

# Technical data sheet - Interface Technology

LCIS temperature/analog converter



<b>Identification</b>	Type Part-No.	LCIS-WPT3LA-0819-62-S 750819.0000
<b>Description</b>	Input: PT100, 2-wire/3-wire Output: 0–10 V / 0–20 mA / 4–20 mA Insulation: 2.5 kV, 2-way isolation	
<b>Input</b>	Input variable                      Temperature sensor PT100 Galvanic isolation I/O            2-way isolation Measuring procedure            2-wire or 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 Input         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	

16.08.2019 – Subject to technical modification

Part-No. 750819.0000

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Load deviation	at U-output max. 5 mV @ 2 k $\Omega$
Output voltage	< 16 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

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### Operating data

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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 %/ $\Omega$

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### General

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Rated voltage U <sub>N</sub>	AC/DC 24 V
Operation voltage range	AC 19.2–26.4 V / DC 18.0–31.2 V
Rated current	approx. 22 mA @ AC 24 V / approx. 13 mA @ DC 24 V
Status indication	LED green
Rise time (10 - 90%)	approx. 30 ms @ 23 °C
Insulation voltage input / output	2.5 kV <sub>eff</sub>
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)
Protection class	IP20
Installation position	any
Connection type	Screwed terminal single wire 0.25 mm <sup>2</sup> –2.5 mm <sup>2</sup> / AWG 20–14 fine stranded wire with ferrule 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)	6.2 × 93.0 × 73.0 mm
Weight	0.030 kg/piece
PU	1 piece
Approvals	cULus in preparation DNV GL
Standards	EN 60947-5-1

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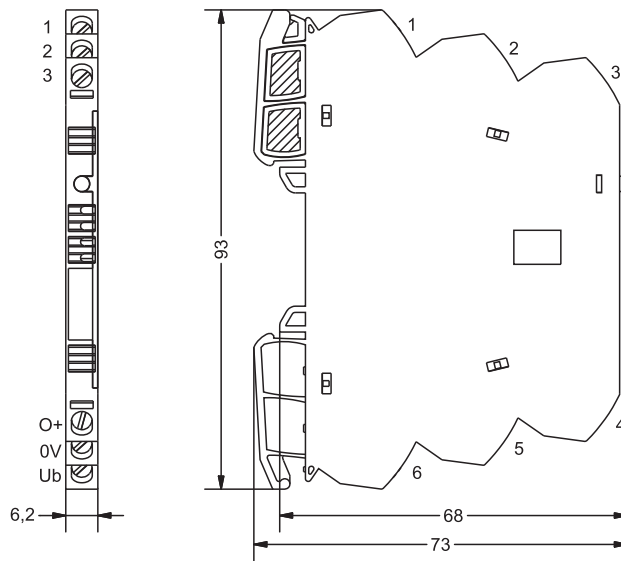
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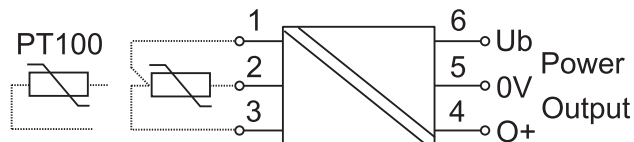
## Failure Rate Prediction (MTBF)

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	578 fit
Failure rate at +45 °C	1729323 h
	1 fit equals one failure per 10 <sup>9</sup> component hours
	The indicated temperature is the mean component ambient temperature.
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

## Dimensions



## PIN assignment



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## 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	●●

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