

DI825

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 |

| 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 +24V Modulebus | 0 |
| Current consumption +24V 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 | IEC 61131-2, UL 508 |
| Hazardous Location | - |
| Marine certification | - |
| Protection rating | IP20 according to IEC 60529 |
| Corrosive atmosphere ISA-S71.04 | G3 |
| Climatic operating conditions | 0 to +55 °C (Storage -40 to +70 °C), RH=5 to 95 % no condensation, IEC/EN 61131-2 |
| Pollution degree | Degree 2, IEC 60664-1 |
| 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) |
| Max ambient temperature | 55 °C (131 °F), for vertical mounting in compact MTU 40 °C (104 °F) |
| RoHS compliance | DIRECTIVE/2011/65/EU (EN 50581:2012) |
| WEEE compliance | DIRECTIVE/2012/19/EU |

| Compability | |
|--------------------|-----------------------------------|
| 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.) |

Related products



TU811V1



TU813



TU831V1



TU839



TU851

solutions.abb/800xA
solutions.abb/controlsystems

800xA is a registered or pending 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© 2022 ABB All rights reserved