

# TU837V1

## ABB Ability™ System 800xA® hardware selector



The TU837V1 MTU can have up to 8 I/O channels. The maximum rated voltage is 250 V and maximum rated current is 3 A per channel. 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. The latch can be released with a screwdriver. 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

- Up to 8 individually isolated channels of field signals and process power connections.
- Each channel has two terminals and one is fused.
- Allows a mix of isolated and grouped channels.
- Process voltage return can be connected to two individually isolated groups.
- 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	3BSE013238R1
Type	Extended
Connection	Terminal block
Channels	8
Voltage	250 V
Mounting	Both directions
Mounting detail	55 °C (131 °F)
Use with I/O	DO820, and DO821
Process connections	28 up to 8 I/O channels (2 terminals per channel) 2 x 6 power common terminals
Single/redundant I/O	Single

Detailed data	
Maximum current per I/O channel	3 A
Maximum current process connection	10 A
Acceptable wire sizes	Signal connection: Solid: 0.2 - 6 mm <sup>2</sup> Stranded: 0.2 - 4 mm <sup>2</sup> , 24 - 10 AWG Recommended torque: 0.5 - 0.6 Nm Stripping length: 8 mm Return connection: Solid: 0.2 - 4 mm <sup>2</sup> Stranded: 0.2 - 2.5 mm <sup>2</sup> , 24 - 12 AWG Recommended torque: 0.5 - 0.6 Nm Stripping length: 7 mm
Dielectric test voltage	2000 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	-
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)
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	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed
Depth	64 mm (2.52 in.) including terminals
Height	110 mm (4.3 in.)
Weight	0.26 kg (0.57 lbs)

---

**[solutions.abb/800xA](https://solutions.abb/800xA)**  
**[solutions.abb/controlsystems](https://solutions.abb/controlsystems)**

---

800xA and Symphony Plus is a registered trademark of ABB. All rights to other trademarks reside with their respective owners.

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