

S-DIAS Differential Pressure Input Module

DM 821



with 2 differential pressure inputs
8 digital inputs

The S-DIAS DM 821 differential pressure input module has two differential pressure inputs with a measurement range from -1034 mbar to +1034 mbar and eight digital inputs (+24 V/3.7 mA/0.5 ms).

Differential Pressure Inputs Specifications

Number	2
Pressure sensor type	difference pressure sensor
Measurement range	-1034 ... +1034 mbar
Measurement value	-1034 ... +1034
Resolution	12-bit (ca. 0.5 mbar/LSB)
Conversion time for all channels	1 ms
Input filter hardware	typically 1 kHz, low pass 3rd order system
Input filter software	configurable
Measurement precision	Based on the entire measurement range: $\pm 2\%$ (at +10 ... +50 °C ambient temperature) Based on the entire measurement range: $\pm 3\%$ (at 0 ... +60 °C ambient temperature)
Maximum differential pressure	4 bar
Maximum ambient pressure	10 bar

Applicable tube types	Manufacturer	Article number	Inner tube diameter	Shore hardness	Max. pressure at 25 °C
	Frelin-Wade	95a-157	1.68 mm	95	6.89 bar
	NewAge Industries	2110535	1.68 mm	85	9.31 bar
	SMC	TU0212BU-20	1.2 mm	-	7.50 bar

Digital Input Specifications

	Number	8	
	Input voltage	typically +24 V	maximum +30 V
	Signal level	low: < +5 V	high: > +15 V
	Input current	3.7 mA at +24 V	
	Input delay	typically 0.5 ms	

Electrical Requirements

	Voltage supply from S-DIAS bus	+5 V	
	Current consumption on the S-DIAS bus (+5 V power supply)	typically 55 mA	maximum 60 mA
	Voltage supply from S-DIAS bus	+24 V	
	Current consumption on the S-DIAS bus (+24 V power supply)	typically 10 mA	maximum 15 mA

Article Number and Miscellaneous

Article number	20-008-821
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