



DR 120/250 (Discontinued)

M-Bus data centre



Your benefits

- Modular design:
Can be used as data centre, M-Bus line repeater or level converter
- M-Bus data centre with integrated modem connection:
Remote meter reading without access to the object
- Transparent operation:
Unchanged transfer of read-out data to the communication device

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 for 120 or 250 M-Bus end devices with a standard load of 1,5 mA
- Transfer rates: 30 ... 38'400 baud
- M-Bus protocol according to EN 13757-3
- Automatic Bus switch-off during short-circuiting and excessive current flow and automatic switch-on once the current has dropped
- Microcontroller-controlled functions
- Programmable read-out times and storage of numerous meter readings in the EEPROM
- Protected against voltage peaks on the M-Bus
- Displays for data traffic, maximum Bus current and excessive current flow/short-circuiting
- Modem connection and service interface
- Power supply via external 42 V mains adapter (included)
- **CE** approved

Mains adapter

Input	230 V, 600 mA
Output	42 V DC, 600 mA
Fuse	T2,5 A
Protection class	IP40
Power consumption	Max. 30 VA
Wires	Brown: 42 V- Blue: 42 V+ Yellow/Green: earth

Technical Data

Power supply

Voltage	42 V DC ($\pm 5\%$)
Current consumption	Max. 630 mA
Power consumption	Max. 30 W

Housing

Dimensions (HxWxD)	90x215x240 mm
Protection class	IP52
Material	ABS plastic
Colour	Anthracite, similar to RAL 7024
Weight	app. 1,5 kg

Ambient conditions

Operating temperature	0 to +55 °C
Storage temperature	-20 to +60 °C

EMC data

Emission	DIN EN 50081-1 EN 55022 class B EN 60555
Immunity	DIN EN 50082-2 ENV 50140 ENV 50204 EN 61000-4-2

Terminals

M-Bus	(+), (-)	4 terminal pairs for M-Bus end devices
RS232	CTS, RTS, TXD RXD, DSR, DTR, DCD, GND	Connection for RS232
TSS	(+), (-)	M-Bus input for repeater function
Service	D-Sub-9	Terminal for service interface (RS232)
Earth	E42V	Earth connection for 42V-mains adapter
42 V	(+), (-)	Mains adapter 42 V DC (600 mA output current)

M-Bus specifications

Execution		DR 120			DR 250		
Parameter		mind.	typ.	max.	mind.	typ.	max.
Max. no. of connectable devices (load unit 1,5 mA each)		-	-	120	-	-	250
Normal operating bus current	mA	-	-	180	-	-	375
Display alarm current	mA	195	210	225	385	410	435
Excessive current switch-off	mA	235	250	265	470	500	530
Bus voltage MARK (normal operating current)	V	39	-	42,5	36	-	42,5
Bus voltage SPACE (normal operating current)	V	26	-	31	24	-	30
Bit threshold end device > centre	mA	5,5	7	8,5	5,5	7	8,5
Collision threshold	mA	45	48	51	45	48	51
Maximum cable length	app. km	-	1 ¹⁾	-	-	1 ¹⁾	-

1) The maximum possible network reach (entire cable length) as well as the distance to the M-Bus end devices depends greatly on the network topology, the number of connected devices, the cross-section of the used cables and the transfer rate.

Dimension Diagram

