TU891
ABB Ability™ System 800xA® hardware selector

The TU891 MTU has gray terminals for field signals and process voltage connections. The maximum rated voltage is 50 V and maximum rated current is 2 A per channel, but these are primarily constrained to specific values by the design of the I/O modules for their certified application. The MTU distributes the ModuleBus to the I/O module and 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.

Two mechanical keys are used to configure the MTU for different types of I.S. I/O modules. This is only a mechanical configuration and it does not affect the functionality of the MTU or the I/O module. The keys used on the TU891 are of the opposite gender to those on any other type of MTU and will mate only with IS I/O modules.

Features and benefits

- Intrinsic safety applications - use with AI890, AI893, AI895, AO890, AO895, DI890 and DO890
- Compact installations of I/O modules
- Field signals and process power connections
- Connections to ModuleBus and I/O modules
- Mechanical keying prevents insertion of the wrong module
- Latching device to DIN rail
- DIN rail mounting

General info

Article number	3BSC840157R1
Type	Compact
Connection	Terminal block
Channels	8
Voltage	24 V
Mounting	Horizontal
Mounting detail	55 ºC (131 °F)
Use with I/O	AI890, AI893, AI895, AO890, AO895, DI890, DO890
Process connections	27 gray terminals
Single/redundant I/O	Single

Detailed data

Maximum current per I/O channel	2 A
Acceptable wire sizes	Process Connector: Solid 0.2 - 4 mm² Stranded 0.2 - 2.5 mm², 24 - 12 AWG Recommended torque 0.5 - 0.6 Nm Power supply connector: 0.25 - 2.5 mm², 24 - 14 AWG Recommended torque 0.5 - 0.6 Nm
Dielectric test voltage	500 V a.c.

Environment and certification

CE mark	Yes
Electrical safety	IEC 61131-EN 61010-1, EN 61010-2-201
Hazardous Location	-
Marine certification	ABS, BV, DNV-GL, LR
Temperature, Operating	0 to +55 °C (+32 to +131 °F) (Storage -40 to +70 °C) (-40 to +158 °F), RH=5 to 95 % non-condensing
Pollution degree	Degree 2, IEC 60664-1
Corrosion protection	ISA-S71.04: G3
Max ambient temperature	55 °C (131 °F), for vertical mounting 40 °C (104 °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	64 mm (1.77 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed
Depth	58 mm (2.28 in.), 106 mm (4.2 in.) including terminals
Height	194 mm (7.6 in.) including latch
Weight	0.17 kg (0.37 lbs)

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