

## Technical data sheet

Interface Technology · Microcompact temp./analog converter

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**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



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### Identification

Type LCON TA DFDT 806211  
Part No. [751340](#)

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### Product version

Datasheet version 02

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### 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

Step response (10–90%) TE: 10 ms–550 ms, PT: 5–550 ms (adjustable by means of filter stage 1–5, default: filter stage 4 = 100 ms)

Temperature range PT: -220 ... 850 °C depending on type  
Thermal elements: -210 ... 2310 °C depending on type

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Part No. [751340](#) • Datasheet version: 02

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SYSTEMATIC TECHNOLOGY

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Parameterisation	Software FDT/DTM DIP switch
Input resistance	Thermocouples: 1 M $\Omega$
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

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#### Output

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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 $\Omega$ @ 0–20 mA, 4–20 mA
Max. load impedance at U-output	>2 k $\Omega$ @ 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

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#### Operating data

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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	$\pm 0.1$ % FSR

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#### General

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Rated voltage $U_N$	DC 24 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 <sub>eff</sub>
Resolution	16-bit
Temperature compensation internally	Thermal elements: type $\pm 1$ K, max. $\pm 2$ K
Configuration	Switch and software: FDT / DTM
Housing material	PA 6.6 (UL 94 V-0)
Color of the housing	light grey
Mounting	DIN rail mountable TS35 (EN 60715)
Degree of protection	IP20
Installation position	Any
Connection type	Spring terminal 0.14 mm <sup>2</sup> – 1.5 mm <sup>2</sup>
Dimensions (w × h × d)	6.2 mm × 90.0 mm × 115.5 mm
Weight/unit	0.05 kg
PU (units)	1

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#### General ambient conditions

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Operation temperature range	-40 °C ... +70 °C
Storage temperature range	-40 °C ... +85 °C
Relative air humidity	10 % – 95 %, without condensation
Vibration resistance	4 g acc. to EN 60068-2-6
Shock resistance	15 g acc. EN 60068-2-27

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#### Failure Rate Prediction (MTBF)

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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 <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

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#### Certifications/Standards

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Conformity	CE UKCA
Certifications	cULus (E135145) cULus (E319134) use in Class I, Div. 2, Hazardous Locations
Standards	EN 60947-1 EN 60947-5-1 UL 508 UL 121201 DNVGL-CG-0339 Temperature Class D – not certified Humidity Class B – not certified Vibration Class B – not certified EMC Class A – not certified Enclosure Class A – not certified

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#### Equipment/Spare parts

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<b>Accessories</b>	Jumper comb 6 A (VE 10) 2-pin: 762802 (red), 762803 (white), 762804 ( <b>blue</b> ) 3-pin: 762805 (red), 762806 (white), 762807 ( <b>blue</b> ) 4-pin: 762812 (red), 762813 (white), 762814 ( <b>blue</b> ) 8-pin: 762822 (red), 762823 (white), 762824 ( <b>blue</b> ) 16-pin: 762832 (red), 762833 (white), 762834 ( <b>blue</b> ) <b>Laser label</b> 4.23×11 mm (sheet with 1056 labels), Part-No. 681034, PU: 1 unit <b>Marker holder</b> 4×11 mm white, Part-No. 681313, PU: 100 units
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# Technical data sheet

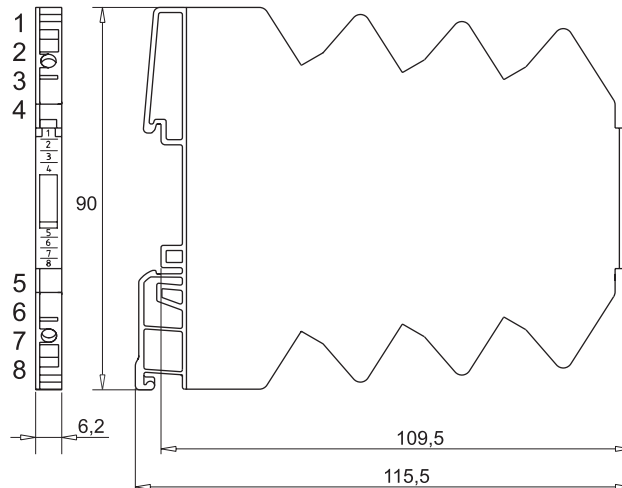
## Interface Technology · Microcompact temp./analog converter

### Notes and Comments

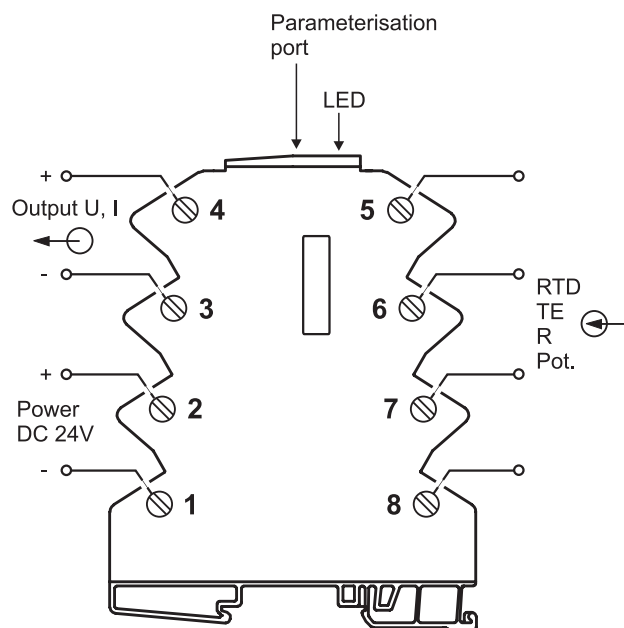
#### Note

For the parameterization you need the USB service cable, LCON ZB USB, part number 750894 and the software Lütze HART-DTM and PACTware. The current versions can be found in the download area of the respective product page on the LÜTZE website.

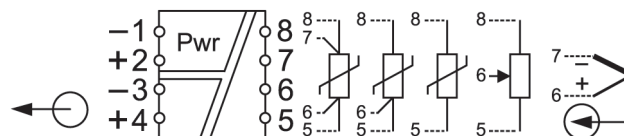
### Dimensions



### PIN assignment



### 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	●	●	●	●	●	●	

Sensor*	S1	1	2	3
Pt100		●		
Pt1000			●	
TE J		●	●	
TE K				●
Pot. %		●	●	●

Output*	S1	4	5	6
0 – 20mA		●		
4 – 20mA			●	
0 – 10V		●	●	
±10V				●

S1-S2 1-8 off:  
FDT/DTM

\*See instruction  
leaflet

● → Switch On