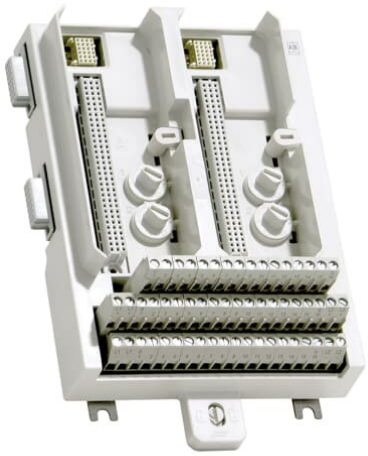
DATA SHEET

TU842

ABB Ability™ System 800xA® hardware selector



The TU842 MTU can have up to 16 I/O channels and 2+2 process voltage connections. Each channel has two I/O connections and one ZP connection. The maximum rated voltage is 50 V and maximum rated current is 3 A per channel.

The MTU distributes the two ModuleBuses to each I/O module and to the next MTU. It also generates the correct address to the I/O modules 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.

Four mechanical keys, two for each I/O module, 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

- Complete installation of I/O modules using 3-wire connections and field power distribution.
- Up to 16 channels of field signals and process power connections.
- Connections to two ModuleBuses 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	3BSE020850R1
Type	Redundant
Connection	Terminal block
Channels	16
Voltage	50 V
Mounting	Horizontal
Mounting detail	55 º (131 °F)
Use with I/O	AI843, AO845, AO845A, DI840, DI880, DO840, DO880 and DP840
Process connections	56 up to 16 I/O channels (2 terminals per channel), 4 Process power, 20 Process power (0 V)
Single/redundant I/O	Redundant

Detailed data	
Maximum current per I/O channel	3 A
Maximum current process connection	10 A
Acceptable wire sizes	Solid: 0.2 - 4 mm² Stranded: 0.2 - 2.5 mm², 24 - 12 AWG Recommended torque: 0.5 - 0.6 Nm Stripping length: 7 mm
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)
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	131 mm (5.16”) including connector, 124 mm (4.88”) edge to edge installed
Depth	64 mm (2.52”) including terminals
Height	186.5 mm (7.34”) including locking device
Weight	0.6 kg (1.3 lbs.)

solutions.abb/800xA
solutions.abb/controlsystems