

DATA SHEFT

DI810

ABB Ability™ System 800xA® hardware selector



This module has 16 digital inputs. The input voltage range is 18 to 30 volt d.c. and the input current is 6 mA at 24 V. The inputs are divided into two individually isolated groups with eight channels and one voltage supervision input in each group. Every input channel consists of current limiting components, EMC protection components, input state indication LED and optical isolation barrier. The process voltage supervision input give channel error signals if the voltage disappears. The error signal can be read via the ModuleBus.

Features and benefits

- 16 channels for 24 V d.c. inputs with current sinking
- Two isolated groups of 8 with voltage supervision
- Input status indicators

General info		
Article number	3BSE008508R1	
Туре	Digital Input	
Signal specification	24V 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"	-30+5 V	
Input voltage range, "1"	1530 V	
Input impedance	3.5 kΩ	
Isolation	Groupwise isolated from ground, 2 groups with 8 channels	
Filter times (digital, selectable)	2, 4, 8, 16 ms	
Current limiting	Sensor power can be current limited by the MTU	
Maximum field cable length	600 meters (656 yards)	
Rated insulation voltage	50 V	
Dielectric test voltage	500 V a.c.	
Power dissipation	Typ. 1.8 W	
Current consumption +5 V Modulebus	50 mA	
Current consumption +24 V Modulebus	0	
Current consumption +24V external	0	

Diagnostics	
Front LED's	F(ault), R(un), W(arning), Channel 1-16 ("0" or "1")
Supervision	Process voltage, 1 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	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2	
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 606641	
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/65/EU (EN 50581:2012)	
WEEE compliance	DIRECTIVE/2012/19/EU	

Compatibility	
Use with MTU	TU810, TU812, TU814, TU818, TU830, TU833, TU838, TU850
Keying code	AA

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





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