ABB ABB Series Service Manual

TU830V1

1. Description

TU830V1 Extended Module Termination Unit - ABB

3. Product Information

TU830V1 Extended Module Termination Unit - ABB

The TU830V1 MTU can have up to 16 I/O channels and two process voltage connections. Each channel has two I/O connections and one ZP connection. The MTU is a passive unit used for connection of the field wiring to the I/O modules. It also contains a part of the ModuleBus.

The process voltage can be connected to two individually isolated groups. Each group has a 6.3 A fuse. The maximum rated voltage is 50 V and maximum rated current is 2 A per channel. The MTU distributes the ModuleBus to the I/O module end to the next MTU. It also generates the correct address to the I/O module by shifting the outgoing position signals to the next MTU.

Features and benefits

Complete installation of I/O modules using 3-wire connections, fuses and field power distribution.

Up to 16 channels of field signals and process power connections.

Connections to ModuleBus and I/O modules.

Mechanical keying prevents insertion of the wrong I/O module.

Latching device to DIN rail for grounding.

DIN rail mounting.

General info

Article number 3BSE013234R1

Type Extended

Connection Terminal block

Channels 16

Voltage 50 V

Mounting Both directions

Mounting detail 55 ºC (131 °F)

Use with I/O AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI843, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI818, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO818, DO840, DO880, DP820 and DP840

Process connections 56

Single/redundant I/O Single

Detailed data

Maximum current per I/O channel 2 A

Maximum current process connection 5 A

Acceptable wire sizes Solid: 0.2 - 4 mm²

Stranded: 0.2 - 2.5 mm², 24 - 12 AWG

Recommended torque: 0.5 - 0.6 Nm

Stripping length: 7 mm

Dielectric test voltage 500 V a.c.

Environment and certification

CE mark Yes

Electrical safety EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201

Hazardous Location C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2

Marine certification ABS, BV, DNV-GL, LR

Temperature, Operating 0 to +55 °C (+32 to +131 °F), approvals are issued for +5 to +55 °C

Temperature, Storage -40 to +70 °C (-40 to +158 °F)

Pollution degree Degree 2, IEC 60664-1

Corrosion protection ISA-S71.04: G3

Relative humidity 5 to 95 %, non-condensing

Max ambient temperature 55 °C (131 °F)

Protection class IP20 according to IEC 60529

Mechanical operating conditions IEC/EN 61131-2

EMC EN 61000-6-4, EN 61000-6-2

Overvoltage categories IEC/EN 60664-1, EN 50178

Equipment class Class I according to IEC 61140; (earth protected)

RoHS compliance EN 50581:2012

WEEE compliance DIRECTIVE/2012/19/EU

Dimensions

Width 126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed

Depth 64 mm (2.52 in.) including terminals

Height 110 mm (4.3 in.)

Weight 0.28 kg (0.6 lbs)