

## ANDERSON NEGELE - NSL-F LEVEL SENSOR

Potentiometric

NSL-F-00

- Up to 3000mm length
- Ideal for adhesive and pasty media
- Up to 140°C
- Modular design



### PRODUCT DESCRIPTION

The NSL-F is an innovative level sensor that is based on a modular device platform that offers high flexibility in the assembly of individual sensor components.

In addition to benefitting from the advantages of a building-block system, users of this replacement of the NSK model will also profit from the reliability with which these sensors provide measurements even in strongly adhesive and foaming media. For example, the device will dependably indicate that a tank is empty even in the presence of substantial foam. Because of the short response time, highly precise metering processes can be reliably recognised with the NSL-F even in the case of alternating and pasty media.

Please refer to the image below for ordering information.

| Order code   |        |       |     |     |       |     |     |     |      |   |
|--|--------|-------|-----|-----|-------|-----|-----|-----|------|---|
| <b>NSL-F-02</b> (Potentiometric level sensor for food application, compact version in 4-wire technology, double rod version)                             |        |       |     |     |       |     |     |     |      |   |
| Rod length EL, please order in 10-mm steps, e.g.: 0220, 0230, 0240, etc., max length 1500 mm.<br>(intermediate sizes in 1-mm steps available on request) |        |       |     |     |       |     |     |     |      |   |
| <b>0200...1500</b> (material 1.4404)   |        |       |     |     |       |     |     |     |      |   |
| <b>Process connection version</b>  |        |       |     |     |       |     |     |     |      |   |
| <b>S21</b> (CLEANadapt G1" hygienic, for double rod version, sensor eccentric)   |        |       |     |     |       |     |     |     |      |   |
| <b>TC1</b> (Tri-Clamp 1½")   |        |       |     |     |       |     |     |     |      |   |
| <b>TC2</b> (Tri-Clamp 2")  |        |       |     |     |       |     |     |     |      |   |
| <b>T25</b> (Tri-Clamp 2½")   |        |       |     |     |       |     |     |     |      |   |
| <b>TC3</b> (Tri-Clamp 3")  |        |       |     |     |       |     |     |     |      |   |
| <b>V25</b> (Varivent type F, DN 25)  |        |       |     |     |       |     |     |     |      |   |
| <b>V40</b> (Varivent type N, DN 40/50)   |        |       |     |     |       |     |     |     |      |   |
| <b>Material certificate</b>  |        |       |     |     |       |     |     |     |      |   |
| <b>O</b> (No certificate, standard)  |        |       |     |     |       |     |     |     |      |   |
| <b>Z</b> (With 3.1 material certificate for 1.4404)  |        |       |     |     |       |     |     |     |      |   |
| <b>Installation position</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>1</b> (Installation from top, head orientation horizontal)  |        |       |     |     |       |     |     |     |      |   |
| <b>2</b> (Installation from top, head orientation vertical)  |        |       |     |     |       |     |     |     |      |   |
| <b>3</b> (Installation from bottom, head orientation horizontal)   |        |       |     |     |       |     |     |     |      |   |
| <b>4</b> (Installation from bottom, head orientation vertical)   |        |       |     |     |       |     |     |     |      |   |
| <b>Output signal</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>A42</b> (4...20 mA, analog, 4-wire)   |        |       |     |     |       |     |     |     |      |   |
| <b>Electrical connection</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>P</b> (Cable gland M16x1.5)   |        |       |     |     |       |     |     |     |      |   |
| <b>M</b> (M12 plug, 1.4305)  |        |       |     |     |       |     |     |     |      |   |
| <b>L</b> (M12 plug 5-pins, pin assignment according to LN sensor)  |        |       |     |     |       |     |     |     |      |   |
| <b>Interface/Display</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>X</b> (Without interface)   |        |       |     |     |       |     |     |     |      |   |
| <b>S</b> (Simple User Interface with small display)  |        |       |     |     |       |     |     |     |      |   |
| <b>L</b> (Large User Interface with display)   |        |       |     |     |       |     |     |     |      |   |
| <b>Cap</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>X</b> (Opaque plastic)  |        |       |     |     |       |     |     |     |      |   |
| <b>P</b> (Clear plastic)   |        |       |     |     |       |     |     |     |      |   |
| <b>M</b> (Stainless steel without control window)  |        |       |     |     |       |     |     |     |      |   |
| <b>W</b> (Stainless steel with control window)   |        |       |     |     |       |     |     |     |      |   |
| <b>Insulation at rod end</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>XX</b> (Without, standard)  |        |       |     |     |       |     |     |     |      |   |
| <b>Parameter configuration</b>   |        |       |     |     |       |     |     |     |      |   |
| <b>X</b> (Standard)  |        |       |     |     |       |     |     |     |      |   |
| <b>C</b> (Write out details)   |        |       |     |     |       |     |     |     |      |   |
| NSL-F-02 /   | 1500 / | S21 / | O / | 1 / | A42 / | P / | X / | X / | XX / | X |

## TECHNICAL DATA

|                            |                            |
|----------------------------|----------------------------|
| Approvals                  | 3-A, FDA                   |
| Area                       | Food                       |
| Area of application        | Food                       |
| IP class                   | IP69K                      |
| Length                     | 50 .... 3000 mm            |
| Material                   | Stainless steel            |
| Material display           | Polycarbonate              |
| Material of sensor housing | Stainless steel 1.4308     |
| Material of wetted parts   | PEEK, Stainless steel 316L |

|                           |                          |
|---------------------------|--------------------------|
| Measurement technology    | Conductive               |
| Mounting                  | Topmounted, Side-mounted |
| Pressure resistance max   | 16 bar                   |
| Response time             | 100 ms                   |
| Signal type               | IO-link, 4-20 mA         |
| Storage temperature max   | 85 °C                    |
| Storage temperature min   | -45 °C                   |
| Supply voltage dc max     | 36 V DC                  |
| Supply voltage dc min     | 18 V DC                  |
| Surface finish            | 0.8 µm Ra                |
| Temperature ambient from  | 0 °C                     |
| Temperature ambient to    | 70 °C                    |
| Temperature of media from | -10 °C                   |
| Temperature of media to   | 140 °C                   |