

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

These instruments, explosion-proof certified:

**CESI 03 ATEX 272 Ext.2 1/2G Exdb IIC T5/T6 G2/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.



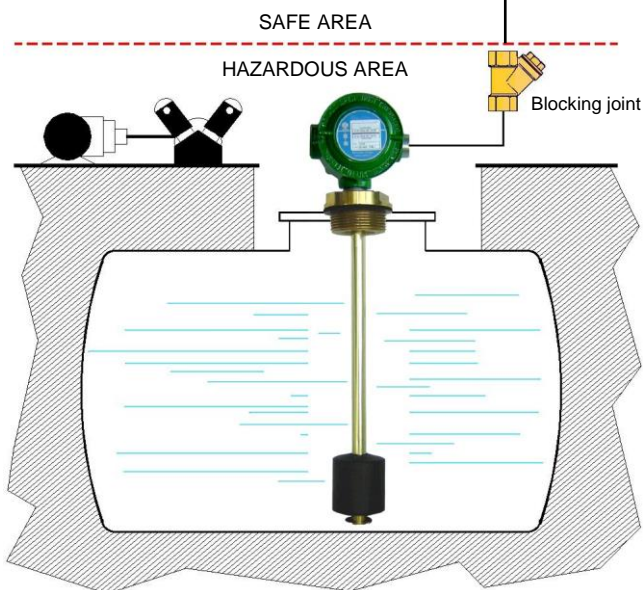
Exd



GOST-R Ex



See MULTISIGNAL



### GENERAL CHARACTERISTICS

- **Brass – Spansil – Stainless steel rod**
- Measuring resolution 5 – 10 – 20 mm.
- Potentiometric signal output (**LC**).
- 4-20mA analog output (**LCT**).
- Up to 6 m length depending on the used float.
- Maximum working pressure 20 Bar.
- Working ambient temperature.  
-40/+40°C = T6, -40/+60 °C = T5
- Standard working temperature up to 100°C.  
Execution up to 120°C on request.
- Minimum degree of protection IP67
- Built-in temperature sensors, on request.  
PT – PTC – NTC

### FLOATS

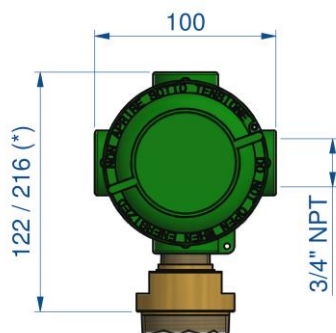
Tab.1



Material	Spansil – Butadiene - Acrylonitrile Copolymer				
Specific gravity	0,44	0,4	0,4	0,35	0,45
Measuring resolution - mm	5 – 10	5 – 10	5 – 10	5 – 10 – 20	5 – 10 – 20
Max. pressure – Bar	20	20	20	20	20
Max. temperature – Class	L = 100°C				
On request	M = 120°C				

### ELECTRICAL OUTPUT

Tab.2



**E1** IP66/67 Housing – Aluminum - Epoxy painted

**E3** IP66/67 Housing – AISI 316 St. steel

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

### PROCESS CONNECTIONS

Tab.3

Type of float	Installation from outside – available threads and flange							
	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	FOHX Flange	DN50 Flange	DN65 Flange
B22	G-C-N	G-C-N	-	-	-	•	-	-
B28	G-C-N	G-C-N	-	-	-	•	-	-
B20	-	G	G-C-N	-	-	•	•	-
B45	-	G	G-C-N	G-C-N	-	•	•	-
B44	-	-	-	G	G-C-N	•	•	•

#### Male thread

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

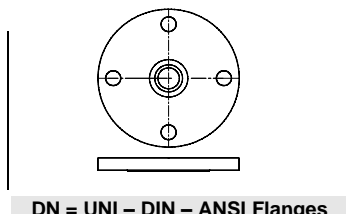
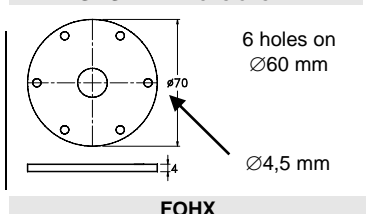
#### Available materials

O	S
Brass	AISI-316 On request

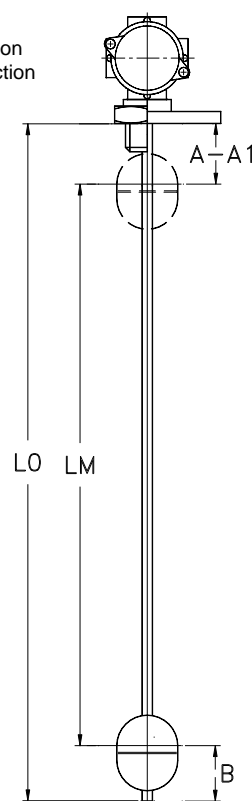
#### DN = Available materials

C	S
Steel	AISI-316 On request

#### FLANGES Dimensions in mm.

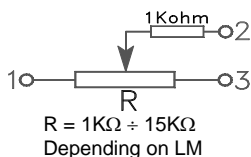


A Flanged connection  
A1 Threaded connection

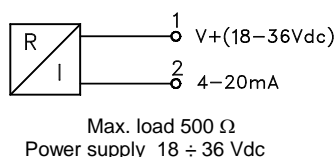


### WIRING

#### POTENTIOMETRIC OUTPUT



#### 4-20 mA output



LC

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.

	B22	B28	B20	B44	B45
A	10	15	10	25	25
A1	25	30	30	45	45
B	15	25	20	35	35

Damping tube	- L	- O	- S
On request	aluminium	brass	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 – A (on request)	Temperature 60°C $\div$ 120°C	Precision $\pm 5\%$ / $\pm 3\%$ (on request)

### NOMENCLATURE

LC	B45	10	1300 / 1380	S	- L	25	G	O	E1	L
•										
	•									
		•								
			•							
				•						
					•					
						•				
							•			
								•		
									•	
										•

Type: LC – LCT

Tab.1	Float
Tab.1	Measuring resolution (mm).
Tab.4	Measuring length LM / Total length L0 (mm).
-	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.

We reserve the right to change the data without notice

BE#179/3-10/2017

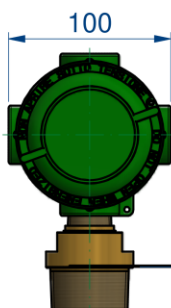


## Request form

### External mounting

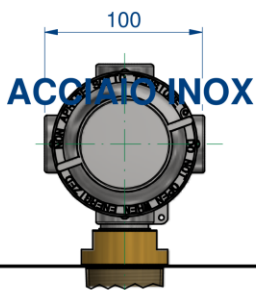
E1

Electrical housing IP 66/67  
Aluminum - Epoxy painted



E3

Electrical housing IP66/67  
Stainless steel - AISI 316L



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:

☐ 3-wires potentiometer



☐ 2-wires potentiometer

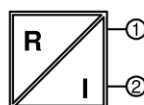


☐ Calibrated potentiometer

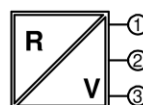
Empty tank = .....ohm

Full tank = .....ohm

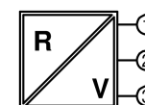
☐ 4 ÷ 20 mA output



☐ 0.5 ÷ 4.5 V output



☐ 1 ÷ 5 V output



☐ 0 ÷ 5 V output



☐ 0 ÷ 10 V output

