

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

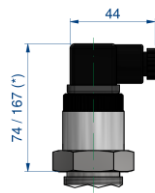
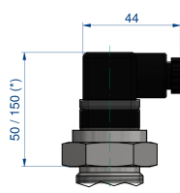
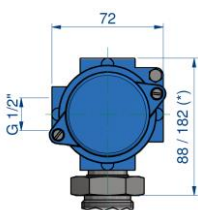


Material	Stainless steel – AISI 316						
Specific gravity	0,75	0,55	0,78	0,82	0,7	0,65	0,6
Measuring resolution - mm	5	5	20	10	5	10 – 20	10 – 20
Max. bar	30	10	15	10	50	40	15
Max. °C - Class	L = 105°C						
On request	R = 150°C						

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					

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

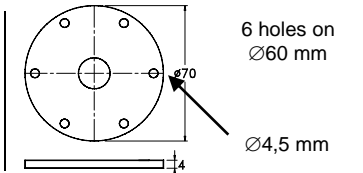
Available materials

S
AISI-316

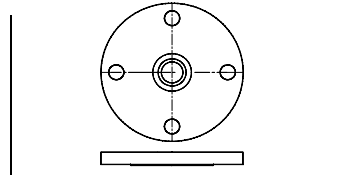
DN = Available materials

S	C
AISI-316	Steel On request

FLANGES Dimensions in mm.



FSHX



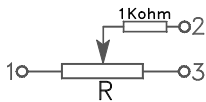
DN = UNI - DIN - ANSI Flanges

A Flanged connection
A1 Threaded connection



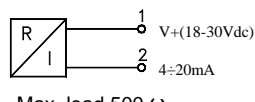
WIRING

POTENTIOMETRIC OUTPUT



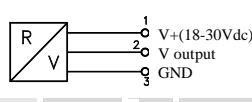
$R = 1K\Omega \div 15K\Omega$
Depending on LM

4-20 mA OUTPUT



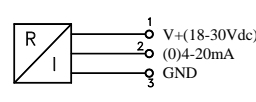
Max. load 500Ω
Power supply $18 \div 36 Vdc$

V OUTPUT



1 0 - 10 3 1 - 5
2 0 - 5 4 0,5 - 4,5

4-20 mA OUTPUT WITH DIGITAL DISPLAY



1 $V+(18-30Vdc)$
2 V output
3 GND

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 ± 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
AISI-316

- V
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 $25^\circ C \leq 500 \Omega$	Resistance at $25^\circ C$ 2-5-10-50-100 K Ω
Class B - (Class A on request)	Temperature $60^\circ C \div 150^\circ C$	Precision $\pm 5\%$ / $\pm 3\%$ (on request)

NOMENCLATURE

LC S52 10 1300 / 1400 S - S 50 G S W1 L 1,5 M

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

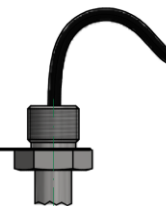
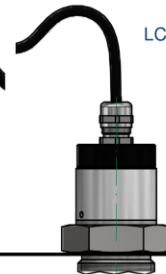
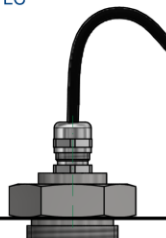
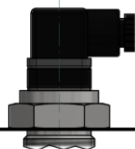
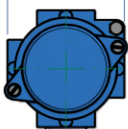
LC

LCT

LC

LCT

LC



LM max

L0

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

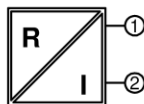


Calibrated potentiometer

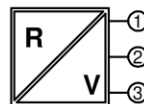
Empty tank =ohm

Full tank =ohm

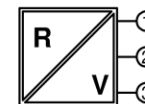
4 ÷ 20 mA output



0.5 ÷ 4.5 V output



1 ÷ 5 V output



Total length
L0 (mm)

Measuring length
LM (mm)