

24 Vdc Digital Input Module - 40 Channel (T8403)

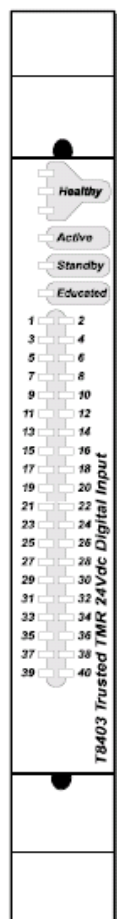


Figure 6-9:
24Vdc Digital
Input Module

Each field input of the 40 channel 24Vdc digital input module, shown in Figure 6-9, is triplicated. The input voltage is measured and compared to user configurable threshold voltages to determine the reported field input state.

The module can detect open and short-circuit field cables when a line-monitoring device is installed at the field switch. Line monitoring functions are independently configured for each input channel.

The module provides on-board sequence of events (SOE) reporting with a resolution of 1ms. A change of state triggers an SOE entry. States are determined by voltage thresholds that can be configured on a per channel basis.

Status LEDs

There are input channel status LEDs on the module front panel, one for each field input. The input status LED mode is dependent upon the voltage level of the field I/O signal. Each field input voltage is measured and compared to six threshold levels (four configurable and two fixed) which produce seven threshold bands, as described in Section 8. Each threshold band can be defined to have a particular indicator mode: off, green, red, flashing green, or flashing red.

The configurable voltage thresholds and LED modes allow users to customize the input measurement and status indications to suit individual application requirements. Without customization, the default indicator modes are suitable for digital inputs without line monitoring and are:

Indicator State	Description
Off	Open field switch (contact)
Green	Closed field switch (contact)
Green – flashing	Associated channel input voltage out of range (i.e., either below the lowest trip threshold or above the highest)
Red – flashing	Associated channel faulty

Table 6-3: Default Digital Input Module LED Indications