



# Installation and operating instructions

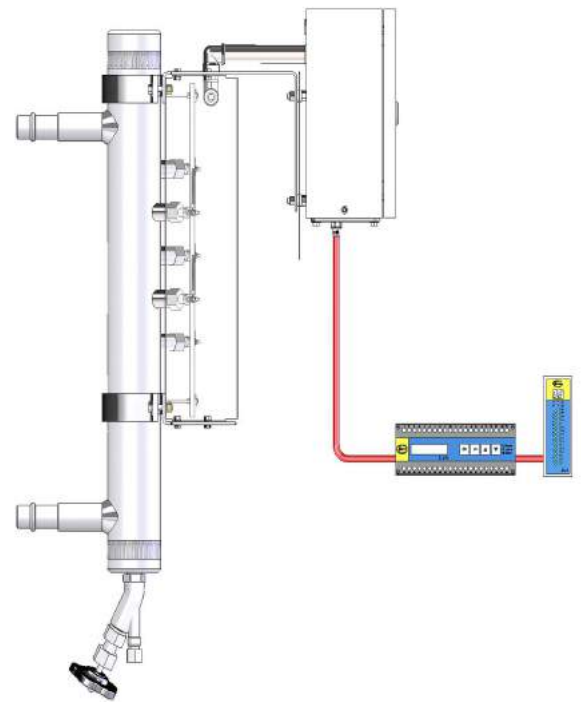


## Electronic Remote Water Level Indicator Type EWLI-3B

for use with level probes: EL65 or EL60

D-05-B-30869-EN-0

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# Technical Data

## Device data

Manufacture in accordance with: EC Directive 2006/95/EC  
EC directive 2004/108/EC  
EC Directive 97/23/EC (2003), Annex III; Module D1, (Category II)

Applied standards: DIN EN 61000 -6-2: 2011-06      DIN EN 61000 -6-4: 2011-09  
DIN EN 61000 -3-2: 2010-03      DIN EN 61000 -3-3: 2009-06  
DIN EN 61010-1: 2010

Other Technical Regulations: Wasserstand 100 (Water level 100) dated February 2010

Data exchange: CAN-Bus in accordance with DIN ISO 11898, CANopen protocol

Number of probes: 2 to 32

Total length of CAN-Bus: max. 500m

Electrical conductivity of the liquid:  $0.5 \mu\text{S}/\text{cm} \leq \kappa \leq 10,000 \mu\text{S}/\text{cm}$  (25° C)

### Probes / add-on housing:

|                           |  |          |          |     |     |     |     |
|---------------------------|--|----------|----------|-----|-----|-----|-----|
| Allowable pressure        | PS [bar]   | 32       | 50       | 80  | 100 | 160 | 200 |
| Allowable temperature     | TS [° C]   | 239      | 265      | 296 | 312 | 348 | 367 |
| Probe                     | Type   | EL65     | EL60     |     |     |     |     |
|                           | Item no.   | 15-01877 | 15-00790 |     |     |     |     |
|                           | Insulator  | PTFE     | Ceramic  |     |     |     |     |
| Connection thread         | G ½"   |          |          |     |     |     |     |
| Width across flats        | WF27   |          |          |     |     |     |     |
| Electrode spacing         | At least 36 mm with offset arrangement                   |          |          |     |     |     |     |
| Material screw connection | Stainless steel  |          |          |     |     |     |     |
| Material electrode tip    | Stainless steel  |          |          |     |     |     |     |
| Material add-on housing   | SA106 GrB (Standard); materials according to DIN or ASME |          |          |     |     |     |     |
| Process connection        | according to DIN or ANSI; Flange or welding end          |          |          |     |     |     |     |

### MU:

|                      |  |
|----------------------|--|
| Material switch box  | Stainless steel (1.4404/316L)                        |
| Protection type      | Front side IP65                                      |
| Working temperature: | 0° C to + 85° C                                      |
| Humidity             | non-condensing                                       |
| Voltage supply       | 18V – 36V; 24V DC / 2W short-circuit-proof via lead  |
| Current consumption  | 50mA @ 24V   |
| Electrode voltage    | 3 Vss  |
| Interface            | CAN-Bus according to DIN ISO 11898, CANopen protocol |
| Self-Test            | every 3 s  |

**CU:**

|                                 |  |
|---------------------------------|--|
| 2x21 pole Screw terminal strip: |  |
| Voltage supply                  | 24V DC $\pm$ 10% / 24 W<br>through 1 or 2 separate power supply unit(s)  |
| Current consumption             | 200mA  |
| Interfaces                      | CAN-Bus according to DIN ISO 11898, CANopen protocol   |
|                                 | 4 mA – 20 mA (load < 500Ohm)<br>not galv. decoupled  |
|                                 | 7 SPDT output contacts freely programmable<br>(Probe – switch contact)   |
|                                 | 1 SPDT output contact responding to device errors  |
|                                 | 1 SPDT output contact responding to water level alarm (HW and/or LW); the probes for LW and/or HW can be freely chosen |
| Material                        | PC-GF V-0  |
| Protection type                 | Housing: IP40<br>Terminals: IP20   |
| Connection                      | Two 21-terminal strips to 2.5 mm <sup>2</sup>  |
| Display                         | LCD display with 2 16-character lines  |
| Input / Programming             | 4 keys   |
| Working temperature:            | 0° C to +55° C   |
| Self-Test                       | every 3 s  |

**DU:**

|                      |   |
|----------------------|---|
| Voltage supply       | 18V – 36V; 24V DC / 2W short-circuit-proof via lead   |
| Current consumption  | 70mA @ 24V  |
| Interfaces           | CAN-Bus according to DIN ISO 11898, CANopen protocol  |
|                      | 4 mA – 20 mA (load < 500Ohm)<br>not galv. decoupled   |
| Housing design       | As per DIN 61554  |
| Material             | Housing: Noryl SE1, GFN2;<br>Pane: Makrolon   |
| Protection type      | Front: IP40<br>Rear: IP20   |
| Display              | 2 x 7 segment display   |
|                      | 3 Status LEDs<br>green: power<br>yellow: error<br>red: alarm  |
|                      | Fill level display per probe:<br>green –water // red –steam<br>up to 16 probes: single column<br>otherwise: double column |
| Working temperature: | 0° C to + 55° C   |

|                        |                   |                             |
|------------------------|-------------------|-----------------------------|
| Alarm and error output | Switching voltage | max. 250 V AC               |
|                        | Switching current | max. 6 A resistive          |
|                        |                   | inductive: see load profile |
| Switch outputs         | Switching voltage | max. 250 V AC               |
|                        | Switching current | max. 6 A resistive          |
|                        |                   | inductive: see load profile |