

## Overview

### Product information



## DF50-M-4RTD-PT-30050002555

Thermal resistance (RTD) measurement module, 16 bit resolution, 4 channels

### Product advantages

- ☑ This module adopts 4-channel thermal resistance measurement and supports 13 types of conventional thermal resistors.
- ☑ Supports four way sensors.
- ☑ Supports 2-wire, 3-wire, and 4-wire sensors.
- ☑ Two LED indicators indicate that the module is operating normally and communication is normal.
- ☑ Each channel is equipped with LED indicator lights.
- ☑ Magnetic isolation between the on-site layer and the system layer.
- ☑ Transmitted in 16 resolution format.
- ☑ Protection level IP20.

### Product certification

## Technical data

### Product drawing

### 3D model

□

### Technical Information

|                                    |                                   |
|------------------------------------|-----------------------------------|
| System feed current                | <100mA                            |
| Process alarm                      | Upper/lower limit of each channel |
| Reverse circuit protection         | Yes                               |
| Error diagnosis                    | Yes                               |
| Working voltage                    | 24V DC+20%/-15%                   |
| Frequency interference suppression | 50Hz   60Hz   400Hz               |
| Sensor type                        | Thermocouple                      |
| Temperature error                  | ± 50ppm/K_ X005f max              |

|                    |  |
|--------------------|--|
| Line type          | 2/3/4 wire system  |
| Measuring range    | Thermal resistance   |
| Diagnosis          | Broken line/parameter assignment error   |
| Number of channels | 4  |
| Data size          | 8 Byte   |
| Resolving power    | 16bit, 0.1 °C/per digit  |
| Signal type        | Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni 200, Ni500, Ni1000, Cu10, 40 Ω, 80 Ω, 150 Ω, 300 Ω, 500 Ω, 1 k Ω, 2 k Ω, 4 k Ω |
| Conversion time    | 100-800ms, configurable  |
| Isolation method   | Magnetic isolation between each channel and the on-site layer, and isolation between channels                                |
| Accuracy           | Max. 0.2% FSR/0.3% FSR for Ni sensors/0.6% FSR for Cu10  |

#### Environmental requirements

|                     |                            |
|---------------------|----------------------------|
| Protection type     | IP20                       |
| working temperature | -25... 60 °C               |
| Storage temperature | -40... 85 °C               |
| relative humidity   | 5... 95% RH (condensation) |

#### Wiring parameters

|                                       |                              |
|---------------------------------------|------------------------------|
| The maximum crimping area of the wire | 1.5mm <sup>2</sup>           |
|                                       | 0.14mm <sup>2</sup>          |
| Maximum crimping area of wire (AWG)   | AWG16                        |
| Connection technology: input/output   | PUSH-IN type terminal blocks |
| Strip length                          | 8-10mm                       |
| Installation method                   | DIN-35 type guide rail       |

Business data

|                                     |             |
|-------------------------------------|-------------|
| Order number                        | 30050002555 |
| Packing unit                        | 1           |
| Minimum order quantity              | 1           |
| Products weight (without packaging) | 60g         |