



LCIS temperature/analog converter

KOS 839

Identification	Type Code	LCIS-WTCA-1839-62-PI KOS 839
Description	Input: Thermal elements J, K Output: 0–10 V / 0–20 mA / 4–20 mA Insulation: 2.5 kV, 3-way isolation	
Input	Input variable Thermo voltage, element J or K (DIN/IEC 584-1) Galvanic isolation I/O 3-way isolation Measuring procedure Voltage measurement Temperature range -50 °C–200 °C / -50 °C–350 °C / 0 °C–200 °C / 0 °C–400 °C / 0 °C–600 °C / 0 °C–800 °C / 0 °C–1000 °C / 0 °C–1200 °C Parameterisation DIP switch S1 Zero /Span Production comparison Input resistance >1 MΩ Cold junction compensation throughout the entire temperature range Protection device 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 kΩ	



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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
Protection device	short circuit protection

Operating data

Accuracy	0.5 % + 2K FSR @ 23 °C
Linearity error	0.1 % FSR, temperature linear
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

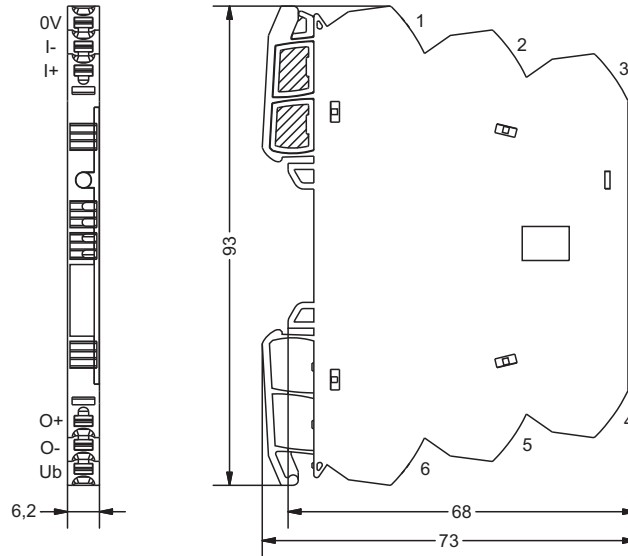
General

Rated voltage	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 _{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)
Protection class	IP20
Installation position	any
Connection device	Push-In single wire 0.25 mm ² –2.5 mm ² / AWG 20–14 fine stranded wire with ferrule 0.25 mm ² –1.5 mm ² / 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 in preparation
Standards	EN 60947-5-1

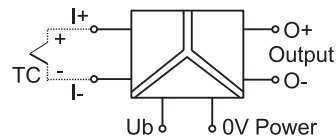


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Dimensions



PIN assignment



Range adjustment

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

S1	Input
● → Switch On	1 2 3 4
TC J (Fe-CuNi)	
TC K (Ni-CrNi)	●
-50 - 200°C	
-50 - 350°C	●
0 - 200°C	● ●
0 - 400°C	● ●
0 - 600°C	● ● ●
0 - 800°C	● ● ●
0 - 1000°C	● ● ●
0 - 1200°C	● ● ●

