

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
Type	Digital Input
Signal specification	24 V 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"	15..30 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 +24 V 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	IEC 61131-2, UL 61010-1, UL 61010-2-201
Hazardous Location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certification	ABS, BV, DNV-GL, LR
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/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Compability

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



TU810V1



TU812V1



TU814V1



TU818



TU830V1



TU833



TU838



TU850

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