



GENERAL CHARACTERISTICS

Level measurement with capacitive technology.
 The liquid to be monitored must have a minimum conductivity of 50 $\mu\text{S} / \text{cm}$ and must not be adherent to the probe.
 All programming functions can be managed from the keypad on the front panel of the instrument.
 Level status is displayed on the LCD.
 The analog signal is proportional to the measured level, and can be calibrated according to the geometry of the tank.
 The absence of moving parts offers a system that does not require particular maintenance.

- **Measuring ranges 100 ... 3000 mm**
- Accuracy $\pm 0,5\%$ of measured value (± 2 mm).
- Programming via the front panel keypad and LCD display.
- Additional Teach-in function.
- Measuring units programmable in linear values or %.
- Signal indication with 2 three-color LED.
- NPN output with short-circuit protection programmable NO or NC.
- 0 ÷ 10 V or 4-20mA analog output.
- Operating temperature range $-25/+70^{\circ}\text{C}$.
- Degree of protection IP65



TECHNICAL DATA

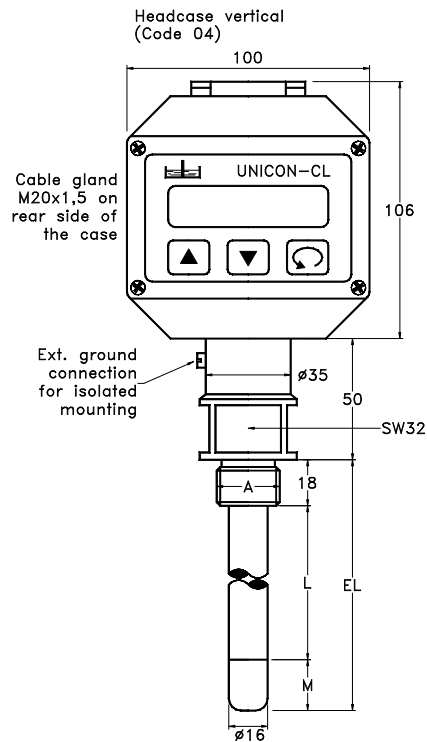
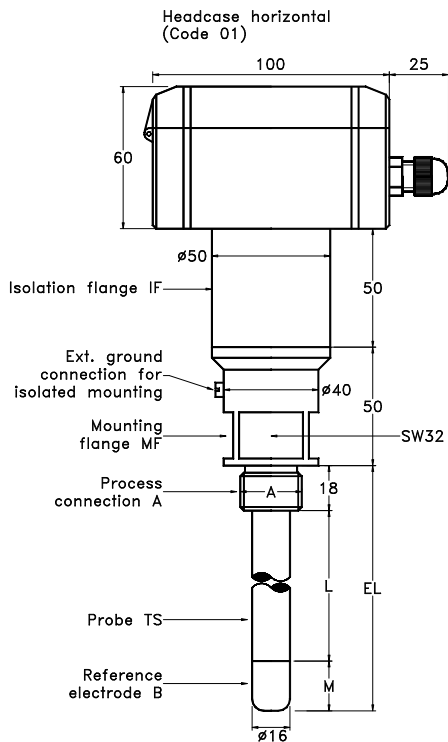
Tab.1

Power supply	
Power supply voltage	14 30 Vdc – self powered loop
Ambient temperature range	$-10 \dots 50^{\circ}\text{C}$
Process temperature range	1 0 ... 60 $^{\circ}\text{C}$ 2 0 ... 120 $^{\circ}\text{C}$
Max. process pressure	16 bar
Electrical output (insulated)	level / temperature / alarms
Test voltage	500 Vdc
Reference standards	EN50022 , IEC61000-4-3/4/5
Level measurement	
Measuring ranges	From 0 ÷ 100 mm to 0 ÷ 3000 mm
Programmable measuring units	m – cm – mm – in – ft – yd
Measuring frequency	400 kHz max.
Sampling period	1 s
Decimals	0 ... 3 depending on measuring range
Medium conductivity	$> 50 \mu\text{S}/\text{cm}$
Medium viscosity	$< 2000 \text{ mm}^2/\text{s}$ (cSt)
Accuracy	$\pm 0,5\%$ of measured value (± 2 mm).
Temperature coefficient	0,06 % / K LCV 1
	0,01 % / K LCV 2
Temperature measurement	
Temperature sensor	RTD (Pt100), B class
Programmable measuring units	$^{\circ}\text{C}$ – $^{\circ}\text{F}$
Programmable measuring ranges	$-40 \dots +160^{\circ}\text{C}$
	$-40 \dots +320^{\circ}\text{F}$
Decimals	1
Accuracy	$\pm 0,2^{\circ}\text{C}$

Analog output			
Output signal	4 – 20 mA		
Load	RA[Ω] \leq		
	Power supply – 14 V 0.02A		
Adjusting range	initial	3,800 ... 5,000 mA	
	final	19,000 ... 21,000 mA	
Accuracy	0,1 %		
Temperature coefficient	0,007 % / K		
Alarm output			
Transistor	14...30Vcc, 60mA max. load		
Voltage drop	< 2 V, with max. load		
Display			
Dot matrix LCD	Character height 4,9 mm		
Characters	2 lines, 16 characters each		
Housing			
Material	Polyamide + glass fiber		
Dimensions	100 x 100 x 60 (WxHxD)		
Weight	360 g. max.		
Terminal board	Screws terminals – 2,5 mm ²		
Degree of protection	IP65		
Measuring probe			
Material	PTFE, aluminium core $\varnothing 16$ mm		
Connection	Stainless steel AISI-316L		
Medium temperature range	1 0 ... 60 $^{\circ}\text{C}$		
	2 $-10 \dots 120^{\circ}\text{C}$		
	140 $^{\circ}\text{C}$, steam sterilization		
Sealing gaskets	EPDM, FDA approved		
Minimum immersion length M	1 20 mm – metal tank		
	2 60 mm – plastic tank		
	4 60 mm – with 2 nd ref. electrode		
Standard lengths EL mm	500	800	1000
	1500	2000	2500

INSTALLATION – DIMENSIONS mm.

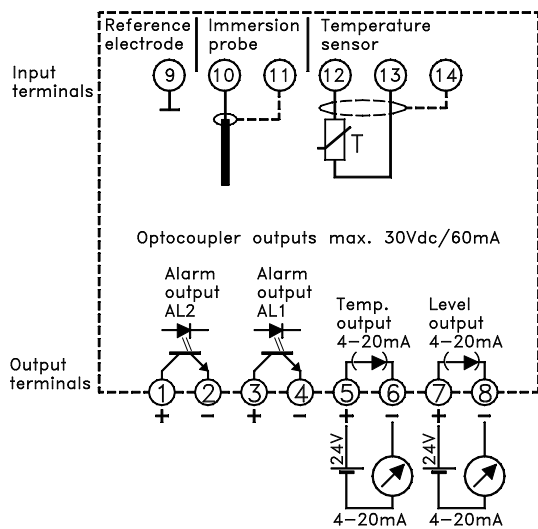
Tab.2



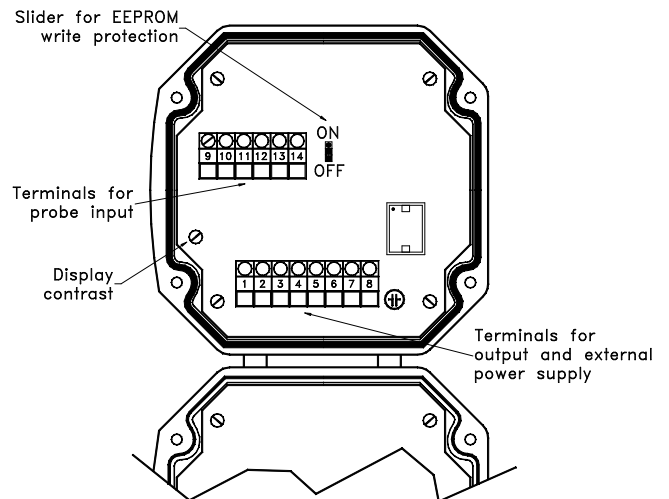
IF	PVDF insulation - only for temperature -10 ...120°C (140°C)
MF	Mounting flange AISI 316
A	Process connection 3/4" G-Male
TS	Measuring probe – PTFE coating, aluminium core Ø16 mm

B	Metal reference electrode (plastic tank)
EL	Measuring length, standard lengths see Tab. 1
L	Linear measuring range - 20 (60) ... 2962 (2922) mm.
M	Minimum immersion length - start of linear measurement

WIRING



For supplying the UNICON-CL use terminals 7-8. If UNICON-CL is used for monitoring only, terminals 7-8 must be connected directly to supply



NOMENCLATURE

LCV1	04	1	2	0800	IP65
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	•				
		•			
			•		
				•	
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Type	LCV1 – LCV2.
Tab.2	Mounting – Horizontal or vertical housing.
Tab.1-2	Probe - Minimum immersion length M / type of tank.
Tab.1	Medium temperature.
Tab.1-2	Probe length EL.
Tab.1	Degree of protection.