

**COMPACT SIGNAL MULTIPLIER  
RELIABLE AND COST EFFECTIVE**

The RTM is a Compact, Reliable and Cost Effective Signal Multiplexer. It allows the expansion of the number of channels of a datalogger (up to 32 channels with 2 conductors each)

### Description

The RTM-16/32 Signal Multiplexer is a cost effective way to expand the amount of channels a single datalogger can handle. The use of this multiplexer enables the user to lower the overall cost of a telemetry system on a project by maximizing the use of a single datalogger and minimizing the amount of cable required when used in a junction box. It can multiplex up to 32 sensors (with 2 conductors each) or 16 sensors (with 4 conductors each).

Its modular design offers the possibility to add an effective surge protection that will protect every channel against lightning or EMI/RFI.

The compact size of the RTM-16/32 allows the user to save space within a switchbox or within an Automatic Datalogging System (ADAS) and its low power consumption won't drain a standalone battery powered data acquisition system.

The RTM-16/32 can be used in daisy-chain configuration: they can work in a serial layout which decreases the amount of cable required to link many multiplexers to the same datalogger.

### Key Features

- 16 channels (4 wires) or 32 channels (2 wires)
- Compatible with most electrical signals (including VW, 4-20mA, etc.)
- Compact
- Daisy-chain compatible
- Modular surge protection (optional)
- Low power consumption
- Maximum power distribution

### Applications

- Dams
- Geotechnical applications
- Tunnels and excavations
- Structural Health Monitoring

**RT-MUX 16/32 Specifications**

Number of Channels	16 channels (4 wires) or 32 channels (2 wires)
Initial contact resistance	0,1Ω
Maximum switching current	500 mA at 30VDC
Maximum switching voltage	110VDC
Insulation resistance	> 1000MΩ
Contact Life	> 5 x 10 <sup>5</sup> operations
Maximum relay actuation time	50ms
Reset and Clock signals	TTL level (5,5 V maximum)
Power	10–16 VDC (unregulated)
Quiescent Current	<50nA
Active Current	<25mA
Operating T°	-40°C to +70°C
Storage T°	-40°C to +70°C
Humidity	0-95% RH, non condensing
Dimension Weight	57 x 126 X 273 mm / ≈1 kg

**Surge Protection Specifications (optional)**

	Standard model
No Protection <sup>1</sup>	Reverse protection on power(12V) TVS 1500W on Clock and reset in- put/ouput
Gaz tube protection <sup>2</sup>	All features above plus 230V 5kA 1pF on all input signals
Full protection <sup>3</sup>	All features above plus 6 elements protection Gaz tube , TVS and inductance 10 uH inductor to limit inrush surge current TVS 36V 1500W on all input signals

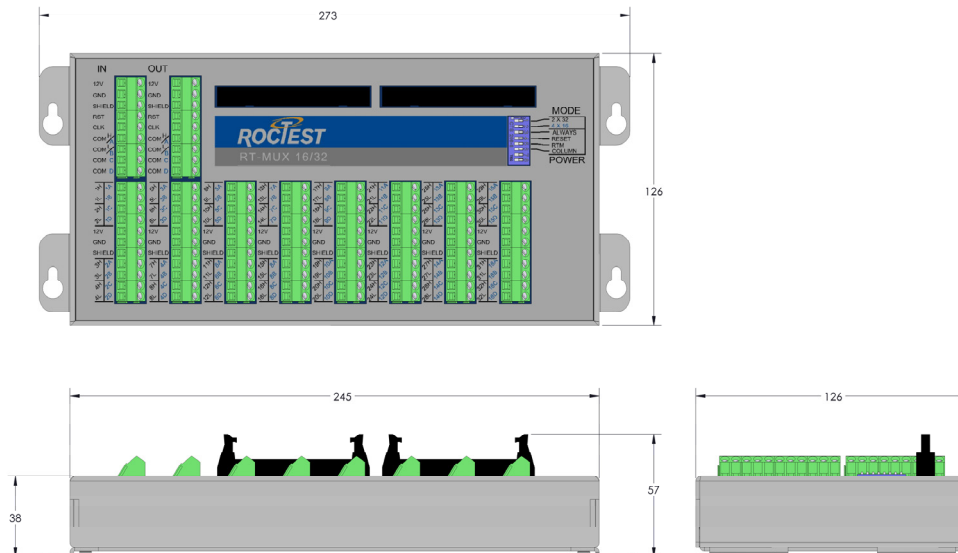
Note :

<sup>1</sup> Do not affect the input signal

<sup>2</sup> Offers protection with almost no signal effects

<sup>3</sup> Not recommended to read low resistance signal and high voltage (higher than 25V)

**Dimensions**



**Ordering information**

Optional surge protection , Gas tube or Full Protection  
Rotary switch connectors