

TECHNICAL GUIDE

Contactless Liquid Level indicators



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Contactless Liquid Level Indicators CU eOLI

Technical data

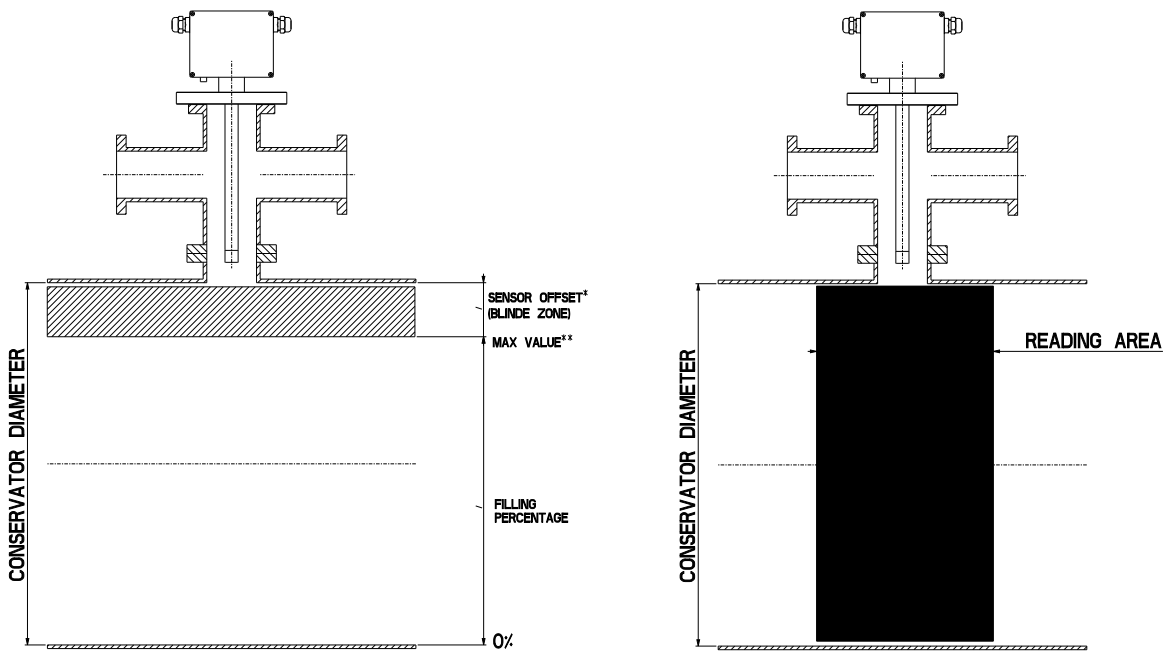
CU eOLI	Technical data
	Material
Housing and upper part inclusive terminal box	Aluminum casting, RAL 7032, powder coated (C4 Medium); Off shore model on request (C5 Medium surface treatment, not painted)
	Characteristics data
Installation	Indoors and outdoors, tropical proof
Measurement ranges for Comem CU eOLI100	120 mm - 1000 mm
Measurement ranges for Comem CU eOLI200	200 mm - 2000 mm
Ambient temperature	-25°C to +70°C
Oil temperature	-25°C to +70°C
Gasket material	NBR
Degree of protection	IP65 in accordance with EN60529
	Protected micro switches
Number and types	1 programmable changeover
Making capacity	5A @30V DC – 10A @250V AC
Max breaking capacity DC	3A
Max breaking capacity AC	5A
	Connection
Connection terminals	Min 0.25 mm ² / max. 4 mm ²
Cable glands	N°2 M25 x 1.5
	Mechanical test
Sinusoidal (EN 60721-3-4)	cl.4M4
Shock	cl.4M4
	Electronic board features
Analog output	4-20 mA (dielectric strength between electronic card and analogical output: 2kV) Maximum resistance: 450 Ω
Digital output	Serial RS485 for MODBUS RTU
Rated voltage	24 VDC ±10% polarized
EMC guaranteed	Cable length up to Max 30 m / 98 ft
Accuracy and Repeatability	1.0% of full scale*
Current consumption	0,5 W
Ventilation valve	To prevent the formation of condensation

*Working pressure (absolute) value shall be above 600mbar

COMEM is an ISO 9001 system certified. Information subject to change without notice

Sensor characteristics

Sensor type	Ultrasonic
Reading area	Ø 250 mm for CU eOLI100; Ø 500 mm for CU eOLI200 (See below)
Sensor offset	120 mm for CU eOLI100 ; 200 mm for CU eOLI200 (See below)

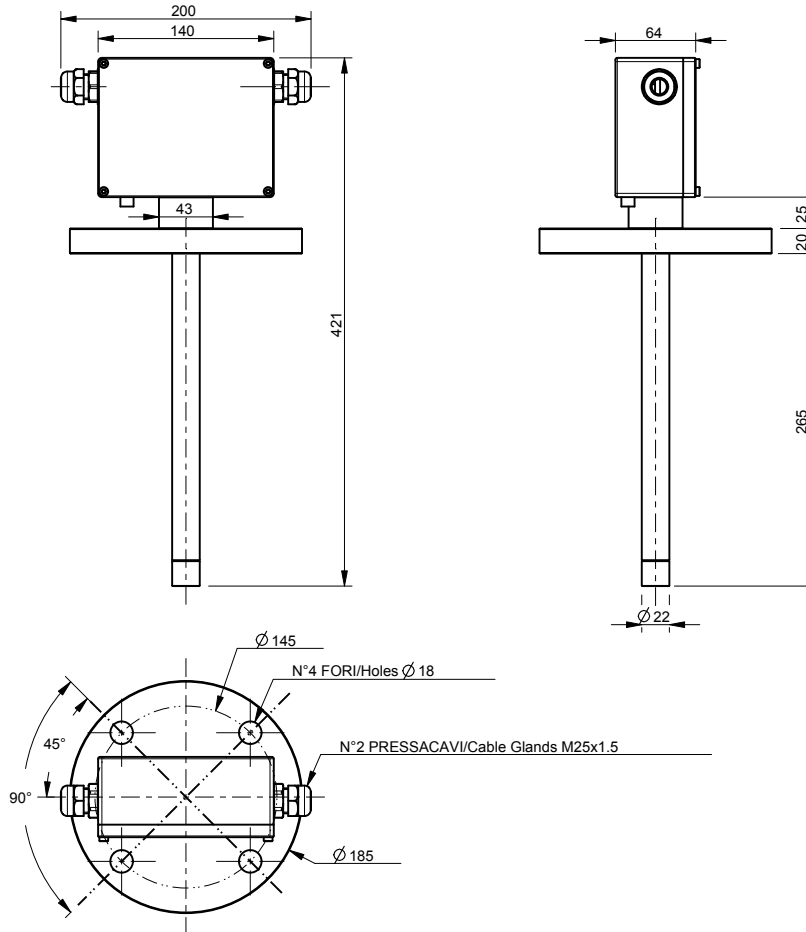


* equal to: 120mm for CU eOLI100/ 200mm for CU eOLI200
 ** in absence of installation offset (without rubber bag) MAX VALUE (%)
 is equal to: $(\text{conservator diameter} - \text{blind zone}) \times 100 / \text{conservator diameter}$

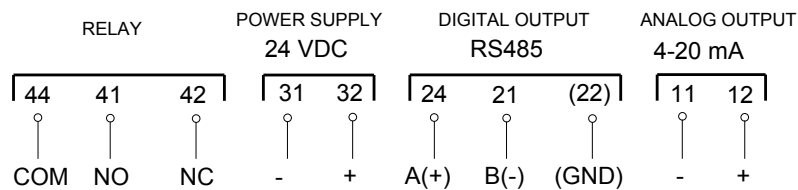
Contactless Liquid Level Indicators CU eOLI

Dimensions and electrical scheme

CU eOLI dimensions

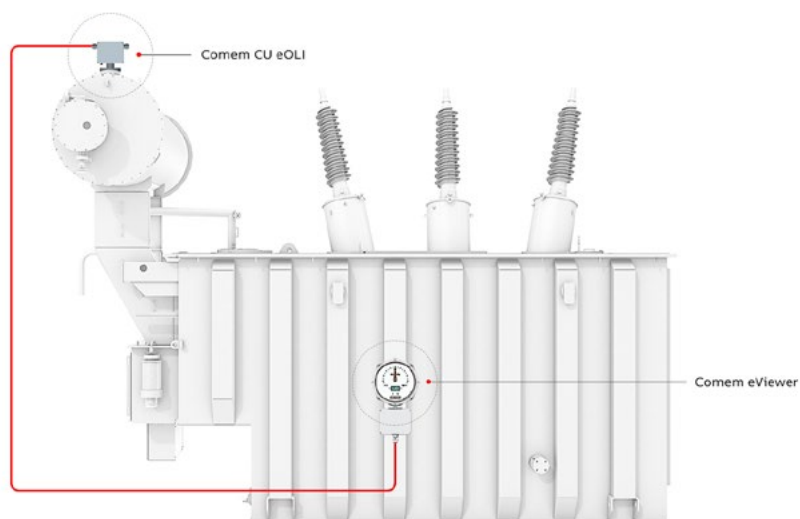


CU eOLI electrical scheme

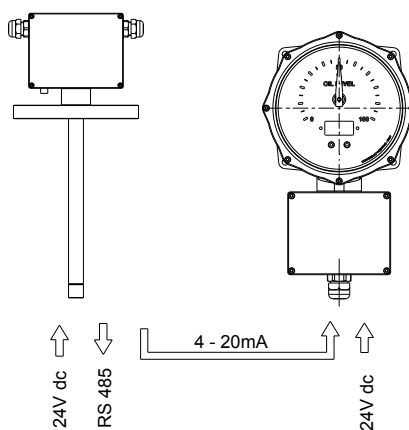


Remote Visual Indicator eViewer

Technical data



Connection



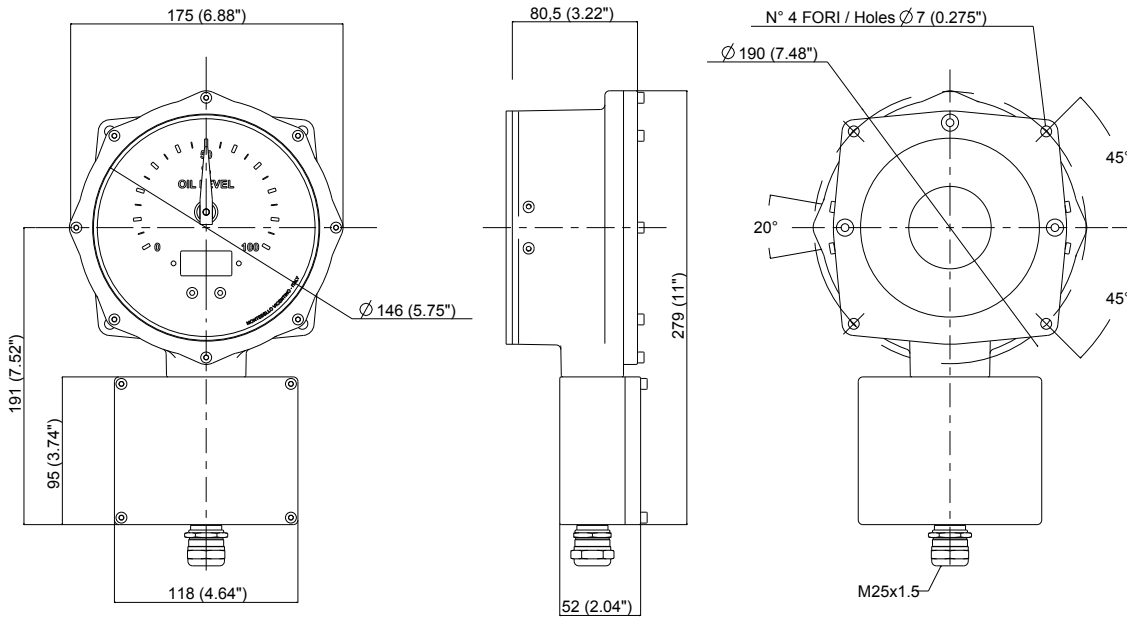
Electronic board features

Analog input	4-20 mA
Rated voltage	24 VDC \pm 10% polarized
Power consumption	0,5 A
Wires	Max 2.5mm ² – advised 4x1mm ² or 6x1mm ² shielded twisted pair cable for analog/digital output
EMC guaranteed	Cable length up to 30 m / 98 ft
Ventilation valve	To prevent the formation of condensation

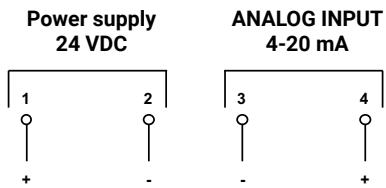
Remote Visual Indicator eViewer

Dimensions and electrical scheme

eViewer dimensions



eViewer electrical scheme



Order sheet

Date	
Rev.	
Customer reference	

Type

<input type="checkbox"/>	CU eOLI100 (conservator diameter up to 1,000mm)
<input type="checkbox"/>	CU eOLI200 (conservator diameter up to 2,000mm)

Remote visual indicator

<input type="checkbox"/>	eViewer
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Conservator diameter

Indicate value in mm:	
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Application

<input type="checkbox"/>	Conservator without rubber bag (Fig.1, pag 8)
<input type="checkbox"/>	Conservator with rubber bag (Fig.2, pag 9)

Relay configuration

<input type="checkbox"/>	Thresholds (Min 25% - MAX 75%, default)
<input type="checkbox"/>	Fail safe (Power supply loss detection)
<input type="checkbox"/>	Fail Safe + Thresholds

Corrosion class

<input type="checkbox"/>	C4 Medium acc. to ISO 12944 (standard)
<input type="checkbox"/>	C5 Medium acc. to ISO 12944 (not paintable)

Type for coservator without rubber bag

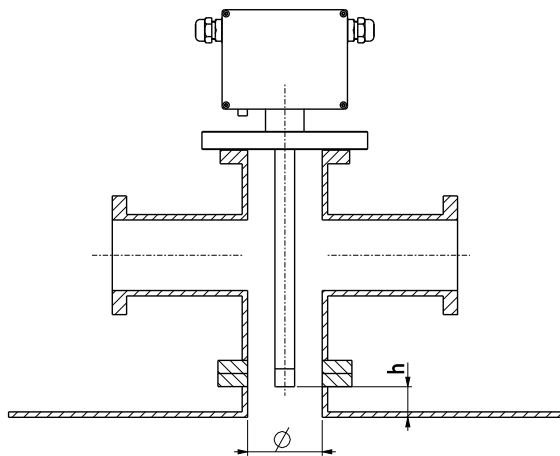
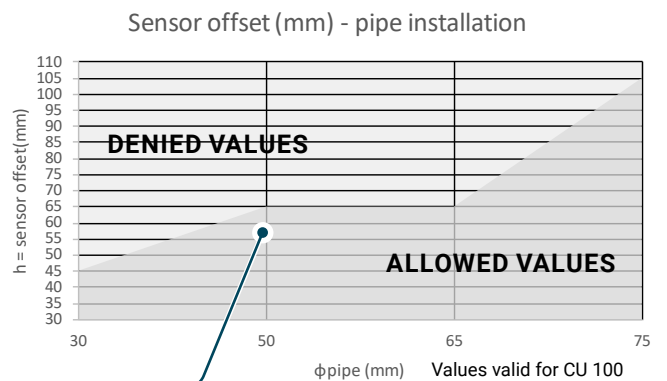


Fig 1

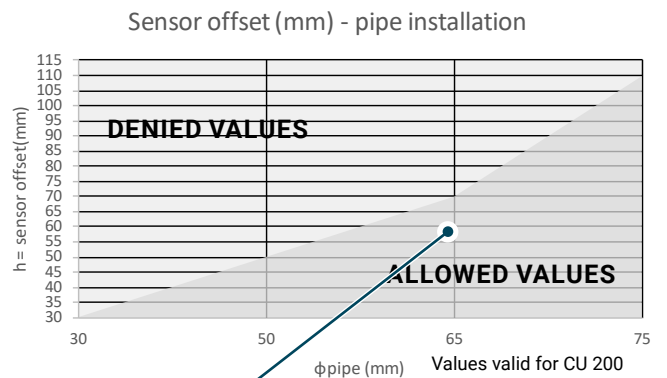
Indicate value in mm

h	
Ø	

Sensor offset (mm) - pipe installation



Recommended setup
 $\phi = 50\text{mm}$
 $h = 60\text{mm}$



Recommended setup
 $\phi = 65\text{mm}$
 $h = 60\text{mm}$

Order sheet

Type for conservator with rubber bag

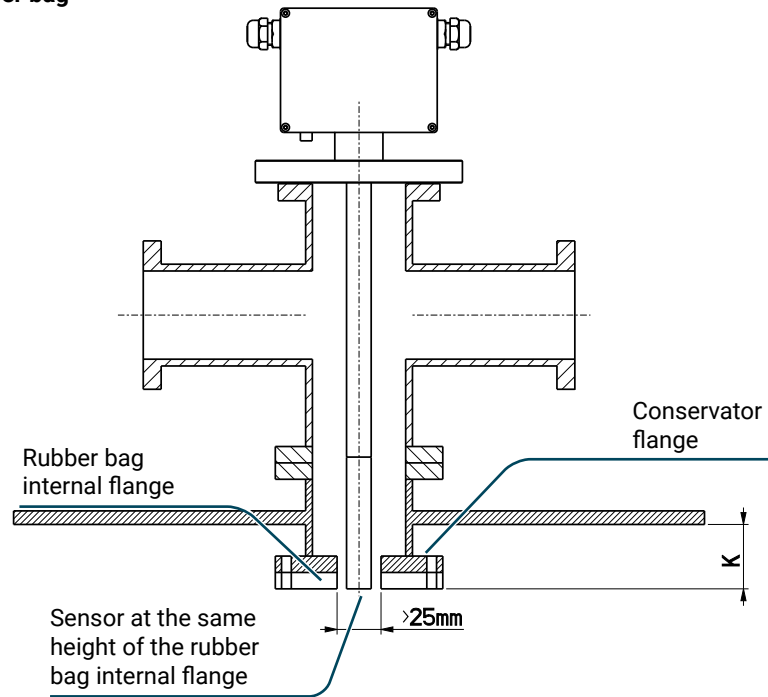


Fig 2

Indicate value in mm

k	
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