



Main characteristics

Measuring range	-1 ... 0 bar up to 0 ... 600 bar
Long term stability	0.2% FS / Year
Accuracy (20 °C) (linearity, hysteresis and repeatability according Best Fit Straight Line)	$\leq \pm 0.3\%$ 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) (linearity, hysteresis and repeatability according Best Fit Straight Line)	$\leq \pm 0.3\%$ FS (BFSL) $\leq \pm 0.6\%$ FS (BFSL) for $P \leq 60$ mbar and $P = 600$ bar
Error of zero point	$\leq \pm 1\%$ FS
Error of span	$\leq \pm 1\%$ FS
Zero thermal drift	$\leq \pm 0.25\%$ FS/10 K ($P > 1$ bar) $\leq \pm 0.60\%$ FS/10 K ($P \leq 1$ bar)
Span thermal drift	$\leq \pm 0.15\%$ FS/10 K ($P > 1$ bar) $\leq \pm 0.15\%$ FS/10 K ($P \leq 1$ 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 /	4 ... 20 mA / 11 ... 28 VDC
Power supply	0...10 V / 14 ... 28 VDC
Load impedance	
Current output	$R_{\Omega} = (U_{\text{supply}} - 11 \text{ V}) / 20 \text{ mA}$
Voltage output	$> 2.5 \text{ K}\Omega$
Insulation resistance	$> 100 \text{ M}\Omega$ at 500 VDC
Electrical connections	See page 3

Material

Process connection and housing	SS 1.4404 AISI 316L
Diaphragm	Ceramic (96% Al_2O_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

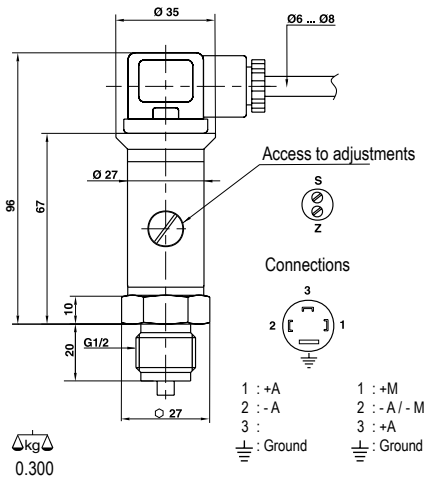
Pressure in mbar				
Pressure range	0 ... 25	0 ... 60	0 ... 100	0 ... 250
	0 ... 40		0 ... 160	0 ... 400 0 ... 600
Over pressure	110	275	500	1000
Burst pressure	200	500	1000	2000

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

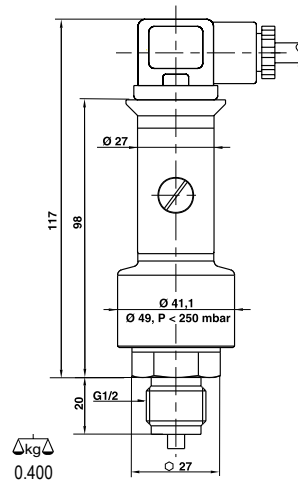
Pressure in bar						
Pressure range	0 ... 60	0 ... 100	0 ... 160	0 ... 250	0 ... 400	0 ... 600
Over pressure	120	200	320	500	600	800
Burst pressure	180	300	480	600	800	1000

Dimensions (mm)

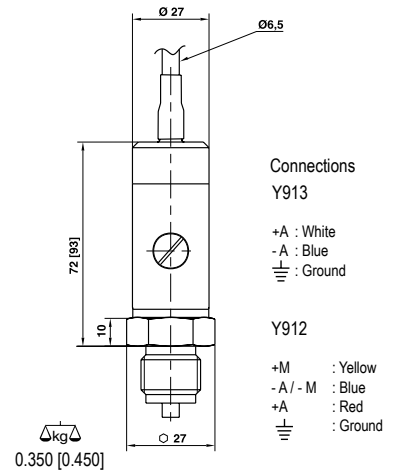
Standard version for $P \geq 1$ bar
DIN 43650 plug
IP 65



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

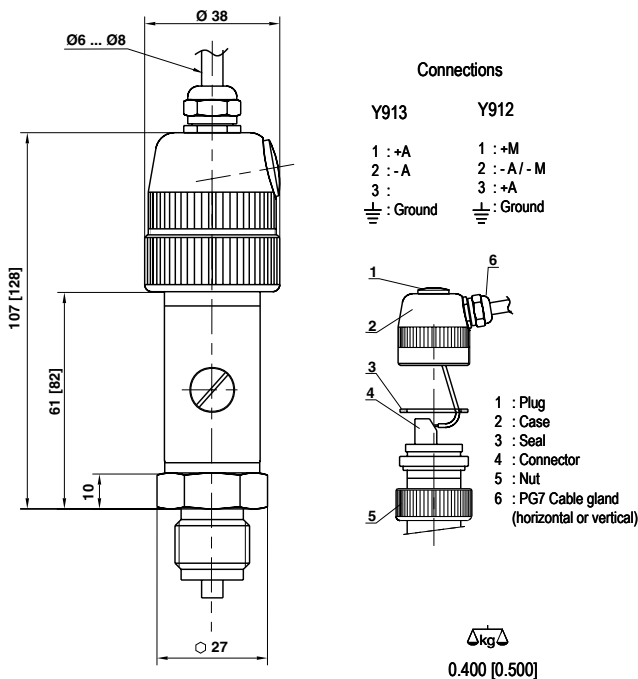


Pig tail (length 1.5 m)
IP 65

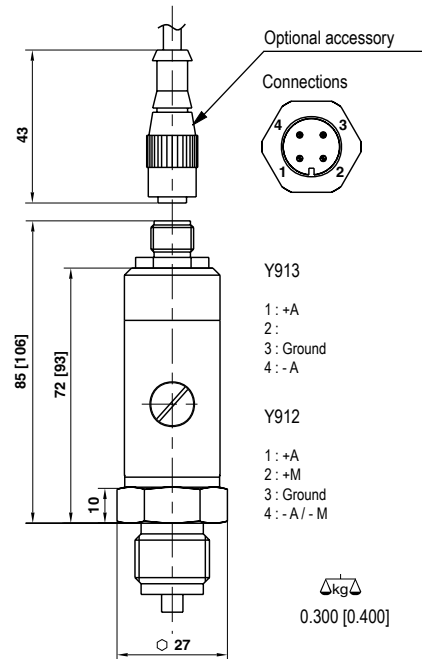


Version also used for -1...0 bar and 0...1 bar ranges with $\pm 50\%$ span adjustment option.

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												
		4...20 mA												
Process connection		G¼ EN 837												
		G½ EN 837												
		¼ NPT												
		½ NPT												
		M20x150												
Sealing		NBR												
		CR												
		EPDM												
		FFKM (Chemraz® 505)												
		FKM (Viton®)												
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