C-Stic Cryo Level Gauge

Raise your el la gauging level l 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 potentimeters 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

LN₂ LO₂ LAr LCO₂ LN₂O



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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

gauging level!

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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						
ply	9V PP3-battery (6LR61)	or 4/20mA-Loop powered				
tery 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	level 0-100%	[0.0]-[100]	4.0-20.0 mA	Remote 4-20mA		
range	level 100-105%	[100]-[105]	20.0-20.8 mA	Loop Current		
Overload	level > 105%	[105]-[900]	< 3.8mA	Loop Current		
	level > 900%	[oL]	< 3.8mA			
Resolution 0.1%						
producability	1%					
asuring Rate	ca. 1/s					
nperature	-40°C +60°C	-40°F +140°F				
ensions	ca. 100 x 65 x 40 mm	ca. 3.94 x 2.56 x 1.57 inch				
erial	Polycarbonate					
ress Protection	IP65					
Remote Connection						
e	2-wire 4/20mA current loop	A ratiometric voltage output for low power applica-				
	ply lery life lid out Status Indicate Low battery Underload Measuring range Overload colution loroducability lasuring Rate laperature lensions lerial less Protection mote Connection	Poly	ply 9V PP3-battery (6LR61) or 4/20mA-Lo tery life 3-5 years* at 3 times/da to out 3-digit high efficiency red LED Status Indication Low battery voltage < 6.5V Underload level < 0% [uL] Measuring level 0-100% [0.0]-[100] Tange level 100-105% [100]-[105] Tevel > 105% [105]-[900] Tolution 0.1% Tolucability 1% Tolution 0.1%	Poly 9V PP3-battery (6LR61) or 4/20mA-Loop powered at 3 times/day with an alkaline at a times at a times at a times at a times at a		

* actual battery life depends on storage and operating temperature, time intervals, manufacturer, etc.

tions is available on request: $U_s = typ.5V / 3mA (t_s < 1s)$



8... 30Vdc

0.5% (0.08mA)

Voltage

Accuracy

C-Stic Cryo Level Gauge



LN₂ LO₂ LAr LCO₂ LN₂O





Control Unit Technical Data

Supply					
Voltage	15Vdc	+/- 10% stabiliz	zed		
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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