

**USER INSTRUCTIONS**  
**LCD-W110**  
 Loop Powered indicator  
 with backlight for field mounting



The user instruction must be read prior to adjustment and/or installation.  
 All information subject to change without notice.

**MEASURE OF SUCCESS**



**INOR**

**INOR Process AB**, PO Box 9125, SE-200 39 Malmö, Sweden,  
 Phone: +46 40 312 560, Fax: +46 40 312 570, E-mail: support@inor.se

**INOR Transmitter OY**, Unikkotie 13, FI-01300 Vantaa, Finland,  
 Phone: +358 10 421 7900, Fax: +358 10 421 7901, E-mail: myynti@inor.fi

**INOR Transmitter GmbH**, Am See 24, D-47279 Duisburg, Germany,  
 Phone: +49-203 7382 762 0, Fax: +49-203 7382 762 2, E-mail: info@inor-gmbh.de

**KROHNE Temperature Division INOR**, 55 Cherry Hill Drive,  
 Beverly, MA 01915, United States  
 Phone: +1 978 826 6900, Fax: +1 978 535 1720, E-mail: inor-info@krohne.com

[www.inor.com](http://www.inor.com), [www.krohne-inor.se](http://www.krohne-inor.se)  
[www.krohne-inor.fi](http://www.krohne-inor.fi), [www.inor-gmbh.de](http://www.inor-gmbh.de)



This product should not be mixed with other kind of scrap, after usage.  
 It should be handled as an electronic/electric device.

**MEASURE OF SUCCESS**

**INTRODUCTION**

LCD-W110 is a loop powered digital indicator to be connected directly in a 4-20 mA loop without need for external power supply. The indicator show numeric values in the range from -1999 to 9999 proportional to the 4-20 mA input signal on a digital display. LCD-W110 is designed for field mounting on wall, pipe or DIN rail and has a rugged and splashproof housing for mounting directly into an industrial environment.

**GENERAL INFORMATION**

Configuration of the indicator is done either with NFC and the smartphone app INOR Connect or with three push buttons. The indicator can be connected to the 4-20 mA loop of any normal 2-wire transmitter.

The field indicator LCD-W110 can be equipped with an integrated Inor In-Head transmitter of any type for direct sensor input. LCD-W110 is equipped with a rugged and splashproof IP 65 / NEMA 4X housing with double cable conduits for convenient installation, one blanking plug is included. The indicator is designed for ambient temperatures between -20 to +70 °C (-4 to +158 °F).

This manual describes in short form the various functions and technical data of the display, for a more detailed description please refer to the specific manual for the display module LCD-D100.



Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel.

**DATA (short form)**

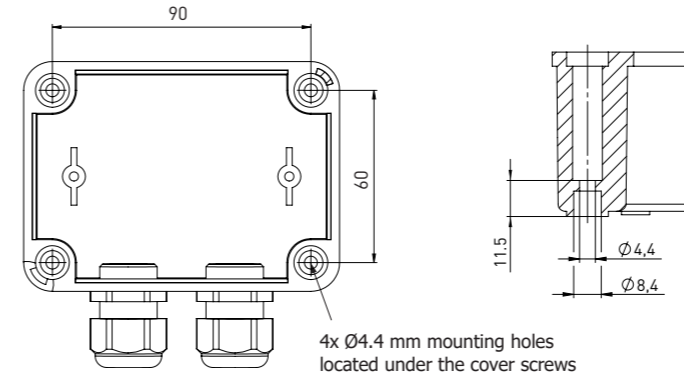
Input Current	4-20 mA
Maximum current	30 mA
Minimum current for operation	~3.5 mA
Voltage drop	4.2 V
Indication	
Display	7-segment black LCD with clear background
Backlight	White LED powered from the 4-20 mA loop
Indication range	4 digits (-1999 to 9999)
Digit height	17.8 mm / 0.7"
Decimals	Selectable, 0 to 3
Under range / Over range	Flashing symbols Lo ( $I \leq 3.6$ mA) / HI ( $I \geq 21.0$ mA)
Engineering units	Set of self-adhesive labels included for units: °C, °F, mA, mV, V, bar, mbar, Pa, kPa, MPa, pH, %, s, ms, µs, mm, cm, m
Response time	Appr. 1 s
Temperature influence	Power on delay: 5 s and stable after 1 min $\leq \pm 0.01$ % FS / °C
Configuration method	3 push buttons or NFC, located on the rear of the display
Operation temperature	-20 to +70 °C / -4 to +158 °F
Typical accuracy	$\pm 0.05$ % of span $\pm 1$ digit
Dimensions	80 x 110 x 65 mm / 3.15 x 4.33 x 2.56"
Protection	IP65 / NEMA 4X
Connections	Push-in spring connection, Wire cross section 0.25 mm <sup>2</sup> -1.5 mm <sup>2</sup> AWG 24-16
Cable entries	2x cable glands M20x1.5 for cable diameter 5-13 mm (0.20-0.51") (1x blanking plug included)
NAMUR NE 43 compliance	Yes
HART transparent	Yes
Mounting	Wall, 35 mm DIN rail acc. to EN 60715 or 50-65 mm (2-2.55") pipe with mounting kit

© INOR 02/2024 - 4010240701 - MALCD-W110 R01 en

**MOUNTING**

**Wall Mounted**

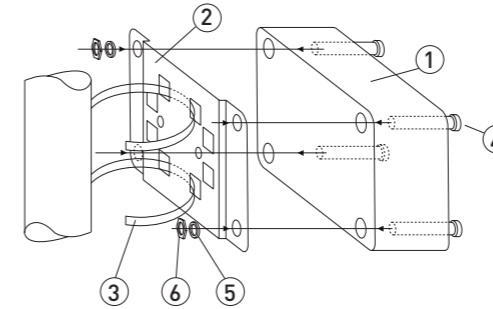
Distance between wall mounting holes



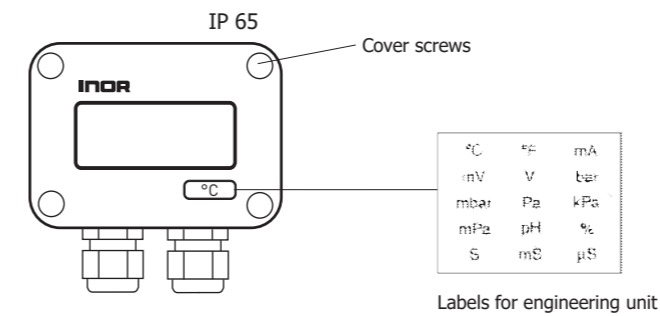
**Pipe Mounted**

Mounting accessory p/n 70ADA00021

1. LCD-W110
2. Mounting plate
3. Hose clamp
4. Screws
5. Locking washer
6. Nuts



**DESIGN**



2x M20x1.5 cable glands,  
 Cable Ø 5-13 mm/0.20-0.51"

If a cable gland is not used, then it must be removed and the entry sealed with the included M20 blanking plug.

- Materials:**
- Base and lid: Polycarbonate
  - Gasket: Polyurethane
  - Cover screws: Polyamide
  - Blanking plug: Polyamide
  - Top label: Polycarbonate

**ORDERING INFORMATION**

Product	Part No.
Indicator LCD-W110	70LCDW1102
Pipe mounting kit	70ADA00021
DIN-rail mounting kit	70ADA00022
Built-in transmitter mounting kit	70ADA00024

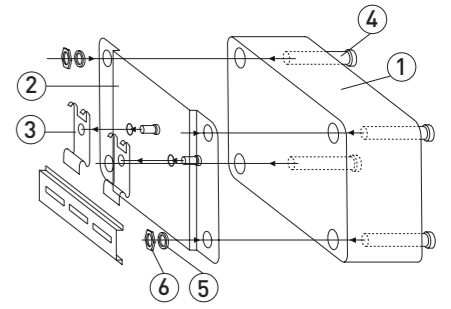
Indicator LCD-W110 can be ordered with a built-in INOR In-Head transmitter of any type and configured according to customer's specification.

**MOUNTING**

**DIN Rail Mounted**

Mounting accessory p/n 70ADA00022

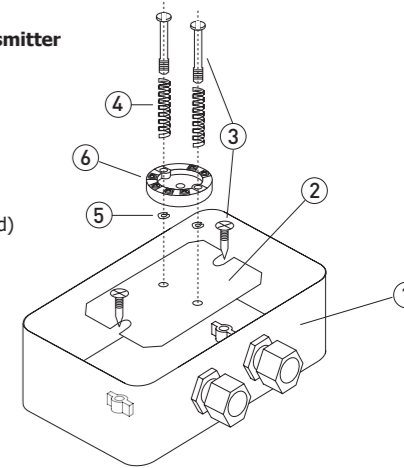
1. LCD-W110
2. Mounting plate
3. Clip
4. Screws
5. Locking washer
6. Nuts



**Inside mounting of 2-wire Transmitter**

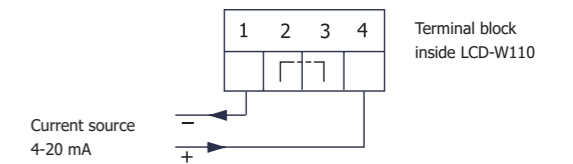
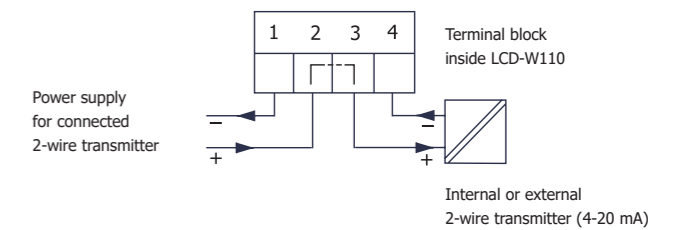
Mounting accessory p/n 70ADA00024

1. LCD-W110
2. Mounting plate
3. Screws
4. Springs
5. Lock washers
6. In-head transmitter (not included)



**CONNECTIONS**

Connections 2 and 3 are internally shorted

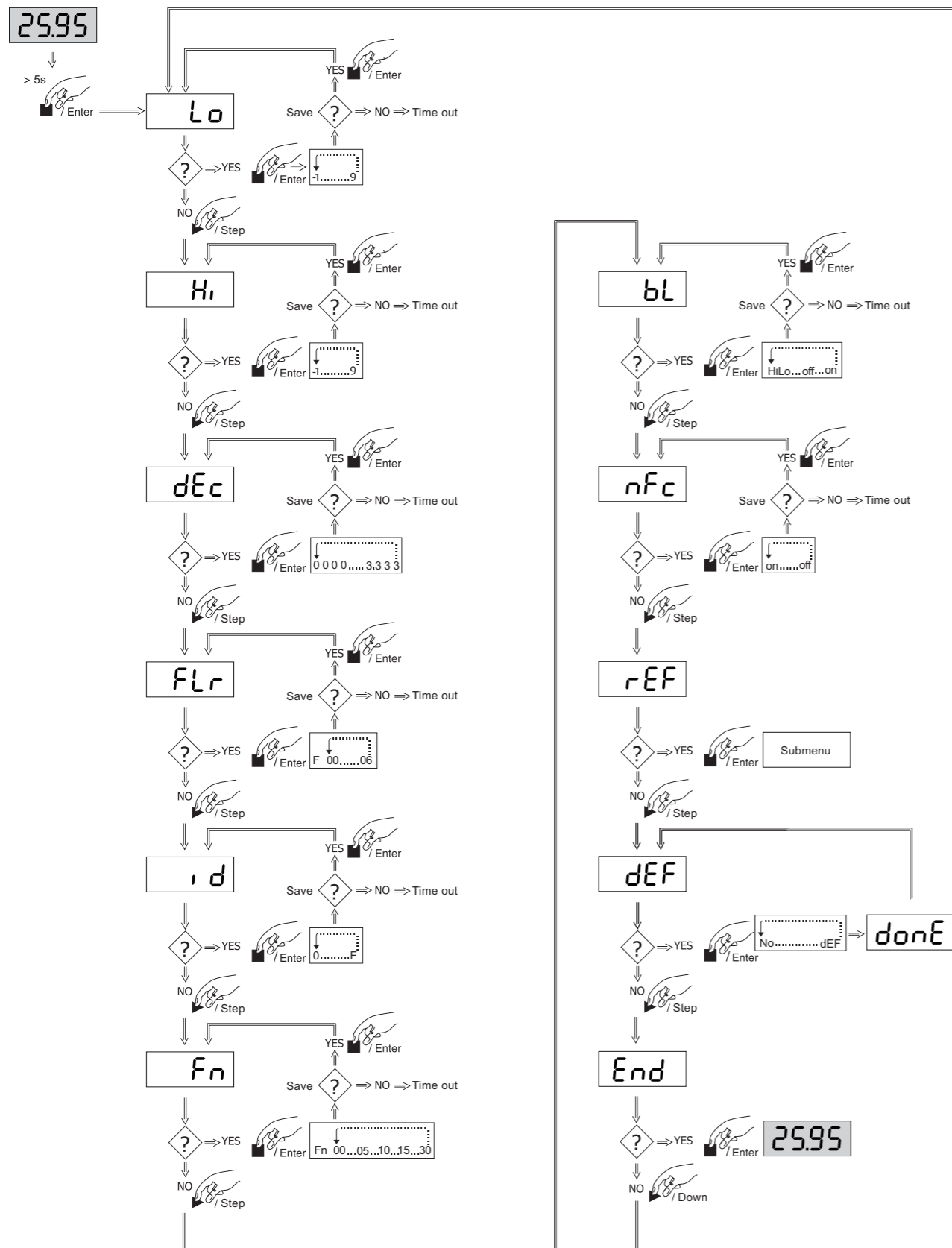


**Connection method**

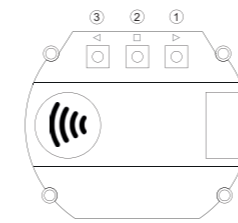
Terminal block with Push-in spring connection

Connection capacity	
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Stripping length	8 mm
Conductor cross section AWG	24 ... 16

## CONFIGURATION - VIA PUSH BUTTONS



## CONFIGURATION - VIA PUSH BUTTONS



- ① Pushbutton with step (decrease) function
- ② Pushbutton with enter function
- ③ Pushbutton with step (increase) function

	①	②
1	Lo	0000
2	Hi	1000
3	dEc	1111
4	FLr	F 00
5	id	③
6	Fn	Fn00
7	bl	h,Lo
8	nFc	on
9	rEF	-
10	dEF	-
11	End	-

- ① Parameter name
- ② Factory default value
- ③ The default setting value refers to display TAG / ID is the last four digits in the serial number.

### Parameter description:

- Engineering value related to the lower point (4 mA), the default setting value refers to 0.0 at lower point.
- Engineering value related to the higher point (20 mA), the default setting value refers to 100.0 at higher point.
- Decimal point location, the default setting value refers to 1 decimal.
- Filter, the default setting value refers to "No filter".
- TAG / ID number, the default setting value refers to the last four digits in the serial number for the display.
- Display update interval, the default setting value refers to update display immediately.
- Backlight mode, the default setting value refers to the backlight on but flashing during alarm.
- NFC mode, the default setting value refers to the configuration via NFC is on.
- Error correction, the default setting refers to no error correction.
- Reset back to factory default.
- End setup and return to indication.

## CONFIGURATION - VIA APP

### Before making a configuration of LCD-W110 you need to do following:

- Make sure that you have a mobile device with NFC communication activated
- Download the app INOR Connect to your mobile device

### Required versions:

**iOS**  
iOS 13 or later and  
Iphone 7 or later for NFC

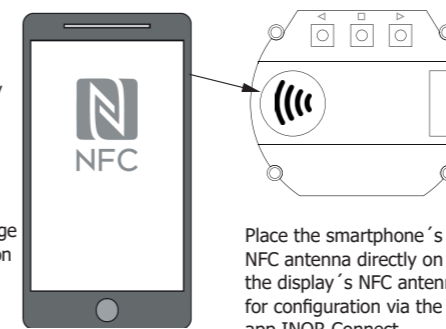
**Android**  
Android 4.4 or later

Scan the QR code to download and install INOR Connect



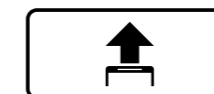
### Configuration procedure:

- Launch the app by clicking on the App icon or holding your mobile device against the display on the part of the device where NFC is located (only possible with Android).
- Click on "Read Configuration" and hold your mobile device against the display as explained in the first section.
- In the app you can edit the following:
  - Display indication range
  - Decimal points position
  - Backlight mode
  - Filter settings
  - TAG-no

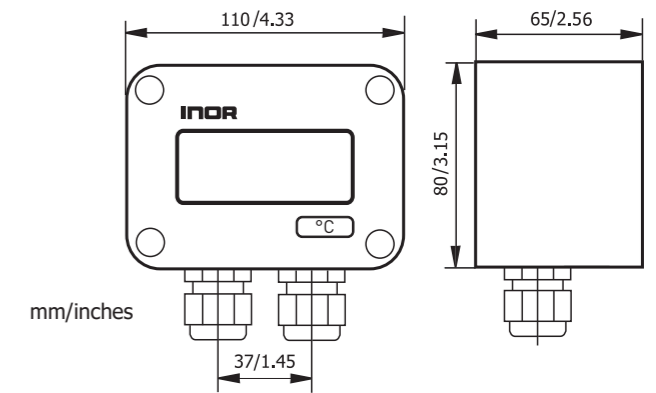


Place the smartphone's NFC antenna directly on the display's NFC antenna for configuration via the app INOR Connect

- Once you have set the desired values in the app, you transfer it to the display by clicking the transfer button and holding the mobile device against the display until a green check box appears confirming that the transfer has been completed.



## DIMENSIONS



mm/inches

Cable Ø 5-13 mm/0.20-0.51

## DISPLAY FUNCTION, NAMUR NE 43

Input current (mA)	Signal description	Indication on LCD-W110
≥ 21,0 mA	Failure	Flashing HI
20,5 to <21,0 mA	-	Fixed value (max. range value +3.1 %)
20,0 to 20,5 mA	Over range	Extended indication range
4,0 to 20,0 mA	Normal operating range	The configured indication range
3,8 to 4,0 mA	Under range	Extended indication range
>3,6 to 3,8 mA	-	Fixed value (min. range value -1.25 %)
≤ 3,6 mA	Failure	Flashing Lo

## LIMITED WARRANTY

INOR Process AB, or any other affiliated company within the Inor Group (hereinafter jointly referred to as "Inor"), hereby warrants that the Product will be free from defects in materials or workmanship for a period of five (5) years from the date of delivery ("Limited Warranty"). This Limited Warranty is limited to repair or replacement at Inor's option and is effective only for the first end-user of the Product. Upon receipt of a warranty claim, Inor shall respond within a reasonable time period as to its decision concerning:

- Whether Inor acknowledges its responsibility for any asserted defect in materials or workmanship; and, if so,
- the appropriate cause of action to be taken (i.e. whether a defective product should be replaced or repaired by Inor).

This Limited Warranty applies only if the Product:

- is installed according to the instructions furnished by Inor;
- is connected to a proper power supply;
- is not misused or abused; and
- there is no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of Inor or damage done to the Product by anyone other than Inor.

This Limited Warranty is provided by Inor and contains the only express warranty provided.

**INOR SPECIFICALLY DISCLAIMS ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTEE OR REPRESENTATION AS TO SUITABILITY FOR ANY PARTICULAR PURPOSE, PERFORMANCE, QUALITY AND ABSENCE OF ANY HIDDEN DEFECTS, AND ANY REMEDY FOR BREACH OF CONTRACT, WHICH BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS PROVIDED HEREIN, INOR FURTHER DISCLAIMS ANY RESPONSIBILITY FOR LOSSES, EXPENSES, INCONVENIENCES, SPECIAL, DIRECT, SECONDARY OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THE PRODUCT.**

Products that are covered by the Limited Warranty will either be repaired or replaced at the option of Inor. Customer pays freight to Inor, and Inor will pay the return freight by post or other "normal" way of transport. If any other type of return freight is requested, customer pays the whole return cost.