PROFINET communication module

The Ethernet-based PROFINET bus system, the successor to PROFIBUS, is often used. There are currently various versions of PROFINET available, which differ with regard to deterministics and thereby also possible cycle times. The most commonly used system is the RT version of PROFINET I/O, which is suitable for networking between control and inverter, although not for motion control applications.

PROFINET communication module

Mode		Features	Slot	Product key
Communication module				
PROFINET		• 2 RJ45 connections with LEDs for link and activity • Integrated 2-port switch • PROFINET I/O device • Soft Real Time (RT) • 2 LEDs for communication status display • External voltage supply possible	MXI1 MXI2	E94AYCER

Standards and operating conditions

Product key			
			E94AYCER
Mode			
Communication module			PROFINET
Degree of protection			
EN 60529			IP20
Vibration resistance			
			Sinusoidal vibration Amplitude/Acceleration Acceleration resistant up to 0.7 g acc. to Germanischer Lloyd 10 Hz ≤ f ≤ 57 Hz: ±0.075 mm amplitude,
Site altitude			
Amsl	H_{max}	[m]	4000
Climatic conditions			
Storage (EN 60721-3-1)			1K3 (temperature: -25 °C … +60 °C)
Transport (EN 60721-3-2)			2K3 (temperature: -25 °C … +70 °C)
Operation (EN 60721-3-3)			3K3 (temperature: -10°C … +55 °C)
Insulation voltage to reference earth/PE			
	U_{AC}	[V]	50.0

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Rated data

Product key			
			E94AYCER
Communication			
Medium			CAT5e S/FTP according to ISO/ICE11801 (2002)
Communication profile			PROFINET I/O (RT) PROFIsafe in combination with SM301 and SM302
Baud rate			
	b	[kBit/s]	100
Node			
			PROFINET I/O device
Network topology			
			Star Use of switches
Process data words (PCD)			
16 Bit			1 ... 32
Max. cable length			
between two nodes	l_{max}	[m]	100
Rated voltage			
	$U_{N, DC}$	[V]	24.0

4.3