DATA SHEET

DI828
Freelance 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 frequencey 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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