



EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRA000003U

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Spirax Sarco S.r.l.
Nova Milanese MB, Italy

for

Level Gauges/Transmitters

with type designation(s)

Colima Viscorol 50, Colima Viscorol 60, Colima Viscorol 70

The product is found to comply with

EU RO Mutual Recognition Technical Requirements for Level Gauges/Transmitters

Intended service

Level gauges and transmitters for control, monitoring, alarm, and safety functions subject to classification.

Temperature [°C]: 5°C to 55°C

Vibration: ±1 mm / 0.7 g

EMC: General power distribution zone

IP Code: Transmitter housing: IP67

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2027-11-03**.

Issued at **Høvik** on **2022-11-04**

DNV local unit: **Italy/Malta CMC**

for **DNV**

Approval Engineer: **Ståle Sneen**

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Frederik Tore Elter
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Colima Viscorol 50, 60 and 70 magnetic level indicators. The indicators can be equipped with electrical contacts or with a potentiometer transmitter.

Product code: Colima R-a-b-c-d-e-f-g-h-i-j

a	Type	LL	Side / side mounted
		LF	Side / base mounted
		LT	Side / top mounted
		TF	Top / base mounted
b	Body diameter	50	Ø 50 mm
		60	Ø 60 mm
		70	Ø 70 mm
c	Body material	1	304L stainless steel
		2	316L stainless steel
		3	316Ti stainless steel
d	Centre-to centre measurement	- - - -	Measuring distance in mm
e	Connection type	FL	Flanged
		TH	Screwed
		SW	Socket weld
		BW	Butt weld
f	Attachment rating	UA	
g	Float material	A	316L stainless steel
		B	316Ti stainless steel
		C	Titanium
		D	Hastelloy
		E	PVC
		F	PP
		G	PVDF
		H	Buna N
h	Valves	VA	Drain valve
		VB	Vent valve
i	Electrical equipment contact	R1	Colima Viscorol SPDT contact
		R2	Colima Viscorol DPDT contact
j	Electrical equipment transmitter	T5	5 mm
		T10	T10 10 mm
		T20	T20 20 mm
		A	Housing for safe area
		C	Housing for safe area, low / high temperature
		B	Housing for hazardous area
		C3	Converter for safe area
C4	Converter for in built safe area		
C5	Converter HART® protocol		

Example: Colima R-LL-60-2-700-FL-UA-A-VA-R1-T10-A-C3

Electrical rating of SPDT and DPDT contact: 60 VA / 1 A / 250 V

Manufactured by

Spirax Sarco S.r.l.
 Via Per Cinisello 18,
 20834 Nova Milanese MB,
 Italy

Application/Limitation

The Type Approval covers all hardware listed under Product description. The level gauges and transmitters are intended for use in control, monitoring, alarm and safety systems subject to classification.

This type approval does not cover use in pressurised systems.

Models with transmitter shall be supplied from an approved 24 Vdc instrument power supply with galvanic isolation.

The electrical connections of the transmitter shall be equipped with a ferrite type Würth Elektronik model number WE 742 712 22 (or equivalent type), with double turns.



Job Id: **262.4-000184-1**
Certificate No: **MRA000003U**

Type Approval documentation

Marking of product

The product to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Other conditions

The units have been verified for compliance with EU Mutual Recognition Technical Requirements for Level Gauges/Transmitters version 0.1, dated 2022-01-01.

Applicable tests according to IACS Unified Requirements E10 rev. 7 and rev. 8 have been verified.

Environmental test parameters:	DNV location classes
Temperature: 5°C and 55°C	A
Humidity: 93%RH @ 55°C	B
Vibration: ±1 mm / 0.7 g	A
EMC: General power distribution zone	A
Enclosure: Transmitter housing: IP67 (IP-ratings according to IEC 60529)	B

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed annually and at renewal of this certificate.

Generic Statement for EU RO MR Type Approval Certificate

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);
- Russian Maritime Register of Shipping (RS).

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).