

TU814V1

Freelance 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 °C (131 °F) Vertical 40 °C (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 mm ² , 24 - 20 AWG 0.5 - 1.0 mm ² , 20 - 18 AWG 1.5 - 2.5 mm ² , 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) |

—
solutions.abb/freelance
solutions.abb/controlsystems

—
We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2025 ABB All rights reserved