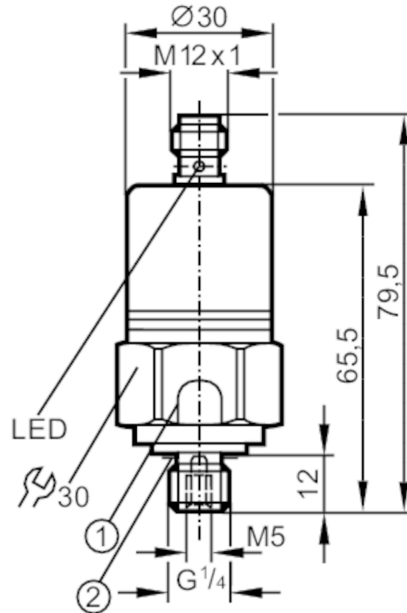


# PP000E



## Pressure switch with ceramic measuring cell

PP-400-SBG14-QFPKG/US/ IV



- 1 pressure relief mechanism  
No mechanical force must be exerted on the pressure relief mechanism.
- 2 Sealing



### Product characteristics

Output signal	switching signal; IO-Link; (configurable)		
Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Process connection	threaded connection G 1/4 external thread internal thread M5		

### Application

Application	for mobile applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature [°C]	-25...90		
Pressure rating	600 bar	8700 psi	60 MPa
Min. bursting pressure	1000 bar	14500 psi	100 MPa
Type of pressure	relative pressure		

### Electrical data

Operating voltage [V]	9.6...36 DC; (communication mode: 18...32)		
Current consumption [mA]	< 45		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	0.3		

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
------------------------------	------------------------------

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## Pressure switch with ceramic measuring cell

PP-400-SBG14-QFPKG/US/ IV

Outputs			
Total number of outputs		2	
Output signal		switching signal; IO-Link; (configurable)	
Electrical design		PNP	
Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	170	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		0...400 bar	0...5800 psi 0...40 MPa
Set point SP		4...400 bar	60...5790 psi 0.4...40 MPa
Reset point rP		2...398 bar	30...5760 psi 0.2...39.8 MPa
In steps of		2 bar	30 psi 0.2 MPa
Factory setting			SP1 = 100 bar rP1 = 92 bar
			SP2 = 300 bar rP2 = 292 bar
			OUT1 = Hno OUT2 = Hno
Accuracy / deviations			
Switch point accuracy		< ± 0,5	
	[% of the span]		
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K)	
	[% of the span]		
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)	
	[% of the span]		
Hysteresis deviation		< ± 0,1	
	[% of the span]		
Long-term stability		< ± 0,1; (per year)	
	[% of the span]		
Temperature coefficient zero point		0,2; (0...80 °C)	
	[% of the span / 10 K]		
Temperature coefficient span		0,2; (0...80 °C)	
	[% of the span / 10 K]		
Response times			
Response time		< 3	
	[ms]		
Damping for the switching output dAP in steps		0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500	
	[s]		

# PP000E



## Pressure switch with ceramic measuring cell

PP-400-SBG14-QFPKG/US/ IV

Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.0
IO-Link device ID		2 d / 00 00 02 h
Profiles		no profile
SIO mode		yes
Required master port type		A
Process data analogue		1
Process data binary		2
Min. process cycle time	[ms]	2.3
Operating conditions		
Ambient temperature	[°C]	-25...85
Storage temperature	[°C]	-40...100
Protection		IP 68; (7 days / 1 m water depth / 0.1 bar)
Tests / approvals		
EMC	immunity	EN 61000-6-2
	EN 61000-4-2 ESD	4 kV contact discharge / 15 kV air discharge
	EN 61000-4-3 HF radiated	20 V/m
	EN 61000-4-4 Burst	4 kV coupling clamp
	EN 61000-4-5 Surge	0,5 kV supply / 1 kV signal for DC units
	EN 61000-4-6 HF conducted	10 V
	immunity	according to the automotive directive 1995/54/EC / 04/104EG / 05/83/EG
	absorber chamber test to ISO 11452-2:	80 V/m
	EN 50155	Klasse T3, C1, S1
	DIN IEC 60068-2-27 / DIN IEC 60068-2-29	1000 g
Shock resistance	DIN EN 61373	category 3
	DIN IEC 68-2-6	20 g (10...2000 Hz)
Vibration resistance	DIN EN 60068-2-64	14 g
	DIN EN 61373	category 2
MTTF	[years]	310
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	218.5
Materials		stainless steel (1.4301 / 304); FKM; EPDM/X; PA
Materials (wetted parts)		stainless steel (1.4305 / 303); ceramics; FKM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 external thread internal threadM5
Restrictor element integrated		yes
Displays / operating elements		
Display	operation	2 x LED, green
	switching status	2 x LED, yellow
Teach function		yes

# PP000E



## Pressure switch with ceramic measuring cell

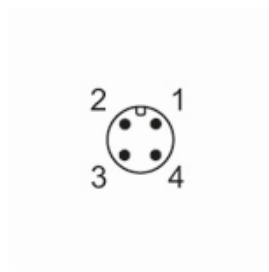
PP-400-SBG14-QFPKG/US/ IV

### Remarks

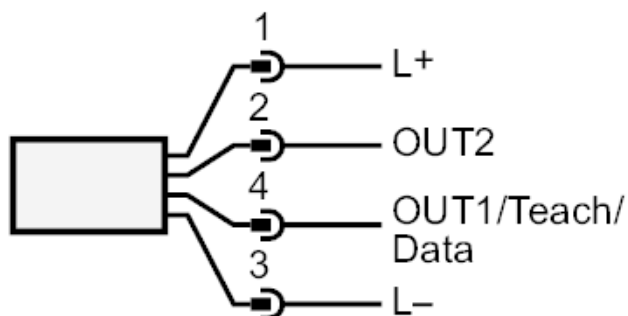
Pack quantity 1 pcs.

### Electrical connection

Connector: 1 x M12



### Connection



OUT1            switching output  
OUT2            switching output  
                  Diagnostic output