

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

These instruments, intrinsically safe certified:

CESI 03 ATEX 265 Ext.2 II 1G Exia IIC T4/T5/T6 Ga,
CESI 03 ATEX 265 Ext.2 II 1/2G Exia IIC T4/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

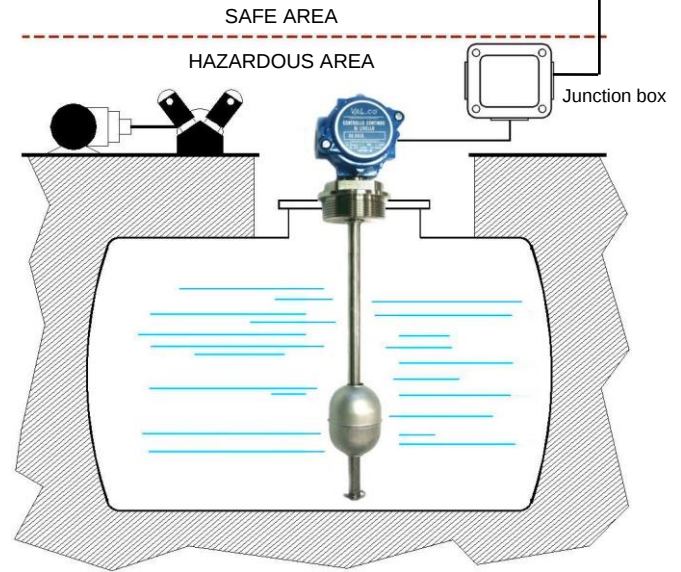
- **Stainless steel – AISI 316**
- Measuring resolution 5 – 10 – 20 mm.
- Potentiometric signal output (**LC**).
- 4-20mA analog output (**LCT**).
- 0-10V analog output via safety barrier **SAFE POT**.
- Up to 6 m length depending on the used float.
- Maximum working pressure 50 Bar.
- Working ambient temperature.
 -40/+40°C = T6, -40/+55 °C = T5, -40/+80 °C = T4
- Standard working temperature up to 100°C.
 Execution up to 150°C on request.
- Minimum degree of protection IP65



See MULTISIGNAL



See SAFE POT



FLOATS

Tab.1

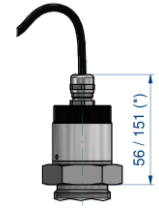
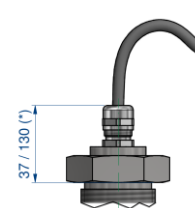
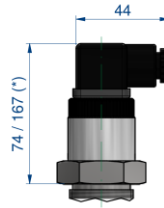
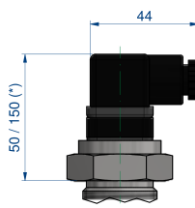
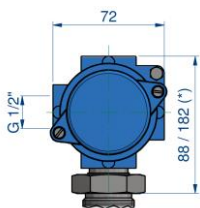
S29 Ø30x32	S32 Ø30x32	S40 Ø40x52	S41 Ø41x35	S52 Ø52 (S)	S52 Ø52x68	S100 Ø100

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

I1	I3	IS1	IS1	IP1 - IP2	IP1 - IP2
IP65 Housing (2G)	IP66/67 Housing (1G)	DIN 43650 IP65 (1G)	DIN 43650 IP65 (1G)	Cable gland (1G)	Cable gland (1G)
LC = 3 terminals LCT = 2 terminals	LC = 3 terminals LCT = 2 terminals	DIN 43650 29x29	DIN 43650 29x29	IP1 Brass IP68 IP2 Polyamide IP67	IP1 Brass IP68 IP2 Polyamide IP67



LC – LCT	LC – LCT	LC	LCT	LC	LCT
With heatsink – see dimension (*)		LC – LCT = Temperature class R			

PROCESS CONNECTIONS

Tab.3

Installation from inside only LC = IP1-2		Float type	Installation from outside - available thread and flanges						
10 3/8"	15 1/2"		25 1"	32 1¼"	40 1½"	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	-	●	-
		S52 (S)	-	-	-	G-C-N	-	●	-
		S52	-	-	-	G-C-N	-	●	-
		S100	-	-	-	-	-	-	●

Male thread

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

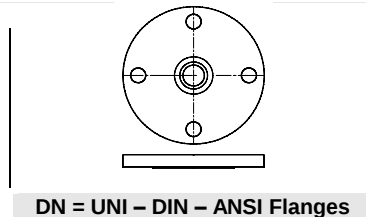
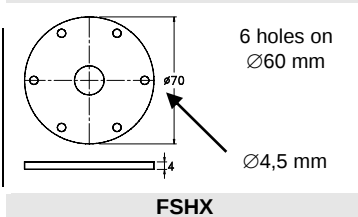
Available materials

S	T
AISI-316	AISI-304 On request

DN = Available materials

C	S
Steel	AISI-316

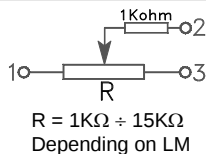
FLANGES Dimensions in mm.



A Flanged connection
A1 Threaded connection

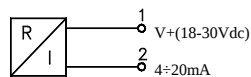
WIRING

POTENTIOMETRIC OUTPUT



LC

4-20 mA OUTPUT

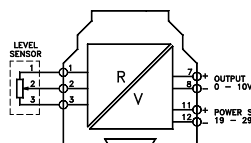


Max. load 500 Ω
Power supply 18 ÷ 36 Vdc

LCT

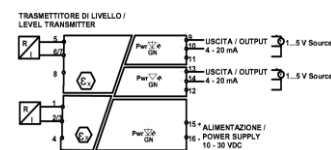
0-10 V output

Available on SAFE POT barrier



1-5 V output

Available on SAFE ANG barrier



SAFETY BARRIERS

All Exia level controls must be electrically connected to the active or passive barriers according to the European Standard EN 50020. See technical bulletin SAFE POT e SAFE ANG.

	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

—

AIS

– V
PVC

1

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.

NOMENCLATURE

[illegible]

	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 and material of 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 (IP1 - IP2) 1.5m / 3m. Other on request.



LINEAR S - ATEX I



Request form

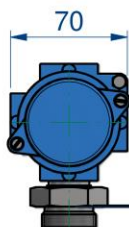
External mounting

Internal mounting

I1

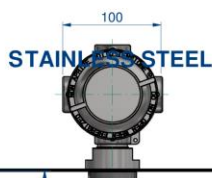
Electrical housing IP 65
LC= 3 terminals
LCT= 2 terminals

LC/LCT

**I3**

Electrical housing IP 66/67
LC= 3 terminals
LCT= 2 terminals

LC/LCT

**IS1**

Plug DIN
43650

LC

**IP1**

IP1 Cable-gland brass IP68
IP2 Cable-gland polyamide IP67
L cable.....mm

LCT

**IP2**

IP1 Cable-gland brass IP68
IP2 Cable-gland polyamide IP67
L cable.....mm

LCT

**IC**

Only internal mounting
Cable L.....mm

LC



Liquid under control:

Specific gravity:

Maximum pressure:

Maximum temperature:

Approvals:



Exia

GOST-R Ex

Measuring resolution:

☐ 5 mm☐ 10 mm☐ 20 mm

Process connection:

☐ Threaded:☐ Flanged:

Material:

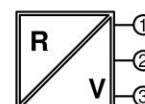
☐ Brass☐ AISI-316☐ PVC☐ PP☐ PVDF

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

Total length
L0 (mm)

Measuring length
LM (mm)