



DR 20 / DR 20 FA

M-Bus data centre / M-Bus remote display

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

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, remote display or level converter for 20 M-Bus end devices with a standard load of 1,5mA
- Can be used as level converter for RS232
- Read-out via RS232-PC and modem interface
- Transfer rates: 300 to 9'600 baud
- M-Bus protocol according to EN 1434-3
- Remote display with data filtering
- Remote control via 10-bit modem
- Echo cancellation
- Continuous short-circuit protection
- Automatic switch-off for excessive current flow
- DIN rail mounting
- Power supply via external mains adapter (DIN rail mounting)
- Can be updated


Additional for M-Bus data centre DR 20

- Periodic storage of meter data possible (interval of between 1 minute and 1 year)
- 1Mbyte flash memory

Technical Data

Supply	
Voltage (separate mains adapter)	10...28VDC, 5W; 13...28VAC, 9W
Dimensions mains adapter (WxHxD)	53x93x69mm
Housing	
Dimensions (WxHxD)	105x94x58mm
Protection class	IP20
Material	Noryl
Colour	Light grey (similar to RAL 7035)
Weight	app. 0,23kg
Ambient conditions	
Operating temperature	0 to +45°C
Storage temperature	-10 to +60°C
Humidity (non condensing)	10 to 70%
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 50104 ▪ ENV 50204 ▪ EN 61000-4-4

Terminals

M-Bus	(+), (-)	3 terminal pairs
RS232-PC	9-pole	PC interface
RS232-modem	9-pole	Modem interface
Earthing		Terminals for earthing / GND
Power	V+, V-	Terminals for supply voltage (10...28VDC, 13...27VAC)

M-Bus specifications

Execution		DR 20 / DR 20 FA		
		min.	type	max.
Max. no. of connectable devices (load unit 1,5mA each)		-	-	20
Internal resistance	Ohm	-	-	100
Excessive current switch-off	mA	50	60	70
Bus voltage MARK (normal operating current)	V	29	30,5	32
Bus voltage SPACE (normal operating current)	V	12	12,5	13
Bit threshold end device > centre	mA	-	7	-

M-Bus networks				
Baud rate	Baud	9600	2400	300
Max. network reach (150nF/km)	km	1	4	12
No. of standard loads (meters) of the network link		Max. distance to the meter (75 Ohm/km)		
		for equal distribution	all meters at the end	
3	km	4	4	
20	km	2,5	1,5	