Signal Converter
Temperature / Frequency

Article numbers: 750811
750831
750871

Small control systems are often used in many relatively small-scale applications. For financial reasons, counter inputs are very often integrated in these cases instead of analogue channels. The temperature / frequency signal converters developed by Friedrich Lütze GmbH now offer a simple and cost-effective solution for measuring and converting temperatures even when using a small control system.

The benefits for you:

- **Temperature inputs for PT 100, thermocouples J, K**
- **3 temperature input ranges adjustable via DIP switch**
- **4 frequency output ranges adjustable via DIP switch**
- **No zero / span calibration required owing to processor technology**
- **3-way isolation, 1.5 kV**
- **Overall width 6.2 mm with top connection facility**
- **AC/DC operating voltage**
- **Screw or spring terminal technology**
- **Customised adaptations possible**

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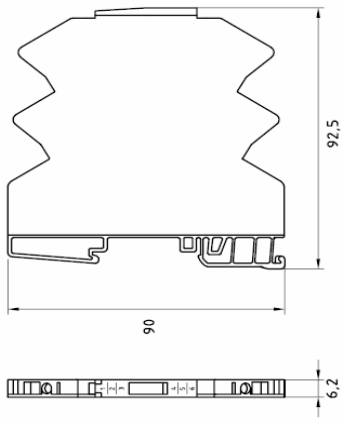
LÜTZE
Technik mit System

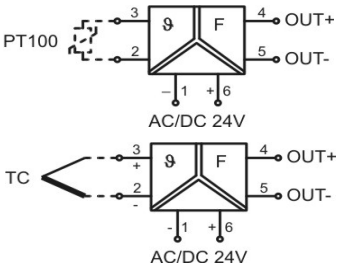
Interface technology ● Microcompact signal converter

Temperatur-frequency converter
Temperature sensor : 2-wire PT 100, J, K
Output: 0-10 V, 0-20 mA, 4-20 mA
Isolation : 1.5 kV: 3-way isolation

Description		Article number	Microcompact type	PU
Screw terminal				
	PT 100	**750811**	**WPTF 7-0811**	**1**
	J	**750831**	**WTHF 7-831**	**1**
	K	**750871**	**WTHF 7-871**	**1**
Spring terminal				
	PT 100	**751811**	**WPTF 7-1811**	**1**
	J	**751831**	**WTHF 7-1831**	**1**
	K	**751871**	**WTHF 7-1871**	**1**



Pin assignment:



Range adjustment:

PT 100:

● → Switch On		S1					
Range	Output	1	2	3	4	5	6
-50 - 150°C	0 - 50Hz						
-50 - 150°C	0 - 100Hz	●					
-50 - 150°C	0 - 1kHz		●				
-50 - 150°C	0 - 10kHz	●	●				
0 - 200°C	0 - 50Hz			●			
0 - 200°C	0 - 100Hz	●		●			
0 - 200°C	0 - 1kHz		●	●			
0 - 200°C	0 - 10kHz	●	●	●			
0 - 400°C	0 - 50Hz				●		
0 - 400°C	0 - 100Hz	●			●		
0 - 400°C	0 - 1kHz		●		●		
0 - 400°C	0 - 10kHz	●	●		●		

Thermocouple:

● → Switch On		S1					
Range	Output	1	2	3	4	5	6
0 - 200°C	0 - 50Hz						
0 - 200°C	0 - 100Hz	●					
0 - 200°C	0 - 1kHz		●				
0 - 200°C	0 - 10kHz	●	●				
0 - 400°C	0 - 50Hz				●		
0 - 400°C	0 - 100Hz	●			●		
0 - 400°C	0 - 1kHz		●		●		
0 - 400°C	0 - 10kHz	●	●		●		
0 - 600°C	0 - 50Hz					●	
0 - 600°C	0 - 100Hz	●				●	
0 - 600°C	0 - 1kHz		●			●	
0 - 600°C	0 - 10kHz	●	●			●	

Input side	PT 100	J	K
Measuring input	2-wire		
Temperature range	-50-150 °C, 0-200 °C, 0-400 °C,	0-200 °C, 0-400 °C, 0-600 °C	0-200 °C, 0-400 °C, 0-600 °C
Input current	0.5 mA	-	-

Output side	
Output signal	0-50 Hz, 0-100 Hz, 0-1,000 Hz, 0-10,000 Hz, can be adjusted via DIP switch
Max. load impedance	= 2,500 Ω (amplitude approx. 10 V)

General Data	
Rated voltage	AC/DC 24 V
Operating voltage range	DC 16.8 V - 30 V; AC 19.2 V - 28.8 V
Rated current	13 mA
Status indication	Yellow LED
Input/output protection	Overvoltage AC/DC 30 V; output short-circuit-proof
Accuracy	75x811: 0.3 % FSR; 75x831/871: 0.5 % +2 K FSR
Linearity error	0.1 % FSR; at 75x831/871 linear thermoelectric voltage
Rise time (10-90 %)	Depends on frequency
Settling time (accuracy 1 %)	Depends on frequency
Transmission frequency	< 30 Hz
Temperature coefficient	150 ppm/K FSR
Insulation voltage input/output	1.5 kV
Housing material	PPE
Mount	Can be snapped onto TS 35 (EN50022)
IP rating	IP 20
Installation position	Any
Connection method	Screw term.: 1x (0.14-1.5 mm²) w. wire end sleeve; spring method: 1x (0.14-1.5mm²)
Operating temperature range	-25 °C to +60 °C
Storage temperature range	-40 °C to +85 °C
Dimensions	6.2 x 90 x 92.5 mm
Weight	0.040 kg
Approvals	cULus pending
Standards	EN 60721-3-3; EN 55011; EN 61000-4-2/6; EN 50178 degree of contamination 2, overvoltage category III

Accessories		Article number	Type	PU
Bridging link, 16-pin; 16 A	red	760802	BK 7-802	5
	white	760803	BK 7-803	5
	blue	760804	BK 7-804	5
Text label 4.23 x 11 mm (sheet with 1056 labels)		681034	LEB 0411 PB	1