

Technical data sheet - Interface Technology

Microcompact temp./analog converter



Identification	Type Part-No.	LCON TA DFDT 806210 750340
Description	Input: PT, thermocouple, potentiometer – adjustable temperature converter Output: 0–20 mA / 4–20 mA / 0–10 V / -10–10 V / 2–10 V / 0–5 V / 1–5 V Insulation: 2.5 kV, 3-way isolation	
Input		
Input variable	PT100 2/3/4 conductor PT1000 Resistor Type B Type C Type E Type J Type K Type N Type R Type S Type T	
Measurement input	PT100, PT1000, resistencia, potenciómetro Thermal elements: Type B, C, E, J, K, N, R, S, T Customer-specific via support points, polynomial	
Galvanic isolation I/O	3-way isolation	

15.10.2019 – Subject to technical modification

Part-No. 750340

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Step response (10–90%)	TE: 10 – 750 ms, PT: 5 – 750 ms (adjustable by means of filter stage 1–5, default: 200 ms – filter stage 4)
Temperature range	PT: -220 ... 850 °C depending on type Thermal elements: -210 ... 2310 °C depending on type
Parameterisation	Software FDT/DTM DIP switch
Input resistance	Thermocouples: 1 MΩ
Sensor current	PT, potentiometer, resistance: 0.002–0.6 mA depending on type
Circuit	PT - 2, 3, 4-wire, for 2-wire with offset correction, no external bridges necessary, autom. detection

Output

Output signal	0–10 V, -10–10 V, 0–20 mA, 4–20 mA adjustable via switch and software FDT/DTM, connection via USB service cable
Max. load impedance at I-output	700 Ω @ 0–20 mA, 4–20 mA
Max. load impedance at U-output	>2 kΩ @ 0–10 V, -10–10 V
Limitation for exceeding measurement range	10.25 V @ 0–10 V, -10–10 V 20.5 mA @ 0–20 mA, 4–20 mA
max. modulation range/output signal/output current	10.5 V @ 0–10 V, -10–10 V 21 mA @ 0–20 mA, 4–20 mA
Parameterisation	Software FDT/DTM DIP switch

Operating data

Accuracy	PT: 10 K, divided by the set measurement range (K) + 0.2 % FSR Thermocouples: 10 K, divided by the set measurement range (K) + 0.4 % FSR
Linearity error	±0.1 % FSR

General

Rated voltage U_N	DC 24 V
Operation voltage range	16.8–30 V
Rated current	approx. 18 mA
Status indication	LED green, red (error)
Input/output protection	Overvoltage DC 30 V, short circuit-proof output
Temperature error	<100 ppm/K FSR
Data storage	Flash
Insulation voltage input / output	2.5 kV _{eff}
Resolution	16-bit
Temperature compensation internally	Thermal elements: type ±1 K, max. ±2 K
Configuration	Switch and software: FDT / DTM
Housing material	PA 6.6 (UL 94 V-0)
Color of the housing	light grey

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Mounting	DIN rail mountable TS35 (EN 60715)
Protection class	IP20
Installation position	any
Connection type	Screw terminal 0.14 mm ² – 1.5 mm ²
Operation temperature range	-40 °C ... +70 °C
Storage temperature range	-40 °C ... +85 °C
Dimensions (w × h × d)	6.2 × 90.0 × 115.5 mm
Weight	0.050 kg/piece
PU	1 piece
Approvals	cULus (E135145) Cl.1 Div2, Gr. A, B, C, D, T4A GL
Standards	EN 60947-5-1

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	678 fit
Failure rate at +45 °C	1474689 h 1 fit equals one failure per 10 ⁹ 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

Comments	NOTE: The device can be configured using the DIP switches on the side or using the accessory LCON ZB service cable (Item no. 750894).
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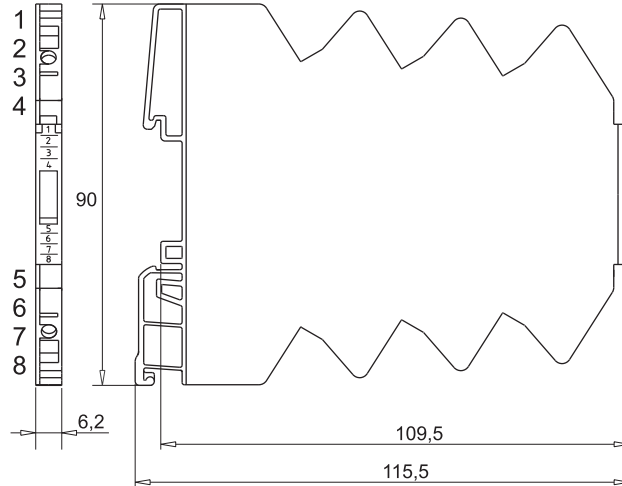
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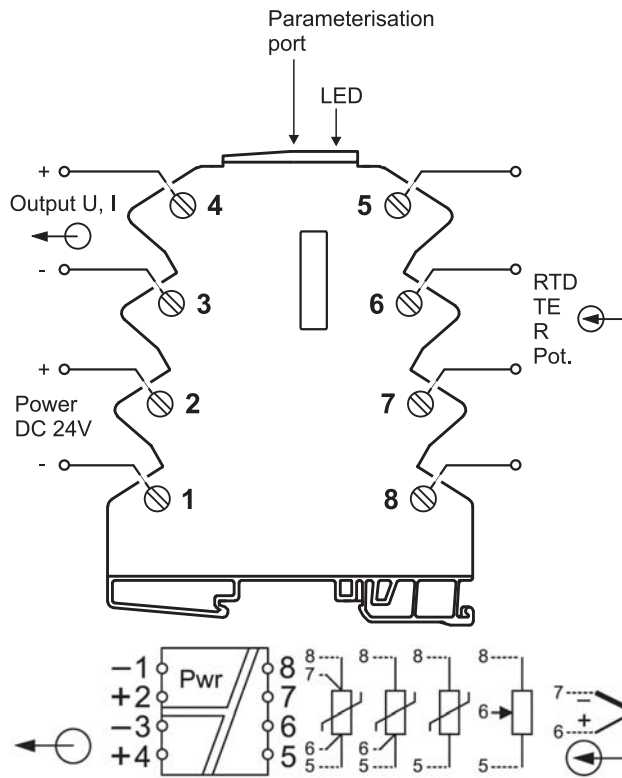
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Dimensions



PIN assignment



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Range adjustment

Range*	S1				S2							
Start	7	8	1	2	End	3	4	5	6	7	8	
-200°C	●				0°C	●						
-150°C	●	●			50°C		●	●				
-100°C	●		●		100°C	●	●		●			
-50°C		●		●	150°C	●		●	●			
0°C	●	●	●	●	200°C	●	●	●	●			
					250°C	●					●	
					300°C	●	●				●	
					350°C	●		●			●	
					400°C	●	●	●			●	
					450°C	●			●	●		
					500°C	●	●		●	●		
					550°C	●		●	●	●		
					600°C	●	●	●	●	●		
					650°C	●					●	
					700°C	●	●				●	
					750°C	●		●			●	
					800°C	●	●	●			●	
					850°C	●			●		●	
					900°C	●	●		●		●	
					950°C	●		●	●		●	
					1000°C	●	●	●	●		●	
					1050°C	●				●	●	
					1100°C	●	●			●	●	
					1150°C	●		●		●	●	
					1200°C	●	●	●		●	●	
					1250°C	●			●	●	●	
					1300°C	●	●		●	●	●	
					1350°C	●		●	●	●	●	
					1400°C	●	●	●	●	●	●	
● → Switch On												

S1-S2 1-8 off:
FDT/DTM

*See instruction
leaflet

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