



Series 27IM

27IM series includes submersible electronic level transmitters for hydrostatic pressure sensing, available with piezoresistive (P series) or ceramic (C series) sensor. Piezoresistive sensors are based on silicon chip resistive Wheatstone bridge while ceramic sensors are thick film sensor based on strain gauge principle with backplate and diaphragm in ceramic material. All 27IM series versions has small sizes (housing \varnothing Max 35 mm) and fixed ranges.

APPLICATION FIELDS

27IM Series transmitters are used in industrial and marine applications to measure level of liquids in wells, chests, lakes, water treatment plants, tanks, etc....
For versions not considered in the specification ask our technical office .

TECHNICAL FEATURES

- Supply 12÷30Vdc
- Output 4÷20 mA 2 wire system (max 25 mA)
- Total Accuracy $\pm 0,25$ % FS (*)
- Hysteresis and repeatability $< \pm 0,1$ % FS
- Temperature zero drift $< \pm 0,025$ % FS/°C (-10÷60° C) (*)

Continue TECHNICAL FEATURES

- Span thermal drift $< \pm 0,02$ % FS/°C (P series) (*)
 $< \pm 0,01$ % FS/°C (C series) (*)
- Load 600 ohm at 24Vdc supply
- Long term stability $< \pm 0,15$ % FS per year (P series) (*)
 $< \pm 0,12$ % FS per year (C series) (*)
- Vibration: Shock test 200g peak shock half sine wave 4ms according MIL-STD-202 F method 213B / IEC 68-2-28
- Operating temperature range: -40÷85° C
- Storage temperature : -55÷90° C
- Protection against supply transient and built-in RFI/EMI filter
- Protection rating IP6(x) according to housing & cable gland type
- Response time 63% FS: P series =5 msec; C series = 20 msec
- CE marking: EMC according 89/336/EEC amended by 93/68/EEC

Notes (*):

Unless otherwise stated, performance specifications are given at maximum span. Accuracy and drifts are given for instruments with integral sensor and diaphragm; they may vary according to sensor type and execution

SUBMERSIBLE ELECTRONIC LEVEL TRANSMITTERS

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ORDERING CODE

Tab. 1 - General characteristics

CODE	DESCRIPTION
	PRESSURE:
A	- Absolute
R	- Relative
	* MEASURING RANGE (see table 2)
	HOUSING MATERIAL:
A	- AISI 316 - Ø 30/35 mm
	** DIAPHRAGM PROTECTION /CONNECTION (see table 3)
	DIAPHRAGM MATERIAL:
A	- AISI 316 St.St.
B	- Ceramic (ranges > 500 mbar Ø 28 mm)
C	- Hastelloy C (ranges >400 mbar Ø 35 mm)
D	- AISI 316 (ranges >300 mbar Ø 35 mm)
E	- Ceramic (ranges >400mbar Ø 35 mm)
	SUBMERSION EXTENSION (each mt):
1L=	- Vented cable with polyethylene sheath
21L=	- Vented cable with TPR sheath + PTFE protection tube
2L=	- Vented cable with PTFE protection tube
4L=	- Pipe ø 28
5L=	- Vented cable with TPR sheath (T=-40÷125°C)
6L=	- Vented cable RILSAN protection tube
7L=	- Cable for intrinsic safety version
	GASKET MATERIAL BODY / SENSOR
N	- None (for diaphragm code A + C)
V	- FPM (for diaphragm code B +E)
	OUTPUT SIGNAL
1	- 4÷20mA+HART® (NO ATEX)
4	- 4÷20mA 2 wires
	OPTIONS / ACCESSORIES
ATX	- ATEX version Ex II 1 G EEx ia IIC T5/T6
CS	- Watertight connector block with terminal board
CSM	- St.St. junction box
CSME	- St.St. junction box for marine c/w electronics
DA3	- AISI 316 Fixing nipple
DINB	- DIN B Head
E	- TAG Transcription
FL79	- Intermediate Flange for marine Ø 79 mm
GIS	- Sliding bracket on sommersion cable
M	- AISI 316 Ø55 Housing c/w terminal board
N	- Marine type approval
P68F	- IP68 Cablegland with flange Ø48
PG13	- St.St.cable gland PG13 IP67 cable ø8÷12 mm (M housing only)
R	- Cast iron G 1 1/2" Screwed sliding nipple
ST2	- AISI 316 Fixing bracket
STOM	- Wall mounting bracket
TR	- Rubber lined housing

*Table 2 indicates codes and calibration limits

** Table 3 list codes of standard process connections.

Tab. 2 – Measuring range

CODE	RANGE [bar]
01*	0÷0,05...0,2
02*	0÷0,15...0,6
03	0÷0,4...1,6
04	0÷0,8...3,2
11	0÷1,5...6
12	0÷4...20

*Ranges available only with diaphragm material code A
Calibration available with different measuring unit

Tab. 3: Diaphragm protection / Connection

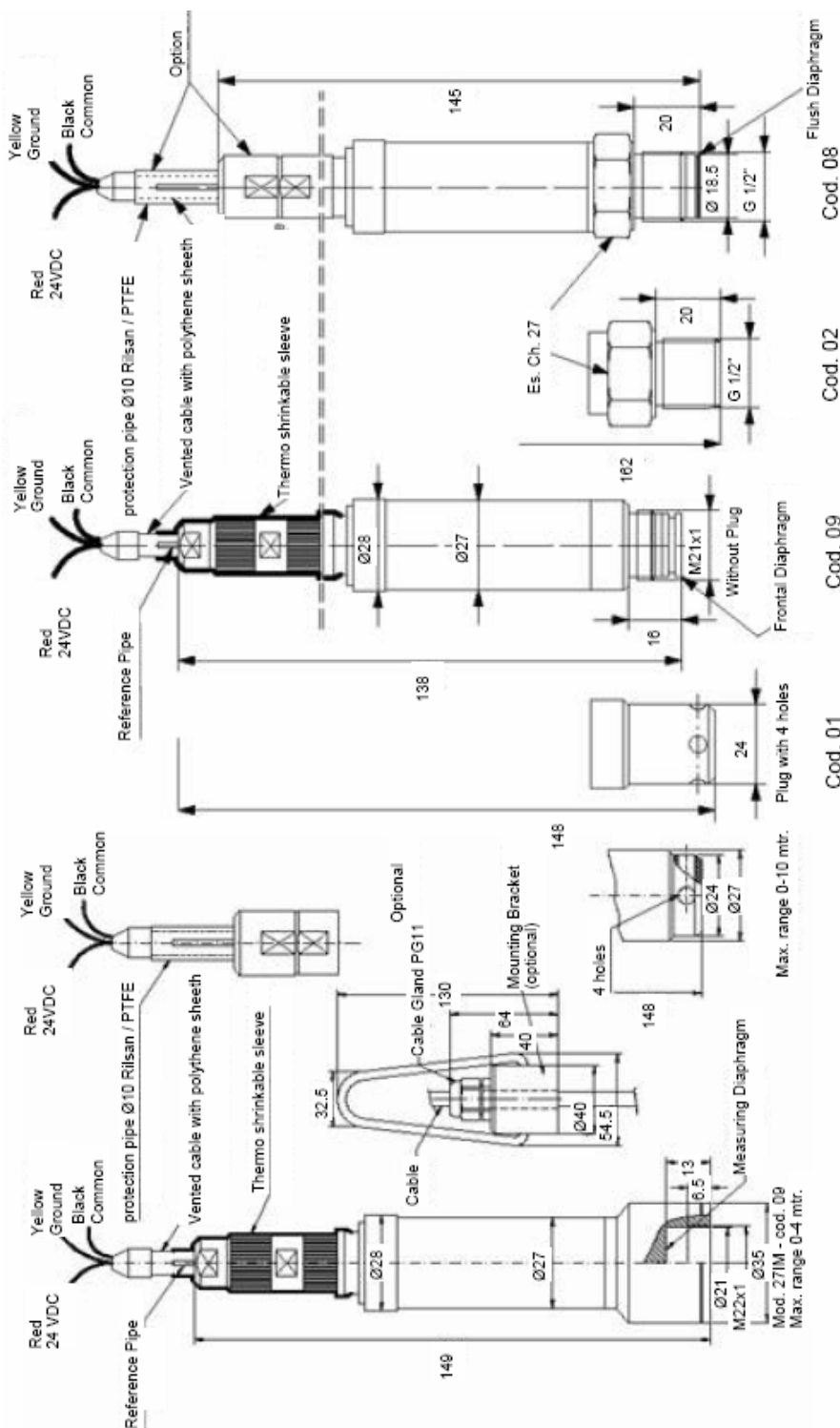
CODE	DESCRIPTION
01	- Plug with holes
02	- Screwed G 1/2" (diaphragm code A/B/E)
03	- Screwed G 1" Flush diaphragm (code A/B/C)
03a	- Screwed G 1" open diaphragm (code A/C)
04	- Screwed G 1 1/2" -M
05	- Screwed G 1/2" -M (BSPM) M44 (diaphragm code A/C)
08	- Screwed G 1/2" Flush diaphragm (code A)
09	- Open diaphragm (diaphragm code A/B/E)
10	- Open diaphragm body ø30 mm

For more informations contact our technical office.



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CODIFICATION EXAMPLE

Submersible electronic level transmitter for relative pressure measurement, calibration range 0=200 mbar, AISI 316 st.st. housing, plug with holes for diaphragm protection, AISI 316 st.st. diaphragm, 2,5 meters of vented cable with polietilene sheath without any gasket between body and sensor (all welded)

Code = **27IM R 02 A 01 A 1L=2,5 N**