

Interface Technology · Microcompact temp./limit value switch

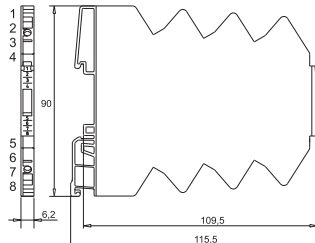
Input: PT, thermocouple, potentiometer – adjustable temperature converter

Output: Semiconductor NO contact

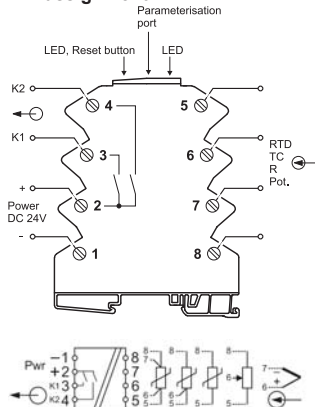
Insulation: 2.5 kV, 2-way isolation



Dimensions



PIN assignment



Description	Part-No.	Type	PU	
Screw terminal				
Rated voltage U_N	DC 24 V	750370 R*	LCON TLS FDT 806210	1
Spring terminal				
Rated voltage U_N	DC 24 V	751370 S*	LCON TLS FDT 806211	1
Input				
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	2-way isolation			
Temperature range	PT: -220 ... 850 °C depending on type Thermal elements: -210 ... 2310 °C depending on type			
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)			
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	adjustable via software FDT / DTM, connection via USB service cable			
Contact type	K1,K2: Semi-conductor, N/O contact			
Max. switching voltage	DC 30 V			
Max. switching current	DC 100 mA, not short circuit protected			
Status display output	LED yellow K1 and LED yellow K2			
Operating mode	Limit value, window, alarm output / additionally adjustable: Hysteresis, input / output delay			
Operating data				
Linearity error	±0.1 % FSR			
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			
General				
Rated voltage U_N	DC 24 V			
Operation voltage range	16.8–30 V			
Rated current	approx. 12 mA			
Status indication	LED green, yellow (K1, K2), red (error)			
Input/output protection	Overvoltage DC 30 V			
Connection type	Screw terminal 0.14 mm ² – 1.5 mm ² Spring terminal 0.14 mm ² – 1.5 mm ²			
Resolution	16-bit			
Temperature compensation internally	Thermal elements: type ±1 K, max. ±2 K			
Configuration	Software: FDT / DTM			
Temperature error	<100 ppm/K FSR			
Data storage	Flash			
Insulation voltage input / output	AC 2.5 kV _{eff}			
Housing material	PA 6.6 (UL 94 V-0)			
Color of the housing	light grey			
Mounting	DIN rail mountable TS35 (EN 60715)			
Protection class	IP20			
Installation position	any			
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			
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	480 fit			
Failure rate at +45 °C	2081733 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).				