

Trusted 40 Channel 24 Vdc Digital Input FTA

Product Overview

The Trusted® Field Termination Assembly (FTA) - 24 Vdc Digital Input T8800 is designed to act as the main interface between a field device generating a digital signal and the Trusted TMR 24 Vdc Digital Input Module T8403.

Features:

- 40 input channels per FTA.
- Industry standard field device connections (2-wire).
- Standard DIN rail compatibility.
- Simple installation and connection.
- 24 Vdc operation.
- SmartSlot connection for 'one to many' hot replacement of input modules.
- Fused field power supply per channel.
- On-board Light Emitting Diode (LED) indication of field power supply integrity.

1. Description

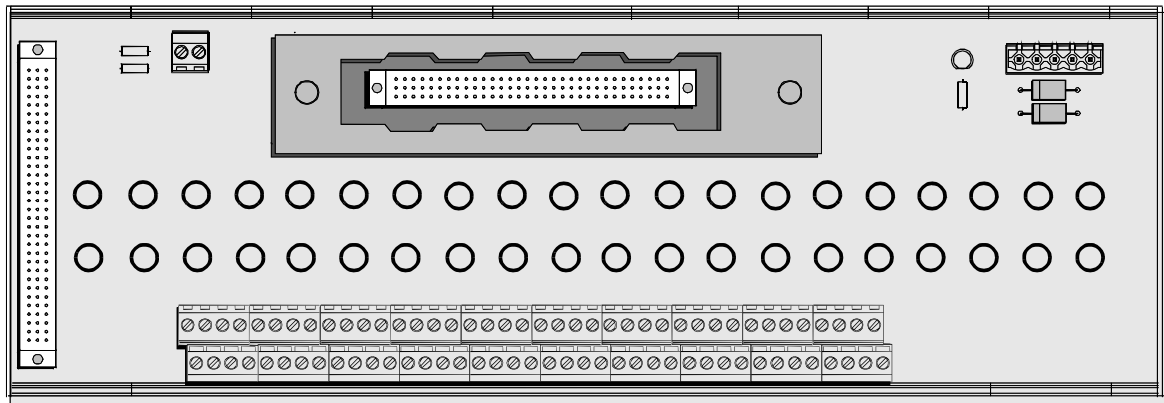


Figure 1 T8800 Layout

The Trusted 40 Channel 24 Vdc Digital Input Field Termination Assembly T8800 provides termination for a maximum of 40 input channels from various types of field devices which generate a digital input. Figure 2 below shows the configuration of a single channel.

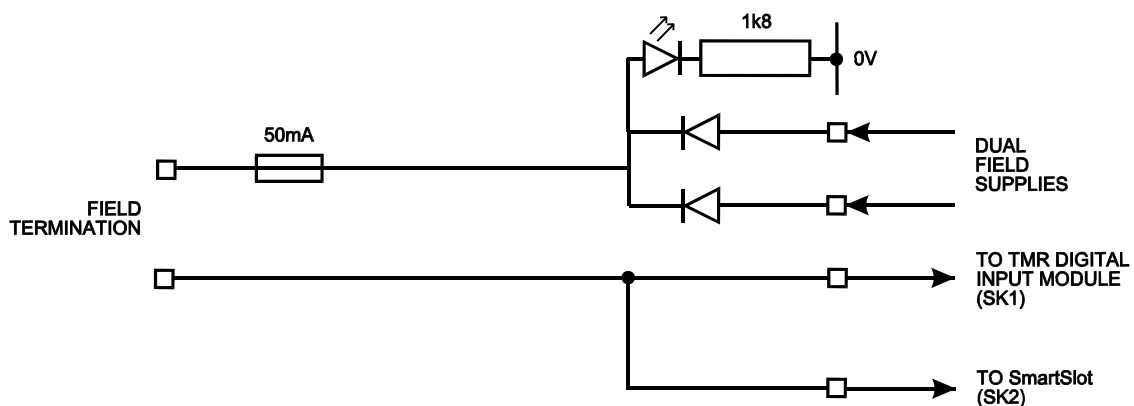


Figure 2 Single Channel Schematic

The supply for the field is derived from dual 24 Vdc feeds which are 'commoned' via diodes on the FTA. Indication of the presence of the power supply is provided by a green LED. The supply is then fed to each channel.

The supply voltage to the field is fed via the 50 mA fuse. This effectively limits the current in the field loop. The incoming signal (digital) from the field device is fed directly to the digital input module. Line monitoring components (if required) provide the necessary thresholds used by the input module to detect the field loop/device status, i.e. open/short circuit, alarm etc.

The cable linking the 40 channels on the input module to the FTA is terminated at the 96-way socket SK1. SmartSlot (Version 1) signals from the module are connected to SK1. The

4. Assembly Pinout Connections

4.1. PWR TB Connections

Pin	Service
1	24 V-A
2	24 V-B
3	0 V
4	0 V
5	24 V (auxiliary supply for use when required)

Table 1 PWR TB Connections

4.2. TB3 (Auxiliary Input) Connections

Pin	Service
1	Chan 0 (not configured)
2	Chan 41 (not configured)

Table 2 TB3 Auxiliary Input Connections

4.3. TB2 (Field Terminals) Connections

Pin	Service	Pin	Service
1	Chan 1 24 Vdc field supply	2	Chan 1 signal from field
3	Chan 2 24 Vdc field supply	4	Chan 2 signal from field
5	Chan 3 24 Vdc field supply	6	Chan 3 signal from field
7	Chan 4 24 Vdc field supply	8	Chan 4 signal from field
9	Chan 5 24 Vdc field supply	10	Chan 5 signal from field
11	Chan 6 24 Vdc field supply	12	Chan 6 signal from field

5. Specifications

Voltage Range	18 Vdc to 32 Vdc
Fuses	40-off 50 mA
Maximum Current (Field Supply)	10 mA
Power Consumption (Field Supply)	0.25 W
Operating Temperature	0 °C to +60 °C (+32 °F to +140 °F)
Non-operating Temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Relative Humidity range (operating, storage and transport)	10 % – 95 %, non-condensing
Environmental Specifications	Refer to Document 552517
Dimensions	
Height	111 mm (4.4 in)
Width	335 mm (13.2 in)
Depth	51 mm (2 in)
Weight	900 g (2 lb)