DATA SHEET

## TU833

## ABB Ability ${ }^{\top M}$ System 800xA® ${ }^{\circledR}$ hardware selector



The TU833 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 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. It is recommended that the fuse rating be chosen to meet the applications needs, see S800 I/O Getting Started chapter Power and Cooling.

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.

The MTU can be mounted on a standard DIN rail. It has a mechanical latch that locks the MTU to the DIN rail.

## 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.
- Spring-case terminal.

| General info |  |
| :---: | :---: |
| Article number | 3BSE038726R1 |
| Type | Extended |
| Connection | Crimp Snap-in connector |
| Channels | 16 |
| Voltage | 50 V |
| Mounting | Both directions |
| Mounting detail | $55^{\circ} \mathrm{C}\left(131{ }^{\circ} \mathrm{F}\right)$ |
| Use with I/O | Al810, Al815, Al820, Al830, Al830A, AI835, Al835A, Al843, Al845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO840, DO880, DP820 and DP840 |
| Process connections | 56 <br> up to $16 \mathrm{I} / \mathrm{O}$ channels ( 2 terminals per channel) <br> 4 Process power 6.3 A <br> $10 \times 2$ Process power ( 0 V ) |
| Single/redundant I/O | Single |


| Detailed data | 2 A |
| :--- | :--- |
| Maximum current per I/O channel | 5 A |
| Maximum current process connection | Solid: $0.2-2.5 \mathrm{~mm}^{2}, 24-12$ AWG <br> Stranded: $0.2-2.5 \mathrm{~mm}^{2}, 24-12 \mathrm{AWG}$ <br> Only one wire per terminal <br> Stripping length: 6 mm |
| Acceptable wire sizes | 500 V a.c. |
| Dielectric test voltage |  |

## 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 | DNV-GL, BV, LR |
| Temperature, Operating | 0 to $+55^{\circ} \mathrm{C}\left(+32\right.$ to $\left.+131{ }^{\circ} \mathrm{F}\right)$, approvals are issued for +5 to $+55^{\circ} \mathrm{C}$ |
| Temperature, Storage | -40 to $+70^{\circ} \mathrm{C}\left(-40\right.$ to $\left.+158^{\circ} \mathrm{F}\right)$ |
| Pollution degree | Degree 2, IEC $60664-1$ |
| Corrosion protection | ISA-S71.04: G3 |
| Relative humidity | 5 to $95 \%$, non-condensing |
| Max ambient temperature | $55^{\circ} \mathrm{C}\left(131{ }^{\circ} \mathrm{F}\right)$ |
| 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 | $126 \mathrm{~mm}(5 \mathrm{in}$.$) including connector, 120.5 \mathrm{~mm}(4.74 \mathrm{in}$.$) edge to edge$ <br> installed |
| :--- | :--- |
| Width | $64 \mathrm{~mm}(2.52 \mathrm{in}$.$) including terminals$ |
| Depth | $105 \mathrm{~mm}(4.1 \mathrm{in})$. |
| Height | $0.28 \mathrm{~kg}(0.6 \mathrm{lbs})$ |
| Weight |  |

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