

PY9970

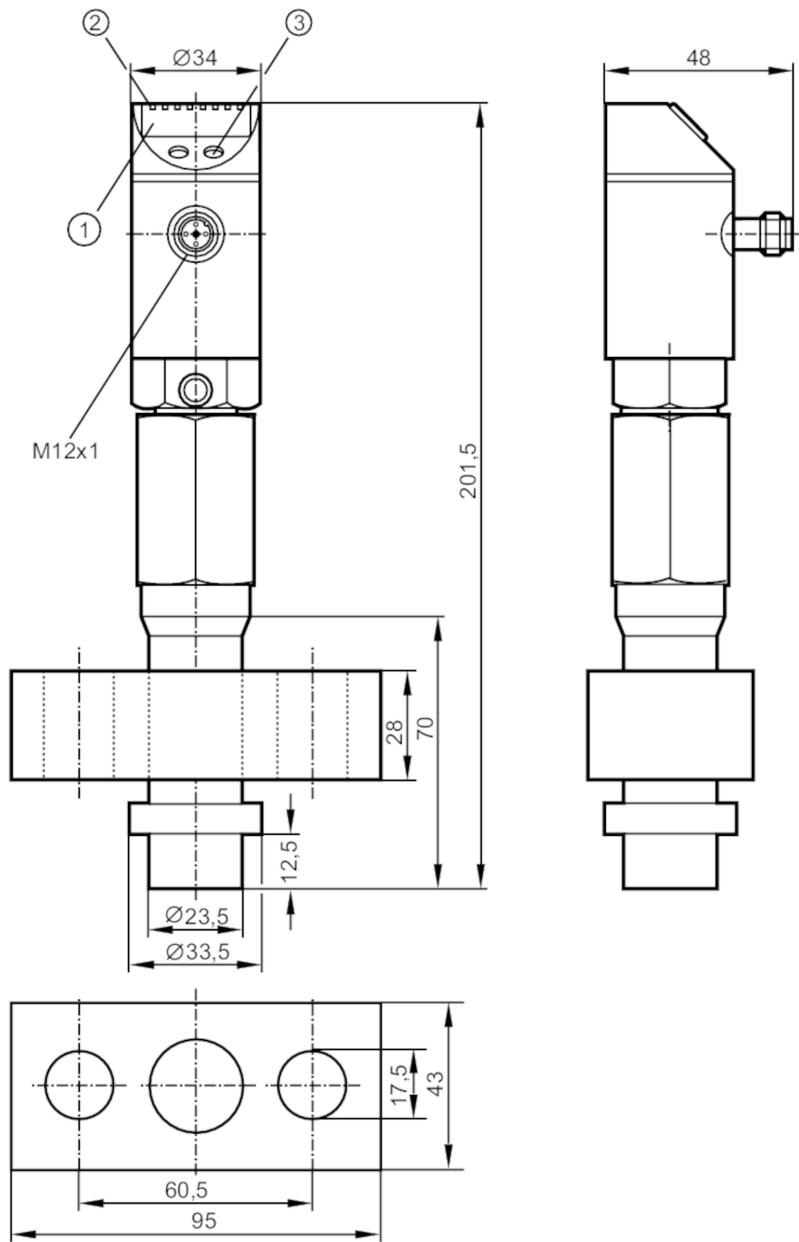


Pressure sensor with display

PY-400-SDD24-KFPKG/US/ /N

phase-out article

Alternative articles: PY9070
When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Process connection	homogeniser connection		

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Application			
Special feature	Gold-plated contacts		
Application	flush mountable for the food and beverage industry		
Conditionally suitable for	For gaseous media the application is limited to max. 25 bar.		
Medium temperature [°C]	-10...140		
Min. bursting pressure	1000 bar	14500 psi	100 MPa
Pressure rating	600 bar	8700 psi	60 Mpa
Type of pressure	relative pressure		
Electrical data			
Operating voltage [V]	20...32 DC; (to SELV/PELV)		
Current consumption [mA]	< 65		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	0.2		
Integrated watchdog	yes		
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Outputs			
Total number of outputs	2		
Output signal	switching signal; analogue signal; (configurable)		
Electrical design	PNP/NPN		
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		
Number of analogue outputs	1		
Analogue current output [mA]	4...20; (scalable 1:4)		
Max. load [Ω]	(Ub - 10 V) / 20 mA		
Analogue voltage output [V]	0...10; (scalable 1:4)		
Min. load resistance [Ω]	2000		
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...5800 psi	0.4...40 MPa
Reset point rP	2...398 bar	30...5770 psi	0.2...39.8 MPa
Analogue start point	0...160 bar	0...2320 psi	0...16 MPa
Analogue end point	100...400 bar	1450...5800 psi	10...40 MPa
In steps of	1 bar	10 psi	0.1 MPa

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Factory setting	SP1 = 100 bar	rP1 = 92 bar
	SP2 = 300 bar	rP2 = 292 bar
	ASP = 0 bar	AEP = 400 bar

Accuracy / deviations

Switch point accuracy	[X21]	$< \pm 1,0$
Repeatability	[X21]	$< \pm 0,25$; (with temperature fluctuations $< 10\text{ K}$)
Characteristics deviation	[X21]	$< \pm 1,0$
Temperature coefficient zero point	[X22]	$< \pm 0,3$; (0...80 °C)
Temperature coefficient span	[X22]	$< \pm 0,3$; (0...80 °C)

Response times

Response time	[ms]	< 3
Damping process value dAP	[s]	0...4
Damping for the analogue output dAA	[s]	0...4
Max. response time analogue output	[ms]	3

Software / programming

Parameter setting options	zero point; span
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Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[ANN]	173.33
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	1588.5
Materials	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM	
Materials (wetted parts)	stainless steel	
Min. pressure cycles	1 million	
Process connection	homogeniser connection	

Displays / operating elements

Display	Display unit	3 x LED, green
	switching status	2 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit

Remarks

Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT1
OUT2

switching output
switching output
analogue output