

Pt-100 TO FIBER-OPTIC MULTIPLEXER ——— RFM-16

16, Pt-100 3-WIRE INPUTS

2 FIBER OPTIC OUTPUTS

MICRO-PROCESSOR BASED



The RFM-16 analog multiplexer converts 16 Pt-100 sensors to temperature linear 12 bit output data.

Each input is galvanically isolated.
Each input can be (factory) set to any desired temperature range. The multiplexed data is output sequentially via two parallel fiber-optic outputs; main and back-up channels.

The RFM-16 instrument is an all solid-state unit offering outstanding reliability.

The multiplexer is controlled by a micro-

processor which handles the scan-rate, the data conversion and the output transmission. The selected input is converted at 12 bit resolution and transmitted by two fiber optic LED transmitters connected in parallel in a transfer rate of 345 Kbaud.

The transmitted data is tagged with a special code indicating power fail mode of operation.

The RFM-16 is housed in a polycarbonate enclosure which can be mounted either on a 35 mm standard DIN rail.

INPUTS: 16, Pt-100 3-wire sensors
 According to BS 1904 and
 DIN43760 characteristics.
 $\alpha = 0.00385$

LEAD COMPENSATION ERROR:
 $< 0.2^{\circ}\text{C}/20\Omega$ lead resistance

SENSOR EXITATION: $< 1 \text{ mA}$

ISOLATION: 1Kv

CALIBRATION: internal Zero & Span trimmers

OUTPUTS: 2 Fiber optic

FIBER-OPTIC CONNECTORS: ST-3 Type

WAVE LENGTH: 820 - 860 nm

CONVERSION RESOLUTION: 12 Bits

ACCURACY: Better than 0.25% of span

SCAN RATE: 15 mSec/16 channels

DATA TRANSFER RATE: 345.6 KBAUD

POWER SUPPLY: 24 Vdc $\pm 10\%$

SUPPLY CONSUMPTION: 200mA

INDICATORS: Yellow LED, power "On" indicator

OPERATING TEMPERATURE: 0 - 75°C

STORAGE TEMPERATURE: -25 to +85°C

TEMPERATURE STABILITY: $\pm 0.01\%$ of span/ 1°C

HUMIDITY: 5 - 95% relative, non condensed

FUSE: 630 mA, 5x20 mm fast blown

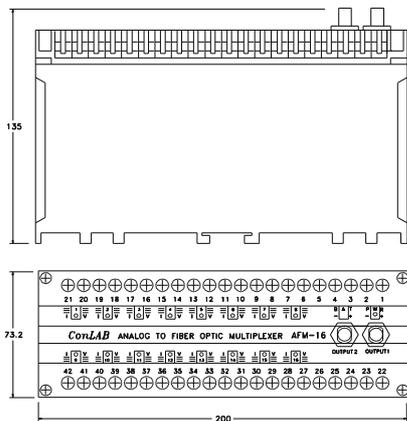
HOUSING: Plastic Polycarbonate

Box: According to IP50 DIN 40050

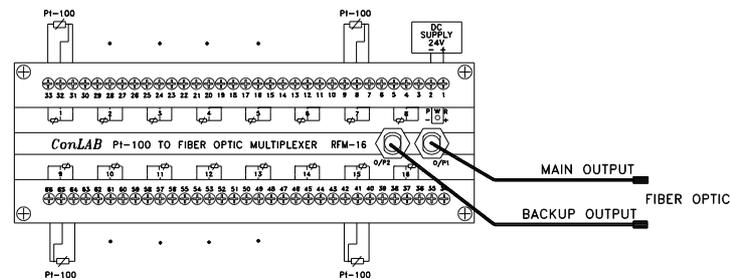
Terminals: According to IP20 DIN 40050

WEIGHT: 0.9 Kg

Dimensions:



Connection Diagram:



data subject to change without notice

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