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DATA SHEET

TU830V1

ABB Ability™ System 800xA® hardware selector



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)

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