

BCDI1600MB Digital Input Module

Modular I/O expansion module with 16 optically isolated 24 V DC digital inputs and RS485 Modbus RTU communication – for boiler rooms and cooling plants in scalable control systems.

Key features

- Monitoring of field signals such as switches, sensors, flow detectors and device status contacts
- Optically isolated inputs: high signal quality, protection against interference and potential differences
- Integration into building management systems (BMS) via Modbus RTU over RS485
- Modular architecture: input capacity expands flexibly without changes to the control infrastructure
- Designed for reliable use in the field – precise signal acquisition even in demanding environments
- Suitable for new installations and retrofits with decentralised signal requirements

Inputs / Outputs

- **16 × opto-isolated 24 V digital inputs, 2.5 mA per input (2 groups of 8 inputs)**
- **1 × RS485 port for connection to controllers and building management systems (Modbus RTU)**
- **Supply voltage: 24 V DC**

Specifications

Digital inputs

Number of inputs	16, optically isolated
Input groups	2 × 8 with shared Com
Rated input voltage	24 V DC
Input current	2.5 mA at 24 V DC
Signal “1”	15 … 28.8 V DC
Signal “0”	0 … 5 V DC
Response time	≤ 10 ms
Isolation voltage	500 V AC (input – logic)

Communication

Interface	RS485 (A+, B−)
Protocol	Modbus RTU
Baud rate	9,600 … 115,200 bit/s
Address range	1 … 247

Power supply and indication

Supply voltage	24 V DC
Power consumption	2 W
Green LED	Power/Comm
Red LED	Comm Error

Mechanical and environmental

Mounting	35 mm DIN rail (EN 60715)
Connection	Screw terminals, max. 2.5 mm²
Dimensions (W × H × D)	approx. 106 × 90 × 58 mm
Weight	approx. 0.20 kg
Degree of protection	IP20
Operating temperature	−10 … +55 °C
Storage temperature	−25 … +70 °C
Relative humidity	10 … 95 %, non-condensing
Compliance	RoHS, CE