

Data sheet

IMB - ai1 / 2 / 4 / 8

Doc.-No. : D2MF122 041

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IMB - ai1
Art. Nr.: F122 041



IMB - ai2
Art. Nr.: F122 042



IMB - ai4
Art. Nr.: F122 044



IMB - ai8
Art. Nr.: F122 048

The IMBus modules *IMB-ai1/2/4/8* serve to measure analogue voltages and currents. The modules can be read synchronously for dynamic measurements with mixed inputs. In addition the *IMB-ai1* module features a linearisation possibility for compensation of linearity errors. The width of the modules is 37.5 mm (ai1), 50 mm (ai2), 87.5 mm (ai4) and 162.5 mm (ai8). The modules can optionally be mounted to a rail mount (NS35 / 7,5 EN60715).

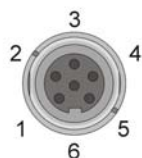
Technical data

Electrical characteristics

Resolution	16 Bit (0.5 mV at ± 10 V, 100 μ V at ± 2 V)
Standard voltage measuring range	± 10 V ($R_i = 220$ k Ω)
Standard current measuring range	± 20 mA
Measuring rate	max. 2500 values / sec. (complete values)
Operation temperature range	0 ... 45 °C
Storage temperature range	-20 ... 80 °C
IMBus current consumption	< 20 mA (ai1); < 25 mA (ai2) < 35 mA (ai4); < 45 mA (ai8)

Typical values at an ambient temperature of 25°C

Wiring diagram



DIN 45322, Female connector

Pin assignment :

- 1 - Earth (GND)
- 2 - Voltage input ± 10 V, $R_i = 220$ k Ω
- 3 - Current input ± 20 mA
- 4 - Measuring range selection
- 5 - Reference voltage (4096 mV, $I_L = \text{max. } 1$ mA)
- 6 - VCC - output (5 V, $I_L = \text{max. } 20$ mA)

Matching connector plug :
Circular plug-in connector with screwable mechanical lock according to IEC 60130-9, pin arrangement according to DIN 45322, 6-pins

Connection plan for Voltage input (± 10 V)



Connection plan for Current input (20 mA)

