



EtherCAT® communication module

Physically speaking, EtherCAT® is a ring system that uses a one-total-frame protocol, where the device manipulates the data during the cycle. It has two physical variants, the E-bus and Ethernet. E-bus is only suitable for short distances within a device; only the Ethernet version offers the benefits of an Ethernet system.



EtherCAT® communication module

Mode		Features	Slot	Product key
Communication module				
EtherCAT		• CANopen over EtherCAT (CoE) • Distributed clock • 2 RJ45 connections with LEDs for link and activity • 2 LEDs for communication status display • External voltage supply possible	MXI1 MXI2	E94AYCET

4.3

Standards and operating conditions

Product key			
			E94AYCET
Mode			
Communication module			EtherCAT
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			E94AYCET
Communication			
Medium			CAT5e S/FTP according to ISO/ICE11801 (2002)
Communication profile			CoE (CANopen over EtherCAT) PROFIsafe in combination with SM302
Baud rate			
	b	[MBit/s]	100
Node			
			Slave
Network topology			
			Line (internal ring)
Number of logical process data channels			
			1
Process data words (PCD)			
16 Bit			1 ... 32
Number of bus nodes			
			Max. 65535
Max. cable length			
between two nodes	I_{max}	[m]	100
Rated voltage			
	$U_{N, DC}$	[V]	24.0