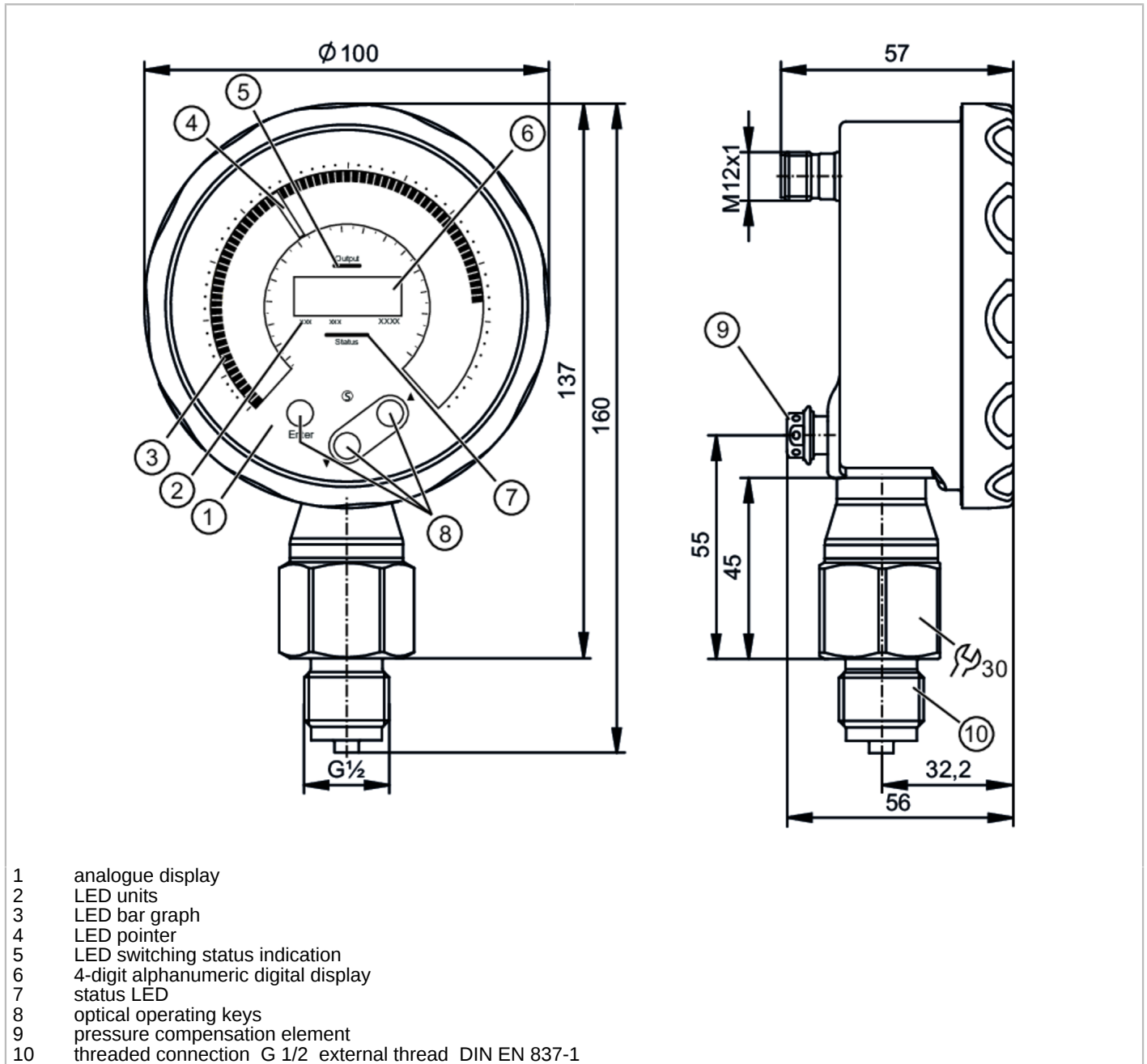


# PG1414



## Pressure sensor with analogue display

PG-016-REB12-MFRKG/US/ IP



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	-1...16 bar	-14.5...232.1 psi
Process connection	threaded connection G 1/2 external thread DIN EN 837-1	

### Application

Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	liquids and gases	
Medium temperature [°C]	-25...80; (higher temperature upon request)	
Min. burst pressure	250 bar	3625 psi

# PG1414



## Pressure sensor with analogue display

PG-016-REB12-MFRKG/US/ IP

Pressure rating	75 bar	1087 psi
Vacuum resistance	-1000 mbar	14.5 psi
Type of pressure	relative pressure; vacuum	

Electrical data		
Operating voltage [V]	18...30 DC	
Current consumption [mA]	25...260	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	
Reverse polarity protection	yes	
Power-on delay time [s]	< 0.5	
Integrated watchdog	yes	

Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1

Outputs		
Total number of outputs	2	
Output signal	switching signal; analogue signal; IO-Link	
Electrical design	PNP/NPN	
Number of digital outputs	1	
Output function	normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	100	
Switching frequency DC [Hz]	125	
Number of analogue outputs	1	
Analogue current output [mA]	4...20, invertible; (scalable)	
Max. load [Ω]	500	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	

Measuring/setting range		
Measuring range	-1...16 bar	-14.5...232.1 psi
Set point SP	-1...16 bar	-14.5...232.1 psi
Analogue start point	-1...12.8 bar	-14.5...185.6 psi
Analogue end point	2.2...16 bar	31.9...232.1 psi
In steps of	0.01 bar	0.2 psi

Measuring range (bar)			
Factory setting	SP1 = 4 bar		
	SP2 = 3.68 bar		
	ASP = 0.00 bar		AEP = 16 bar
	dAP = 0.06 s		dAA = 0.06 s



## Pressure sensor with analogue display

PG-016-REB12-MFRKG/US/ IP

Measuring range (psi)			
Factory setting	SP1 = 58 psi		
	SP2 = 53.4 psi		
	ASP = 0.00 psi		AEP = 232.1 psi
	dAP = 0.06 s		dAA = 0.06 s

### Accuracy / deviations

Switch point accuracy [% of the span]	< ± 0,5; (DIN EN IEC 62828-1; Turn down 1:1)		
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)		
Characteristics deviation [% of the span]	< ± 0,5; (DIN IEC EN 62828-1 incl. zero point and span error, non-linearity, hysteresis; Turn down 1:1)		
Zero-point stabilisation [% of the span]	IO-Link, analogue output	0,2; (see operating instructions zero-point behaviour)	
	display, switching output	0,1	
Hysteresis deviation [% of the span]	< ± 0,25; (Turn down 1:1 -25...80°C)		
Long-term stability [% of the span]	< ± 0,1; (Turn down 1:1; per year)		
Temperature coefficient zero point [% of the span / 10 K]	< ± 0,25; (0...70 °C)		
Temperature coefficient span [% of the span / 10 K]	< ± 0,25; (0...70 °C)		

### Response times

Min. response time of switching output (dAP) [ms]	3
Damping process value dAP [s]	0...99.99
Damping for the analogue output dAA [s]	0...99.99
Step response time analogue output [ms]	7

### Interfaces

Communication interface	IO-Link	
Transmission type	COM3 (230,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor - SSP 4.2.1	Measuring and Switching Sensor, high resolution, 1 channel
	BLOB	Binary Large Object transfer
	Common - I&D	Identification and Diagnosis
	Extension	Sensor Control Wide
	Extension	Quantity detection, switches when value exceeds the setpoint
	Function	Locator
	Function	ProductURI
	SIO mode	yes
Required master port type	A	
Min. process cycle time [ms]	1.3	

# PG1414



## Pressure sensor with analogue display

PG-016-REB12-MFRKG/US/ IP

IO-Link resolution pressure [bar]	0.0005	
IO-Link process data (cyclical)	<b>function</b>	<b>bit length</b>
	pressure	32
	device status	4
	binary switching information pressure	2
IO-Link functions (acyclical)	application specific tag; internal temperature; operating hours counter; switching cycles counter; Pressure peak counter	
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1873

Operating conditions		
Ambient temperature [°C]	-25...70	
Storage temperature [°C]	-40...100	
Protection	IP 67; IP 69; (to DIN EN 60529)	

Tests / approvals		
EMC	DIN EN 61326-1	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	10 g (10...2000 Hz)
MTTF [years]	115	
Embedded software included	yes	
UL approval	UL approval no.	J060
	File number UL	E174189

Mechanical data		
Weight [g]	702.2	
Housing	manometer housing	
Dimensions [mm]	160 x 100 x 57	
Materials	Housing: stainless steel (316L/1.4404); M12 connector: PPSU; Sealing: FKM; pressure compensation element: PTFE; viewing glass: laminated safety glass 4 mm	
Materials (wetted parts)	measuring cell: Al <sub>2</sub> O <sub>3</sub> (ceramics); Process connection: stainless steel (316L/1.4404); Sealing: FKM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/2 external thread DIN EN 837-1	
Restrictor element integrated	no (can be retrofitted)	

Displays / operating elements		
Display	Pointer	LED, white ; 72 steps
	LED bar graph	multi-colour ; 72 steps
	measured values	alphanumeric display, white 4-digit
	switching status	LED, yellow
	device status	LED, red/green
	Display unit	LED, white
	Display	display rotation: 320°
	Display unit	bar; psi
Operating elements	3	optical operating keys

Remarks		
Pack quantity	1 pcs.	

# PG1414



## Pressure sensor with analogue display

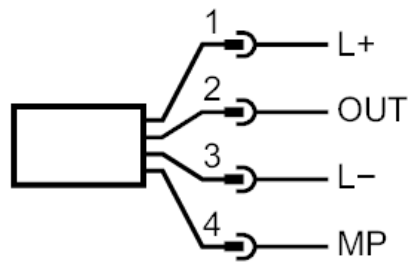
PG-016-REB12-MFRKG/US/ IP

### Electrical connection

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



### Connection



1	L+	
2	OUT	AO
3	L-	
4	MP	DO (NO/NC), IO-Link