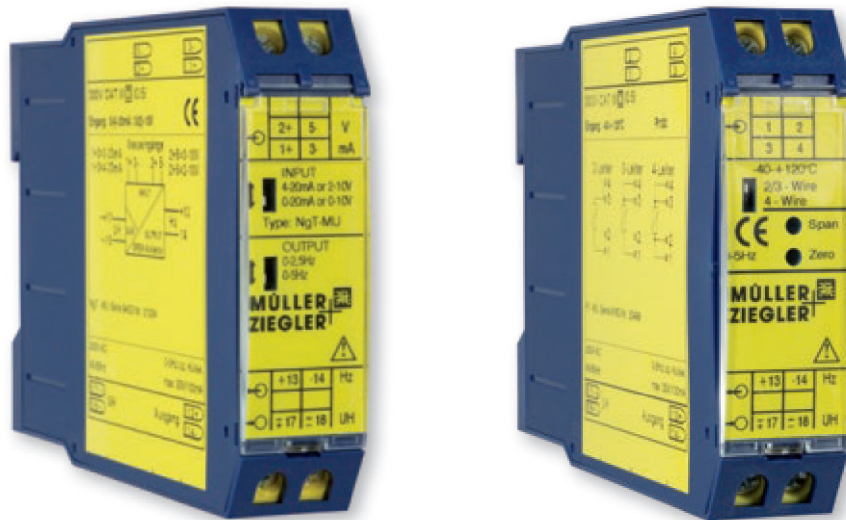


System Components

Acquisition of Process Data



EM-UIF / EM-PTF Frequency-Converter

The pulse output of the Frequency-Converter is connected to the Cost Centre and Alarm System EMF 1102. This offers the possibility to control, detect and visualize sensors with arbitrary output signals and temperatures with the FRAKO Energy Management System.

EM-UIF

Voltage-/Current-/Frequency Converter

For operating data acquisition of analogue signals with the FRAKO Energy Management System.

EM-PTF

Temperature-/Frequency-Converter

For acquiring operating data with the FRAKO Energy Management System, the measured inlet temperatures from $-40\text{ }^{\circ}\text{C}$ to $+120\text{ }^{\circ}\text{C}$ will be transformed into a pulse frequency from 0 to 5 Hz.

System Components

Acquisition of Process Data

Technical Data EM-UIF

Power Supply	
Mains voltage	230 V AC +/-20 %
Frequency	45 up to 65 Hz
Power consumption	2.5 VA
Input	
Input variable	DC current or DC voltage
Rated voltage	0-20 mA, 4-20 mA, $R_i = 3 \Omega$ 0-10 V, 2-10 V, $R_i = 160 k\Omega$
Overloading continuously	2 times at current 5 times at voltage
Surge overload	Twenty times 1 sec at current five times at voltage
Output	
Rated value	0 up to 5 Hz
OPEN collector	npn, max. 30 V, 100 mA max. loadable
Ingress protection	IP40
Version	Housing insulated, protection class 2, at rated voltage up to 300 V (net to neutral conductor), pollution degree 2, according to DIN EN 61010 Part 1 EMV according to DIN EN 50081-2 and DIN EN 61000-6-2
Installation	On standard rail 35 mm according to DIN EN 50022
Operating conditions	
Ambient temperature	-15 °C up to +55 °C
Article-No.	29-20059

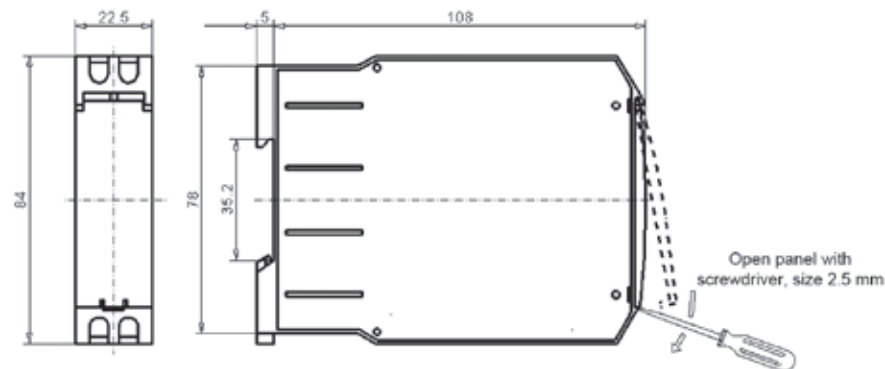
Technical Data EM-PTF

Power supply	
Mains voltage	230 V AC +/-20 %
Frequency	45 bis 65 Hz
Power consumption	2.5 VA
Input	
Input variable	Resistor PT100
Rated value	-40 °C up to 120 °C, constant current via the sensor 2 mA
Types of connection	2-/3-or 4-wire, can be selected by DIP switch
2-wire circuit	Lead max. adjustment 10 Ohm via built-in potentiometer
3-wire circuit	Lead max. 100 Ohm, balanced, no adjustment required
4-wire circuit	Lead max. 100 Ohm, no adjustment required
Output	
Rated value	0 up to 5 Hz
OPEN collector	npn, max. 30 V, 100 mA load
Pulse / Pause	50/50 %
Connections	Screw terminals Conductor cross-section: max. 4 mm²
Mechanical construction	
Dimensions	22.5 x 84 x 108 mm (W x H x D)
Ingress protection	Housing/terminals IP30/IP20 according to DIN EN 60529
Version	Insulated housing, degree of pollution 2, overvoltage category CAT 3 according to DIN EN 61010 part 1, EMV according to DIN EN 50081-1, DIN EN 61000-6-2
Installation	On standard rail 35 mm according to DIN EN 50022
Weight	Approx. 0.15 kg
Operating conditions	
Ambient temperature	-15 °C up to +55 °C
Article-No.	29-20049

System Components

Acquisition of Process Data

Dimensions



Dimensional drawing EM-UIF, EM-PTF

All dimensions in mm

Accessories

EM-PT 100 Temperature Sensor

Temperature sensor in 4-wire technique for measuring temperatures using the Temperature-/Frequency-Converter EM-PTF, for devices with PT100 input1.

Technical Data

General	
Rated value	100 Ohm at 0 °C
Temperature range	-80 °C up to +260 °C
Material	Stainless steel
Dimensions	
Sensor sleeve	Diameter: 4 mm, length: 50 mm
Connecting cable	Length: 1 000 mm
Article-No.	29-20050



Optional Accessories

Article-No.	Type	Description
29-20051	EM-PT100 MF	Mounting flange for the temperature probe