

# DI828

## Compact Product Suite hardware selector



The DI828 is an 16 channel 120 V a.c./d.c. digital input module for the S800 I/O. The module has 16 digital inputs. The AC input voltage range is 77 - 130 V and the input current is 8.5 mA at 120V AC. The DC input voltage range is 75 - 130 V and the input current is 2.4 mA at 120V DC. The inputs are individually isolated.

Every input channel consists of current limiting components, EMC protection components, input state indication LED, optical isolation barrier and an analog filter. Channel 1 can be used as voltage supervision input for channels 2 - 8. Channel 16 can be used as voltage supervision input for channels 9 - 15.

If the voltage supervision is used and the voltage connected to channel 1 or 16 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

- 16 channels for 120 V AC/DC inputs
- Individually isolated channels
- Input status indicators
- Signal filtering

| General info         |                   |
|----------------------|-------------------|
| Article number       | 3BSE069054R1      |
| Type                 | Digital Input     |
| Signal specification | 120 V a.c. / d.c. |
| Number of channels   | 16                |
| Signal type          | Current sinking   |
| HART                 | No                |
| SOE                  | No                |
| Redundancy           | No                |
| High integrity       | No                |
| Intrinsic safety     | No                |
| Mechanics            | S800              |

| Detailed data                       |   |
|-------------------------------------|---|
| Input voltage range, "0"            | 0..30 V a.c., 0..20 V d.c.  |
| Input voltage range, "1"            | 77..130 V a.c., 75..130 V d.c.  |
| Input impedance                     | 14.2 kΩ (a.c.) / 50 kΩ (d.c.)   |
| Isolation                           | Individually isolated channels  |
| Filter times (digital, selectable)  | 2,5 ±0.5, 5 ±1, 10 ±2, 20 ±4 ms   |
| Input frequency range               | 47..63 Hz   |
| Analog filter On/Off delay          | 5 / 10 ms   |
| Maximum field cable length          | 200 meters (656 yards) 100 pF/m for a.c., 600 meters (656 yards) for d.c. |
| Rated insulation voltage            | 250 V   |
| Dielectric test voltage             | 2000 V a.c.   |
| Power dissipation                   | Typ. 3.5 W  |
| Current consumption +5 V Modulebus  | Typ. 45 mA, Max 60 mA   |
| Current consumption +24 V Modulebus | 0   |

| Diagnostics                      |   |
|----------------------------------|---|
| Front LED's                      | F(ault), R(un), W(arning), Channel 1-16 ("0" or "1")    |
| Supervision                      | Process voltage, Channel 1 and 16 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            | ABS, BV, DNV, 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), 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  | EB    |
| Keying code   | TU851 |

| Dimensions |  |
|------------|--|
| Width      | 45 mm (1.77")                                      |
| Depth      | 102 mm (4.01"), 111 mm (4.37") including connector |
| Height     | 119 mm (4.7")                                      |
| Weight     | 0.15 kg (0.33 lbs.)                                |



# Related products



TU851



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