

S-DIAS Digital Mixed Module DM 167



with 8 digital inputs
8 short-circuit proof digital outputs

The S-DIAS Digital Mixed Module DM 167 has eight digital inputs (+24 V/3.7 mA/5 ms) and eight short circuit proof outputs (+24 V/1.7 A) in two groups. The power supply for each channel group is monitored for under voltage.

In compliance with the safety-relevant requirements of the BIA, the outputs on the primary (+5 V) and the secondary (+24 V) sides are isolated using optic couplers (according to application class 3, pollution degree 2). For the inputs, the primary (+24 V) and the secondary sides (+5 V) are separated using optic couplers.

Digital Input Specifications

Number	8	
Input voltage	typically +24 V	maximum +30 V
Signal level	low: < +8 V	high: > +14 V
Switching threshold	typically +11 V	
Input current	3.7 mA at +24 V	
Input delay	typically 5 ms	
Galvanic isolation	Optic coupler, GND/EXTGND not galvanically isolated	

Digital Output Specifications

Number	8	
Short-circuit proof	yes	
Maximum continuous current load allowed per channel	1.7 A	
Maximum total current (group)	5.1 A to 50 °C ambient temperature 3.4 A to 55 °C ambient temperature	
Maximum total current (entire module)	10.2 A to 50 °C ambient temperature 6.8 A to 55 °C ambient temperature	

Maximum braking energy of outputs (inductive load)	maximum 0.65 Joules/channel maximum 1.95 Joules/ 4 channels	
Residual current output (off)	≤ 12 µA	
Turn-on delay	< 200 µs	
Turn-off delay	< 200 µs	
Galvanic isolation	Optic coupler, GND/EXTGND not galvanically isolated	

Electrical Requirements

Supply voltage +24 V /1-2	18-30 V DC, typically +24 V DC	
Current consumption of voltage supply +24 V /1-2	corresponds to the load on the digital outputs	
Voltage supply from S-DIAS bus	+5 V	
Current consumption on the S-DIAS bus (+5 V supply)	typically 45 mA	maximum 50 mA

Voltage Monitor

Supply voltage +24 V 1/2/3	Supply voltage > 18 V (corresponding DC OK-LED lights green)	
Galvanic isolation	Optic coupler, GND/EXTGND not galvanically isolated	

Article Number and Miscellaneous

Artikel number	20-008-167	
Dimensions	12.5 x 104.2 x 72 mm (W x H x D)	
Standard	UL 508 (E247993)	
Approvals	UL, cUL, CE	

Environmental Conditions

Storage temperature	-20 ... +85 °C	
Environmental temperature	0 ... +60 °C	
Humidity	0-95 %, non-condensing	
Operating conditions	pollution degree 2 altitude up to 2000 m	
EMC resistance	in accordance with EN 61000-6-2 (industrial area)	
EMC noise generation	in accordance with EN 61000-6-4 (industrial area)	
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g
Protection type	EN 60529	IP20