

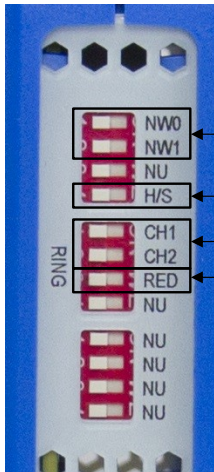
Technical Data ComBricks Fiber Optic Ring MM1 (101-201530)

Backplane	
PROFIBUS networks	4 (set by dipswitches or web server)
Modules	10 (positioned in the first 10 slots)
Power supply	Provided through the backplane
Compatible backplane units	101-200011, 101-200012, 101-200023, 101-200024, 101-200027
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	9.6 kbps .. 12 Mbps (including 45.45 kbps)
Transmission speed detection	Auto detect (< 10 s detection and 50 s time out)
Fiber optic cable delay	See manual for calculation
Delay time (per ring module)	2 TBit at 9.6 kbps .. 19.2 kbps 3 TBit at 187.5 kbps .. 45.45 kbps 4 TBit at 500kbps 10 TBit at 1.5 Mbps 20 TBit at 3 Mbps 40 TBit at 6 Mbps 80 TBit at 12 Mbps
Total delay between 2 modules	See manual for Slot time adjustment calculation
Fiber optic specifications	
Fiber Optic wavelength	Multimode 1310 nm
Cable type	Multimode Fiber G62.5 (50) / 125 µm (OM1)
Cable length	Max. 5 km (baudrate independent)
Optical budget	13dB
Optical Loss	2dB per km
Connectors	4 x ST/BFOC (2 channels)
Topologies	Ring, line (direct, hub, split, star)

Cascading depth

No limit, only busparameter limitation of the master

Dipswitches



Network selection
 Network 1: NW0 = Left, NW1 = Left
 Network 2: NW0 = Right, NW1 = Left
 Network 3: NW0 = Left, NW1 = Right
 Network 4: NW0 = Right, NW1 = Right

Use dipswitches or server settings (Left = DIP, Right = SERVER)

Enable or disable channel 1 or 2 (Left = ON, Right = OFF)

Ring Redundancy or Line (Left = RING, Right = LINE)

NU = not used

LEDs

	OFF	Blinking	ON
RDY	Module has NOT been powered / initialized yet.	Head Station is initializing or updating the module.	Module has been initialized and is operational
RX1 / RX2	NO signal, or NO valid telegrams detected on this channel, or channel is off.	1 or more devices are communicating on this channel.	A fiber optic cable is connected and link is established correctly
LV1 / LV2	Signal quality is good, or channel is off.	Not possible	Low signal, received messages can still be decoded
ER1 / ER2	No errors, or channel is off.	Not possible	No baudrate detected or no connection/signal

Others

Head Station firmware 1.288 and higher
 Operating temperature 0 .. 60 °C
 Weight 121 gram
 MTBF To be defined

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