

**INOR**  
LCD-H300 SS Loop  
Powered Heavy Duty LCD  
Field Indicator in  
Stainless Steel



## INOR LCD-H300 SS Loop Powered Heavy Duty LCD Field Indicator in Stainless Steel Instruction Manual

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# INOR

INOR LCD-H300 SS Loop Powered Heavy Duty LCD Field Indicator in Stainless Steel



## Product Usage Instructions

- Ensure that only appropriately trained personnel perform installation, assembly, start-up, and maintenance.
- Mount the LCD-H300 in a suitable location on a wall or pipe using the provided mounting brackets.
- Use NFC and the smartphone app INOR Connect or the three push buttons located on the rear of the display to configure the indicator.
- For detailed configuration instructions, refer to the handbook for Display Module LCD-D100.
- Connect the LCD-H300 directly in a 4-20 mA loop without the need for an external power supply.
- The digital display will show numeric values in the range from -1999 to 9999 proportional to the 4-20 mA input signal.

## FAQ

- **Q: Can the LCD-H300 be used with any normal 2-wire transmitter?**
  - **A:** Yes, the LCD-H300 can be connected to the 4-20 mA loop of any normal 2-wire transmitter.
- **Q: What is the response time of the indicator?**
  - **A:** The response time is approximately 1 second, with a power-on delay of 5 seconds and stability achieved after 1 minute.

## INTRODUCTION

- LCD-H300 is a loop-powered digital indicator to be connected directly in a 4-20 mA loop without the need for an external power supply.
- The indicator shows numeric values in the range from -1999 to 9999 proportional to the 4-20 mA input signal on a digital display.
- LCD-H300 is designed for field mounting on a wall or pipe and has a robust instrument housing that is suitable

for 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-H300 can be equipped with an integrated INOR
- In-head transmitter of any type for direct sensor input.
- LCD-H300 is equipped with a rugged IP68 / NEMA 4X housing with double cable conduit openings and one process opening for convenient installation. The indicator is designed for operating 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.

## CAUTION!

To configure the LCD-D100 and the transmitters the unit needs to be opened to allow close access to the NFC antenna. The range is limited to a few centimeters depending on the smartphone used.

## DATA (short form)

- Input Current 4-20 mA
- Maximum current 30 mA
- Minimum current for operation ~3.5 mA
- Voltage drop 4.5 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 8.89 mm / 0.35"
- 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, Power on delay: 5 s and stable after 1 min

- Temperature influence  $\leq \pm 0.01$  % 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
- Operational -20...+70°C / -4...+158°F, depending on configuration see handbook for the selected parts
- Humidity 0...95% RH (non-condensing)
- Storage and Transport -40...+85°C / -40...+185°F
- Typical accuracy  $\pm 0.05\%$  of span  $\pm 1$  digit
- NAMUR NE 43 compliance Yes
- HART transparent Yes
- Protection Up to IP68 (depending on applied cable glands and sealing)
- Mounting Wall mount or pipe mount (with pipe mounting bracket)

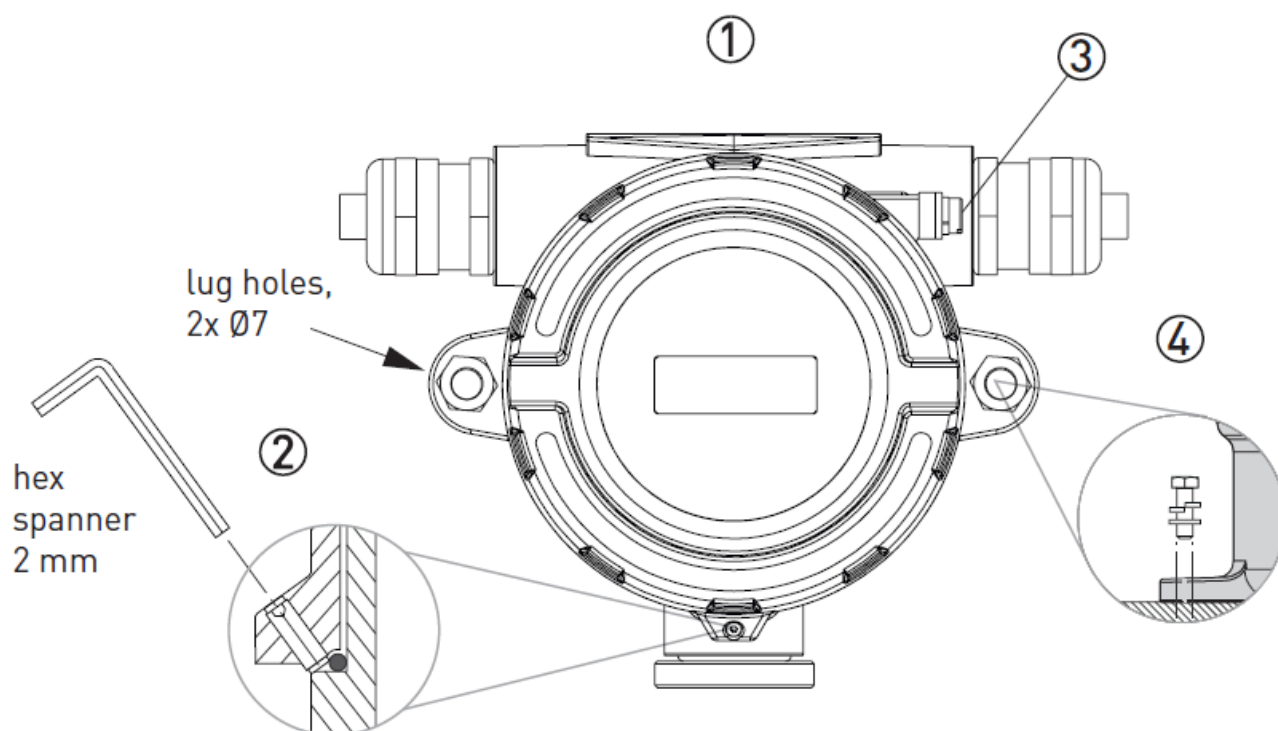
## **Enclosure**

- Material of body, Stainless steel DIN 1.4401, AISI 316, cover and O-ring sealing silicone VMQ rubber gasket
- Coating None
- Paint None
- Connections Push-in spring connection, Wire cross-section 0.25 mm<sup>2</sup>-1.5 mm<sup>2</sup> AWG 24-16
- Threaded ports (threads only) D1=D2=D3 M20x1.5 or ½" NPTmod

## **MOUNTING**

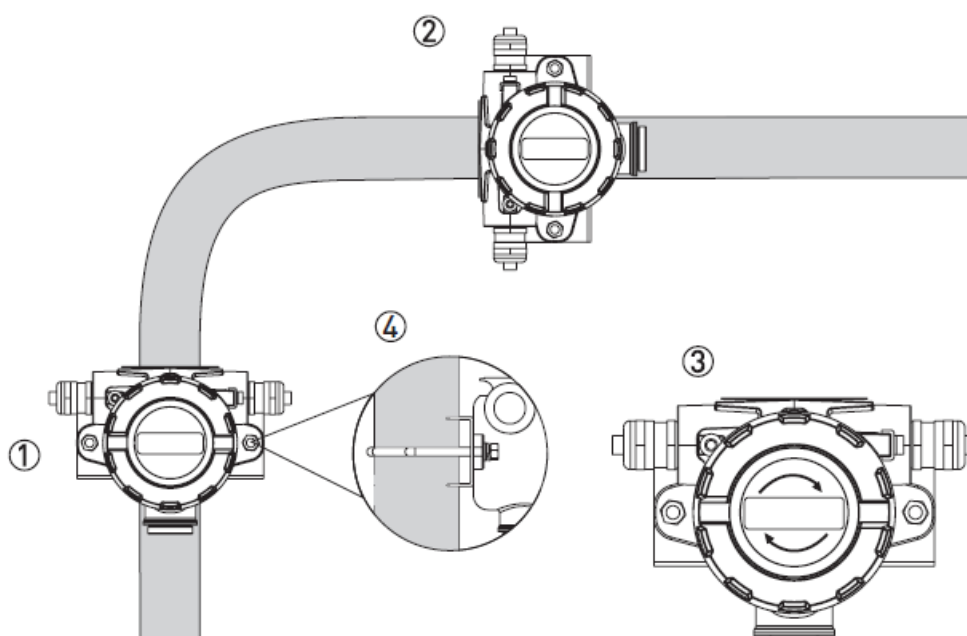
### **Wall Mounted**

1. LCD-H300 SS
2. M4 cover locking screw
3. Grounding terminal
4. Wall mounted details



### Pipe Mounted

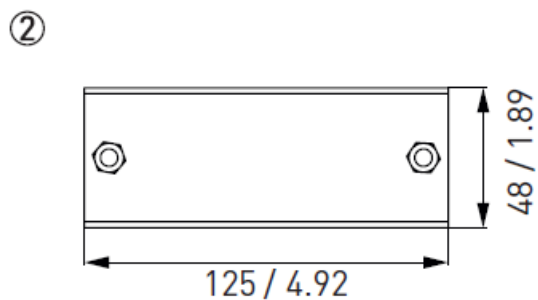
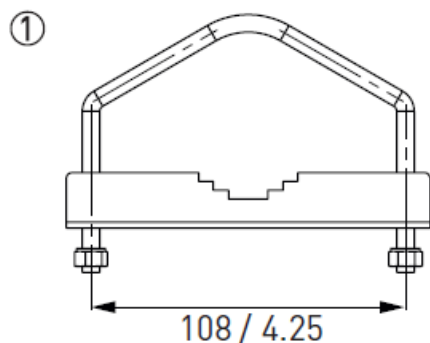
1. Vertical installation
2. Horizontal installation
3. The orientation of the window can be adjusted easily on-site according to the requirement
4. Pipe mounted details



### Pipe clamp

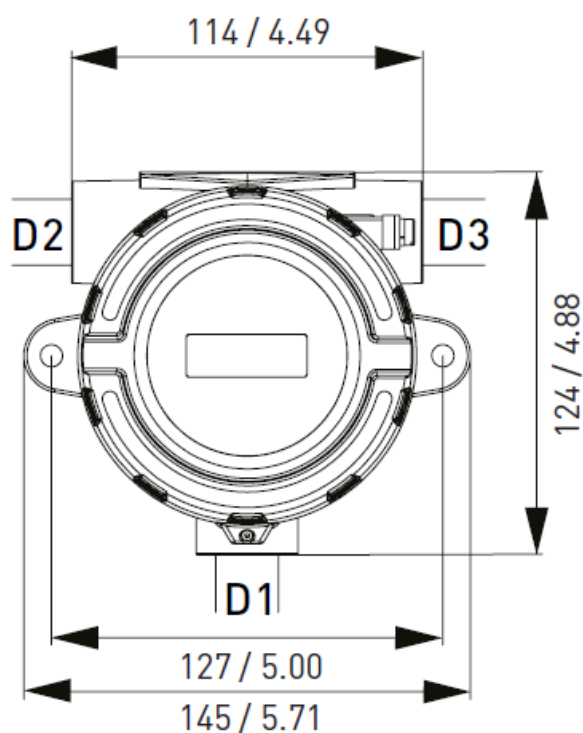
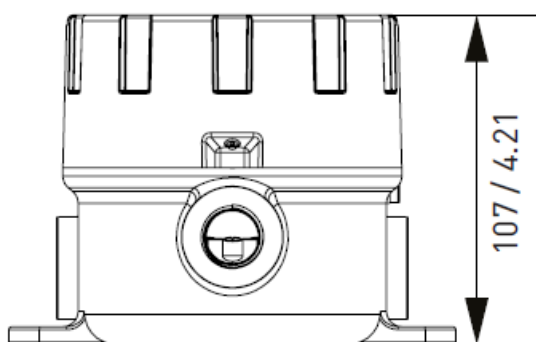
Ordering number: 4003435101

1. Side view of the 1.5"...2" pipe clamp
2. Bottom view of the 1.5"...2" pipe clamp



mm/inches

## DIMENSIONS



mm/inches

D2, D3 Conduit openings, D1 Process opening

## PROTECTION DEGREE

- Openings deciding the IP degree (max. possible to achieve IP68)
- Take the following into consideration to achieve max. IP degree

### Housing cover

- Tighten up the cover with normal hand force until the end
- Lock the cover with the locking screw

### Process opening

- Choice of type of connection between housing – sensor
- Housing – sensor sealing

- Sufficient tightening

## Conduit openings

- Choice of cable gland type with sufficient IP degree
- Match cable diameter and type of cable gland according to the specification
- Cable gland mounting with sealing and correct tightening torque according to the specification
- The correct rate of press cap tightness

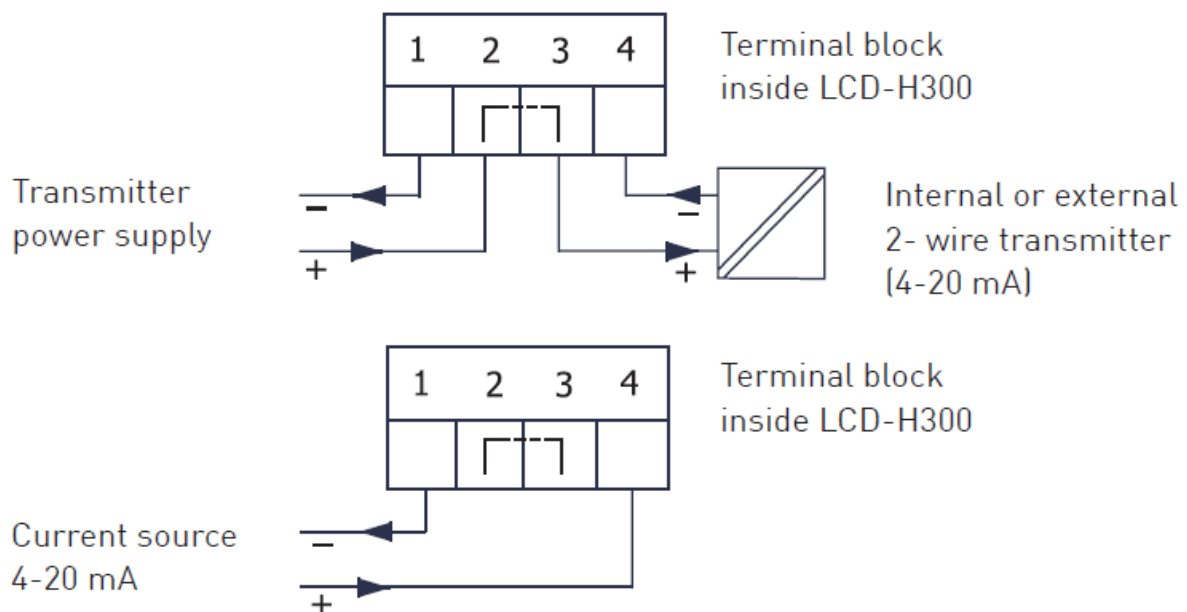
Each threaded hole D1, D2, and D3 can be plugged.

- Use blanking plugs with sufficient IP degree
- Plug mounting with sealing and correct tightening torque according to the specification

Type of sealing for Cable glands / Blanking plugs / Sensor

Threads	Threaded connection sealing	Possible IP
M thread	Without sealing washer	IP54
	Thread tightened with O-ring	IP68
NPT thread	No use of any thread sealant	IP54
	Threads are additionally sealed with the use of a thread sealant, e.g. Loctite 577	IP68

## CONNECTIONS



## 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

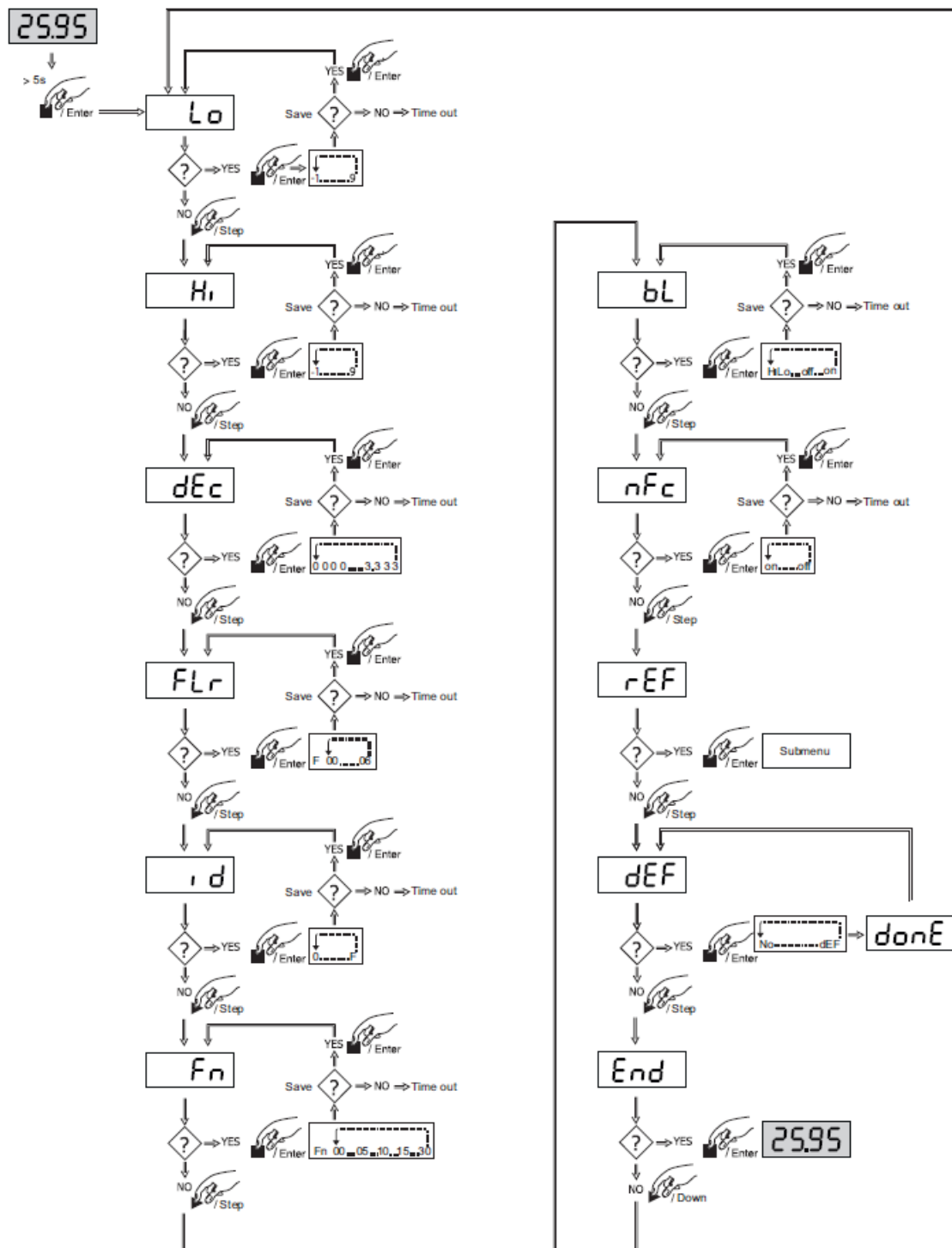
## **ORDERING INFORMATION**

### **Product Part No.**

- LCD-H300 SS Contact INOR
- Mounting bracket for pipe Ø 1.5"-2" 4003435101

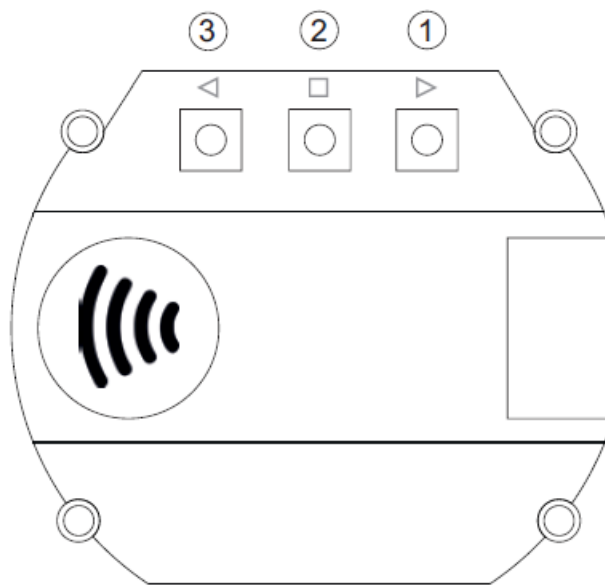
## **CONFIGURATION – VIA PUSH BUTTONS**





## CONFIGURATION – VIA PUSH BUTTONS

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



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

	①	②
1	Lo	000.0
2	Hi	100.0
3	dEc	111.1
4	FLr	F 00
5	, d	③
6	F <sub>n</sub>	F <sub>n</sub> 00
7	bL	h ,Lo
8	nFc	on
9	rEF	-
10	dEF	-
11	End	-

### Parameter description

1. Engineering value related to the lower point (4 mA), the default setting value refers to 0.0 at a lower point.
2. Engineering value related to the higher point (20 mA), the default setting value refers to 100.0 at a higher point.
3. Decimal point location, the default setting value refers to 1 decimal.
4. Filter, the default setting value refers to "No filter".

5. TAG / ID number, the default setting value refers to the last four digits in the
6. serial number for the display.
7. Display update interval, the default setting value refers to the update display
8. immediately.
9. Backlight mode, the default setting value refers to the backlight on but flashing during alarm.
10. NFC mode, the default setting value refers to the configuration via NFC is on.
11. Error correction, the default setting refers to no error correction.
12. Reset back to factory default.
13. End setup and return to indication.

### INFORMATION!

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

### DISPLAY FUNCTION, NAMUR NE 43

Input current (mA)	Signal description	Indication on LCD-H300
$\geq 21,0$ 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 %)
$\leq 3,6$ mA	Failure	Flashing Lo

### CONFIGURATION – VIA APP

Before making a configuration of LCD-H300 you need to do the following:

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

#### Required versions

##### iOS

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

##### Android

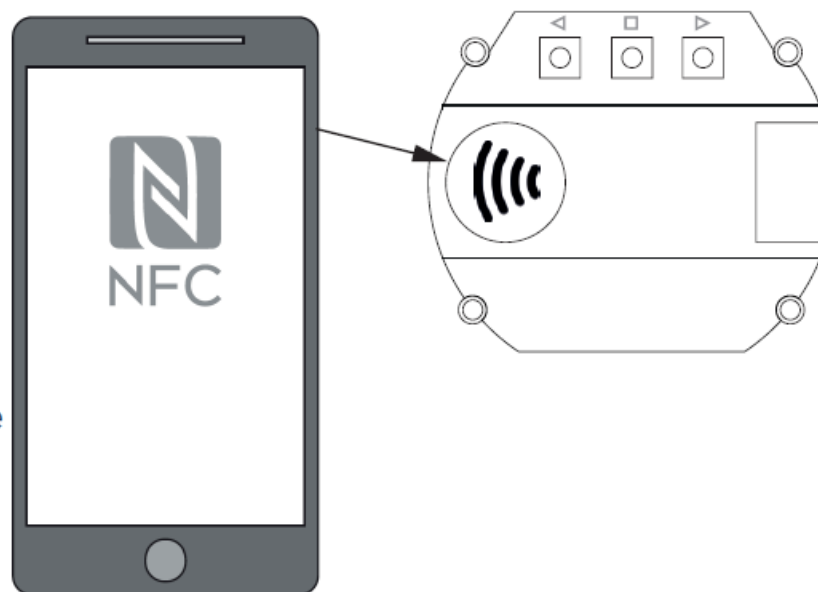
- Android 4.4 or later

Scan the QR code to download and install INOR Connect

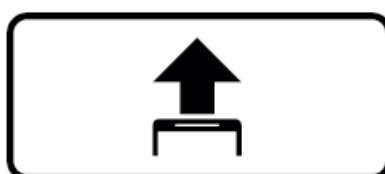


## Configuration procedure

1. 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).
2. Click on  
“Read Configuration” and hold your mobile device against the display as explained in the first section.
3. In the app you can edit the following:
  - Display indication range
  - Decimal points position
  - Backlight mode
  - Filter settings
  - TAG-no
4. 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.



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



## WARRANTY

## 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:

1. Whether Inor acknowledges its responsibility for any asserted defect in materials or workmanship; and, if so,
2. 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:

1. is installed according to the instructions furnished by Inor;
2. is connected to a proper power supply;
3. is not misused or abused; and
4. 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. The 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, the customer pays the whole return cost.


The user instruction must be read prior to adjustment and/or installation.

All information is subject to change without notice.






## CONTACT

- 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](mailto: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](mailto: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](mailto: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](mailto:inor-info@krohne.com)
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## Documents / Resources

	<p><a href="#">INOR LCD-H300 SS Loop Powered Heavy Duty LCD Field Indicator in Stainless Steel</a> [pdf]</p> <p>Instruction Manual</p> <p>LCD-H300 SS, LCD-H300 SS Loop Powered Heavy Duty LCD Field Indicator in Stainless Steel, LCD-H300, SS Loop Powered Heavy Duty LCD Field Indicator in Stainless Steel, Powered Heavy Duty LCD Field Indicator in Stainless Steel, Heavy Duty LCD Field Indicator in Stainless Steel, LCD Field Indicator in Stainless Steel, Stainless Steel, Steel</p>
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## References

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-  [Start - KROHNE INOR](#)
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