

# PRETECH Solutions Inc.

Monitoring and Control. Redefined.

## Input Diagnostic Module

### CONTACT INFORMATION

We are committed to serving our customers with superior service and support. Please contact us with any questions you may have regarding our products.

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PRODUCTS  
SALES  
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SUPPORT

# Input Diagnostic Module

## IDM DESCRIPTION OF OPERATION

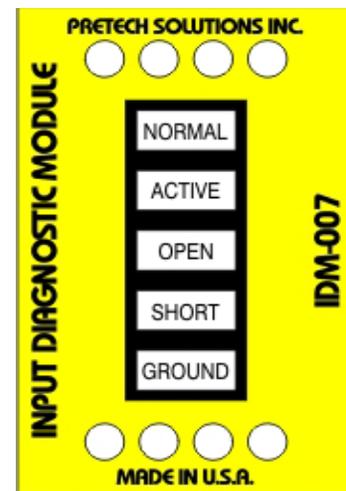
The PRETECH Input Diagnostic Module (IDM) is designed to be integrated with industrial control systems to eliminate false shutdowns, simplify troubleshooting and provide early detection of faulted field wiring.

The IDM can differentiate between an actual condition and an erroneous condition caused by a contact bounce while monitoring for fault conditions if the field wiring is opened, shorted or grounded.

This monitor saves countless hours of maintenance and troubleshooting by identifying the precise problem with any set of field wires.

The IDM is designed to accept the inputs from any field device with an open/closed contact (pressure sensors, temperature sensors, limit switches, etc.). The module works with a Loop Terminator (LT) which is a small environmentally sealed passive device installed at end of the monitored loop closest to the switch. This configuration allows the IDM to monitor the entire loop. A normally open contact is provided to alarm the DCS, SCADA, or PLC that the field switch has changed state. Additionally, a normally closed contact is provided to alert the operator that a fault condition exist on the IDM.

**STATUS CLEARLY INDICATED ON FRONT OF MODULE. OUTPUT CONTACT AVAILABLE TO PROVIDE FAULT INDICATION TO A PLC OR OTHER SYSTEM.**



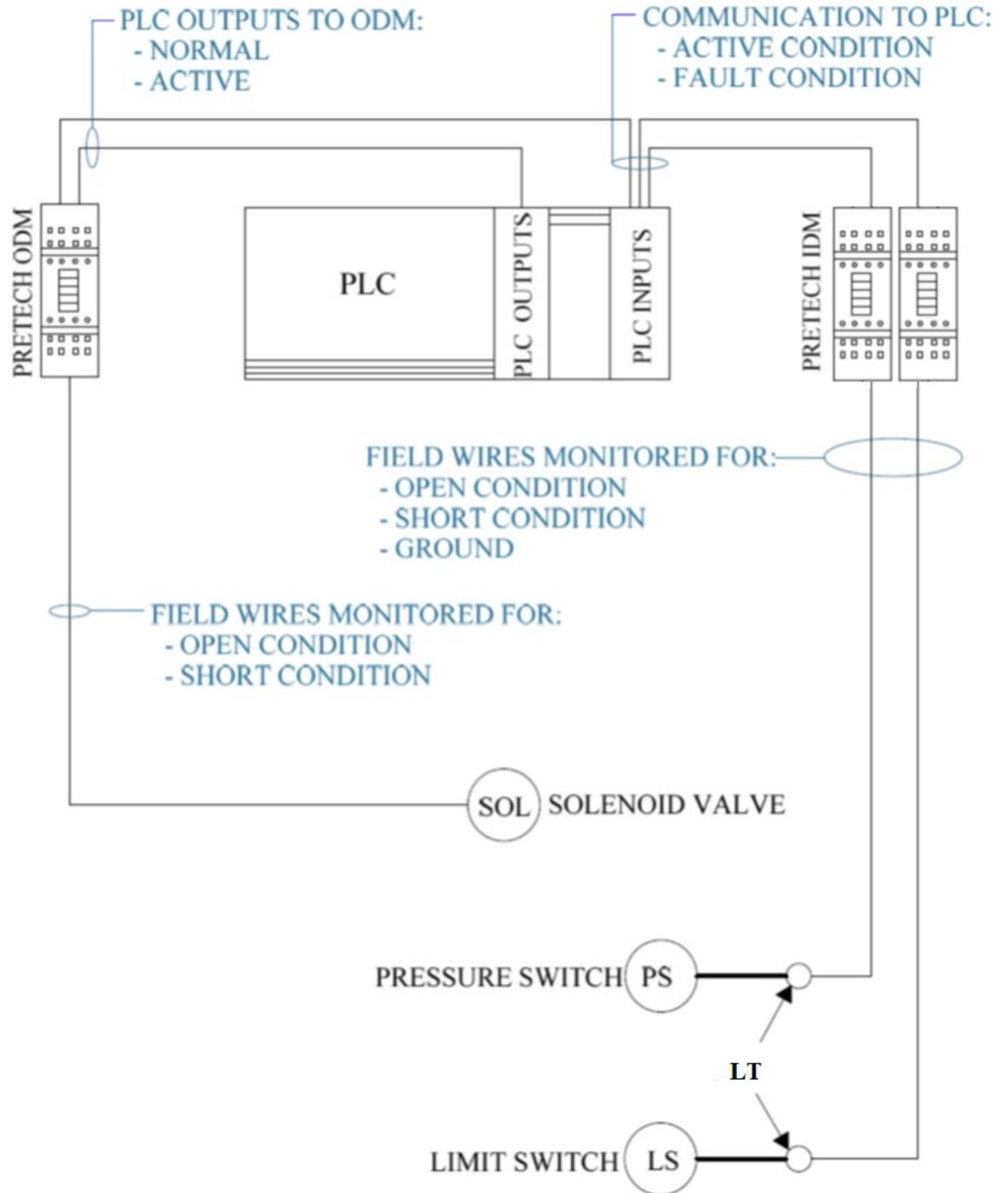
## IS YOUR SYSTEM CURRENTLY PROTECTED?

If monitoring a closed contact, a short in a sensor's field wiring appears as a closed contact to industrial control systems. With the PRETECH IDM, a "FAULT" signal is sent to the system and the "SHORT" indicator lamp illuminates on the front of the module. Without this protection, the true position of the field sensor would be undetected by the control system.

If monitoring an open contact, a broken wire appears as an open contact to industrial control systems. With the PRETECH IDM, a "FAULT" signal is sent to the system and the "OPEN" indicator lamp illuminates on the front of the module. Without this protection, the true position of a field sensor would be undetected by the control system.

# Seamless Integration with Existing PLC Systems

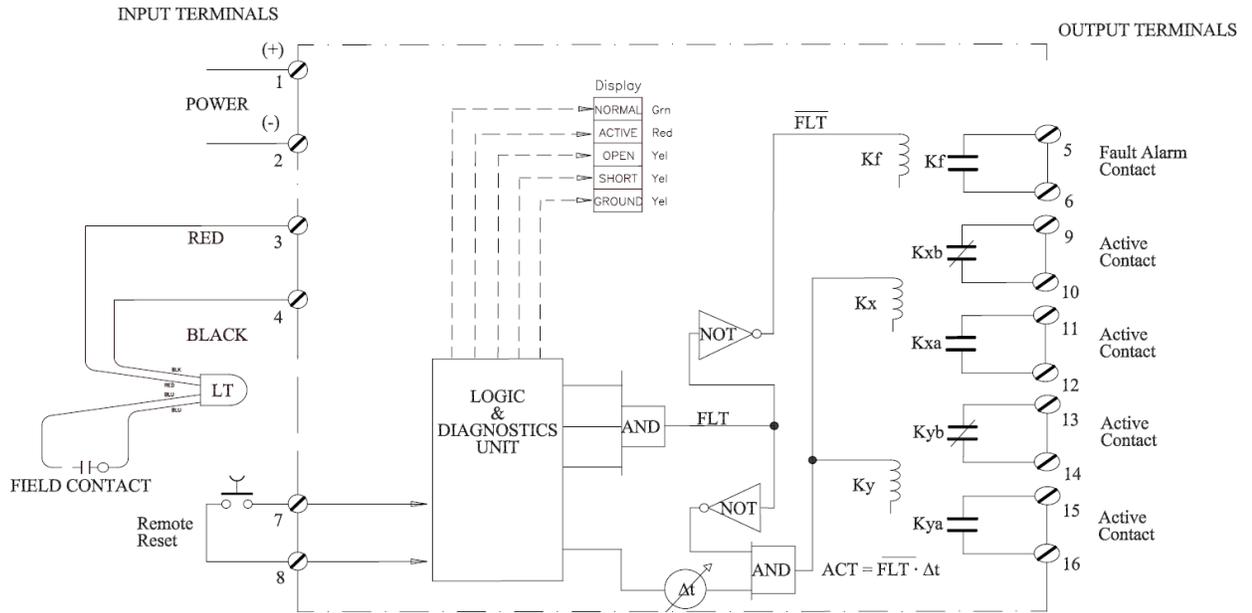
TYPICAL SYSTEM BLOCK DIAGRAM



FOR INFORMATION ON MONITORING SYSTEM  
OUTPUTS, SEE OUR PRETECH ODM BROCHURE.

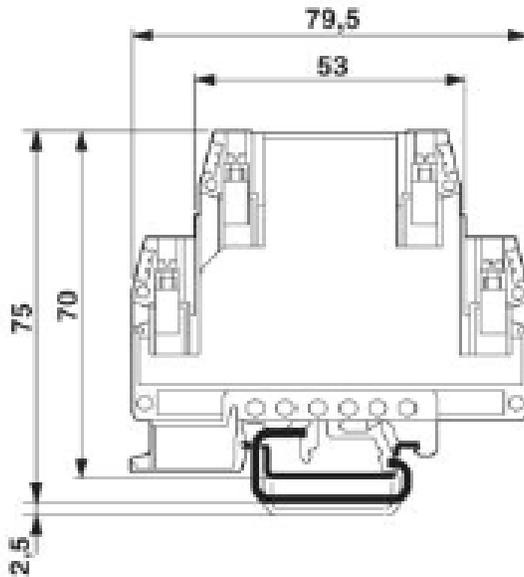
# PRETECH IDM Specifications

## SCHEMATIC BLOCK DIAGRAM



### STANDARD DIN RAIL MOUNTED ENCLOSURE DESIGNED TO MOUNT WITHIN CONTROL CABINETS

The PRETECH IDM is designed for easy installation within any industrial control cabinet.



Module Dimensions (mm)

### THE LOOP TERMINATOR (LT) IS WIRED INTO FIELD WIRING TO THE SENSOR

The LT should be installed as close to the sensor as possible for maximum reliability and protection. The LT is a fully potted passive device designed to be installed in harsh environments.