


PAT
 PROTOCOL
 CONVERTER

ED-PS
PAT Protocol Converter 5 V EnDat 2.2 > PROFINET/PROFIsafe

High-performance PAT Protocol Converters are based on a scalable netX 90 platform. Using this multiprotocol SoC allows us to develop protocol converters for a broad range of applications within short development cycles.

Part no.: 4260629980077


SUPPLY

Parameter	Value
Nominal voltage	24 V DC
Voltage range	19.2 V to 28.8 V DC
Max. input power (excl power of encoder)	<4 W [0.166 A @ 24 V DC]
Max. input power (incl power of encoder)	<12 W [0.5 A @ 24 V DC]
Overvoltage protection	Yes
Reverse polarity protection	Yes
Encoder current consumption	max. 1 A

INTERFACES

Parameter	Value
Power supply	Pluggable terminal block with screw connection, conductor cross-section 0.2 to 1.31 mm² [AWG16-26]
PROFINET IO Controller	1x RJ-45
PROFINET Periphery	1x RJ-45 (daisy chain)
EnDat encoder 1	D-Sub, 9-pole
EnDat encoder 2	D-Sub, 9-pole

MECHANICAL DATA

Parameter	Value
Dimensions	165.5 mm x 110 mm x 50 mm
Weight	Approx. 0.5 kg
Mounting type	35 mm DIN top hat rail

EnDat 2.2

Parameter	Value
Protocol type	EnDat 2.2, downward compatible to EnDat 2.1
Measuring device identification	Automatic
Clock frequency	Up to 16 MHz
Time-delay compensation	Automatic

PROFINET

Parameter	Value
Device function	PROFINET IO Device
Transfer rate	100 Mbps
Update rate	1 kHz (RT, adjustable)
PROFINET IO version	2.35
Supported protocols	SNMP, LLDP
Supported MIBs	MIB2
Real-time class	RT_CLASS_1
Netload class	II
Conformance class	B

PROFIsafe

Parameter	Value
Device Function	PROFIsafe F-Device
PROFIsafe Version	2.6.1

AMBIENT CONDITIONS

Parameter	Value
Vibration DIN EN 60068-2-6	2 Hz to 9 Hz & 9 Hz to 200 Hz: 1.5 mm with constant acceleration
Shock resistance acc. to DIN EN 60068-2-27	50 m/s ² for 6 ms
Ambient temperature operation	0 °C to 60 °C
Ambient temperature storage/transport	-40 °C to 60 °C
Relative humidity	5 % to 85 % without condensation
Altitude for operation	<3,000 m above sea level
Protection rating	IP 20 (as per DIN EN 60529)
Protection class	III

COMPLIANCE WITH EMC DIRECTIVE 2014/30/EU

Parameter	Value
Discharge of static electricity acc. to EN 61000-4-2	Contact discharge: 4 kV Air discharge: 8 kV
Electromagnetic fields acc. to EN 61000-4-3	80 MHz to 1 GHz, 10 V/m 1.4 GHz to 1.6 GHz and 1.8 GHz to 2.2 GHz 2.4 GHz to 2.5 GHz and 5.1 GHz to 6.0 GHz, 3 V/m 80 % AM [1 kHz]
Fast transients (burst) acc. to EN 61000-4-4	Signal connection: ±1 kV 5/50 ns 5 kHz repetition frequency DC power input: ±2 kV 5/50 ns 5 kHz repetition frequency
Conducted emitted interference acc. to EN 61000-4-6	150 kHz to 80 MHz 10 V/m 80 % AM [1 kHz]
Emitted interference case acc. to CISPR 16-1-1 CISPR 16-1-4 CISPR 16-2-3	30 MHz 40 dB (µV/m) - quasi-peak value 230 MHz at 10 m
	230 MHz 47 dB (µV/m) - quasi-peak value 1,000 MHz at 10 m
Emitted interference, low voltage connection CISPR 16-1-1 CISPR 16-1-2 CISPR 16-2-1	0.15 MHz 79 dB (µV/m) - quasi-peak value 0.5 MHz 66 dB(µV/m) average
	0.5 MHz 73 dB (µV/m) - quasi-peak value 30 MHz 60 dB(µV/m) average
EN 55032 Telecommunication connections	0.15 MHz 74 dB (µV/m) - quasi-peak value 0.5 MHz 74 dB to 64 dB (µV/m) average
	0.5 MHz 74 dB (µV/m) - quasi-peak value 30 MHz 64 dB (µV/m) average