TU814V1
ABB Ability™ System 800xA® hardware selector

The TU814V1 MTU can have up to 16 I/O channels and two process voltage connections. The maximum rated voltage is 50 V and maximum rated current is 2 A per channel.

The TU814V1 has three rows of crimp snap-in connectors for field signals and process power connections. 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.

Two mechanical keys are used to configure the MTU for different types of I/O modules. This is only a mechanical configuration and it does not affect the functionality of the MTU or the I/O module. Each key has six positions, which gives a total number of 36 different configurations.

Features and benefits

- 16 channels for 24 V d.c. inputs with current sourcing
- 2 Isolated groups of 8 with voltage supervision
- Input status indicators

General info	
Article number	3BSE013233R1
Type	Compact
Connection	Crimp Snap-in connector
Channels	16
Voltage	50 V
Mounting	Both directions
Mounting detail	Horizontal 55 ºC (131 °F) Vertical 40 ºC (104 °F)
Use with I/O	AI810, AI815, AI820, AI830, AI835A, AI835, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO840, DO880, DP820 and DP840
Process connections	30 up to 16 I/O channels 2 x 2 Process power 2 x 5 Process power (0 V)

Detailed data

Maximum current per I/O channel	2 A
Maximum current process connection	5 A
Acceptable wire sizes	Stranded: 0.2 - 0.5 mm², 24 - 20 AWG 0.5 - 1.0 mm², 20 - 18 AWG 1.5 - 2.5 mm², 16 - 14 AWG
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
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), 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 (2.52 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed
Depth	64 mm (2.52 in.), including terminals
Height	170 mm (6.7 in.) including latch
Weight	0.17 kg (0.37 lbs)

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