

ABB DI825 Manual

Brand	ABB
Product Series	ABB
Product Type	Digital Input

Description

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

MTUs that match this product

TU811V1

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

Detailed data

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
Diagnostics
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
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 -
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
Compatibility
Use with MTU TU811, TU813, TU831, TU839, TU851
Keying code AB
Dimensions
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.)