

# DI825

## ABB Ability™ System 800xA® hardware selector



The DI825 is an 8 channel 125 V d.c. digital input module for the S800 I/O. The input range is 71 - 150 V and the input current is 3.0 mA at 125 V. The inputs are individually isolated.

Every input channel consists of current limiting components, EMC protection components, input state indication LED, optical isolation barrier. Channel 1 can be used as voltage supervision input for channels 2 - 4, and channel 8 can be used as voltage supervision input for channels 5 - 7.

If the voltage supervision is used and the voltage connected to channel 1 or 8 disappears, the channel error will be set for the channels and the Warning LED turns on. The error signal can be read from the ModuleBus.

### Features and benefits

- 8 channels for 125 V d.c. inputs
- Individually isolated channels
- Input status indicators
- Sequence of event (SOE) functionality
- Signal filtering

General info	
Article number	3BSE036373R1
Type	Digital Input
Signal specification	125 V d.c.
Number of channels	8
Signal type	Current sinking
HART	No
SOE	Yes
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800

<b>Detailed data</b>	
Input voltage range, "0"	0 .. 20 V
Input voltage range, "1"	71 .. 156 V
Input impedance	41.5 kΩ
Isolation	Individually isolated channels
Filter times (digital, selectable)	0...100 ms
Current limiting	Sensor power can be current limited by the MTU
Maximum field cable length	600 meters (656 yards)
Event recording accuracy	-0.25 ms...1.0 ms
Event recording resolution	0.4 ms
Rated insulation voltage	250 V
Dielectric test voltage	2300 V a.c. Ch - Ground, 1350 V a.c. Ch - Ch
Power dissipation	Max. 4.9 W
Current consumption +5 V Modulebus	Max. 90 mA
Current consumption +24 V Modulebus	0
Current consumption +24 V external	0

<b>Diagnostics</b>	
Front LED's	F(ault), R(un), W(arning), Channel 1-8 Status
Supervision	Process voltage. Channel 1 and 8 can be used per group
Status indication of supervision	Module Error, Module Warning, Channel error

<b>Environment and certification</b>	
CE mark	Yes
Electrical safety	EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201
Hazardous Location	-
Marine certification	-
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 in compact MTU 40 °C (104 °F)
Protection class	IP20 according to IEC 60529
Mechanical operating conditions	IEC/EN 61131-2
EMC	EN 61000-6-4 and EN 61000-6-2
Overvoltage categories	IEC/EN 60664-1, EN 50178
Equipment class	Class I according to IEC 61140; (earth protected)
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

<b>Compatibility</b>	
Use with MTU	TU811, TU813, TU831, TU839, TU851
Keying code	AB

<b>Dimensions</b>	
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.14 kg (0.31 lbs.)

## Related products



**TU811V1**



**TU813**



**TU831V1**



**TU839**



**TU851**

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