

Technical data sheet

Interface Technology · LCIS temperature/analog converter

Input: PT100, 2-wire

Output: 0–10 V / 0–20 mA / 4–20 mA

Insulation: 2.5 kV, 3-way isolation



Identification

Type LCIS-WPT2LA-0809-62-S
Part No. [750809.0000](#)

Product version

Hardware revision 1.0
Software version 1.0
Datasheet version 02

Input

Input variable Temperature sensor PT100
Galvanic isolation I/O 3-way isolation
Measuring procedure 2-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 M Ω
Sensor current 0.5 mA
Protection device Input Overvoltage protection

Output

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 k Ω
Load deviation at U-output max. 5 mV @ 2 k Ω
Output voltage <16 V @ 0–20 mA, 4–20 mA
Output current Max. 5 mA @ 10 V
Residual ripple <20 mV_{eff}
Parameterisation DIP switch S1

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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 2.7 K/Ω

General

Rated voltage U_N AC/DC 24 V
Rated current Approx. 22 mA @ AC 24 V / approx. 13 mA @ DC 24 V
Status indication LED green
Insulation voltage input / output 2.5 kV_{eff}
Housing material PA 6.6 (UL 94 V-0, NFF I2, F2)
Color of the housing RAL 7012
 Basalt grey
Mounting DIN rail mountable TS35
 (EN 60715)
Degree of protection IP20
Installation position Any
Connection type Screwed terminal
 Single wire
 0.25 mm² – 2.5 mm² / AWG 24–14
 Fine stranded wire with ferrule
 0.25 mm² – 1.5 mm² / AWG 24–16
Dimensions (w × h × d) 6.2 mm × 93.0 mm × 73.0 mm
Weight/unit 0.03 kg
PU (units) 1

General ambient conditions

Operation temperature range -25 °C ... +60 °C
Storage temperature range -40 °C ... +85 °C
Relative air humidity 20 – 90 % RH, not condensing
Vibration resistance 0.7 g acc. to EN 60068-2-6

Failure Rate Prediction (MTBF)

Standards Electronic components – Reliability – Reference conditions for failure rates
 and stress models for conversion: EN/IEC 61709
 Failure Rates of Components – Expected values: SN 29500
Failure rate at +45 °C 566 fit
Failure rate at +45 °C 1765795 h
 1 fit equals one failure per 10⁹ component hours
 The indicated temperature is the mean component ambient temperature.

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Comments

The results are valid under following conditions:

Automotive environment or industrial areas without extreme dust levels and harmful substances

Continuous operation 8760 h per year

Approvals/Standards

Conformity

CE
UKCA

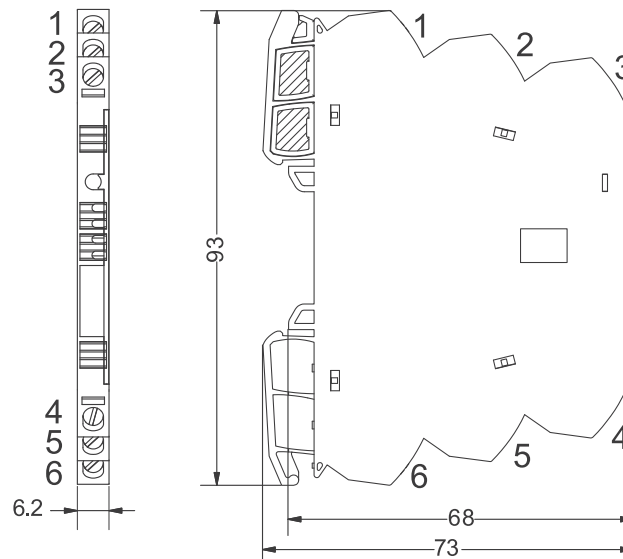
Approvals

cULus (E135145)
DNV (TAA000024Y)

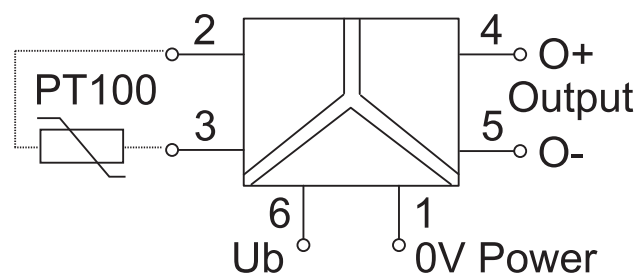
Standards

EN 60947-1
EN 60947-5-1
EN 61000-6-2
EN 61000-6-4
UL 508
DNV-CG-0339

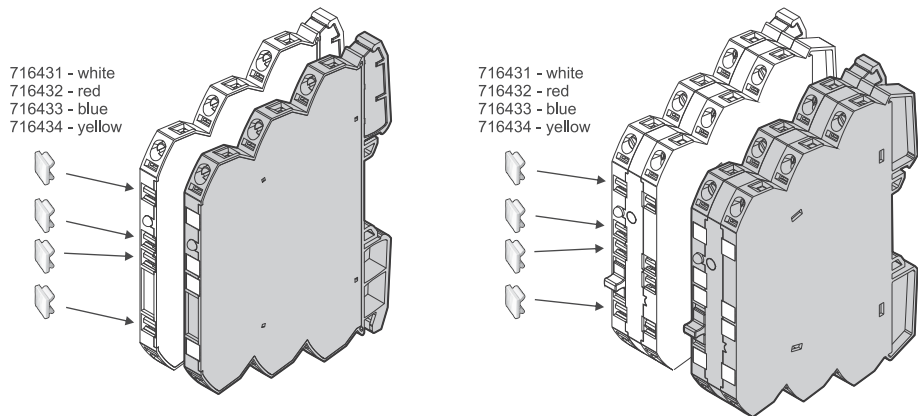
Dimensions



PIN assignment

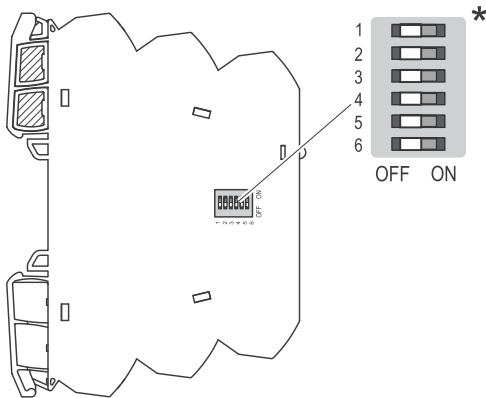


Use



Use

DE HINWEIS: Die Schalter dürfen während des Betriebs nicht umgeschaltet werden. Der Wandler benötigt einen Neustart.
EN NOTICE: The switches must not be switched during operation. The converter requires a restart.
FR AVIS: Les interrupteurs ne doivent pas être actionnés pendant le fonctionnement. Le convertisseur nécessite un redémarrage.



- * **DE:** Auslieferungszustand (Werkseinstellung): 0-Einstellung/ alle Schalter sind auf OFF gestellt.
- * **EN:** Delivery state (factory setting): 0 setting/ all switches are set to OFF.
- * **FR:** État à la livraison (réglage d'usine) : réglage 0/ tous les interrupteurs sont sur OFF.

Range adjustment

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

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