

LN₂ LO₂ LAR LCO₂ LN₂O



C-Stic Cryo Level Gauge

The C-Stic is a very robust Level Gauge suited for cold stored liquefied gases like nitrogen, oxygen, argon, carbon dioxide and nitrous oxide. It provides an easy to mount, accurate and reliable digital liquid level indicator. The capacitance of the full stainless steel sensor increases ratiometrically with the liquid coverage and is converted into an easy to read, accurate digital read out with 0.1% resolution. Additionally it has standard an analog 4-20mA Loop connection to be used for industrial control or remote purposes. As the unit is battery powered there's no need for any additional power or cabling. By using the 4-20mA Loop the life indicator flashes and the battery is just needed to power the digital read out when required. By pressing the front key the unit measures and shows the actual level during 10s and switches off automatically afterwards. To change and justify the factory set pre-adjustments, the front cover has to be removed.

Three push buttons are provided for an easy and clear access to electronically stored settings. There are no adjusting potentiometers at all. To mount the Gauge on a tank, a few commonly used fittings are available, the probe diameter is 12mm. Please provide exact (internal) tank size and fitting dimensions when ordering.



accurate, clear and easy level reading !

For the most basic direct control applications and to provide an additional remote indicator as well, a very easy to use control unit is available to complete the gauge to a real level control system: **C-Stic Control Unit**

LN_2 LO_2 LAr LCO_2 LN_2O



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Features

- ☺ robust overall construction
- ☺ full stainless steel sensor
- ☺ up to 35 bar (500 PSI / 3.5 MPa) nominal pressure
- ☺ standard 4-20mA loop with life indicator
- ☺ long lasting 9V standard block battery
- ☺ 0.1% resolution digital LED-display
- ☺ low power telemetry: ratiometric voltage output on request
- ☺ easy adjustment



simple and reliable (re)adjustment

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C-Stic Technical data

Sensor			
Material	stainless steel 304 / 316		
Diameter	12mm		
Length	according to tank size		
Temperature	-200°C ... +100°C	-328°F ... +212°F	
Maximum Pressure	35 bar	500 PSI	3.5 MPa
Tank fitting	7/8 -14 UNF	3/4 -16 UNF	
Display			
Supply	9V PP3-battery (6LR61)	or 4/20mA-Loop powered	
Battery life	3-5 years*	at 3 times/day with an alkaline battery (500mAh)	
Read out	3-digit high efficiency red LED	15mm characters	
	Status Indication	Display	
Low battery	voltage < 6.5V	[bAt]	during 2 seconds preceeding level indication
Underload	level < 0%	[uL]	< 3.8mA
Measuring range	level 0-100%	[0.0]-[100]	4.0-20.0 mA
	level 100-105%	[100]-[105]	20.0-20.8 mA
Overload	level > 105%	[105]-[900]	< 3.8mA
	level > 900%	[oL]	< 3.8mA
Resolution	0.1%		
Reproducibility	1%		
Measuring Rate	ca. 1/s		
Temperature	-40°C ... +60°C	-40°F ... +140°F	
Dimensions	ca. 100 x 65 x 40 mm	ca. 3.94 x 2.56 x 1.57 inch	
Material	Polycarbonate		
Ingress Protection	IP65		
Remote Connection			
Type	2-wire 4/20mA current loop	A ratiometric voltage output for low power applications is available on request: Us =typ.5V / 3mA (ts < 1s)	
Voltage	8... 30Vdc		
Accuracy	0.5% (0.08mA)		
* actual battery life depends on storage and operating temperature, time intervals, manufacturer, etc.			

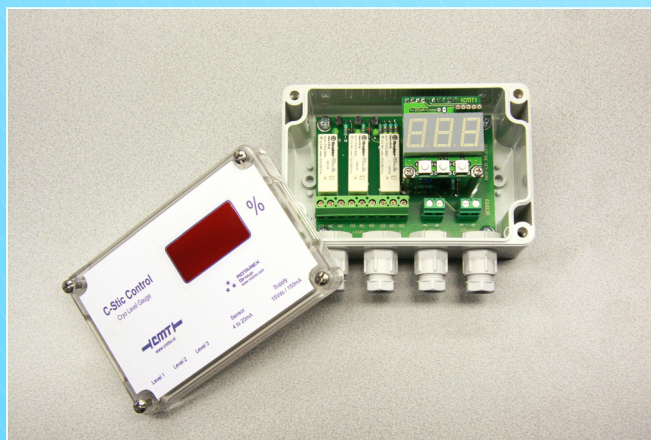
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Control Unit Technical Data

Supply			
Voltage	15Vdc	+/- 10%	stabilized
Current	typ. 150mA	max.200mA	
Sensor			
Type	2-wire 4/20mA current loop		
Voltage	min. 8V	max. supply voltage	
Current	max. 25mA		
Relay Contacts 3 independant , free programmable switching contacts with 2% hysteresis			
Type	Change Over		
Voltage	max. 50V		
Current	max. 2A		
Level 1 & 2	ON if level > set-level		
Level 3	ON if level > set-level OR signal < 4mA (= under load or [uL])		
Display			
Read Out	3-digit high efficiency red LED	15mm characters	
Resolution	0.1%		
Inaccuracy	+/- 1%		
Measuring Rate	ca. 3/s		
Display Refresh Rate	ca. 1/s		
General			
Temperature	-25°C ... +60°C	-13°F ... +140°F	
Dimensions	ca. 120 x 80 x 57mm	ca. 4.72 x 3.15 x 2.24 inch	
Material	Polycarbonate		
Ingress Protection	IP54		

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