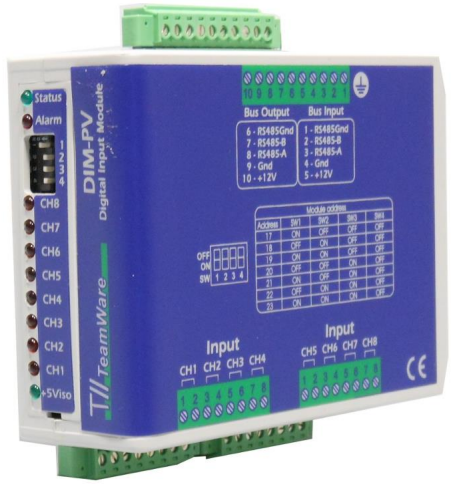

f

Digital inputs peripheral module

General features

DIM-PV module is designed to collect signaling and/or alarm inputs by various devices of the photovoltaic system (switches, breakers, inverter alarms, transformer overtemperature alarms, etc..) and communicate them, via ModBus on RS485 line, to the E2M-PV concentrator, which stores in an archive dedicated events.

DIM-PV module reads the status of the 8 inputs every second and stores it in specific Modbus registers.

To enable the E2M-PV reading deferred with respect to the rate of acquisition of inputs (1 second), the mapping of Modbus registers is large enough to store not only the current state of the inputs, but also the states in the last 10 seconds, in order to allow the acquisition with a single reading.

DIM-PV module is equipped with 2 LEDs:

- green LED is lit with high blink (2 Hz, 50% duty cycle) to indicate the absence of interrogation by the master, and with slow blink (200 ms every 4 seconds) in case of regular communication (reception of a correct message in the last 30 seconds);
- red LED is used to signal fails (eg, reception with errors) and is automatically reset at the absence of the error condition.

Technical specifications

- 8 active digital inputs (for clean contact)
- common terminal contacts connected together internally (odd terminals)
- RS485 serial line (3 wires)
- 2 signaling LEDs:
  - green for power / data link status
  - red for alarm
- 12 Vdc power supply directly from the E2M-PV-module
- 2.5 kV insulation between power supply and digital input channels
- Connections:
  - nr. 2 8-pin terminal blocks for digital inputs
  - nr. 1 10-pin terminal block for power / data cable incoming and outgoing: (3-pin for RS485 + 2-pin for power) x 2, for input and output to the next node
- Protocol: ModBus RTU, addressing by 4 dip-switches
- Enclosure: vertical DIN rail, IP30 degree of protection

TW-TeamWare Srl
Via Pindaro, 19
20128 Milano - Italy
Tel. +39 02 27003261
Fax +39 02 27007753
email tw@teamware.it
web www.teamware.it