

LCIS temperature/analog converter

**KOS 817**



|                       |              |                                       |
|-----------------------|--------------|---------------------------------------|
| <b>Identification</b> | Type<br>Code | LCIS-WP-WPT3LA-1817-175-PI<br>KOS 817 |
|-----------------------|--------------|---------------------------------------|

|                    |  |
|--------------------|--|
| <b>Description</b> | Input: PT100, 2-wire/3-wire<br>Output: 0–10 V / 0–20 mA / 4–20 mA<br>Insulation: 4.0 kV, 3-way isolation |
|--------------------|--|

|                        |  |
|------------------------|--|
| <b>Input</b>           |  |
| Input variable         | Temperature sensor PT100   |
| Galvanic isolation I/O | 3-way isolation  |
| Measuring procedure    | 2-wire of 3-wire, constant current   |
| Temperature range      | -50 °C–50 °C / -50 °C–100 °C / -50 °C–150 °C / 0 °C–100 °C / 0 °C–150 °C / 0 °C–200 °C / 0 °C–300 °C / 0 °C–400 °C |
| Parameterisation       | DIP switch S1  |
| Zero /Span             | Production comparison  |
| Input resistance       | >1 MΩ @ 2-wire, >500 kΩ @ 3-wire   |
| Sensor current         | 0.5 mA   |
| Protection device      | Overvoltage protection   |

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Output</b>                   |                          |
| Output signal                   | 0–10 V, 0–20 mA, 4–20 mA |
| Max. load impedance at I-output | 500 Ω                    |
| Min. load impedance at U-output | 2 kΩ                     |



## Technical data sheet • Interface Technology

|                   |                                      |
|-------------------|--------------------------------------|
| Load deviation    | at U-output max. 5 mV @ 2 k $\Omega$ |
| Output voltage    | < 18 V @ 0–20 mA, 4–20 mA            |
| Output current    | max. 5 mA @ 10 V                     |
| Residual ripple   | <20 mV <sub>eff</sub>                |
| Parameterisation  | DIP switch S1                        |
| Protection device | short circuit protection             |

### Operating data

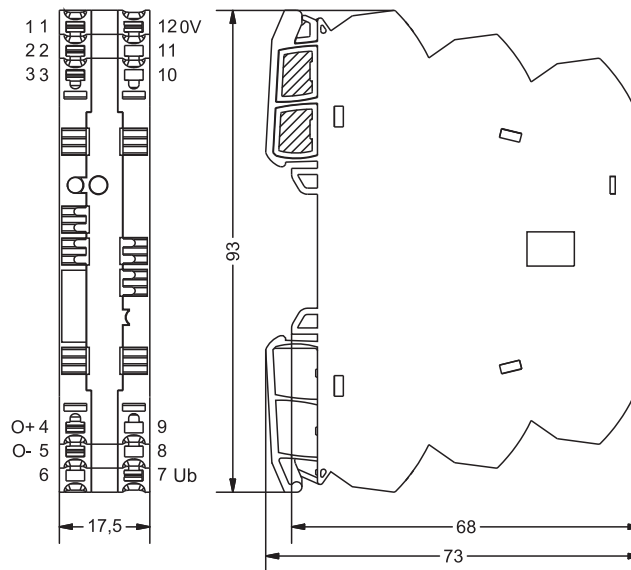
|                                     |   |
|-------------------------------------|---|
| Accuracy                            | 0.3 % FSR @ 23 °C   |
| Linearity error                     | 0.1 % FSR   |
| Rise time (10 - 90%)                | approx. 30 ms @ 23 °C   |
| Build-up time (Accuracy 1%)         | approx. 60 ms @ 23 °C   |
| Temperature coefficient             | 150 ppm / K FSR   |
| Critical frequency                  | 10 Hz @ 3 dB / 23 °C  |
| Error coefficient of measuring line | 2-conductor: 2.7 K/ $\Omega$ , 3-conductor: 0.1 K + 0.1 %/ $\Omega$ |

### General

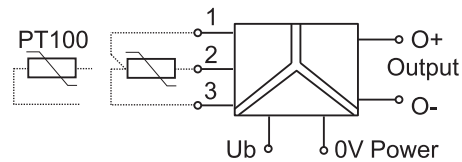
|                                   |   |
|-----------------------------------|---|
| Rated voltage                     | AC/DC 24–240 V  |
| Operation voltage range           | AC 19.2–264 V / DC 18.0–264 V   |
| Rated current                     | appr. 22 mA @ AC 24 V / appr. 19 mA @ DC 24 V   |
| Status indication                 | LED green   |
| Rise time (10 - 90%)              | approx. 30 ms @ 23 °C   |
| Insulation voltage input / output | 4.0 kV <sub>eff</sub>   |
| Housing material                  | PA 6.6 (UL 94 V-0, NFF I2, F2)  |
| Color of the housing              | RAL 7012<br>basalt grey   |
| Mounting                          | DIN rail mountable TS35<br>(EN 60715)   |
| Protection class                  | IP20  |
| Installation position             | any   |
| Connection device                 | Push-In<br>single wire<br>0.25 mm <sup>2</sup> –2.5 mm <sup>2</sup> / AWG 20–14<br>fine stranded wire with ferrule<br>0.25 mm <sup>2</sup> –1.5 mm <sup>2</sup> / AWG 20–16 |
| Operation temperature range       | -25 °C ... +60 °C   |
| Storage temperature range         | -40 °C ... +85 °C   |
| Dimensions (w × h × d)            | 17.5 × 93.0 × 73.0 mm   |
| Weight                            | 0.059 kg/piece  |
| PU                                | 1 piece   |
| Approvals                         | cULus in preparation<br>DNV GL in preparation   |
| Standards                         | EN 60947-5-1  |



## Dimensions



## PIN assignment



## Range adjustment

| S1            | Output |
|---------------|--------|
| ● → Switch On | 5 6    |
| 0–10V         | ●      |
| 0–20mA        | ●      |
| 4–20mA        | ● ●    |

| S1            | Input   |
|---------------|---------|
| ● → Switch On | 1 2 3 4 |
| PT100, 3-wire |         |
| PT100, 2-wire | ●       |
| -50 – 50°C    |         |
| -50 – 100°C   | ●       |
| -50 – 150°C   | ● ●     |
| 0 – 100°C     | ● ●     |
| 0 – 150°C     | ● ● ●   |
| 0 – 200°C     | ● ● ●   |
| 0 – 300°C     | ● ● ●   |
| 0 – 400°C     | ● ● ● ● |

