E, mixing valve (solenoid valve)</b> 3/2 way	3.0	FKM	PP	069917	066230	022294
	3.0	EPDM	PP	078556	-	078559
	4.0	FKM	PP	061077	086921	053406
	4.0	FKM	PVDF	022340	020550	085599
	4.0	EPDM	PP	067160	044693	066033
						
<b>F, distribution valve (solenoid valve)</b> 3/2 way Direct-acting	4.0	FKM	PP	020528	-	-
	4.0	EPDM	PP	-	-	066032
						
<b>T, solenoid valve</b> 3/2 way Direct-acting Flow direction optional	2.0	FKM	Brass	124922	138316	124925
	3.0	FKM	Brass	124927	124928	124930
	2.0	FKM	Stainless steel	124932	124933	124935
	3.0	FKM	Stainless steel	124937	124938	124940
						

1.) The listed article no. and circuit functions have a housing with straight pass.

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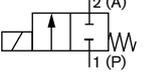
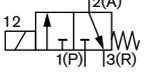
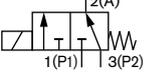
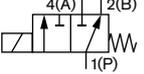
## Type 0330

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## Explosion proof version

## Note:

- All devices with connection thread G ¼ and manual override
- Further versions on request

Circuit function	Orifice [mm]	Seal material	Housing or seat material	Electrical connection	Article no. per voltage/frequency [V/Hz]	
					024/UC	230/UC
<b>A<sup>1)</sup>, solenoid valve</b> 2/2 way Direct-acting Normally closed 	3.0	NBR	Brass	Terminal box	353707 ☹	353708 ☹
	3.0	NBR	Brass	Cable	353616 ☹	353617 ☹
	3.0	FKM	Stainless steel	Terminal box	353709 ☹	353710 ☹
	3.0	FKM	Stainless steel	Cable	353618 ☹	353619 ☹
<b>C, solenoid valve</b> 3/2 way Direct-acting Normally closed 	3.0	NBR	Brass	Terminal box	353594 ☹	353695 ☹
	3.0	NBR	Brass	Cable	353596 ☹	353599 ☹
	3.0	FKM	Stainless steel	Terminal box	353700 ☹	353706 ☹
	3.0	FKM	Stainless steel	Cable	353614 ☹	353615 ☹
<b>E, mixing valve (solenoid valve)</b> 3/2 way 	3.0	FKM	Stainless steel	Terminal box	353712 ☹	353702 ☹
	3.0	FKM	Stainless steel	Cable	353620 ☹	353621 ☹
<b>F, distribution valve (solenoid valve)</b> 3/2 way Direct-acting 	3.0	FKM	Stainless steel	Terminal box	394337 ☹	353713 ☹
	3.0	FKM	Stainless steel	Cable	353622 ☹	353623 ☹
	4.0	FKM	Stainless steel	Terminal box	353697 ☹	-
	4.0	FKM	Stainless steel	Cable	353646 ☹	-

1.) The listed article no. and circuit functions have a housing with straight pass.

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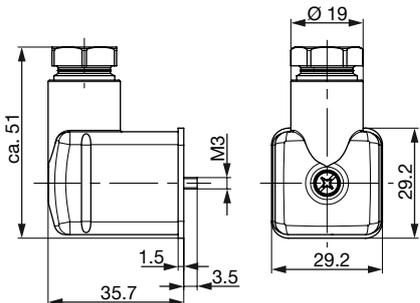
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8.4. Ordering chart accessories

Cable plug Type 2518, Form A according to DIN EN 175301 - 803

Note:

Further versions see data sheet Type 2518 ▶

Cable plug	Dimensions	Version	Voltage	Article no.
		Without circuitry (AC/DC)	0...250 V AC/DC	314802
		With LED (AC/DC)	12...24 V AC/DC	314812
		With LED and varistor (AC/DC)	12...24 V AC/DC	314820
		With rectifier, LED and varistor	12...24 V AC/DC	314816

Cable glands for ATEX/IECEx terminal box

Note:

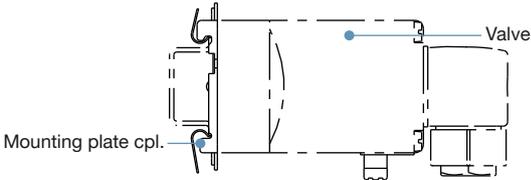
- A cable gland in polyamide version is included in the delivery. A nickel-plated brass version can be ordered at surcharge.
- For more information on Ex cable glands, see "7.3. Cable glands for ATEX/IECEx terminal box" on page 13.

Description	Article no.
Ex cable gland, brass, nickel-plated, 6...13 mm <sup>1)</sup>	773278
Ex cable gland, polyamide, 7...13 mm <sup>1)</sup>	773277
Set SC02-AC10: Special wrench <sup>2.)</sup> incl. service manual	293488

1.) Cable diameter

2.) Not included in the scope of delivery of the valve

Mounting plate cpl. for DIN rail mounting

Description	Article no.
	013253

Locking ring

Description	Article no.
	013372

Visit product website ▶

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