

PADIN M-Bus Digital Input Modules

PADIN modules monitor status of up to four digital inputs. PADIN modules are used to extend the number of I/Os on the HRP-22M controller.

PADIN modules are powered directly from the controller. Each HRP22-M can support 4 PADIN modules.

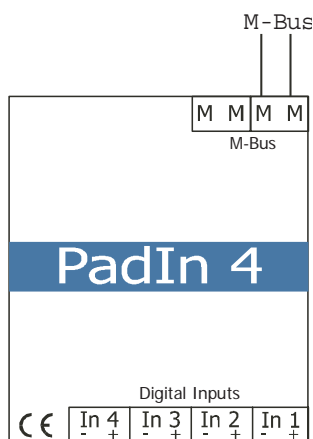
Features

- Converts Digital Volt-Free Contacts to M-bus Message
- Uses standard M-bus Messages According to EN1434-3
- Powered from the M-bus
- DIN-rail mounting



Model Type	Model	Description
	M-PADIN4	M-Bus Digital Input Module (4 Digital Inputs)
Technical Data	Power Supply	Supplied by M-Bus
	Inputs	4 Volt Free Contacts
	Input Resistance	Open > 100kOhm, closed < 100Ohms
	M-Bus	According to EN1434-3
	Baud Rate	300, 2400, 9600 (auto-detect)
	Mounting	DIN-rail
	Protection Class	IP40
	Enclosure Material	ABS Plastic, Light Grey (Similar to RAL 7035)
	Ambient Temperature	0..60°C
	Storage Temperature	-25..60°C
Agency Listings	Emission DIN EN 50081-1 Immunity DIN EN 50082-2 ESD DIN EN 61000-4-2	
Dimensions	W55 x H75 x D110mm	

Wiring Diagram



Signal generator with floating contacts (reed contacts) are connected independent of polarity to the terminals In1+ / In1- to In4+ / In4-.

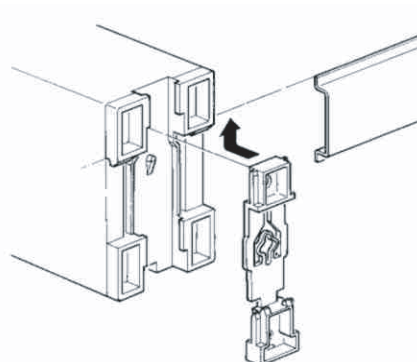
Signal generators with photocoupler or galvanic insulated transistor outputs must be linked to the terminals In1+ / In1- to In4+ / In4- using the correct polarity.

It is not possible to use active signal generators (voltage sources).

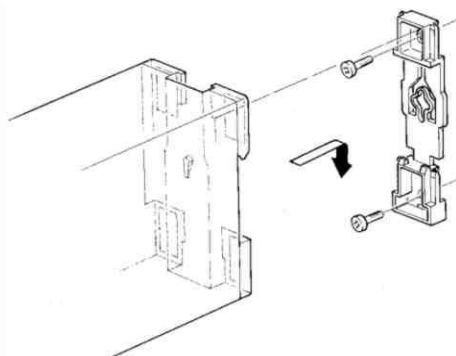
The M-Bus connection is made with the terminals "M M". There is second pair of M-Bus terminals for linking the M-Bus to other devices.

Mounting

DIN-RAIL MOUNTING



WALL MOUNTING

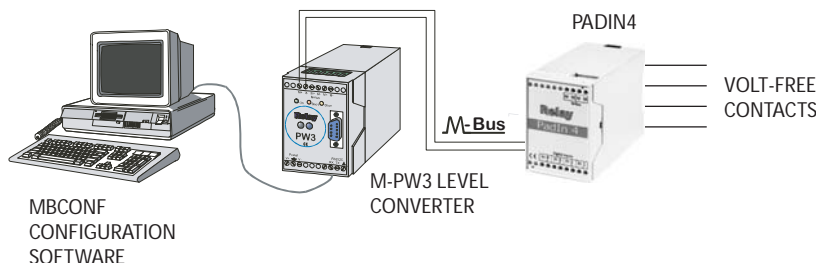


On the back of the housing there is a special mechanism for mounting the device on a DIN rail according to DIN EN 50022. This mechanism can be removed, turned over and fixed on the wall with two screws. Afterwards you can mount the device without using a rail. The figures above illustrate the two options.

Configuration

In order for the PADIN module to communicate to the HRP22-M controller or to a M-bus master, its M-bus address is required to be set. The address (primary address) is set via a M-bus configuration software such as MBCONF. MBCONF is connected via M-bus level converter such as PW3 to the M-bus device e.g. PADIN4. The table below illustrates the address settings in relation to HRP22-M.

PADIN CONNECTION DIAGRAM



Primary Address	Corresponding HRP22-M Menu (to be enabled)	Corresponding HRR22-M Parameters
1	M-Bus 1	2222/1, 2225/1, 2227/1, 2228/1 (Controller Description E1M1, E2M1, E3M1, E4M1)
2	M-Bus 2	2222/2, 2225/2, 2227/2, 2228/2 (E1M2 etc.)
3	M-Bus 3	2222/3, 2225/3, 2227/3, 2228/3 (E1M3 etc.)
4	M-Bus 4	2222/4, 2225/4, 2227/4, 2228/4 (E1M4 etc.)