



DR 120/250

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**

Application

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

Features

- M-Bus data centre for 120 or 250 M-Bus end devices with a standard load of 1,5mA
- 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 42V mains adapter (included)
- **CE** approved

Mains adapter

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

Technical Data

Power supply	
Voltage	42VDC (±5%)
Current consumption	Max. 630mA
Power consumption	Max. 30W
Housing	
Dimensions (HxWxD)	90x215x240mm
Protection class	IP52
Material	ABS plastic
Colour	Anthracite, similar to RAL 7024
Weight	app. 1,5kg
Ambient conditions	
Operating temperature	0 to +55°C
Storage temperature	-20 to +60°C
EMC data	
Emission	<ul style="list-style-type: none">▪ DIN EN 50081-1▪ EN 55022 class B▪ EN 60555
Immunity	<ul style="list-style-type: none">▪ DIN EN 50082-2▪ ENV 50140▪ ENV 50204▪ EN 61000-4-2

Terminals

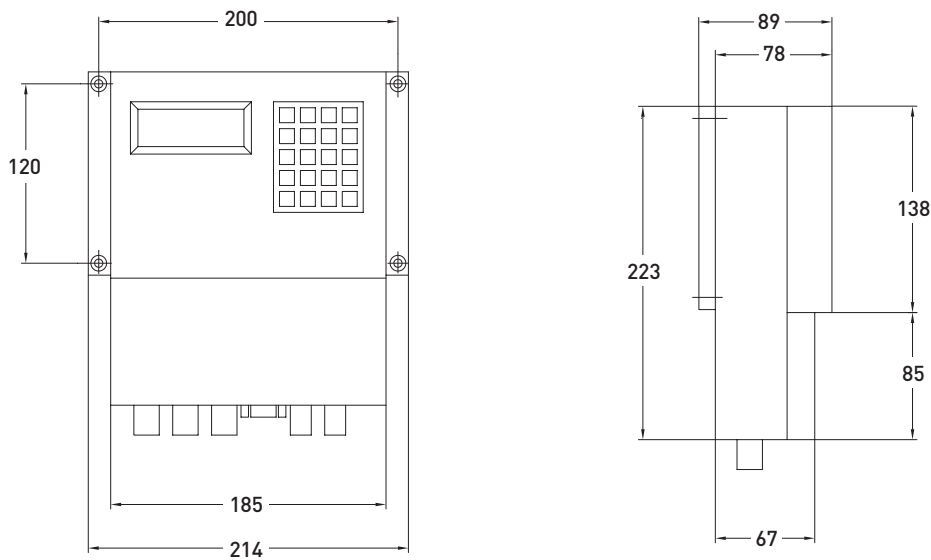
M-Bus	(+), (-)	4 terminal pairs for M-Bus end devices
RS232	CTS, RTS, TXD RXD, DSR, DTR, DCD, GND	Connection for RS232
TSS	(+), (-)	M-Bus input for repeater function
Service	D-Sub-9	Terminal for service interface (RS232)
Earth	E42V	Earth connection for 42V-mains adapter
42V	(+), (-)	Mains adapter 42VDC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

M-Bus specifications

Execution Parameter	DR 120			DR 250			
	min.	typ.	max.	min.	typ.	max.	
Max. no. of connectable devices (load unit 1,5mA 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*	-

* 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



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