



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

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

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	-