

DATA SHEET

DI820

Freelance hardware selector



This module has 8 digital inputs. The a.c. input voltage range is 77-130 volt and the input current is 10 mA at 120 V a.c. The d.c. input range is 75-145 V and the input current is 2.8 mA at 110 V. 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 (6 ms). 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 connected to channel 1 or 8 disappears, the error inputs are activated and the Warning LED turns on. The error signal can be read from the ModuleBus.

Features and benefits

- 8 channels for 120 V a.c./d.c. inputs
- Individually isolated channels
- Voltage supervision of field input power
- Input status indicators
- Signal filtering

General info		
Article number	3BSE008512R1	
Туре	Digital Input	
Signal specification	120 V a.c. / 110 V d.c.	
Number of channels	8	
Signal type	Current sinking	
HART	No	
SOE	No	
Redundancy	No	
High integrity	No	
Intrinsic safety	No	
Mechanics	S800	

Detailed data		
Input voltage range, "0"	030 V a.c., 020 V d.c.	
Input voltage range, "1"	77130 V a.c., 75145 V d.c.	
Input impedance	12 kΩ (a.c.) / 39 kΩ (d.c.)	
Isolation	Individually isolated channels	
Filter times (digital, selectable)	2, 4, 8, 16 ms	
Input frequencey range	4763 Hz	
Analog filter On/Off delay	5 / 18 ms	
Current limiting	Sensor power can be current limited by the MTU	
Maximum field cable length	200 meters (219 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. 2.8 W	
Current consumption +5 V Modulebus	50 mA	
Current consumption +24 V Modulebus	0	
Current consumption +24 V external	0	

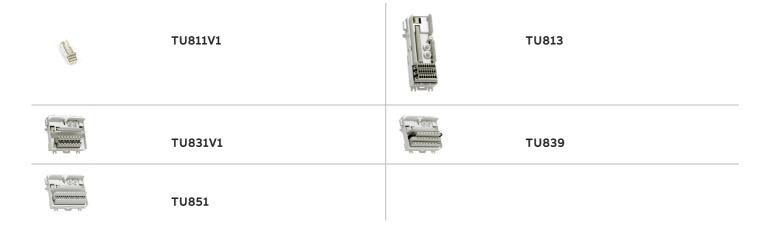
Diagnostics		
Front LED's	F(ault), R(un), W(arning), Channel 1-16 Status	
Supervision	Process voltage, Channel 1 and 8 can be used per group	
Status indication of supervision	Module Error, Module Warning, Channel error	

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	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	TU811, TU813, TU831, TU839, TU851	
Keying code	АВ	

Dimensions	
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.18 kg (0.4 lbs.)

Related products





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