


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.

- **Brass – Spansil**
- 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 20 Bar
- Operating ambient temperature -30/+55°C UR 90%.
- Standard working temperature up to 105°C. Executions up to 120°C on request.
- Minimum degree of protection IP65.
- Built-in temperature sensors, on request. PT – PTC – NTC.
- ATEX  Executions (See Linear ATEX E – Linear ATEX I series)



FLOATS

Tab.1

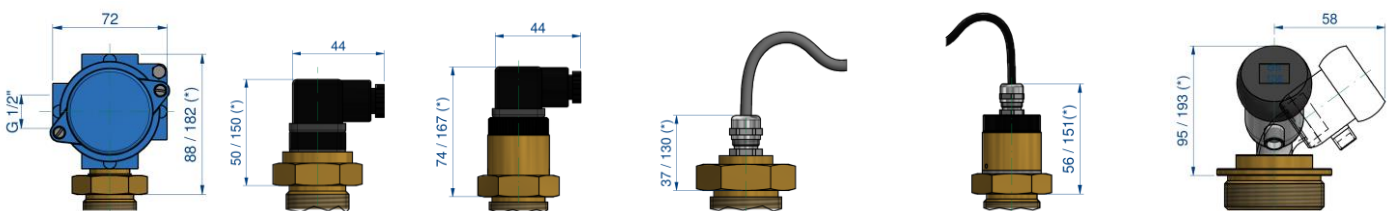


Material	Spansil – Butadiene - Acrylonitrile Copolymer			
Specific gravity	0,4	0,4	0,35	0,45
Measuring resolution - mm	5 - 10	5 - 10	5 – 10 – 20	5 – 10 – 20
Max. bar	20	20	20	20
Max. °C - Class	L = 105°C			
On request	M = 120°C			

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 M			

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"		20 3/4"	25 1"	32 1-1/4"	40 1-1/2"	50 2"	FOHX Flange	DN65 Flange
All type of floats All type of thread		B28	G-C-N	G-C-N	-	-	-	•	-
		B20	-	G	G-C-N	-	-	•	-
		B44	-	-	-	G	G-C-N	-	•
		B45	-	G	G-C-N	G-C-N	-	•	-

Male thread

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

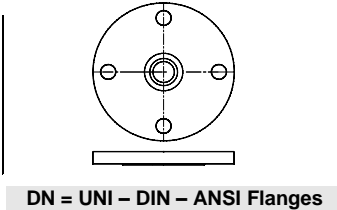
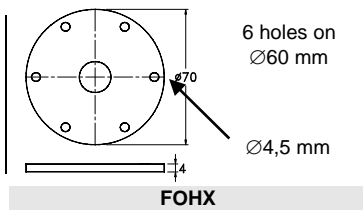
Available materials

O	S
Brass	AISI-316 On request

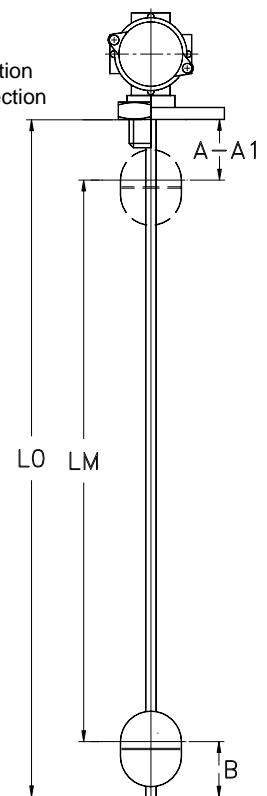
DN = Available materials

C	S
Steel	AISI-316 On request

FLANGES Dimensions in mm.

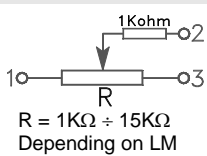


A Flanged connection
A1 Threaded connection

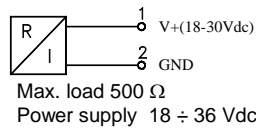


WIRING

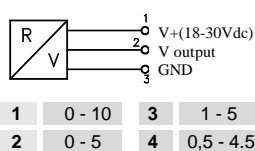
POTENTIOMETRIC OUTPUT



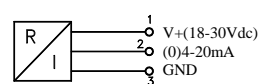
4-20 mA OUTPUT



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 ± 3 mm.

	B28	B20	B44	B45
A	15	10	25	25
A1	30	25	45	40
B	20	15	30	30

Damping tube On request	-	- L Aluminium	- O Brass
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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

EN 60751 - IEC 751
Class B - (Class A on request)

PTC

Resistance at 25°C $\leq 500 \Omega$
Temperature 60°C \div 120°C

NTC

Resistance at 25°C 2-5-10-50-100 K Ω
Precision $\pm 5\%$ / $\pm 3\%$ (on request)

NOMENCLATURE

LC B45 10 1300 / 1380 O -L 25 G O W1 L 1,5 M

LC	B45	10	1300 / 1380	O	-L	25	G	O	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 O



Request form

External mounting

Internal mounting

W1

Electrical housing IP 65

S1

Plug IP65
DIN 43650

P1

P1 Brass cable-gland IP68
P2 Polyamide cable-gland IP67
L cable.....mm

P2

C

Only internal mounting
Cable L.....mm

LC/LCT

LC

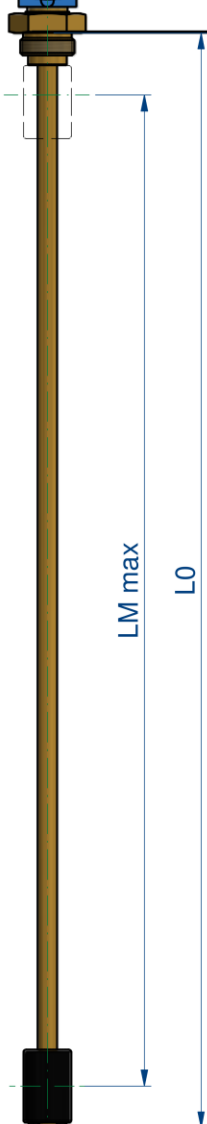
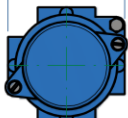
LCT

LC

LCT

LC

70



Liquid under control:

Specific gravity:

Maximum pressure:

Maximum temperature:

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

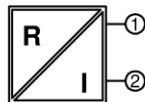


Calibrated potentiometer

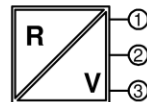
Empty tank =ohm

Full tank =ohm

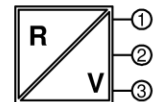
4 ÷ 20 mA output



0.5 ÷ 4.5 V output



1 ÷ 5 V output



Total length
L0 (mm)

Measuring length
LM (mm)

0 ÷ 5 V output



0 ÷ 10 V output

