



**PAT** ED-PS  
**PROTOCOL  
 CONVERTER**

**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 mm <sup>2</sup> [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 <sup>2</sup> 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