



## PT2060/91 SIM System Interface Module

ProviTech's PT2060/91 System Interface Module (SIM) is a communication and system interface module. This module is used to:

- ✓ **Connect to a configuration station**
- ✓ **Communicate to PT2060 system racks**
- ✓ **Communicate to other control systems (PLC/DCS or Historian)**
- ✓ **Provides (2) phase references channels**
- ✓ **Provide storage of system and alarm events**

### Communication with Modbus

The PT2060/91 has (1) active Modbus communication port (2) RS232 and (2) RS485 ports are available for connection flexibility which can be used to communicate to: PT2060 system racks, control systems (PLC/DCS or historian) configuration station (PC loaded with PT2060-CFG software) and more. Note: If redundant communication or additional Modbus ports are required the PT2060/96 communication module needs to be added to the PT2060 system.

### Rack Interconnection

Multiple system racks can be networked together via Modbus through the SIM module.

### System Configuration

The PT2060-CFG software connected via Modbus through the SIM module enables configuration of the system rack, modules, and channels.

### System Event and Alarm Event Storage

The PT2060/91 SIM stores up to 1,000 system and 1,000 alarm events. This historical data can be accessed through one of the Modbus ports or through the PT2060-CFG system configuration software.



### Phase Reference

Dual phase reference is also provided on the SIM module. The two phase reference channels can be used to provide phase information for all the channels on the system rack.

## Specifications

### Electrical

Power supply:

Internally converted by the rack power supply module

8.0W total typical for each module

Phase reference signal Input:

Input impedance: > 20K $\Omega$

Input voltage range: +10 to -24VDC

Input frequency:

< 99,999 rpm

1 to 255 pulse/revolution

Start at 0.0167Hz (1rpm) for proximity probes

Start at 3.3Hz (200rpm) for magnetic pickup



## **Electrical Continued:**

### Sensors:

- Proximity probes
- Magnetic pickups

### Threshold:

- Auto: > 1.0 V pk-pk
- Manual: > 0.5 V pk-pk. Trigger level can be programmed from -23.9VDC to +9.9VDC

### Hysteresis:

- 0.2 - 2.5 V user selectable

### Buffered Output:

- On the front panel, each channel has one BNC connector. The output is the unfiltered raw signal.

### Output Impedance:

- 150 Ω

### Proximity Transducer Power:

- 24VDC, current limited. Less than 50mA on each channel

### LED Indicators:

- OK/TX: green
- Trip-multiply: red
- Bypass: red
- Configuration: green

### Modbus communication:

- RS232 (2): one on front and one on back panel.
- RS485 (2): on the back panel of module. There is only (1) active Modbus communication port.

### System Alarm:

- There will be a dedicated relay for indication of system OK status. This is an energized relay; a de-energized indicates a system error for one of the system components.

### Relays:

- Seal: Epoxy
- Capacity: 2A/240VAC or 2A/24VDC, resistive load
- Relay type: SPDT
- Isolation: 1000VDC

### CE Marks

- The monitor module will have a CE approval with EMC conformity

## **Environmental**

### Temperature:

- Operation: -20°C to +65°C
- Storage: -40°C to +85°C

### Humidity: 95% non-condensing

## **Physical**

Each module comes with two components- the front panel assembly and the back panel assembly.

### Dimensions and Location:

- 241mm (9.5in) X 24.5mm (0.96in)

This module has to be located in the second slot from the right hand side of the rack. Note: there is only (1) SIM module per system rack.

### Weight:

- 1.0 kg (2.0 lbs)

## **Order Information**

### **PT2060/91-AX**

AX: System IO type

A0: RS232/RS485, Modbus RTU

## **Back Panel Connectors Layout**

