

GENERAL CHARACTERISTICS



The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. The only moving element is the float that moves, for buoyancy, along the measuring rod. This ensures a high degree of reliability.

- **Stainless steel – AISI 316**
- Measuring resolution 5 – 10 – 20 mm.
- Potentiometric signal output (**LC**).
- 4-20mA analog output (**LCT**).
- 0-5 / 0-10V analog output (**LCTV**).
- (0)4-20mA analog output with digital display (**LCO**).
- Up to 6m length.
- Maximum working pressure 50 Bar
- Operating ambient temperature -30/+55°C UR 90%.
- Standard working temperature up to 105°C.
Executions up to 150°C on request.
- Minimum degree of protection IP65.
- Built-in temperature sensors, on request.
PT – PTC – NTC.
- ATEX constructions (See Linear ATEX E – Linear ATEX I series)



See MULTISIGNAL

FLOATS

Tab.1

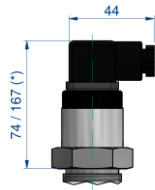
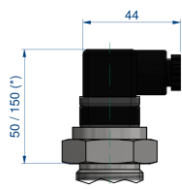
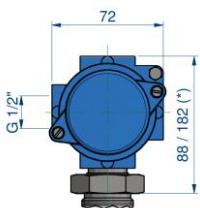


| Material | Stainless steel – AISI 316 | | | | | | |
|---------------------------|----------------------------|------|------|------|-----|---------|---------|
| Specific gravity | 0,75 | 0,55 | 0,78 | 0,82 | 0,7 | 0,65 | 0,6 |
| Measuring resolution - mm | 5 | 5 | 20 | 10 | 5 | 10 – 20 | 10 – 20 |
| Max. bar | 30 | 10 | 15 | 10 | 50 | 40 | 15 |
| Max. °C - Class | L = 105°C | | | | | | |
| On request | R = 150°C | | | | | | |

ELECTRICAL OUTPUT

Tab.2

| W1 | S1 | S1 | P1 - P2 | P1 - P2 | O1 |
|--------------|------------------------|------------------------|--|--|--------------------|
| IP65 Housing | DIN 43650 IP65 Plug | DIN 43650 IP65 Plug | P1 Brass cable-gland IP68 P2 Polyamide cable-gland IP67 | P1 Brass cable-gland IP68 P2 Polyamide cable-gland IP67 | OMNI electric head |



| | | | | | |
|-----------------------------------|----|--|----|------------|-----|
| LC – LCT – LCTV | LC | LCT - LCTV | LC | LCT - LCTV | LCO |
| With heatsink – see dimension (*) | | LCT – LCTV – LCO = Temperature class R | | | |

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PROCESS CONNECTIONS

Tab.3

| LC type P1-P2 output = Installation from inside | | Float type | LC - LCT - LCTV - LCO type = Installation from outside | | | | | | |
|---|------------|------------|--|--------------|--------------|----------|----------------|----------------|-----------------|
| 10 3/8" | 15 1/2" | | 25 1" | 32 1-1/4" | 40 1-1/2" | 50 2" | FSHX Flange | DN65 Flange | DN125 Flange |
| All type of floats All type of thread | | S29-32 | G | G-C-N | G-C-N | - | • | - | - |
| | | S40-41 | - | - | G-C-N | G-C-N | - | • | - |
| | | S52S | - | - | - | G-C-N | - | • | - |
| | | S52 | - | - | - | G-C-N | - | • | - |
| | | S100 | - | - | - | - | - | - | • |

Male thread

| G | C | N |
|-----------------------|--------------------|----------------|
| Parallel UNI 228/1 | Conical UNI 7/1 | Conical NPT |

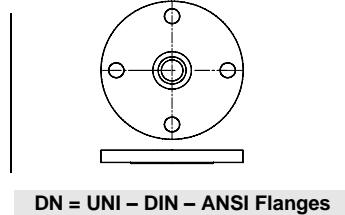
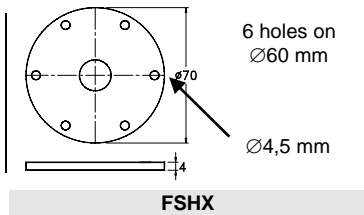
Available materials

| S |
|----------|
| AISI-316 |

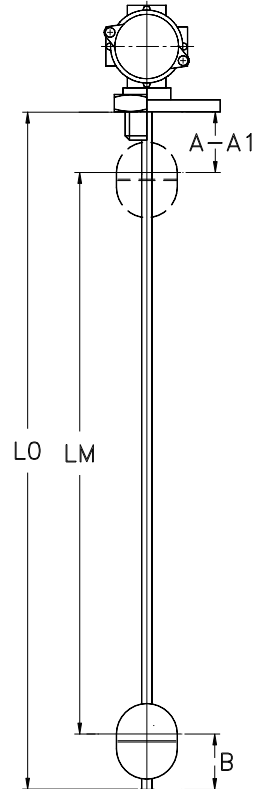
DN = Available materials

| S | C |
|----------|---------------------|
| AISI-316 | Steel On request |

FLANGES Dimensions in mm.

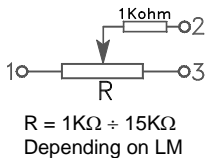


A Flanged connection
A1 Threaded connection

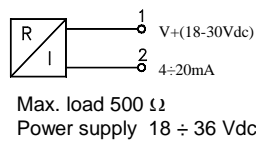


WIRING

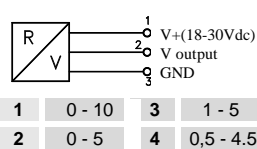
POTENTIOMETRIC OUTPUT



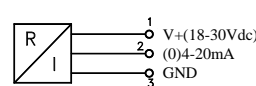
4-20 mA OUTPUT



V OUTPUT



4-20 mA OUTPUT WITH DIGITAL DISPLAY



LC

LCT

LCTV..

LCO

DIMENSIONS mm.

Tab.4

The dimensions L0 and LM are referred to the stop of the fitting (A1) or flange (A) connection.
Tolerance on dimension L0 and LM \pm 3 mm.

| | S29 | S32 | S40 | S41 | S52 (S) | S52 | S100 |
|----|-----|-----|-----|-----|---------|-----|------|
| A | 15 | 15 | 15 | 10 | 25 | 35 | 50 |
| A1 | 35 | 35 | 35 | 30 | 45 | 55 | - |
| B | 25 | 25 | 45 | 30 | 30 | 40 | 60 |

Damping tube
On request

| | | |
|---|----------|-----|
| - | - S | - V |
| | AISI-316 | PVC |

OPTION - Built-in temperature sensor

Only for LC type = On request, it is possible to install a temperature sensor located at the bottom of the rod inside the instrument.

| PT100 - PT1000 | PTC | NTC |
|--------------------------------|--|---|
| EN 60751 - IEC 751 | Resistance at 25°C \leq 500 Ω | Resistance at 25°C 2-5-10-50-100 K Ω |
| Class B - (Class A on request) | Temperature 60°C \div 150°C | Precision \pm 5% / \pm 3% (on request) |

NOMENCLATURE

| LC | S52 | 10 | 1300 / 1400 | S | - S | 50 | G | S | W1 | L | 1,5 M | |
|----|-----|----|-------------|---|-----|----|---|---|----|---|-------|---|
| • | | | | | | | | | | | | Type: LC - LCT - LCTV - LCO |
| | • | | | | | | | | | | | Tab.1 Float |
| | | • | | | | | | | | | | Tab.1 Measuring resolution (mm). |
| | | | • | | | | | | | | | Tab.4 Measuring length LM / Total length L0 (mm). |
| | | | | • | | | | | | | | Tab.3 Rod material. |
| | | | | | • | | | | | | | Tab.4 Damping tube (option). |
| | | | | | | • | | | | | | Tab.3 Process connection dimension. |
| | | | | | | | • | | | | | Tab.3 Process connection thread. |
| | | | | | | | | • | | | | Tab.3 Process connection material. |
| | | | | | | | | | • | | | Tab.2 Electrical output. |
| | | | | | | | | | | • | | Tab.1 Temperature class. |
| | | | | | | | | | | | • | Tab.2 Cable length (P1 - P2) 1,5m / 3m, other lengths on request. |



LINEAR S



Request form

External mounting

Internal mounting

W1

Electrical housing IP 65

S1

Plug IP65
DIN 43650

P1

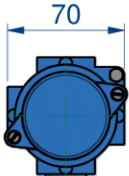
P1 Cable-gland brass IP68
P2 Cable-gland polyamide IP67
L cable.....mm

P2

C

Only internal mounting
Cable L.....mm

LC/LCT



70

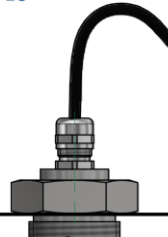
LC



LCT



LC



LCT



LC



LM max

L0

Total length
L0 (mm)

Measuring length
LM (mm)

Liquid under control:

Specific gravity:

Maximum pressure:

Maximum temperature:

Approvals:



Measuring resolution:

5 mm

10 mm

20 mm

Process connection:

Threaded:

Flanged:

Material:

Brass

AISI-316

PVC

PP

PVDF

Electrical output:

3-wires potentiometer



2-wires potentiometer

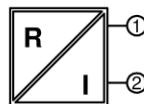


Calibrated potentiometer

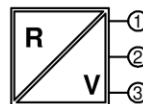
Empty tank =ohm

Full tank =ohm

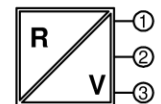
4 ÷ 20 mA output



0.5 ÷ 4.5 V output



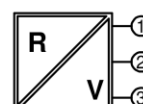
1 ÷ 5 V output



0 ÷ 5 V output



0 ÷ 10 V output



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