

DATA SHEET

DI801

System 800xA hardware selector



The DI801 is a 16 channel 24 V digital input module for the S800 I/O. 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 in one isolated group with sixteen channels and channel number sixteen can be used for voltage supervision input in the group. Every input channel consists of current limiting components, EMC protection components, input state indication LED and optical isolation barrier.

Features and benefits

- 16 channels for 24 V d.c. inputs with current sinking
- 1 isolated groups of 16 with voltage supervision
- Input status indicators
- Process and power connection via detachable connectors

General info		
Article number	3BSE020508R1	
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	\$800L	

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	
Filter times (digital, selectable)	2, 4, 8, 16 ms	
Maximum field cable length	600 meters (656 yards)	
Rated insulation voltage	50 V	
Dielectric test voltage	500 V	
Power dissipation	Typ 2.2 W	
Current consumption +5 V Modulebus	70 mA	
Current consumption +24 V Modulebus	0	
Supported wire size	Solid: 0.05-2.5 mm², 30-12 AWG Stranded: 0.05-1.5 mm², 30-12 AWG Recommended torque: 0.5-0.6 Nm Stripping length 6-7.5mm, 0.24-0.30 inch	

Diagnostics	
Front LED's	S(tatus) (run or fault), Channel 1-16 ("0" or "1")
Supervision	Process voltage supervision on channel 16
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 606641	
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 40 °C (104 °F)	
RoHS compliance	DIRECTIVE/2011/65/EN (EN 50581:2012)	
WEEE compliance	DIRECTIVE/2012/19/EU	

Dimensions	
Width	86.1 mm (3.4")
Depth	58.5 mm (2.3")
Height	110 mm (4.33")
Weight	0.24 kg (0.53 lbs.)



solutions.abb/800xA solutions.abb/controlsystems

800xA is a registered or pending trademark of ABB. All rights to other trademarks reside with their respective owners.

We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2022 ABB All rights reserved