

# Product datasheet

## Characteristics

# NORVI Expansion

## NORVI-EX-TEX02

### 2 Channel RTD readout

Handles 100 $\Omega$  to 1k $\Omega$  (at 0°C) Platinum RTDs  
(PT100 to PT1000)

Interface with controller  
**I2C via SC18IS602B**

0.5°C Accuracy (0.05% of Full Scale)

Detects RTD Shorts to GND or VCC

Detects Open RTD

Protected against overvoltage faults as large as +/-45V



## Main

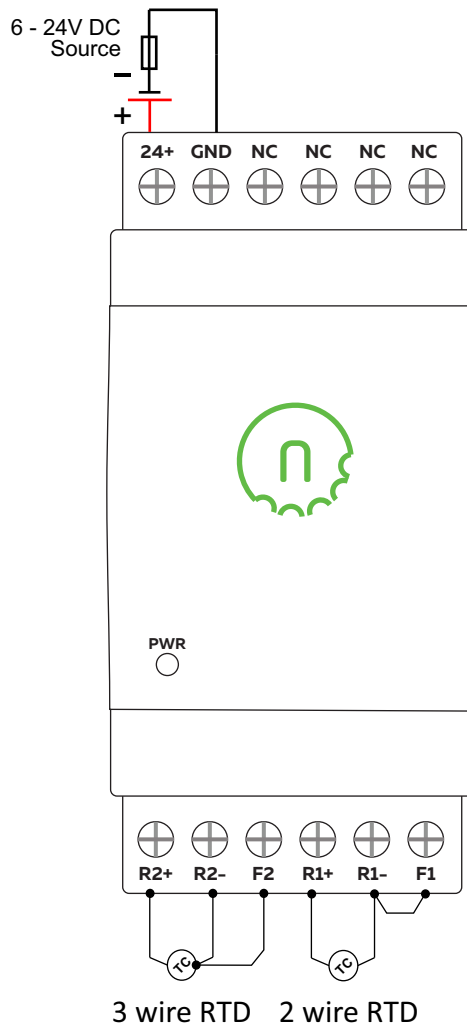
Range of product	NORVI Expansion
Product type	Expansion Module
Rated supply voltage	12 - 24V DC
Field of Application	Temperature measurement
Applicable Devices	NORVI IIOT / NORVI Arita
Aquisition	2-,3-, 4- wire RTD
ADC Chip	MAX31865
Module Address	I2C via SC18IS602B
Resolution	0.5° C

## Complementary

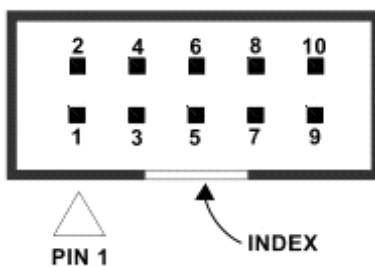
Local signalling	1 LED green for PWR
Electrical connection	Removable screw terminal block for inputs and outputs (pitch 5.08 mm)
Mounting support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715
Height	86.00 mm
Depth	59.00 mm
Width	35.00 mm
Product weight	0.12 Kg

## Environment

Relative humidity	10....95% without condensation in operation
IP degree of protection	IP20
Operating altitude	0...2000m
Storage altitude	0...3000m
Shock resistance	15 gn for 11 ms
Operating temperature	-40 to +85 °C

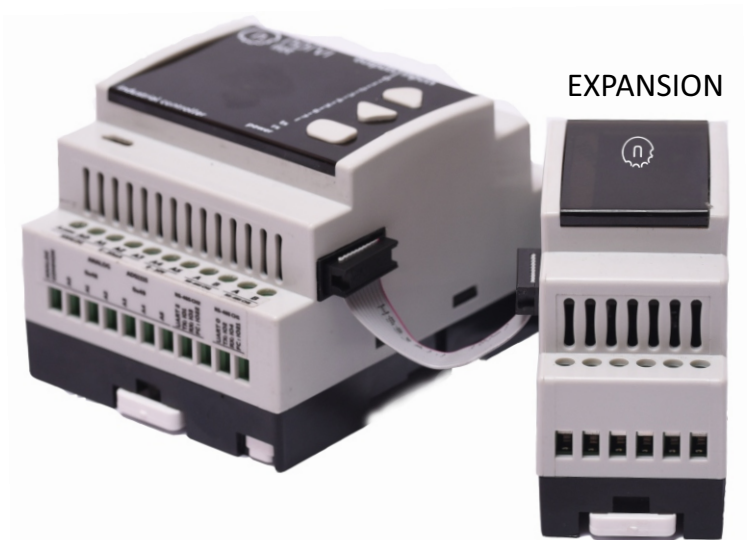


### Expansion port pin map

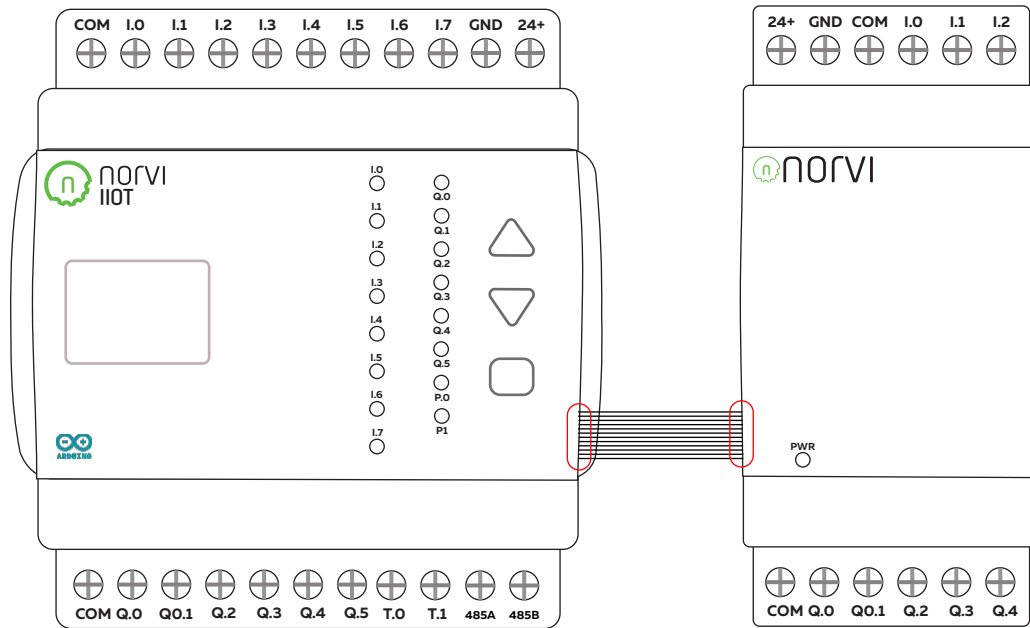


PIN	ESP32 Connection
1	TXD0
2	IO33
3	RXD0
4	Not Connected
5	IO32
6	BOOT IO0
7	SCL IO17
8	Not Connected
9	SDA IO16
10	Ground

### CONTROLLER

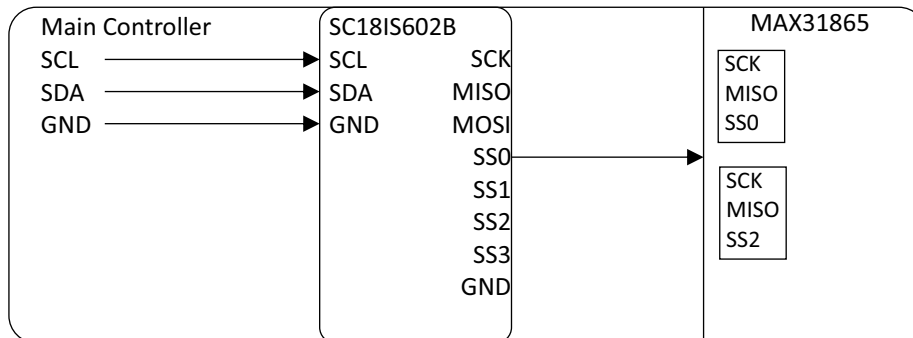


### EXPANSION



**Main Controller**

**Expansion Module**



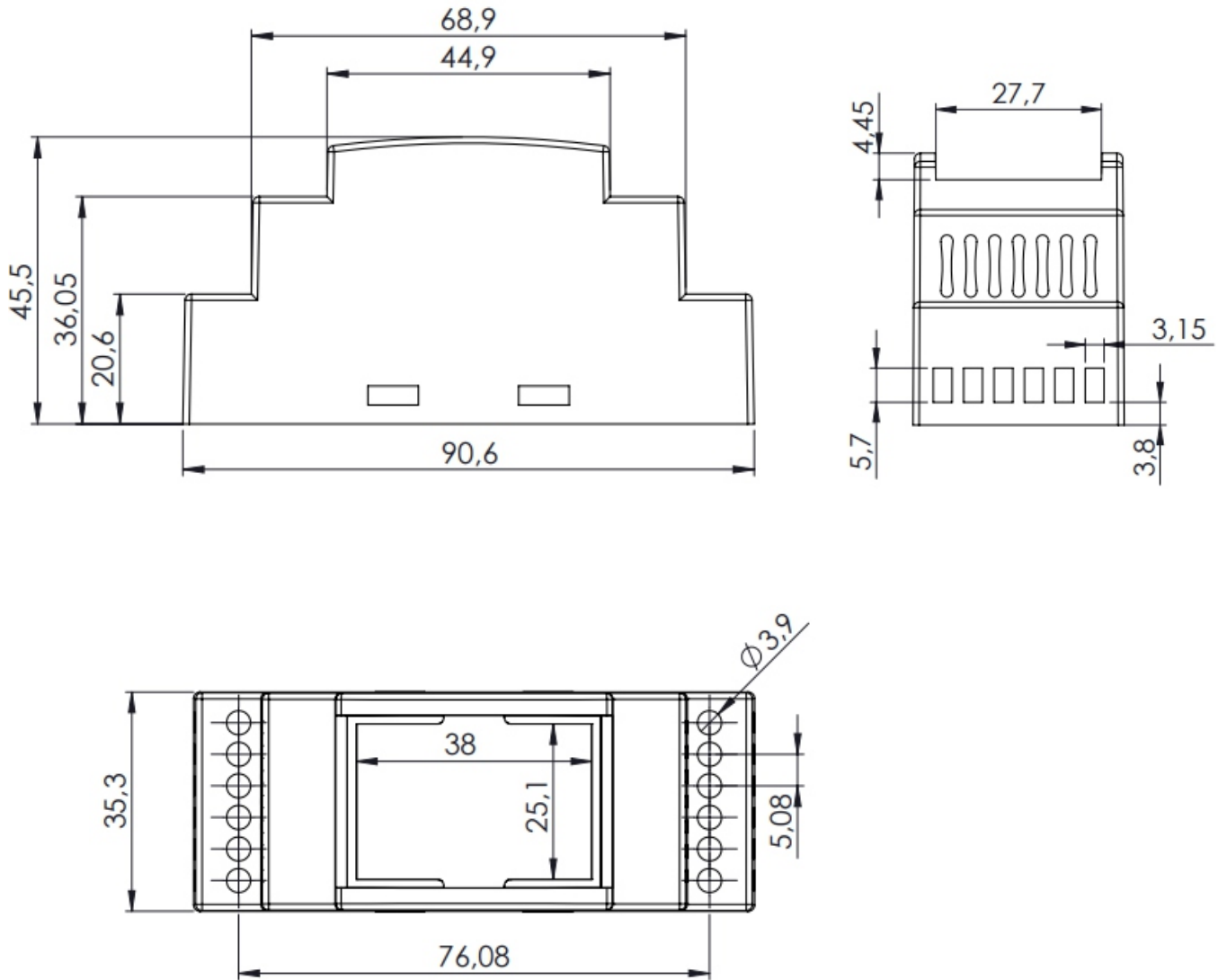
### Analog Module communication

Module Type	MAX31865
Communication	I2C
Module Address	0x48
Command set	<a href="https://norvi.lk/forums/">https://norvi.lk/forums/</a>

Refer datasheets of SC18IS602B and MAX31865 for detailed information

Example program and libraries available at  
<https://norvi.lk/forums>

Dimensions





## Reach-Us

### ***Technical Support***

E-mail : [info@icd.lk](mailto:info@icd.lk)

Forum : <https://norvi.lk/forums/>

### ***Sales Inquiries***

E-mail : [bhanuka@icd.lk](mailto:bhanuka@icd.lk)

Web : <https://norvi.lk/support/>

### ***Order Online***

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