



DOM RF NetManager

revision F

Technical Data	DOM RF NetManager
Power supply (alternatively): Supply voltage U_{ext} for external applications from Power over Ethernet:	U_{ext} (clamp 1-4 (1)): 12 - 24V DC \pm 10% Power over Ethernet PD (IEEE802.3af): 44 - 57V DC
	output voltage: $U_{ext} = 12V$ DC \pm 5% ripple: $U_{ext,ripple} < 250mV$ supply current (thermal): $I_{ext} < 500mA$ supply current (peak): $I_{ext,peak} < 850mA$ peak time: $t_{ext,peak} < 1s$ efficiency ($P_{ext} = 5W$): $\eta \approx 80\%$
Current consumption:	$U_{ext} = 12V \dots 24V$ DC $I_{ext} < 50$ mA PoE ($I_{ext} = 0mA$): $I_{PoE} < 15$ mA
Data preservation after power failure:	configuration parameters are preserved
Ethernet interface:	10BASE-TX Ethernet according IEEE802.3 with 10 MBit: clamp 5-8: Tx+ (5), Tx- (6), Rx+ (7), Rx-(8) clamp 9-11 screen (9), SPA (10), SPB (11) maximum cable length 100m cable type (STP): CAT5 (recommended) or higher
Radio interface:	proprietary RF interface: frequency: 868 MHz data rate: 180 kBit/s typical range inside building: 3m (not guaranteed, depending on location, antenna, etc.) antenna: internal loop antenna
RS232 interface: for setting configuration parameters from the PC	clamp 2-4: RxD (4) , TxD (3) and GND (2) maximum cable length 15m (EIA-Norm) recommended cable type: LIYCY 4 \times 0,14 connect screen one-sided data rate: 38.4kBaud
Inputs:	clamp 2-4: 2 inputs for potential-free switches: input 1 clamp 4 \rightarrow 2 (input connected to GND) input 2 clamp 3 \rightarrow 2 (input connected to GND) maximum cable length 20m maximum resistivity 10 Ω
Output:	clamp 12-13: 1 potential-free switching semi conductor output (normally open): electrical strength: 40 V AC/DC current carrying capacity: 0,5A AC/DC on resistance $R_{ON} < 7\Omega$

Operating switches:

S1: switch-key for resetting IP parameters
 S2: configuration switch
 S2-1: reserved (free)
 S2-2: clamp 4 = input 1
 S2-3: clamp 4 = RS232 Rx
 S2-4: clamp 3 = input 2
 S2-5: clamp 3 = RS232 Tx
 S2-6: activation of RS232 configuration mode
 Caution: S2-2/S2-3 and S2-4/S2-5 must be switched mutually (clamp 3/4 either RS232 or input 2 / input 1)

Temperature range

operating: 0 °C to + 55 °C
 stocking: -20 °C to + 80 °C

Relative humidity:

20% to 99% (no condensation)


IP code:

depending on assembly conditions, minimum IP10 interior operation only

Protection class:

III: max. 60V DC or 42V AC_{peak} according to EN 60950

Approvals:

 EMC, R&TTE

Assembly:

in-wall mounting with flush box Ø60 × 63 mm according to DIN VDE 0606, DIN VDE 0471, DIN IEC 695

Size:

Ø = 55mm, depth = 35 mm
 upper PCB: 42mm x 50mm with Ø_{max} = 55mm

Weight:

approx. 0,060kg

Communication protocols:

TCP, UDP, ARP

TCP connections:

- non permanent TCP connections
 - Event oriented link connection and disconnection
 TCP Client:
 Port 9601 (PUSH)
 ELS Software MultiLine: 9601 ... 9608 (PUSH)
 TCP Server:
 Port 19000 (configuration)
 Port 19004 (service)

UDP connections:

UDP Server:
 Port 19011 (configuration, broadcasts)
 Port 10002 (device communication, 1:1) (PULL)

Encryption:

AES (Advanced Encryption Standard):
 individual, random 128-Bit key for each NetManager

Bandwidth use / network traffic per RF NetManager:

- approx. 700 Bytes / event (TCP)
- approx. 360 Bytes / TCP test (every 10 seconds)
- approx. 80 Bytes / authorisation (UDP)
- < 3,1 MBytes total data volume / day ¹
- < 0,07kbps average bandwidth use ¹

These data correspond to the actual development status and are subject to change at any time without notice.

¹ Above specified values are under the presumption, that the end device of the RF NetManager generates one event per 10 minutes at maximum and includes a changing of 100 authorizations per day. Amount of data includes all other data like time stamps, date and so on, which are normally synchronised in an online access control system..