

IB 200 relay - Current monitoring

Datasheet



Description

This current sensor feeds a 2 changeover relay contacts for a measured current from 16 A to 24 A. A potentiometer allows the setting of the relay pick up from 15 A to 25 A. The maximal admissible current of the shunt is 50 A, other versions are available.

An 110 VDC auxiliary power supply is needed for the measure and the relay command.

The electronic device is put in a B box and worked with an external shunt (P929670). The reference socket for the B box module is:EA103BFD. The devices are mounted on 35 mm rail conform to EN 50022.

Application

The IB 200 relay is designed for current level sensing and used for example to monitor if the train magnetic brakes are active.

Features

- Current monitoring relay
- Adjustable current measured with an external shunt
- 2 C/O contacts (form Z)
- -40 °C...+85 °C operating temperature
- Optional lockable knob

Benefits

- Proven reliable
- Long life cycle
- Easy to maintain and replace
- Low life cycle cost
- No maintenance

Railway compliancy

- NF F 62-002 Rolling stock - Instantaneous relays contacts and sockets
- NF F 16-101/102 Fire behaviour - Railway rolling stock
- EN 50155 Railway application - Electronic equipment used on rolling stock
- IEC 61373 Railway application - shock and vibration tests

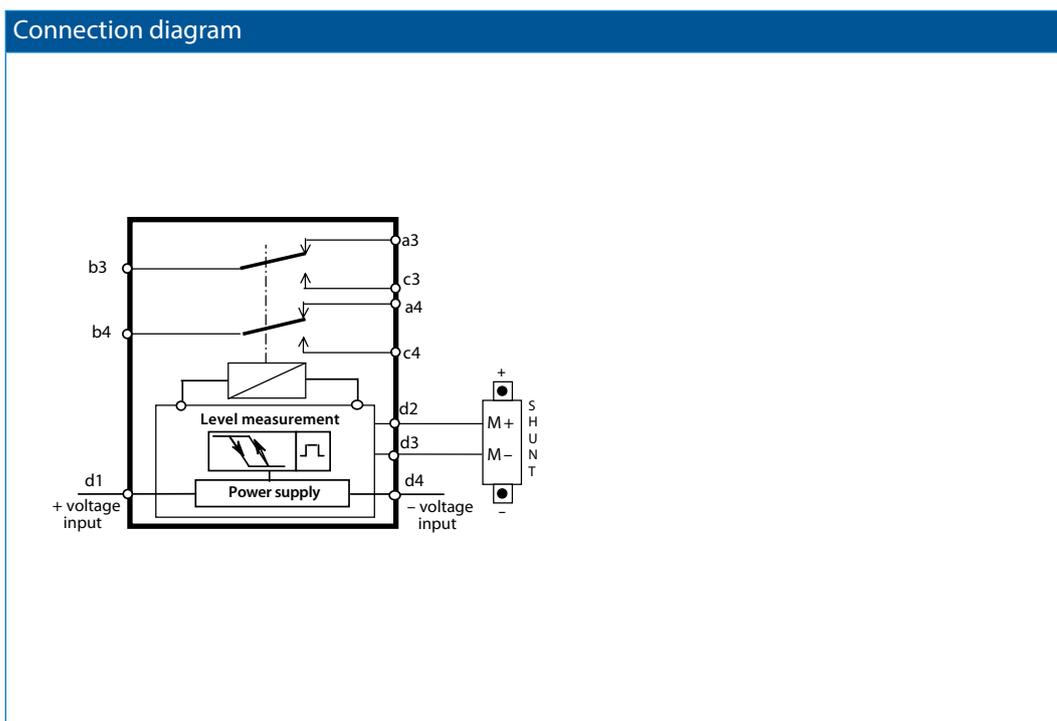
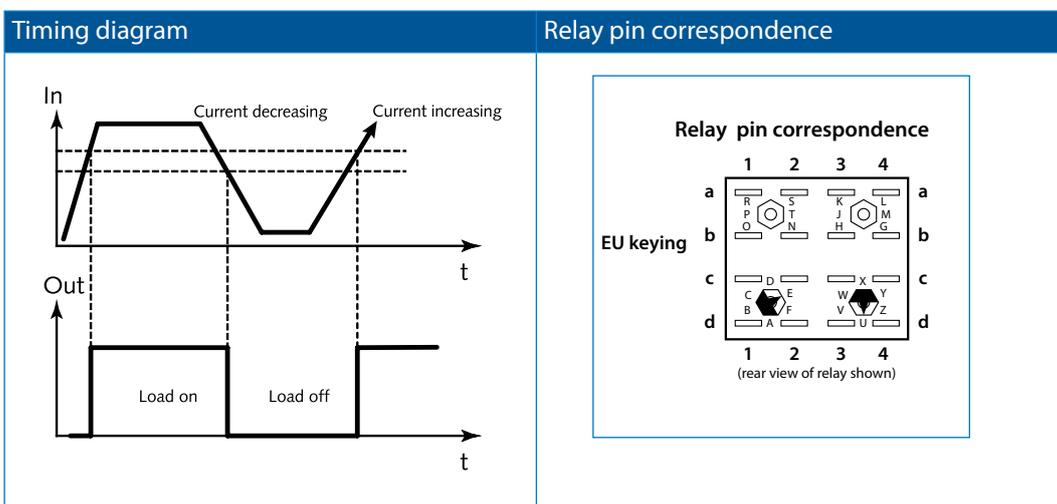


IB 200 relay

Technical specifications



Functional and connection diagrams



IB 200 relay

Technical specifications

Current measuring specifications

Current levels (I_n)	15 A...25 A (other version available)
Current accuracy	-5%...+5% from I_n
Maximal shunt current	40 A

Electrical specifications

Nominal auxiliary voltage (U_n)	110 VDC
Operating voltage range	-30%...+25% U_n
Nominal power	1.5 W
Time constant (L/R)	6 ms
Contact resistance	10 m Ω max
Nominal thermal current	1 A
Breaking capacity and life	110 VDC 0.1 A Time constant: 0 ms > 1 million cycles 110 VDC 0.1 A Time constant: 30 ms > 0.5 million cycles

Mechanical and environmental specifications

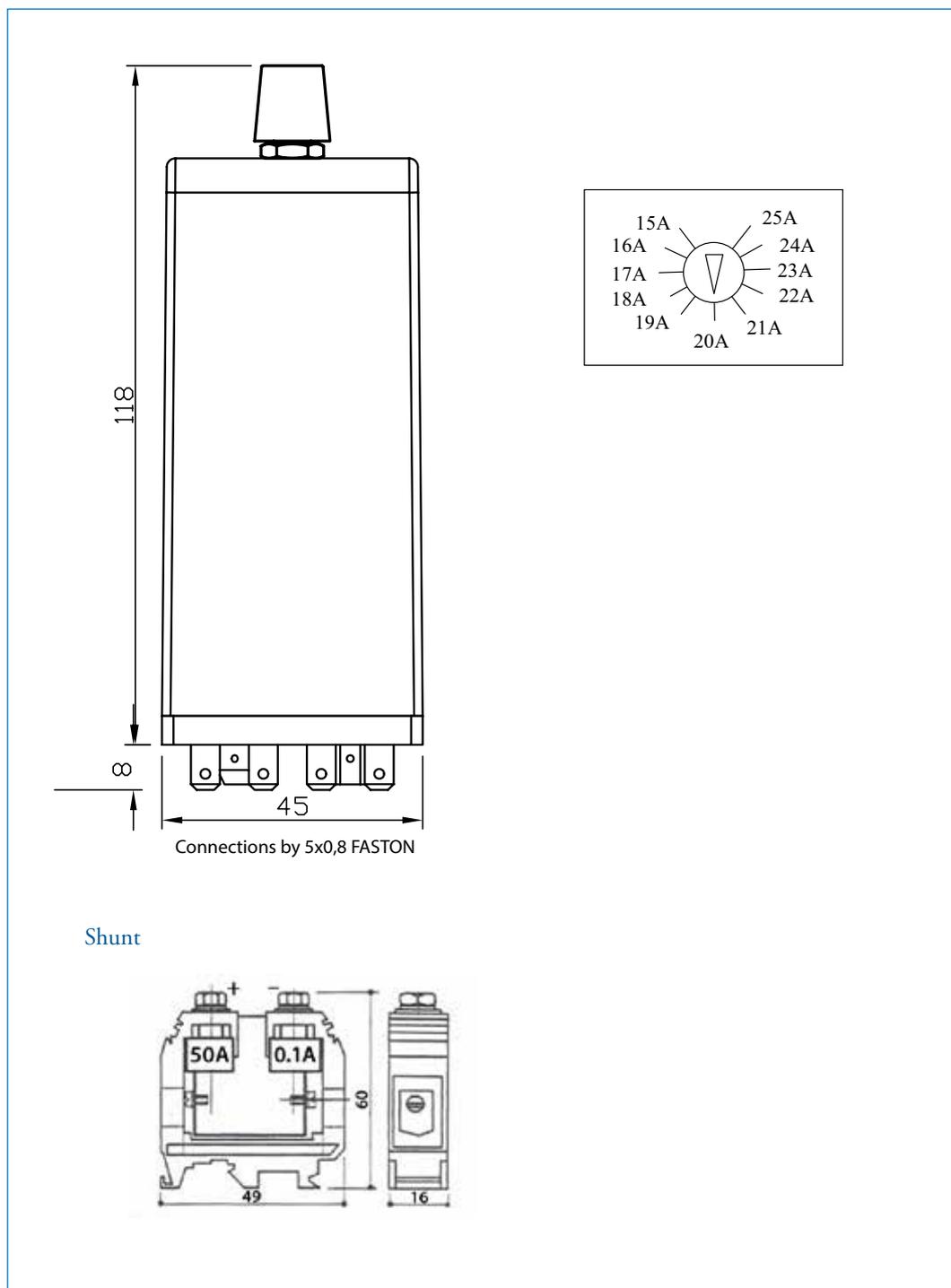
Number of contacts	2 changeover contacts (form Z)
Operating temperature range	- 40°C to + 85°C, IP50
Vibration 3 axis	2 g / 10...150 Hz
Shocks	30 g / 11 ms
Operating position	Any attitude
Environment	NF F 20-600
Weight	< 400 g



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Technical specifications

Dimensions (mm)



IB 200 relay

Mounting possibilities / sockets



EA 103 BFD

Surface/wall mounting

EA 103 BFD	Wire locking spring, 35 mm rail
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IB 200 relay

Instructions

Installation

Install socket and connect wiring correctly according identification to terminals. Plug relay into socket. Reverse installation into socket not possible due to mechanical blocking by snap-lock.

Don't reverse polarity of coil connection. Relays can be mounted tightly next to each other.

Warning! Never use silicon near by relays

Operation

Before operating always apply voltage to coil to check correct operation.

Long term storage may corrode the silver on the relay pins. Just by plugging the relay into the socket, the female bifurcated receivers will automatically clean the corrosion on the pins and guarantee a good connection.

Do not use the relay in places with flammable gas as the arc generated from switching could ignite gasses.

Maintenance

Correct operation of relay can easily be checked as transparent cover gives good visibility on the moving contacts. When the relay doesn't seem to operate correct, please check presence of coil voltage. Use a multimeter. If LED is used, coil presence should be indicated. If coil voltage is present, but the relay doesn't work, a short circuit of suppression diode is possible (The coil connection was reversed). If relay doesn't work after inspection, please replace relay unit by a similar model. Send defective relay back to manufacturer. Normal wear and tear excluded.



IB 200 relay

Ordering scheme

Configuration:

IB 200

1. Relay model

110

2. Auxiliary voltage

EU

3. Keying

A15/25

4. Current range

This example represents a **IB 200 110 EU A15/25**.

Description: IB 200 relay, U_{aux} : 110 VDC, keying EU, current range 15...25 A

1. Relay model

IB 200

2 & 3. Auxiliary voltage and keying

110 EU 110 VDC
other voltages on request

4. Current range

15...25 A





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