



Main characteristics

Measuring range	-1 ... 0 bar up to 0 ... 600 bar
Long term stability	0.2% FS / Year
Accuracy (20 °C) <small>(linearity, hysteresis and repeatability according Best Fit Straight Line)</small>	≤ ± 0.3% FS (BFSL)

Technical specifications

Measuring principle	Thick film on ceramic
Measuring ranges	-1 ... 0 bar up to 0 ... 600 bar
Type of pressure	Relative / Absolute
Accuracy (20 °C) <small>(linearity, hysteresis and repeatability according Best Fit Straight Line)</small>	≤ ± 0.3% FS (BFSL) ≤ ± 0.6% FS (BFSL) for P ≤ 60 mbar and P = 600 bar
Error of zero point	≤ ± 1% FS
Error of span	≤ ± 1% FS
Zero thermal drift	≤ ± 0.25% FS/10 K (P > 1 bar) ≤ ± 0.60% FS/10 K (P ≤ 1 bar)
Span thermal drift	≤ ± 0.15% FS/10 K (P > 1 bar) ≤ ± 0.15% FS/10 K (P ≤ 1 bar)
Long term stability	0.2% FS / Year
Response time (10 ... 90%)	≤ 3 ms
Process connections	See page 3

Environment

Temperature	
Storage	-40 ... + 85°C
Compensated range	-10 ... + 55°C
Medium	-25 ... +100°C
Ambient	-25 ... + 70°C
Protection rating	IP65 (EN 60529) up to IP67 depending on electrical connection
Vibration IEC60068-2-6	1.5 mm p-p (10 – 55 Hz), 20 g (55 Hz – 2 KHz)
Shock IEC60068-2-27	25 falls from 1 m on concrete ground

Main features

- Robust stainless steel housing
- Intrinsically safe version (LCIE 02 ATEX 6133X)
- Available with optional Marine approval (Bureau Veritas Marine)

Applications

- Chemical
- Pneumatic
- Energy
- Shipbuilding
- Industrial gas

Electrical specification

Output signal / Power supply	4 ... 20 mA / 11 ... 28 VDC 0...10 V / 14 ... 28 VDC
Load impedance	
Current output	$R_{\Omega} = (U_{\text{supply}} - 11 \text{ V}) / 20 \text{ mA}$
Voltage output	> 2.5 KΩ

Insulation resistance >100 MΩ at 500 VDC

Electrical connections See page 3

Material

Process connection and housing	SS 1.4404 AISI 316L
Diaphragm	Ceramic (96% Al ₂ O ₃)
Sealing	NBR, EPDM, CR, FFKM or FKM (Viton®)
Cable	PVC

ATEX

I M1	Ex ia I Ma
II 1 G D	Ex ia IIC T6 or T5 Ga
II 1 G D	Ex ia IIC T80°C or T95°C Da IP6X
Barrier data	$U_i \leq 28 \text{ V}$ $I_i \leq 120 \text{ mA}$ $P_i \leq 800 \text{ mW}$
Capacity (current output)	$C_i \leq 30 \text{ nF}$
Capacity (voltage output)	$C_i \leq 60 \text{ nF}$
Ambient temperature T_a	
$T_a = +40^\circ\text{C}$	G: T6 D IP65: Surface temperature = $+80^\circ\text{C}$
$T_a = +70^\circ\text{C}$	G: T5 D IP65: Surface temperature = $+95^\circ\text{C}$ (G = Gas, D = Dust)

For the application in Ex zone you have to respect the conditions mentioned in the ATEX Type Examination Certificate (LCIE 02 ATEX 6133X).

You find the certificates and manuals under <http://www.baumer.com/>

Approvals

CE conformity	EMC directive 2004/108/CE in accordance with EN 61000-6-2, EN 61000-6-3, EN 61326-1 (Tab.2)
	Pressure directive 97/23/CE

Measuring ranges and overpressure safety

Pressure in mbar

Pressure range	0 ... 25 0 ... 40	0 ... 60	0 ... 100 0 ... 160	0 ... 250 0 ... 400 0 ... 600
Over pressure	110	275	500	1000
Burst pressure	200	500	1000	2000

Pressure in bar

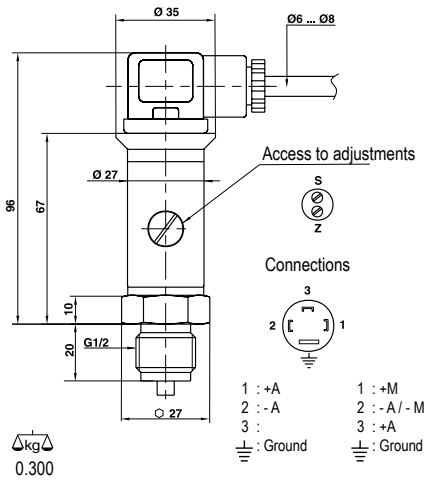
Pressure range	-1 ... 0 -1 ... 0.6 0 ... 1 0 ... 1.6	-1 ... 1.5 0 ... 2.5	-1 ... 3 0 ... 4	-1 ... 5 0 ... 6	-1 ... 15 0 ... 16	-1 ... 24 0 ... 25	-1 ... 39 0 ... 40
Over pressure	3	4	8	12	32	50	80
Burst pressure	6	7	12	18	48	75	120

Pressure in bar

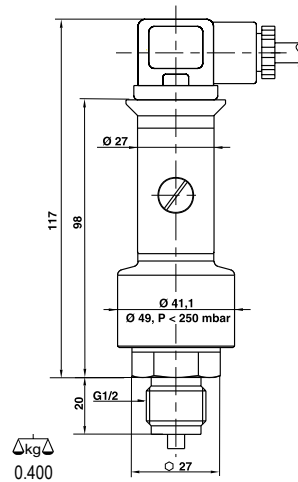
Pressure range	0 ... 60	0 ... 100	0 ... 160	0 ... 250	0 ... 400	0 ... 600
Over pressure	120	200	320	500	600	800
Burst pressure	180	300	480	600	800	1000

Dimensions (mm)

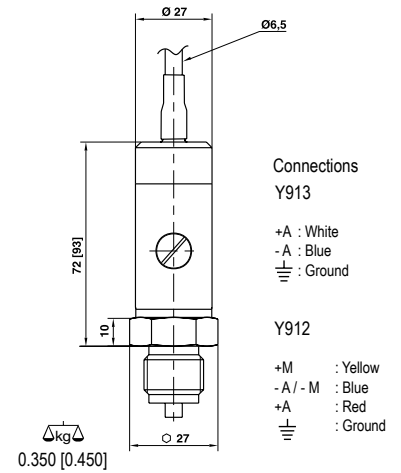
Standard version for P ≥ 1 bar
DIN 43650 plug
IP 65



Standard version for P < 1 bar
DIN 43650 plug
IP 65

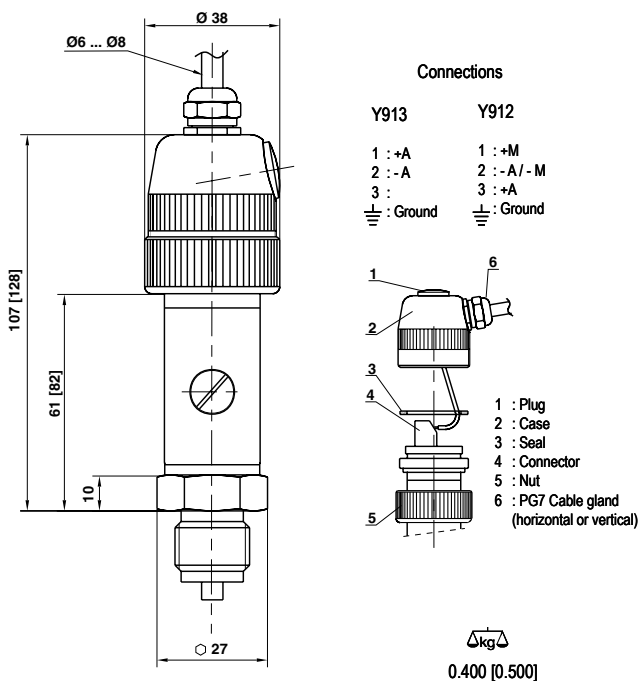


Pig tail (length 1.5 m)
IP 65

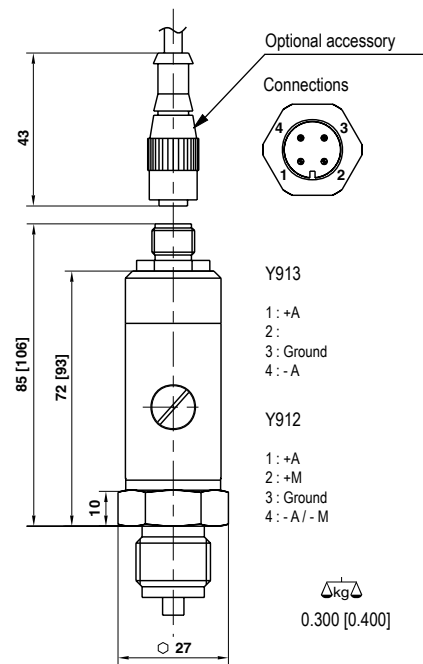


Version also used for -1...0 bar and 0...1 bar ranges with ±50% span adjustment option.

Terminal strip outlet + screwed cap
IP 67



M12, 4 contacts plug
IP 65



Ordering details Y91

	Y91	-	x	.	x	.	x	.	xxx	.	x	/	xxxx
Model													
Pressure transmitter	Y91	-											
Output signal													
0...10 V													2
4...20 mA													3
Process connection													
G¼ EN 837													2
G½ EN 837													3
¼ NPT													5
½ NPT													6
M20x150													9
Sealing													
NBR													3
CR													4
EPDM													5
FFKM (Chemraz® 505)													7
FKM (Viton®)													9
Pressure range and unit in bar													
0...0.025													N05
0...0.04													N06
0...0.06													N07
0...0.1													N08
0...0.16													N09
0...0.25													N10
0...0.4													N11
0...0.6													N12
0...-1													B59
-1...0.6													B72
-1...1.5													B74
-1...3													B76
-1...5													B77
-1...9													B79
-1...15													B81
-1...24													B82
-1...39													B1L
0...1													B15
0...1.6													B16
0...2.5													B18
0...4													B19
0...6													B20
0...10													B22
0...16													B24
0...25													B26
0...40													B27
0...100													B31
0...160													B33
0...250													B35
0...400													B38
0...600													B39
Kind of pressure													
Relative													R
Absolute													A
Output connection													
DIN 43650, 4 pins													
Shielded cable (1.5 m)													2160
M12, 4 pins													2164
Terminal strip outlet + screwed cap													2166
Terminal strip outlet + cap with M20x150 thread and gland													2167