

# Measuring Transducer for Motor Protection

## TMU300 for 3 x Pt100

### TMU300



Part number: **T236076**

Transducers for motor protection TMU300 are transducers for 1-3 sensors Pt100 (RTD).

A new, current-saving measuring-system makes it possible to evaluate 3 sensors with a transducer that is supplied by a loop 4-20 mA.

#### Application:

Recording of temperatures at e.g. motors, generators, transformers or compressors and forward them to relays or controls for evaluation.

In difference to PTC with sensors Pt100 a adjustable switching temperature can be realized. The temperature protection can be adapted to the requirements at any time.

Optimal operation and longer life by intelligent management possible. E.g. no start at high motor temperatures.

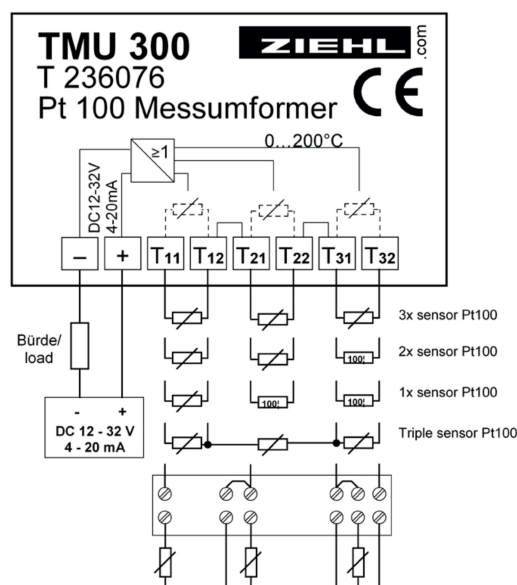
The cast-resin sealed electronics can be used at temperatures up to 85 °C and thus be placed near the sensors, e.g. in the terminal box of a motor. This reduces influence of EMC and line resistance. The signal 4-20 mA can be transmitted over long distances

This design is protected.

The sensors Pt100 are connected in 2-wire-technique. The output signal is a current 4-20 mA. The value of the output current corresponds with the temperature of the hottest sensor.

#### Characteristics:

- connection of 1-3 sensors Pt 100 in 2-wire-technique
- measuring range 0...200 °C
- automatic selection of warmest sensor
- $I < 3,5 \text{ mA}$  at short circuit in any sensor
- $I > 25 \text{ mA}$  at interruption in any sensor
- analog output 4-20 mA
- rated ambient temperature up to 85 °C
- no supply voltage required (supplied by 4-20 mA-loop)
- with sealed-in electronics



### Technical Data

#### Input

1 - 3 x Pt 100 DIN 43 760/IEC 751  
without compensation of line resistance

#### Output

Current output

DC 4...20 mA

Voltage loop

DC 12...32 V

Error

class 2,5

Temperature coefficient

0,025 %/°K

Reference conditions

IEC 770,  $T_u = 23 \text{ °C} \pm 5 \text{ °C}$ ,  $U_s = \text{DC } 24 \text{ V} \pm 1 \text{ V}$   
-20...+85 °C

adm. operating temperature

Dimensions (W x H x D)

#### TMU300

Design 420 with terminals

60 x 55 x 32 mm

Attachment

Screw mounting 2 x M4

Protection housing / terminals

IP 40 / IP 20

Weight

approx. 70 g