



TYPE APPROVAL CERTIFICATE



N. ELE000418CS

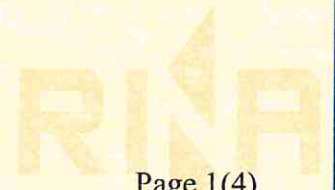
This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA Type Approval system.

<i>Description</i>	Level transmitter
<i>Type</i>	Linear S; Multipoint S Linear S - ATEX I; Multipoint S ATEX I Linear S - ATEX E; Multipoint S ATEX E
<i>Applicant</i>	Val.Co Srl Via Rovereto 9/11 20014 Nerviano (MI) Italy
<i>Manufacturer</i>	Val.Co Srl Via Rovereto 9/11 20014 Nerviano (MI) Italy
<i>Testing Standards</i>	Rules for the Classification of Ships – Part C – Machinery Systems and Fire protection – Ch. 3, Sect. 6, Tab. 1

Issued in Genova on May 08, 2018

This certificate is valid until May 08, 2023

RINA Services S.p.A.





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Linear S float level transmitters

The Principle of operation is of potentiometric type, based on the gradual shutdown of a magnetic reed switch chain, placed inside of the guiding rod; Magnetic reed switches are actuated by a magnetic float moving along the measuring rod.

Floats (AISI 316) model : S29, S32, S41, S52, S100

- Stainless steel- AISI 316
- Measuring resolution 5-10-20 mm
- Potentiometric signal output (LC)
- 4/20 mA analog output (LCT)
- 0 / 5 / 0 / 10V analog output (LCTV)
- (0) _ 4 / 20 mA analog output with digital display (LCO)
- up to 6 m length (additional rod clamping device to be provided)
- Degree of protection: to be in relation with the installation point (W1, W2 and S1 Housing)

Multipoint S float level switches

The principles of operation is based on the drive of one or more magnetic reed switches, placed inside of the measuring rod, by one or more floats. Magnetic reed switches are actuated by magnetic floats moving along the measuring rod.

Floats (AISI 316) model : S29, S32, S41, S52, S100

- Stainless steel- AISI 316
- up to 6 switch points
- up to 6 m length (additional rod clamping device to be provided)
- Degree of protection: to be in relation with the installation point (W1 and W2 and S1-S2 Housing)

Linear S ATEX I float level transmitter - for installation in hazardous area – Intrinsically Safe type

The Principle of operation is of potentiometric type, based on the gradual shutdown of a magnetic reed switch chain, placed inside of the guiding rod; Magnetic reed switches are actuated by a magnetic float moving along the measuring rod.

Floats (AISI 316) model: S29, S32, S41, S52, S52(S), S100

- Stainless steel – AISI 316
- Measuring resolution 5-10-20 mm
- Potentiometric signal output (LC)
- 4/ 20 mA analog output (LCT)
- 0/ 10V analog output
- Up to 6 m length depending on the used float
- Degree of protection and enclosure model : according to the relevant EC type Examination Certificate in force

Data Sheet: BE#185/1-01/2014

Multipoint S ATEX I float level switches - for installation in hazardous area - Intrinsically Safe type

The principles of operation is based on the drive of one or more magnetic reed switches, placed inside of the measuring rod, by one or more floats. Magnetic reed switches are actuated by magnetic floats moving along the measuring rod.

Floats (AISI 316) model : S29, S32, S41, S52, S52(S), S100

- Stainless steel- AISI 316
- Up to 6 switch points
- Up to 6 m length depending on the used float. (additional rod clamping device to be provided)
- Degree of protection and enclosure model: according to the relevant EC type Examination Certificate in force

Data sheet: BE#170/2-10/2014

N. ELE000418CS

Linear I Continuous, potentiometric level controller consists of the following Series:

LC_I1, LC_I3, LC_IS1, LC_IP1-IP2

Linear I Continuous 4-20mA level controller consists of the following Series:

LCT_I1, LCT_I3, LCT_IS1, LCT_IP1-IP2

Multipoint I ON/ OFF level controller consists of the following Series:

I1, I2, I3, IS1, IC1-IC2, IP1-IP2

Safety Characteristics:

Equipment: Level Controller Linear I and Multipoint I

Certification Authority: CESI

EC-Type Examination Certificate: CESI 03 ATEX 265 with **Supplement 01** and **02** and **03**

Safety characteristics:

Marking: II 1G Ex ia IIC T6, T5, T4 Ga or Ex ia IIB T6, T5, T4 Ga or Ex ia IIA T6, T5, T4 Ga

II ½G Ex ia IIC T6, T5, T4 Ga/Gb, or II ½G Ex ia IIB T6, T5, T4 Ga/Gb, or II ½G Ex ia IIA T6, T5, T4 Ga/Gb

Safety standard: EN 60079-0:2012+A11:2013; EN 60079-11:2012.

Multipoint I and Linear I

Electrical parameter	Ui	Ii	Pi	Ci	Li
Multipoint I series I1, I2, I3, IS1 Linear I LC series I1, I3, IS1	30V	100 mA	0,75 W	0	0
Multipoint I series IC1, IC2, IP1, IP2 Linear I LC series IP1, IP2	30V	100 mA	0,75 W	1 nF	1uH
Linear I LCT series I1, I3, IS1	30V	100 mA	0,75 W	12 nF	0
Linear I LCT series IP1, IP2	30V	100 mA	0,75 W	13 nF	1uH

Level controller **Multipoint I** and **Linear I** are to be powered by certified equipment with [Ex ia] IIC protection mode, according to the electrical parameter limits as above reported.

Temperature Class	Ambient temperature
T6	-20°C to +40°C or -40 to +40°C depending on resin sealing
T5	-20°C to +55°C or -40 to +55°C depending on resin sealing
T4	-20°C to +80°C or -40 to +80°C depending on resin sealing

See EC-Type Examination Certificate for detailed instructions



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N. ELE000418CS

Linear S ATEX E float level transmitter - for installation in hazardous area – Explosion proof type

The Principle of operation is of potentiometric type, based on the gradual shutdown of a magnetic reed switch chain, placed inside of the guiding rod; Magnetic reed switches are actuated by a magnetic float moving along the measuring rod.
Floats (AISI 316) model : S29, S32, S41, S52, S52(S), S100

- Stainless steel – AISI 316
- Measuring resolution 5-10-20 mm
- Potentiometric signal output (LC)
- 4/ 20 mA analog output (LCT)
- Up to 6 m length depending on the used float. (additional rod clamping device to be provided for length above 1.5 m)
- Degree of protection and enclosure model : according to the relevant EC type Examination Certificate in force.

Data sheet: BE#182/2-02/2015

Safety Characteristics:

Equipment: Level Controller Linear E and Multipoint E

Certification Authority: CESI

EC- Type Examination Certificate: CESI 03 ATEX 272 with Supplement 01 and 02 and 03

Marking: II ½G Ex db IIC T6, T5 Ga/Gb or Ex db IIB T6, T5 Ga/Gb or Ex db IIA T6, T5 Ga/Gb

Safety standard: EN 60079-0:2012+A11:2013; EN 60079-1:2014; EN60079-26:2015

Electrical parameter	Linear E LC (continuous)	Linear E LCT (continuous)
Rated voltage	30 Vdc	36 Vdc
Rated current	30 mA	4-20 mA
Rated power	1W	1W
Ambient temperature	- 20°C / - 40°C ≤ Tamb ≤ + 40°C / + 60°C	
Temperature Class	T6 [with Tamb(Max) = 40°C] ; T5 [with Tamb(Max) = 60°C]	

See EC-Type Examination Certificate for detailed instructions

Multipoint S ATEX E float level switches - for installation in hazardous area - Explosion proof type

The principles of operation is based on the drive of one or more magnetic reed switches, placed inside of the measuring rod, by one or more floats. Magnetic reed switches are actuated by magnetic floats moving along the measuring rod.
Floats (AISI 316) model : S29, S32, S41, S52, S100

- Stainless steel- AISI 316
- Up to 6 switch points
- Up to 6 m length depending on the used float. (additional rod clamping device to be provided for length above 1.5 m)
- Degree of protection and enclosure model : according to the relevant EC type Examination Certificate in force

Data sheet: BE#167/3-02/2015

Electrical parameter	Multipoint E (ON / OFF)
Rated voltage	350 V ac/dc
Rated current	1,5 A ac/dc
Rated power	120 W
Ambient temperature	- 20°C / - 40°C ≤ Tamb ≤ + 40°C / + 60°C
Temperature Class	T6 [with Tamb(Max) = 40°C] ; T5 [with Tamb(Max) = 60°C]

See EC-Type Examination Certificate for detailed instructions

Notes:

Barrier model SAFEPOT is not part of this approval.

Installation in hazardous area to be in accordance with the EC-type Examination Certificates of the relevant components.