



# 60 PW (Discontinued model)

M-Bus data centre / M-Bus remote display / M-Bus level converter



## Your benefits

- Modular design:  
**Can be used as data centre, remote display or level converter**
- M-Bus data centre, remote display or level converter with integrated modem connection:  
**Remote meter reading without access to the object**
- Transparent operation:  
**Unchanged transfer of read-out data to the communication device**
- Several interfaces (RS232 and RS485) for PC communication:  
**Greater distances (up to 1000 m via RS485) possible between M-Bus data centre, remote control or level converter and PC**

## Applications

- Remote supply and remote reading of M-Bus end devices
- On-site read-out of M-Bus meters via keypad and LCD

## Properties

- M-Bus data centre, remote display or level converter for 60 M-Bus end devices with a standard load of 1,5 mA
- Can be used as level converter for RS232 and RS485
- Read-out via keypad and display (except for level converter) or RS232 interface
- Transfer rates: 300 to 9'600 baud
- M-Bus protocol according to EN 1434-3
- Galvanic separation
- Collision detection
- Echo cancellation
- Bit recovery (restoration of the bit times)
- Continuous short-circuit protection
- Automatic switch-off for excessive current flow
- Integrated mains adapter
- **Additional for M-Bus data centre DR 60**
- Periodic storage of meter data possible (interval of between 1 minute and 1 year)
- 512 KByte flash memory

## Technical Data

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### Mains adapter

Input	230V 50Hz AC
Output	11W

### Housing

Dimensions (WxHxD)	166x190x112 mm
Protection class	IP53 (sealed PG screw connections)
Material	PS
Colour	Light grey (similar to RAL 7035)
Weight	app. 1,3 kg

### Ambient conditions

Operating temperature	0 to +45 °C
Storage temperature	-10 to +60 °C
Humidity (non-condensing)	10 to 70%

### EMC data

Emission	DIN EN 50081-1 EN 55022 class B EN 60555
Immunity	DIN EN 50082-2 ENV 50104 ENV 50204 EN 61000-4-4

## Terminals

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M-Bus	(+), (-)	3 terminal pairs
RS485	S+, S-	Terminal pair for RS485 interface
RS232	GND, TX, RX	Terminals for RS232 interface (PC)
230V	N, L, E	Terminals for voltage supply 230 V AC

# M-Bus specifications

Execution		DR 60 / DR 60 FA / DR 60 PW		
Parameter		min.	typ.	max.
Max. no. of connectable devices (load unit 1,5 mA each)		-	-	60
Internal resistance	Ohm	-	-	15
Display alarm current	mA	90	100	110
Excessive current switch-off	mA	130	140	160
Bus voltage MARK (normal operating current)	V	38,5	39	39,5
Bus voltage SPACE (normal operating current)	V	12	12,5	13
Bit threshold end device > centre	mA	-	7	-
Collision threshold	mA	-	30	-