FISCHER MESS- UND REGELTECHNIK

Data sheet

NR56 | Tank level encoder

The NR56 is a tank level encoder that indicates reliably the level of fuel, water and foam in the tank. Thanks to its sturdy design, it is ideally suited for use in rough environments.

It is suitable for various measuring tasks in the following areas:

- Procedural engineering
- Process technology
- Environmental technology
- Automotive engineering
- Ship technology

Design and mode of operation

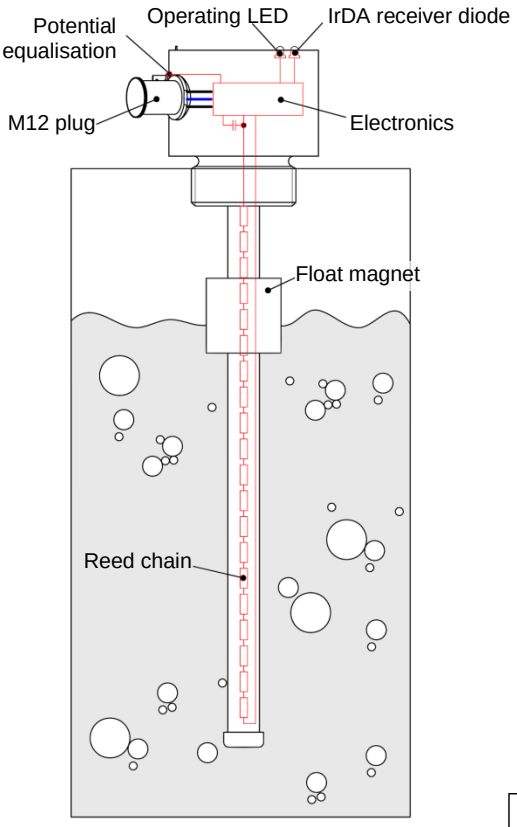
The tank level encoder NR56 comprises a probe head with a probe rod with a length between 250 and 1400 mm on which a float magnet can move freely up and down. The probe head is equipped with a screw-in thread for assembly and an M12 connector for the electrical connection.

The filling height-proportional signal of the reed chain is sent to the integrated measurement amplifier where it is converted into an electrical uniform signal. The output signal can be sent directly to a display of the type EA01, EA14F or to another analysis system.

Important features

- Sturdy device, IP67
- Integrated electronics
- very simple comparison
- can be easily integrated into existing tank equipment

Functional Schematic



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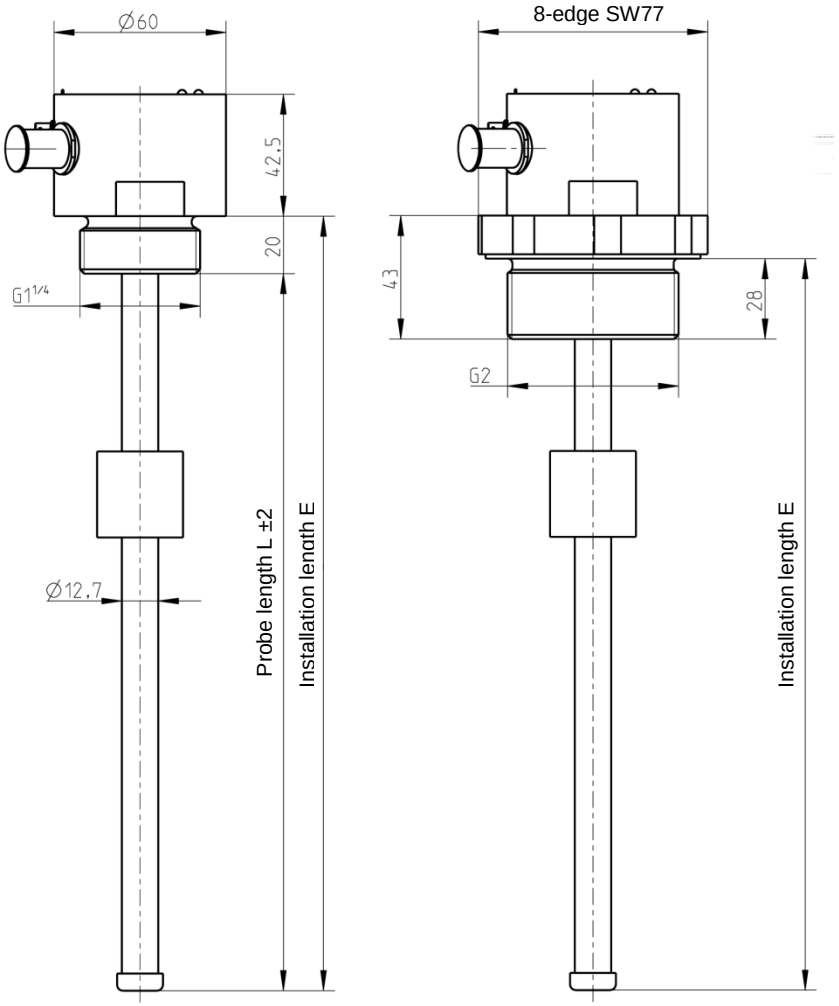
Technical data

	General points				
Measuring procedure	Resistance reed chain activated with a float magnet				
for tank heights	250 … 1400 mm (See order code)				
Operating temperature:	-20 … +70 °C				
Threaded connection	G1¼“, optional adapter G2“				
Installation position	vertical				
Type of protection	IP67				
	Electrical data				
Operating voltage U_B	9-32 V DC	9-32 V DC	12-32 V DC	12-32 V DC	12-32 V DC
Current draw (without signal)	ca. 30 mA	ca. 30 mA	ca. 30 mA	ca. 30 mA	ca. 30 mA
Output signal	0-20 mA	4-20 mA	0-10 V DC	0/1-5 V DC	2-10 V DC
Apparent ohmic resistance	(U_B-9V) / 20 mA		> 5 k Ω	> 5 k Ω	> 5 k Ω
Electrical connection	4-pin M12 connector				
Potential equalisation	4.8 x 0.8 mm flat connector				
	Materials (media-contacting)				
Housing	Plastic				
probe	Stainless steel ANSI 316				
Swimmer	NBR-60				

Dimension drawing

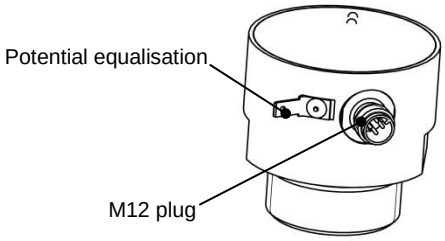
(All dimensions in mm unless otherwise specified)

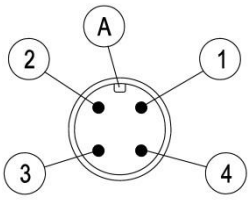


Installation length E = Probe length L + 20 mm

Installation length E = Probe length L + 5 mm

Electrical connection





Pin	Signal name		Cable colour
1	Supply	$+U_b$	brown
2	not connected		white
3	Supply	$-U_b$	blue
4	Signal	+Sig	black
A	Coding		

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Order Codes

Tank level encoder — Type NR56

							0	2	0	1	1

Installation length

250mm….1400mm ..... > **0 2 5 0**

From 250….300mm in 25mm steps ..... >
From 300….900mm in 50mm steps ..... >
From 900….1400mm in 100mm steps ..... >

1 4 0 0

Electrical output signal

0 – 20 mA 3-WIRE (Standard) ..... > **A**
0 – 10 V DC 3-WIRE (Standard) ..... > **C**
4 – 20 mA 3-WIRE (Standard) ..... > **P**
0 – 5 V DC linear, 3-WIRE voltage ..... > **U**
1 – 5 V DC linear, 3-WIRE voltage ..... > **D**
2 – 10 V DC linear, 3-WIRE voltage ..... > **Z**

Operating voltage

9 – 32 V DC (only for current output) ..... > **E**
12 – 32 V DC (only for voltage output) ..... > **F**

Process connection

Connecting piece G1¼ ..... > **O**
Connecting piece G2 ..... > **P**

Version

2011 ..... > **2011**

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