




# DOM NetManager



SICHERHEITSTECHNIK  
Revision D

Technical Data	DOM NetManager												
<b>Power supply (alternative):</b>	<table border="0"> <tr> <td><math>U_{\text{ext}}</math> (Clamp 1-4 (1)):</td> <td>12 – 24V DC <math>\pm</math> 10%</td> </tr> <tr> <td>Power over Ethernet PD (IEEE802.3af):</td> <td>44 – 57 V DC</td> </tr> <tr> <td>M-BUS (Clamp 12-13)</td> <td>30 – 40 V DC</td> </tr> </table>	$U_{\text{ext}}$ (Clamp 1-4 (1)):	12 – 24V DC $\pm$ 10%	Power over Ethernet PD (IEEE802.3af):	44 – 57 V DC	M-BUS (Clamp 12-13)	30 – 40 V DC						
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<b>Data preservation after power failure:</b>	Configuration parameters												
<b>Ethernet interface:</b>	<table border="0"> <tr> <td colspan="2">10BASE-TX Ethernet according to IEEE802.3 / 10 MBit</td> </tr> <tr> <td colspan="2">clamp 5-8: Tx+ (5), Tx- (6), Rx+ (7), Rx-(8)</td> </tr> <tr> <td colspan="2">clamp 9-11: Screen (9), SPA (10), SPB (11)</td> </tr> <tr> <td colspan="2">maximum cable length: 100m</td> </tr> <tr> <td colspan="2">cable type (STP): CAT5 (recommended), CAT5e, CAT6</td> </tr> </table>	10BASE-TX Ethernet according to IEEE802.3 / 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), CAT5e, CAT6			
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<b>Relative humidity:</b>	20% to 99% (no condensation)												
<b>Protection class:</b>	depending on assembly conditions, IP10 minimum												
<b>Approvals:</b>	 EMC conformity												
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<b>Weight:</b>	approx. 0,048kg												

<b>Communications protocols:</b>	TCP, UDP, ARP
<b>TCP connections:</b>	<ul style="list-style-type: none"> <li>- Non permanent TCP connections</li> <li>- Event oriented link connection / disconnection</li> </ul> TCP Client: Port 9601 (PUSH) ELS Software MultiLine: 9601 ... 9608 (PUSH) TCP Server: Port 19000 (configuration) Port 19004 (service)
<b>UDP connections:</b>	UDP Server: Port 19001 (configuration, broadcasts) Port 10002 (communication ELS device, 1:1) (PULL)
<b>Encryption:</b>	AES (Advanced Encryption Standard): individual, randomise 128-Bit key per NetManager
<b>Performance:</b>	<p><u>Response time<sup>1</sup> / transmission time (PUSH)<sup>2</sup>:</u></p> <ul style="list-style-type: none"> <li>• DOM AccessManager / ELS-P:             <ul style="list-style-type: none"> <li>- Response time: 0,5 ... 1,5s</li> <li>- Transmission time: approx. 40 events / second</li> </ul> </li> <li>• DOM ((o)) butler:             <ul style="list-style-type: none"> <li>- Response time: 1,0 ... 2,5s</li> <li>- Transmission time: approx. 10 events / second</li> </ul> </li> <li>• MFS / LSE:             <ul style="list-style-type: none"> <li>- Response time: 1,0 ... 2,5s</li> <li>- Transmission time: approx. 10 events / second</li> </ul> </li> <li>• ELS-999R + ELS-RS232 Bus coupler:             <ul style="list-style-type: none"> <li>- Response time: 2,0 ... 8,5s</li> <li>- Transmission time: approx. 4 events / second</li> </ul> </li> </ul> <p><u>Programing / changing of 10 authorizations (PULL):</u></p> <ul style="list-style-type: none"> <li>• DOM AccessManager / ELS-P: 4 seconds</li> <li>• DOM ((o)) butler: 4 seconds</li> <li>• MFS / LSE: 30 seconds</li> <li>• ELS-999R + Bus coupler ELS-RS232: 40 seconds</li> </ul>
<b>Bandwidth use / network traffic per NetManager:</b>	<ul style="list-style-type: none"> <li>• approx. 700 bytes / event (TCP)</li> <li>• approx. 70 bytes / authorization (UDP)</li> <li>• &lt; 125 Kbytes amount of data per day<sup>3</sup></li> <li>• &lt; 0,02kbps average bandwidth use<sup>3</sup></li> </ul>

**Attention:** These data correspond to the actual status of our development process. Technical specifications may be changed at any time without notice.

<sup>1</sup> Response time: time who long it takes from the generation of an event at the end device (e.g. DOM AccessManager) until the arrival of this event at the ELS PC.

<sup>2</sup> Above specified values are under the presumption, that all DOM NetManagers are connected to the Ethernet and are within one IP subnet (only hubs and switches are between the network segments). Transmission of data over other network media or router / gateways, and simultaneously readings of high amount of data in the database, could lead to delay of data / events and to longer transmission times. But in one separate network of ELS PC and exclusively DOM NetManager devices you can achieve such performance values also with 1.000 simultaneously operated NetManager devices.

<sup>3</sup> Above specified values are under the presumption, that the end device of the 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. For comparison only, the printout of this page generates a network traffic of more than 125 Kbytes.