

V6000-M Multifunction Monitor Card

Datasheet

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V6000/M cards are used for monitoring quasi static signal inputs. Sensors which can be used for this type of monitoring should be from one of the following categories:

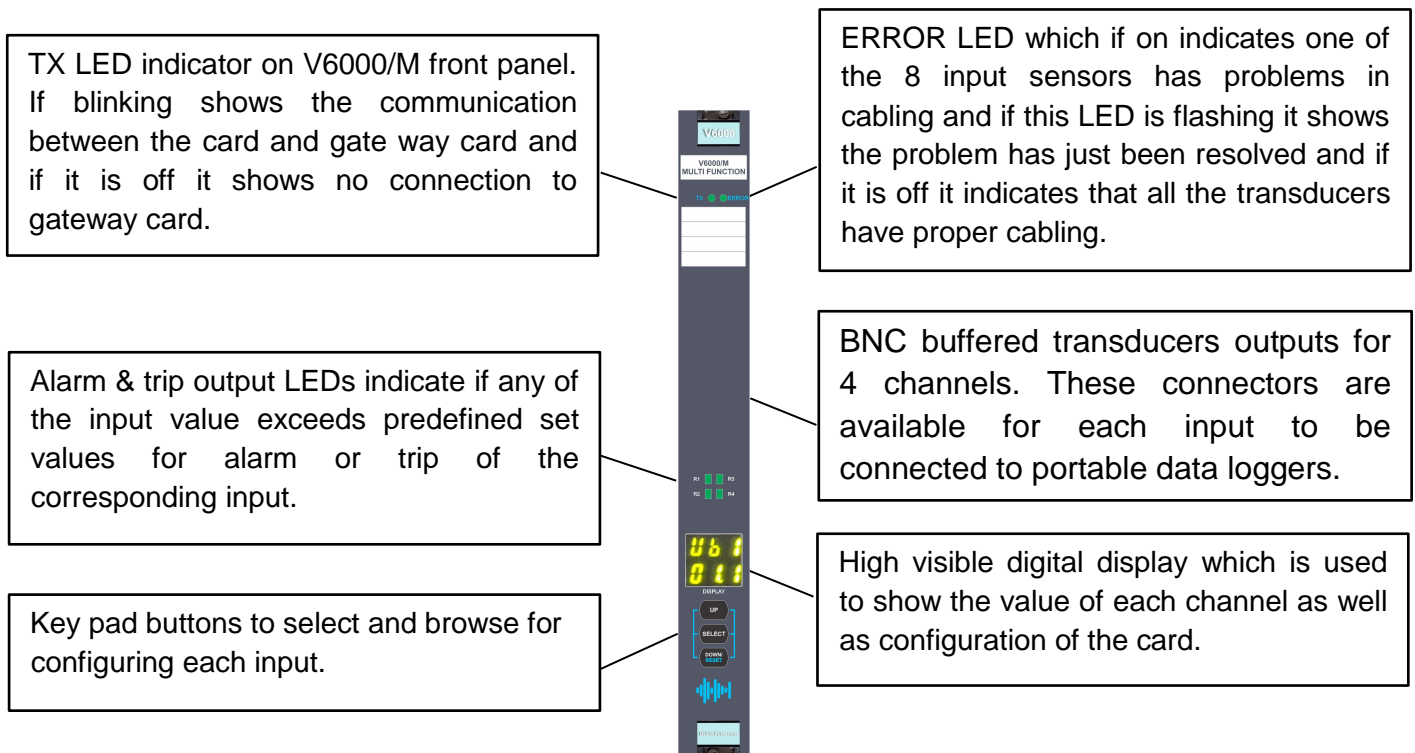
- Temperature (with RTD: Pt-100 type)
- Any sensor with current output (4 to 20 mA) for process parameters such as flow rate, liquid level, etc.

Up to 8 sensors can be connected to each card for monitoring and protection.

There are connection strips for each input and alarm / trip function outputs. All the terminal connections on V6000/M cards are screw terminals which accept wire sizes with cross section up to 1.5 mm².

There are ten LEDs that indicate the status of the card and key pad to configure the card on the front panel. Moreover there is a digital display for local monitoring of the input values.

Error LED is to indicate and prompt the user of any possible sensor malfunctions. TX LED is to show data transmission and communication between V6000/G gateway card and V6000/M installed in the rack. There are four Alarm & Trip LEDs each indicating the status of the corresponding relay status. Terminal strips on the rear panel are for connection to the sensor inputs and relay outputs. If ordered by the customer, V6000/M can operate as a Modbus RTU master gathering data from a network of Modbus slaves.



V6000/M Front Panel Elements

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Two types of RTD (2-wire & 3-wire) can be connected to V6000/M card.

1-Three-wire connection

This one is the most common configuration and incorporates a Wheatstone bridge connection. It needs three wires. It uses two equal injection currents (i_1 and i_2) which allow compensation of the opposing voltages on RL1 and RL2. It is insensitive to line resistance provided that $RL_1 = RL_2$ and $i_1 = i_2$.

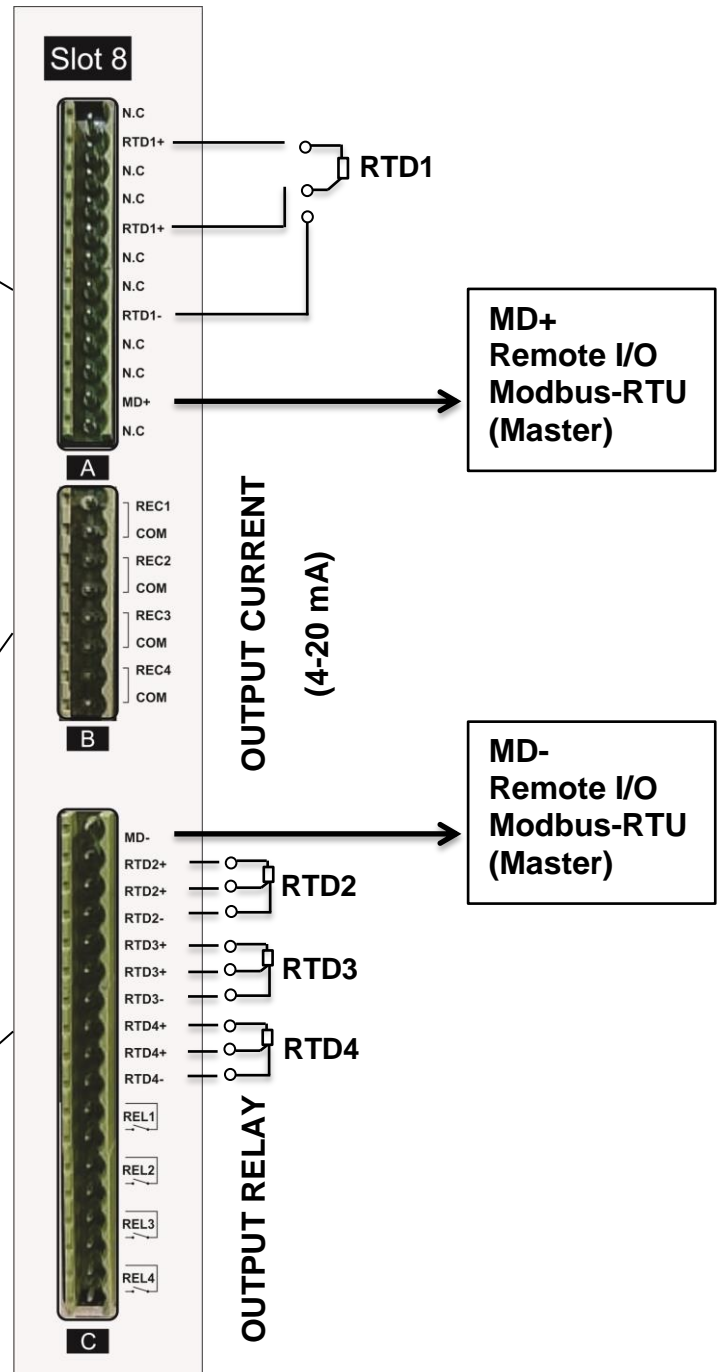
A disadvantage of the technique is that corroded contacts can make RL1 and RL2 different, thereby inducing measurement errors.

2-Two-wire connection

This is another RTD arrangement which is sometimes used for temperature measurements.

There are four 4-20 mA outputs in each V6000/M card. These outputs can be used for remote monitoring by PLC/DCS systems. Configuration of 4-20 mA outputs is performed by front panel keypad.

Unlike V6000/V analog vibration cards which had 9 relays on rear panel, V6000/M cards have 4 relays, these relays can all be programmed by the front panel keypad buttons on how to be activated and also other settings like latching / non-latching, energized/de-energized.



V6000/M Back Panel Elements