

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



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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).



INFORMATION!

This manual describes in short form the various functions and technical data for the display, for a more detailed description please consult the handbook for Display Module LCD-D100.



CAUTION!

Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel. The regional occupational health and safety directives must always be observed.

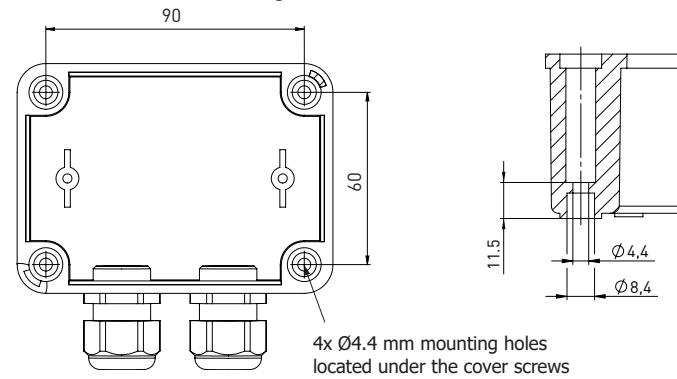
DATA (short form)

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 ($I \leq 3.6 \text{ mA}$) / HI ($I \geq 21.0 \text{ mA}$)
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 ± 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 ² -1.5 mm ² 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

MOUNTING

Wall Mounted

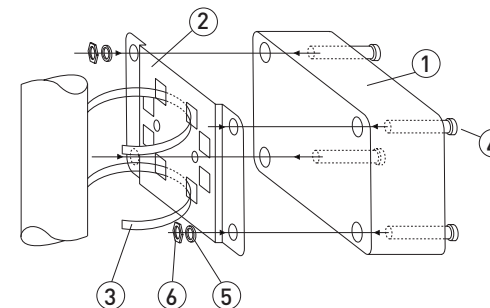
Distance between wall mounting holes



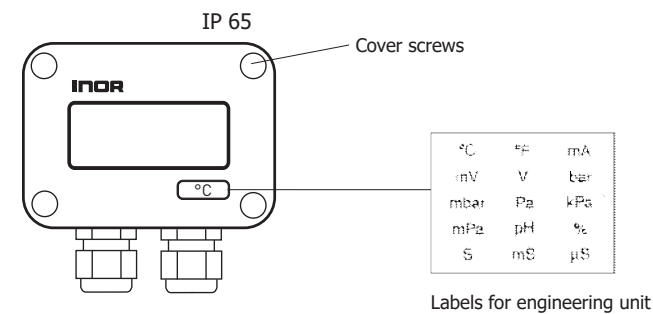
Pipe Mounted

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

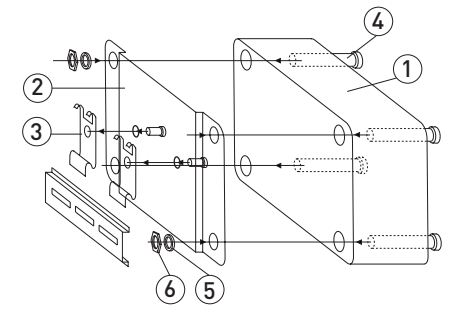
Indicator LCD-W110 can be ordered with a built-in INOR In-Head transmitter of any type and configured according to customer's specification.

MOUNTING

DIN Rail Mounted

Mounting accessory p/n 70ADA00022

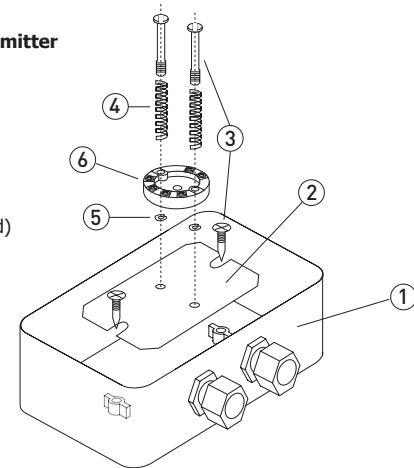
1. LCD-W110
2. Mounting plate
3. Clip
4. Screws
5. Locking washer
6. Nuts



Inside mounting of 2-wire Transmitter

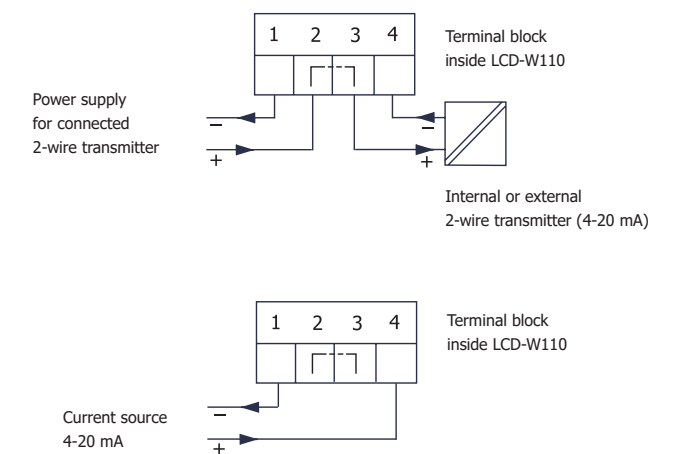
Mounting accessory p/n 70ADA00024

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



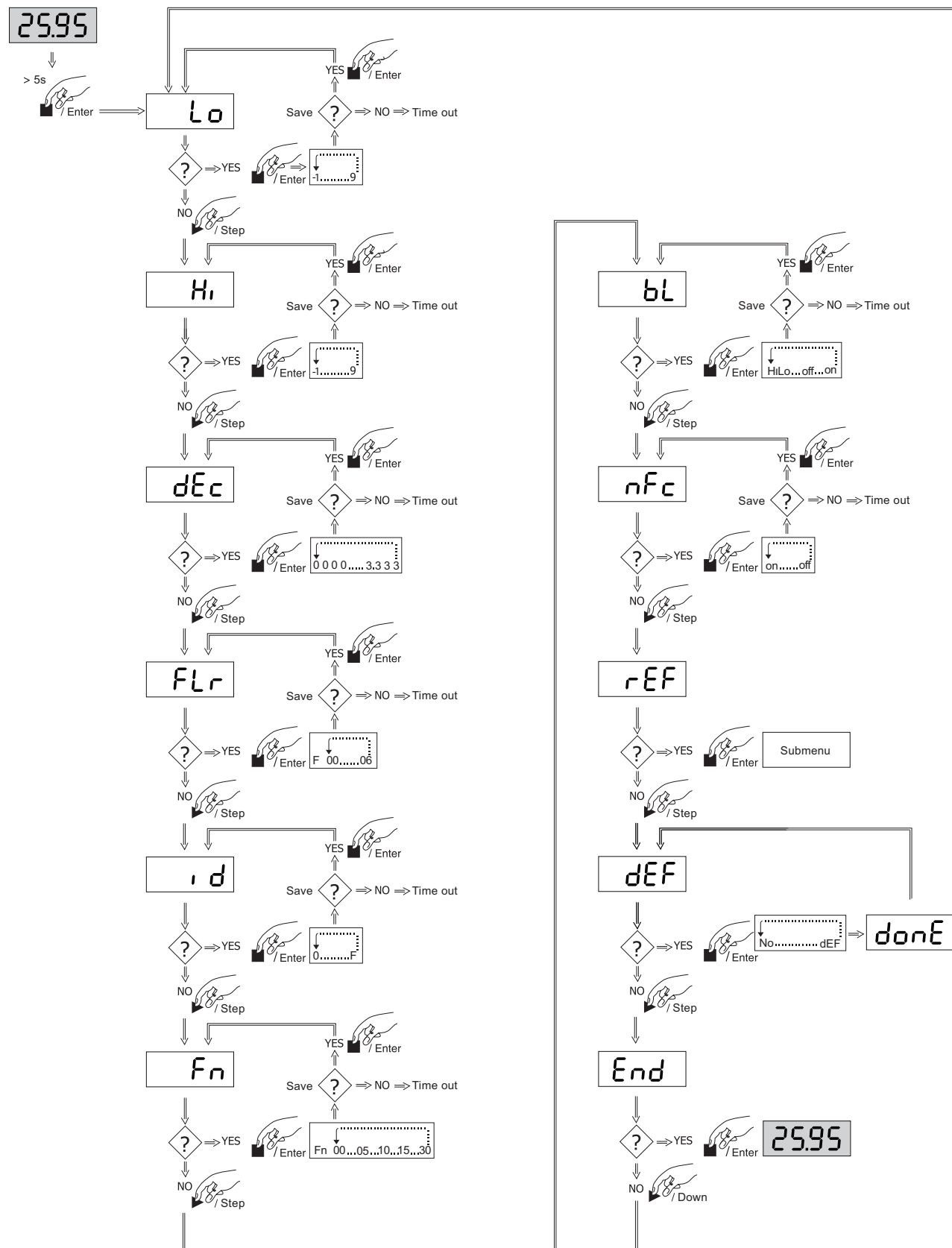
Connection method

Terminal block with Push-in spring connection

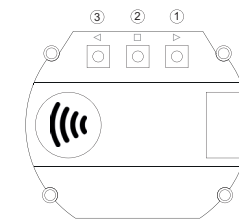
Connection capacity

Conductor cross section, flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.75 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm ² ... 0.75 mm ²
Stripping length	8 mm
Conductor cross section AWG	24 ... 16

CONFIGURATION - VIA PUSH BUTTONS



CONFIGURATION - VIA PUSH BUTTONS



	①	②
1	Lo	0000
2	Hi	100.0
3	dEc	1111
4	FLr	F 00
5	r d	③
6	Fn	Fn00
7	bl	h,Lo
8	nFc	on
9	rEF	-
10	dEF	-
11	End	-

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

- 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.



INFORMATION!

Consult the handbook for Display Module LCD-D100 for a more detailed description of the various functions.

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

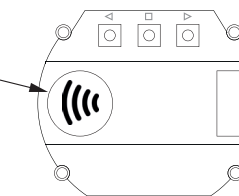
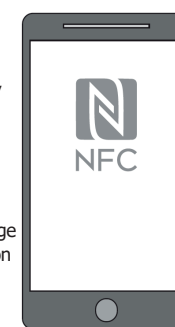
Android
Android 4.4 or later

Scan the QR code to download and install INOR Connect



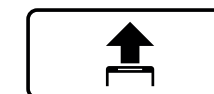
Configuration procedure:

- 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

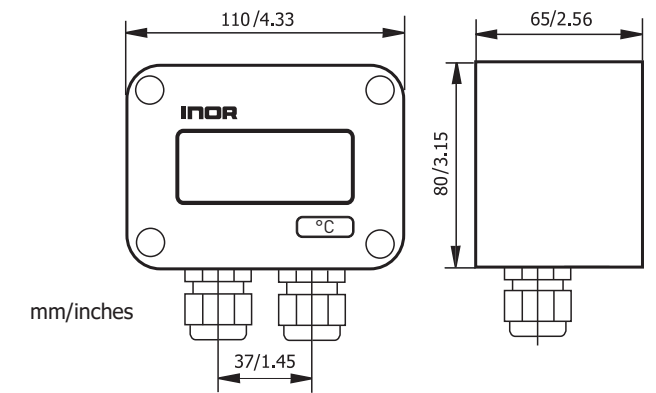


Place the smartphone's NFC antenna directly on the display's NFC antenna for configuration via the app INOR Connect

- 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.

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