50069 / 1.10 / 2025-01-14 / MH / EU

Product Information NSL-F-02, NSL-FR-02 **FOOD**

Potentiometric level sensor NSL-F(R)-02 double rod design

Range of application

- Continuous level measurement in non-metallic vessels
- Level measurement of foaming media
- Minimum product conductivity typically from 50 µS/cm (available on request for lower values)
- Hygienic substitute for float sensors

Application examples

- Process such as ballance tanks and fillers
- Level measurement in storage vessels
- Level monitoring in pressurized vessels

Hygienic design/Process connection

- Hygienic process connection with CLEANadapt
- All wetted materials are FDA-conform
- Sensor completely made of stainless steel
- Complete overview of process connections: see order code
- The Anderson-Negele CLEANadapt system offers a flow-optimized, hygienic and easily sterilizable installation solution for sensors.

Features

- CIP-/SIP-cleaning up to 143 °C (289 °F) / max. 120 minutes
- Protection class IP 69 K (with cable connection)
- Short response time for precise measured values with fast level changes
- Due to the potentiometric measuring principle, no new adjustment is necessary when changing the medium
- Insensitive to adhesion
- Adjustment of the display by means of the twistable sensor head
- Current signal for measurement range, dry signal and error signal adjustable
- Display module Simple User Interface (SUI) and Large User Interface (LUI)
- Remote version with cable length up to 30 m
- Add-On Instructions are available at www.anderson-negele.com/aoi

Communication

IO-Link 4...20 mA

Government-funded

Supported by:

Federal Ministry of Economics and Technology

ZIM für wachstum impulse Zentrales Innovationsprogramm Mittelstand

on the basis of a decision by the German Bundestag

NSL-F-02

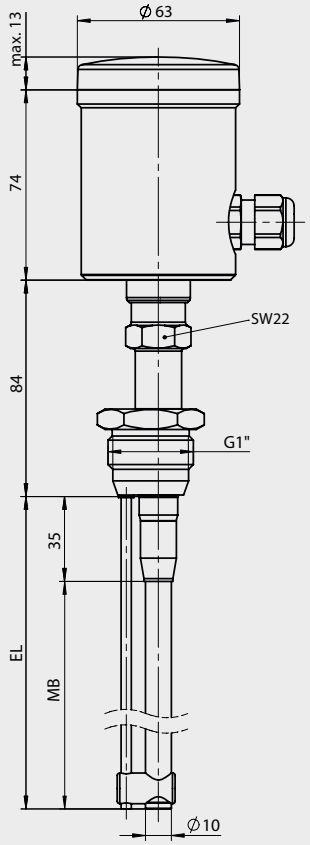
Head unit remote version (HUR)

Large User Interface (LUI)

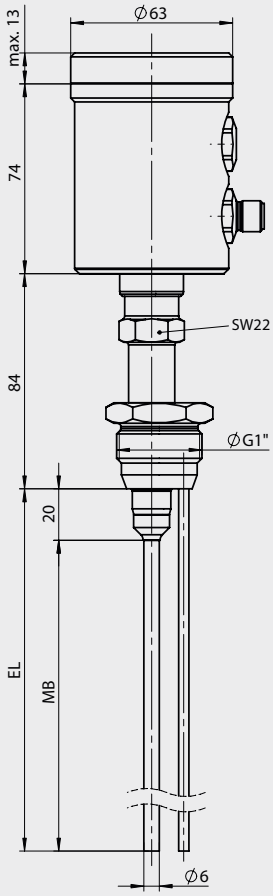
Note

This product information is a supplement to Product Information NSL-F-00.
Except for the rod length of 200 mm up to max. 1 500 mm, the NSL-F-02 is identical to the NSL-F-00. The data, instructions and other information provided in Product Information NSL-F-00 also apply to this sensor variant.

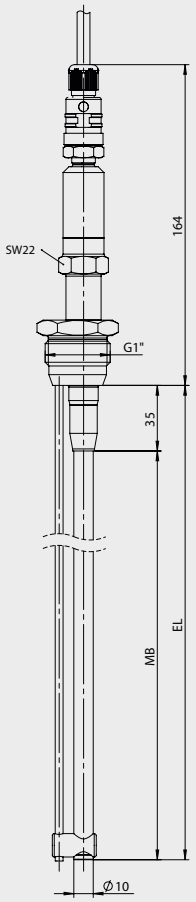
Drawing NSL-F-02 (EL ≥ 200 mm)



Drawing NSL-F-02 (EL < 200 mm)



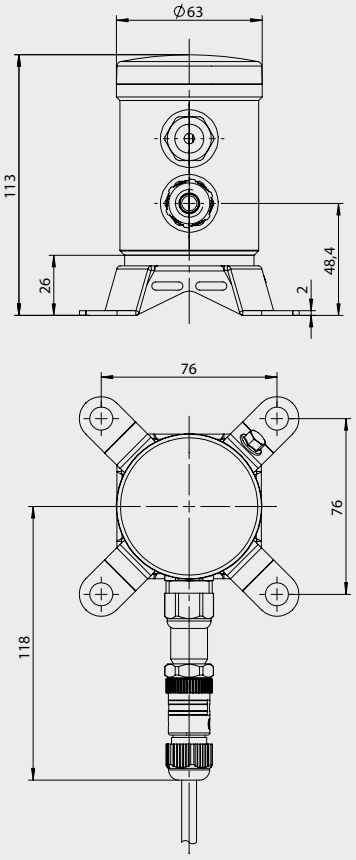
Drawing NSL-FS-02 (EL ≥ 200 mm)



NSL-F-02 with insulation at top (EL ≥ 200 mm)

NSL-F-02 (EL < 200 mm)

HUR | Head unit remote version



Order code

NSL-FR-02 Potentiometric level sensor, double rod design - remote version, remote cable must be ordered separately

Rod length EL
- **0050... 1500** In steps of 10 mm, intermediate sizes at extra charge

Rod diameter
- **06** Ø 6 mm, up to rod length 199 mm
- **10** Ø 10 mm, from rod length 200 mm

Process connection
- **S21** CLEANadapt G1" hygienic, sensor eccentric
- **TC1** Tri-Clamp 1½"
- **TC2** Tri-Clamp 2"
- **T25** Tri-Clamp 2½"
- **TC3** Tri-Clamp 3"
- **V25** Varivent type F, DN 25
- **V40** Varivent type N, DN 40/50

Material certificate
- **O** No certificate
- **Z** With 3.1 material certificate

Installation position
- **2** Installation from top
- **4** Installation from bottom
- **6** Installation from top, 40 mm insulated, only for rod diameter 10 mm

Signal module
- **I42** IO-Link and 1x 4...20 mA level

Electrical connection
- **P** Cable gland M16x1.5
- **M** 1x M12 plug, 4 pin output/power supply
- **L** 1x M12 plug, 5 pin, wiring according to LN sensor
- **C** 1x M12 plug, 5 pin analog output and IO-Link

Display
- **X** Without display
- **L** Large User Interface with display

Cap
- **X** Opaque plastic
- **P** Clear plastic
- **M** Stainless steel without control window
- **W** Stainless steel with control window

Insulation at rod end
- **XX** Without insulation

Configuration
- **X** Factory setting
- **S** Special customer setting

NSL-FR-02 /	**1500 /**	**10 /**	**S21 /**	**O /**	**2 /**	**I42 /**	**P /**	**X /**	**X /**	**XX /**	**X**

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NSL-F-02 Potentiometric level sensor, double rod design

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TC2 Tri-Clamp 2"
T25 Tri-Clamp 2½"
TC3 Tri-Clamp 3"
V25 Varivent type F, DN 25
V40 Varivent type N, DN 40/50

Material certificate
O No certificate
Z With 3.1 material certificate

Installation position
1 Installation from top, head orientation horizontal
2 Installation from top, head orientation vertical
3 Installation from bottom, head orientation horizontal
4 Installation from bottom, head orientation vertical
5 Installation from top, head orientation horizontal, 40 mm insulated, only for rod diameter 10 mm
6 Installation from top, head orientation vertical, 40 mm insulated, only for rod diameter 10 mm

Signal module

I42 IO-Link and 1x 4...20 mA level

Electrical connection
P Cable gland M16x1.5
M 1x M12 plug, 4 pin output/power supply
L 1x M12 plug, 5 pin, wiring according to LN sensor
C 1x M12 plug, 5 pin analog output and IO-Link

Display
X Without display
S Simple User Interface with small display
L Large User Interface with display

Cap
X Opaque plastic
P Clear plastic
M Stainless steel without control window
W Stainless steel with control window

Insulation at rod end

XX Without insulation

Configuration
X Factory setting
S Special customer setting

NSL-F-02 /	1500 /	10 /	S21 /	O /	2 /	I42 /	P /	X /	X /	XX /	X

ANDERSON INSTRUMENT COMPANY
156 Auriesville Road
Fultonville, NY 12072, USA
Phone 800-833-0081
info@anderson-negele.com
techservice@anderson-negele.com

NEGELE MESSTECHNIK GMBH
Raiffeisenweg 7
87743 Egg an der Guenz, GERMANY
Phone +49 (0) 83 33 . 92 04 - 0
sales@anderson-negele.com
support@anderson-negele.com