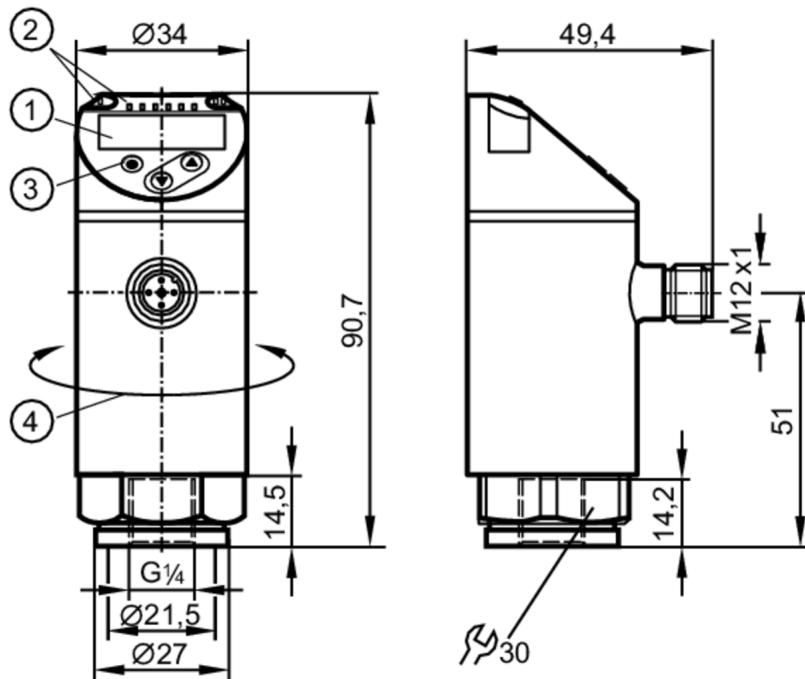


## Pressure sensor with display

PN-600-SER14-MFRKG/US/ IV



- 1 alphanumeric display 4-digit red/green
- 2 LEDs Display unit / Switching status
- 3 Programming button
- 4 upper part of the housing can be rotated 345°



## Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Measuring range	0...600 bar	0...8700 psi	0...60 MPa
Process connection	threaded connection G 1/4 Internal thread M6 I		

## Application

System	gold-plated contacts		
Measuring element	metallic thin film cell		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	2500 bar	36250 psi	250 MPa
Pressure rating	800 bar	11580 psi	80 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		

## Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)		
Current consumption [mA]	< 35		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	< 0.3		

# PN3160



## Pressure sensor with display

PN-600-SER14-MFRKG/US/ /V

Integrated watchdog	yes		
<b>Inputs / outputs</b>			
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
<b>Outputs</b>			
Total number of outputs	2		
Output signal	switching signal; analog signal; IO-Link; (configurable)		
Electrical design	PNP		
Number of digital outputs	1		
Output function	normally open / closed; (configurable)		
Max. voltage drop switching output DC [V]	2.5		
Permanent current rating of switching output DC [mA]	150; (200 (...60 °C) 250 (...40 °C))		
Switching frequency DC [Hz]	< 170		
Number of analog outputs	1		
Analog current output [mA]	4...20		
Max. load [Ω]	500		
Analog voltage output [V]	0...10		
Min. load resistance [Ω]	2000		
Short-circuit protection	yes		
Type of short-circuit protection	yes (non-latching)		
Overload protection	yes		
<b>Measuring/setting range</b>			
Measuring range	0...600 bar	0...8700 psi	0...60 MPa
Factory setting / CMPT = 2			
Set point SP	4...600 bar	40...8700 psi	0.4...60 MPa
Reset point rP	2...598 bar	20...8680 psi	0.2...59.8 MPa
Min. difference between SP and rP	2 bar	40 psi	0.2 MPa
In steps of	2 bar	20 psi	0.2 MPa
Status_B High Resolution / CMPT = 3			
Set point SP	3...600 bar	47...8702 psi	0.3...60 MPa
Reset point rP	2...599 bar	26...8681 psi	0.2...59.9 MPa
Min. difference between SP and rP	2 bar	21 psi	0.2 MPa
In steps of	1 bar	1 psi	0.1 MPa
<b>Accuracy / deviations</b>			
Switch point accuracy [% of the span]	< ± 0,5		
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)		
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
Hysteresis deviation [% of the span]	< ± 0,25		
Long-term stability	< ± 0,05; (per 6 months)		

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## Pressure sensor with display

PN-600-SER14-MFRKG/US/ I/V

[% of the span]		
Temperature coefficient zero point		0,2; (-25...80 °C)
[% of the span / 10 K]		
Temperature coefficient span		
[% of the span / 10 K]		0,2; (-25...80 °C)
<b>Reaction times</b>		
Response time	[ms]	< 3
Delay time programmable dS, dr	[s]	0...50
Damping process value dAP	[s]	0...4
Damping for the analog output dAA	[s]	0...4
Max. response time analog output	[ms]	3
<b>Software / programming</b>		
Parameter setting options		hysteresis / window; normally open / closed; switch-on/switch-off delay; Damping; Display unit; current/voltage output
<b>Interfaces</b>		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
SIO mode		yes
Required master port class		A
Process data analog		1
Process data binary		1
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	Factory setting / CMPT = 2	426
	Status_B High Resolution / CMPT = 3	605
Note	For further information please see the IODD PDF file at "Downloads"	
<b>Factory setting / CMPT = 2</b>		
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
Min. process cycle time	[ms]	2.3
IO-Link resolution pressure	[bar]	1
IO-Link resolution pressure	[MPa]	0.1
IO-Link process data (cyclical)	<b>Function</b>	<b>bit length</b>
	pressure	14
	binary switching information	1
IO-Link functions (acyclical)	application specific tag	
<b>Status_B High Resolution / CMPT = 3</b>		
Profiles	Smart Sensor ED2: Digital Measuring Sensor (0x000A), Identification and Diagnosis (0x4000)	
Min. process cycle time	[ms]	3
IO-Link resolution pressure	[bar]	0.2

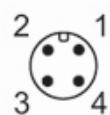
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## Pressure sensor with display

PN-600-SER14-MFRKG/US / IV

IO-Link process data (cyclical)	<b>Function</b>	<b>bit length</b>
	pressure	16
	device status	4
	binary switching information	1
IO-Link functions (acyclical)	application specific tag	
<b>Operating conditions</b>		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection	IP 65; IP 67	
<b>Tests / approvals</b>		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	190
UL approval	UL approval number	J006
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
<b>Mechanical data</b>		
Weight	[g]	231
Material	stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC	
Materials (wetted parts)	stainless steel (630/1.4542/17-4 PH)	
Min. pressure cycles	100 million	
Tightening torque	[Nm]	30...50; (recommended tightening torque; Depends on lubrication, seal and pressure rating)
Process connection	threaded connection G 1/4 Internal thread M6 I	
Restrictor element integrated	no (can be retrofitted)	
<b>Displays / operating elements</b>		
Display	Display unit	3 x LED, green (bar, psi, MPa)
	Switching status	1 x LED, yellow
	Measured values	alphanumeric display, red/green 4-digit
<b>Remarks</b>		
Pack quantity	1 pcs.	
<b>Electrical connection</b>		
Connector: 1 x M12; coding: A; Contacts: gold-plated		



## Pressure sensor with display

PN-600-SER14-MFRKG/US/ /V

### Connection



OUT1	Switching output IO-Link
OUT2	analog output Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white