

## APPROVED IN ACCORDANCE WITH THE EUROPEAN STANDARD 2014/34/EU - ATEX

These instruments, explosion-proof certified:

**CESI 03 ATEX 272 Ext.2 II 1/2G Exdb IIB T5/T6 Ga/Gb**, are used to control the level of liquids or fuels inside tanks, both underground and outdoors, installed in hazardous areas where flammable products are treated.

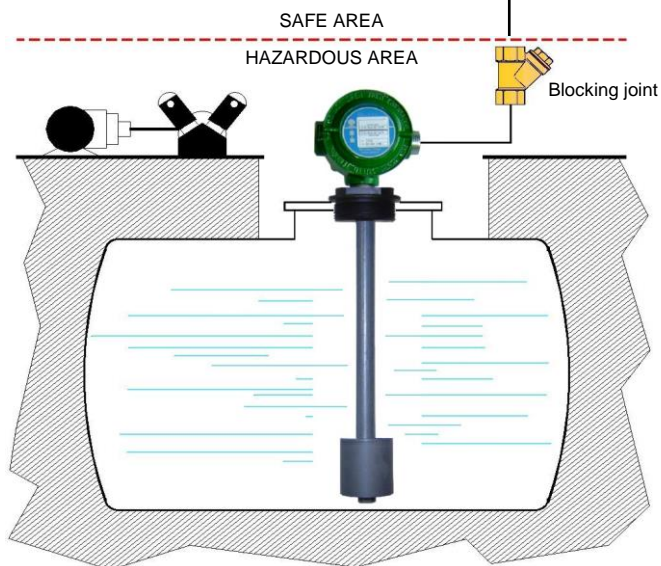
The principle of operation is potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside of the measuring rod by a magnetic float.

## GENERAL CHARACTERISTICS

- **PVC – PP – PVDF**
- Measuring resolution 5 mm.
- Potentiometric signal output (**LC**).
- 4-20mA analog output (**LCT**).
- Up to 5 m length.
- Maximum working pressure 6 Bar.
- Working ambient temperature.
  - 40/+40°C = T6, -40/+60 °C = T5
- Standard working temperature up to 130°C.
- Minimum degree of protection IP67
- Built-in temperature sensors, on request.
  - PT – PTC – NTC



See MULTISIGNAL



## FLOATS

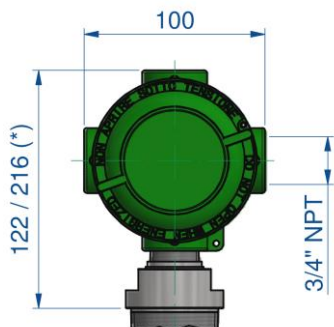
Tab.1



	F49 Ø49x53	P49 Ø49x53	V49 Ø49x53
<b>Material</b>	PVDF	PP - Polypropylene	PVC
<b>Specific gravity</b>	0,8	0,45	0,7
<b>Measuring resolution - mm</b>	5	5	5
<b>Max. pressure – Bar</b>	6	3	6
<b>Max. temperature – Class</b>	<b>L</b> = 100°C	<b>D</b> = 90°C	<b>B</b> = 60°C
On request	<b>N</b> = 130°C	-	-

## ELECTRICAL OUTPUT

Tab.2



<b>E1</b>	IP66/67 Housing – Aluminum - Epoxy painted
<b>E3</b>	IP66/67 Housing – AISI 316 St. steel

**With heatsink - see dimension (\*)**  
**LC – LCT = Temperature class N**

## PROCESS CONNECTIONS

Tab.3

Type of float	Installation from outside – available threads and flange			
	50 2"	DN65 Flange	DN80 Flange	DN100 Flange
F49	•	•	•	•
P49	•	•	•	•
V49	•	•	•	•

### Male thread

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

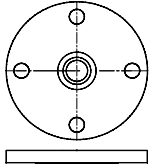
### Available materials

F	P	V
PVDF	PP	PVC

### DN = Available materials

V	S
PVC	AISI 316 On request

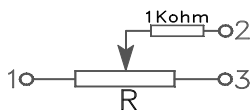
## FLANGES



DN = UNI – DIN – ANSI Flanges

## WIRING

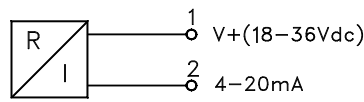
### POTENTIOMETRIC OUTPUT



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

LC

### 4-20 mA output



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

LCT

## DIMENSIONS

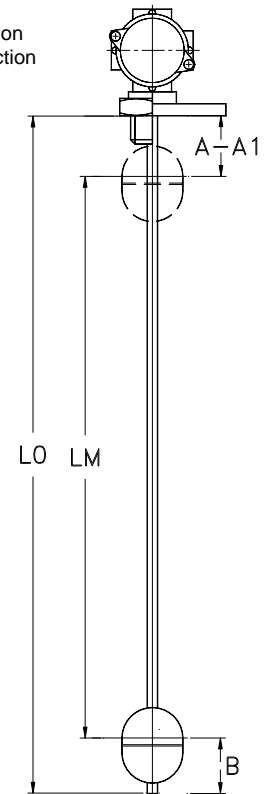
mm.

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.

	F49	P49	V49
A	25	25	25
A1	45	45	45
B	35	35	35

Damping tube		- V	- S
On request	—	PVC	AISI-316



## 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 a 25°C $\leq 500 \Omega$	Resistance a 25°C 2-5-10-50-100 K $\Omega$
Class B – (Class A on request)	Temperature 60°C $\div$ 130°C	Precision $\pm 5\%$ / $\pm 3\%$ (on request)

## NOMENCLATURE

LC V49 05 1300 / 1380 V -V 50 G V E1 B

LC	V49	05	1300 / 1380	V	-V	50	G	V	E1	B	
•											Type: LC – LCT
	•										Tab.1 Float
		•									Tab.1 Measuring resolution (mm).
			•								Tab.4 Measuring length LM / Total length L0 (mm).
				•							Tab.3 Stainless steel rod material.
					•						Tab.4 Presence of damping tube and material (option).
						•					Tab.3 Process connection dimension.
							•				Tab.3 Process connection thread.
								•			Tab.3 Process connection material.
									•		Tab.2 Electrical output.
										•	Tab.1 Temperature class.

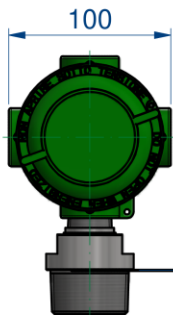
All level controls Exd certified must be connected by interposing the appropriate blocking joints according to the European Standard EN 50018.

## Request form

### External mounting

**E1**

Electrical housing IP 66/67  
Aluminum - Epoxy painted



**E3**

Electrical housing IP66/67  
Stainless steel - AISI 316

**STAINLESS STEEL**



LM max  
L0

Total length  
L0 (mm)

Measuring length  
LM (mm)

Liquid under control: .....

Specific gravity: .....

Maximum pressure: .....

Maximum temperature: .....

Approvals:



Exd



GOST-R Ex

Measuring resolution:

5 mm

10 mm

20 mm

Process connection:

Threaded: .....

Flanged: .....

Material:

Brass

AISI-316

PVC

PP

PVDF

Electrical output:

Electrical output:



2-wires potentiometer

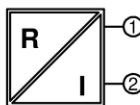


Calibrated potentiometer

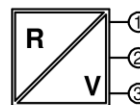
Empty tank = .....ohm

Full tank = .....ohm

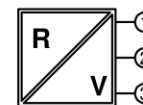
4 ÷ 20 mA output



0.5 ÷ 4.5 V output



1 ÷ 5 V output



0 ÷ 5 V output



0 ÷ 10 V output

