

Technical Data - SCOPE Repeater (101-201210)

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Backplane	
PROFIBUS networks Modules Power supply Current consumption Compatible backplane units	4 (set by dipo switches or web server) 10 (positioned in the first 10 slots only) Provided through the backplane ± 500 mA 101-200011, 101-200023, 101-200012
Protocol specifications	
Supported Protocols	DP-V0, DP- V1, DP-V2, FDL, MPI, FMS, PROFIsafe, PROFIdrive and any other FDL based protocol
Address	NO bus address required
Transmission speed Transmission speed detection	9.6 kbps..12 Mbps (including 45.45 kbps) Auto detect (< 10 s detection and 50 s lost time)
Data delay time (normal mode)	1.6 TBit at 9.6 kbps to 93.75 kbps 1.7 TBit at 187.5 kbps to 500 kbps 1.8 TBit at 1.5 Mbps 2.0 TBit at 3 Mbps 2.75 TBit at 6 Mbps 3.75 TBit at 12 Mbps
Data delay time (redundant mode)	12.0 TBit at 9.6 kbps to 3 Mbps 12.75 TBit at 6 Mbps 13.75 TBit at 12 Mbps
Delay time jitter	Max. ¼ TBit
Oscilloscope specifications	
Frequency Resolution Differential range	192 MS/s 50 mV -6.436..6.436 V
PROFIBUS cable specifications	
Cable lengths	1200 m at 9.6 kbps to 93.75 kbps 1000 m at 187.5 kbps 400 m at 500 kbps 200 m at 1.5 Mbps 100 m at 3 Mbps to 12 Mbps

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Wire diameter (for the screw terminals) Wire type	< 1.5 mm ² Stranded or solid core
Number of devices	Maximum 31 devices per channel (including ProfiHubs, OLMs, Laptops/PCs, etc)
Termination	Integrated (switchable) Powered according to PB RS 485 (390/220/390 Ohms)
Cascading depth	No limit, only busparameter limitation of the master
Redundancy	Yes, maximum 10 cables activated by switch
Dipswitches	
<u>NW0</u> <u>NW1</u> LEFT LEFT RIGHT LEFT LEFT RIGHT RIGHT RIGHT <u>RED</u> LEFT RIGHT <u>H/S</u> LEFT RIGHT	<u>PROFIBUS Network</u> 1 2 3 4 <u>Redundancy</u> OFF ON <u>Settings</u> Hardware Software
<p>The diagram shows the terminal block of the SCOPE Repeater. Callouts include: 'Repeater Module status' pointing to RDY; 'Data received on Channel x' pointing to RX; 'Communication error on Channel x' pointing to ER; 'Termination ON on Channel x' pointing to SW; 'Dipswitches or web server settings' pointing to the NW0, NW1, RED, and H/S switches; and 'Redundancy for the current network' pointing to the same switches. A legend for network configurations is provided: Network 1: NW0 = L, NW1 = L; Network 2: NW0 = R, NW1 = L; Network 3: NW0 = L, NW1 = R; Network 4: NW0 = R, NW1 = R.</p>	
PROFIBUS connectors	
<u>CH1</u> A, B SH I	<u>Screw terminals + DB9 connector (1-on-1)</u> Green wire, Red wire Direct grounding Indirect grounding
Others	
Head Station firmware Operating temperature Weight MTBF	At least version 1.260 0..60 °C 120 g To be defined
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