# **M**-Bus Master Family C3/C20

Level converter for up to 20 devices

Rail mounted

Operation according to EN1434-3

Central read-out of all meters

Independent M-Bus remote display

Operation on-site by keyboard / LCD

Automatic data logger



C3 / C20 - the ideal master for your small M-Bus installation. The members of the C3/C20 family are ideally suited for M-Bus installations with up to 3 or 20 meters.

All devices offer a RS232C to M-Bus <u>level converter function</u> for remote read-out of meter-data by a PC with software.

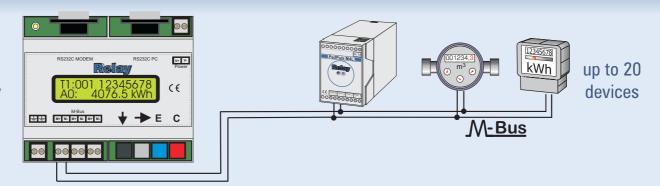
Additionally the M-Bus Display allows real stand-allone operation with the integrated LCD and keypad. Therefore meter data can be displayed on-site with few keystrokes.

The <u>M-Bus Data Logger</u> version is also able to save meter data automatically at free selectable times. For this purpose even the standard version of the M-Bus Data Logger is equipped with large memory, which can also be extended if it is required. The collected data can be read out and evaluated by PC, Laptop or Modem at any time. The scope of supply contains the software FService, which makes set-up and parametrization of the masters much easier.



# Convenient and user-friendly: M-Bus Display

M-Bus **Display** 



# **Function of the M-Bus Display**

The M-Bus Display can be operated on-site by the keypad and the LC display without any auxiliary devices. During installation all meters with M-Bus protocol according to EN1434-3 are automaically detected and stored to a list in the EEPROM. The user is saved from the laborious task of installing the measuring points in the software.

The consumption data of all meters are displayed sequentially by user's keystroke. As well, it is possible to call up an individual meter. Additionally the RS232C interface of the M-Bus Display allows direct reading of all meters by a PC or a modem connection (GSM, analog, digital, ...).

# **Differences between the versions**

#### Meter number:

The M-Bus Display and the M-Bus Data Logger are both available in versions for 3 or 20 devices.

#### M-Bus Display:

Additionally to the level converter function, the M-Bus Display allows local read-out by the integrated keypad and the LCD.

#### M-Bus Data Logger:

Offers the same function as the Display with additional periodic storage of meter data. These data can be exported to a PC by RS232C or modem connection.

# **Technical data**

Operating voltage: 11V .. 28VDC / 13V .. 18VAC

Power input: 5W DC / 9W AC 0 .. 55 °C Temperature range:

M-Bus voltage: 32V (Mark, without load) M-Bus current (C20): max. 30mA (20 unit loads) max. 4,5mA (3 unit loads) M-Bus current (C3):

Overcurrent threshold: 60mA

Internalbus resistance: approx. 100 Ohm 300 .. 9600 Baud Transmission speed:

Galvanical isolation:

Housing: light-grey plastic, protection type

IP40 H x W x D: 58 x 106 x 96 mm

for DIN rail EN50022 TS35

Control panel: 4 pushbutton switches

LCD with 2 lines a. 16 columns.

illuminated

Interfaces: M-Bus, RS232

Screw terminals: M-Bus (3-times),

power supply (GND, TXD, RXD) 2 RS232 as 9-pin. DSUB-socket Plug-in terminlas:

1 x PC / 1 x Modem

Data memory: minimum 4000 telegrams

(just at MR00xDL) (shared to the number of meters)

1MB standard, 2MB or 4MB on

demand

# Order information

M-Bus Display for 3 meters Art.-No. MR005FA M-Bus Data Logger for 3 meters Art.-No. MR005DL M-Bus Display for 20 meters Art.-No. MR006FA M-Bus Data Logger for 20 meters Art.-No. MR006DL For versions with 2MB/4MB add 2M/4M to the order number.

### Accessories

Power supply 24VAC, 18W rail / wall Art.-No. NT006 Plug-inpower supply 24VAC, 18W Art.-No. NT004 External modem for Data Logger Art.-No. MOD001 External analog M-Bus modem Art.-No. MOD002



Reinecke Elektronikentwicklung und Layout GmbH Stettiner Str. 38 Tel.: 05251 / 1767-0 Fax.: 05251 / 1767-20 D-33106 Paderborn

www.relay.de EMail: info@relay.de



Meß- und Kommunikationstechnik GmbH Stettiner Str. 38 Tel.: 05251 / 1769-0 D-33106 Paderborn Fax.: 05251 / 1769-20

www.padmess.de EMail: info@padmess.de