

# TU812V1

## ABB Ability™ System 800xA® hardware selector



The TU812V1 is a 50 V compact module termination unit (MTU) for the S800 I/O system with 16 signal connections. The MTU is a passive unit used for connection of the field wiring. It also contains a part of the ModuleBus.

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/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

- Compact installation of I/O modules using D-sub connector.
- 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       | 3BSE013232R1                                                                                                                                                                                               |
| Type                 | Compact                                                                                                                                                                                                    |
| Connection           | 25 pin D-sub                                                                                                                                                                                               |
| Channels             | 16                                                                                                                                                                                                         |
| Voltage              | 50 V                                                                                                                                                                                                       |
| Mounting             | Both directions                                                                                                                                                                                            |
| Mounting detail      | Horizontal 55 °C (131 °F)<br>Vertical 40 °C (104 °F)                                                                                                                                                       |
| Use with I/O         | AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO840, DO880, DP820 and DP840 |
| Process connections  | 25 pin (male) D-Sub connector<br>up to 16 I/O signals                                                                                                                                                      |
| Single/redundant I/O | Single                                                                                                                                                                                                     |

| Detailed data                      |            |
|------------------------------------|------------|
| Maximum current per I/O channel    | 2 A        |
| Maximum current process connection | 5 A        |
| 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), 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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