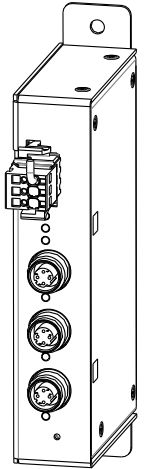


ERT03

Ethernet Router for Rolling Stock

- 3 ports TCN router
- 2 ports for train bus ETB (Ethernet Train Backbone)
- 1 port for vehicle bus ECN (Ethernet Consist Network)
- Ethernet 100 Mbps
- Power supply 24 V DC
- Designed in accordance with EN 50155



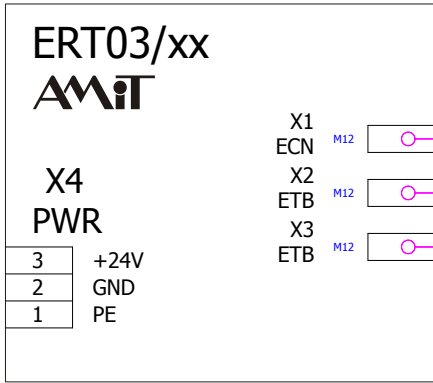
TECHNICAL DATA

Processor	STM32F207ZET6
FLASH memory	512 KB
RAM memory	128 KB
EEPROM memory	16 KB (external)
Communication	3 × Ethernet
Communication rate	100 Mbps Full Duplex
Signal connection	M12, D coding
Power supply	24 V DC
Voltage range	16.6 V DC to 30 V DC
Power consumption	Max. 0.15 A at 24 V DC
Signal connection	WAGO 769-103/021-000
Others	
Cover protection rate	IP20
Operating temperature	-40 °C to 70 °C
Storage temperature	-40 °C to 70 °C
Max. ambient humidity	< 95 % non-condensing
Mounting	2 × ø 6 mm hole
Weight	677 g
Dimensions (w × h × d)	(193 × 33 × 124) mm

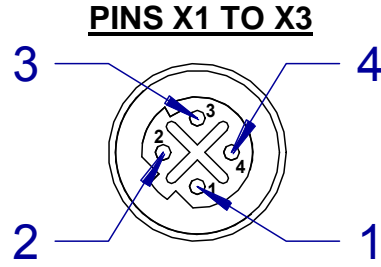
ORDERING INFORMATION

ERT03	Ethernet router, Power supply connector counterpart, Certificate of product's quality and completeness, Insulation test protocol, Routine test protocol.
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RECOMMENDED DIAGRAM SYMBOL



NUMBERING OF CONNECTORS



Front view on M12 connector

TERMINALS ASSIGNMENT

Connector	Assignment
X1	Ethernet port 1 – ECN
X2	Ethernet port 2 – ETB
X3	Ethernet port 3 – ETB
X4	Power supply

CONNECTORS X1 TO X3

Terminal	Assignment
1	Tx+
2	Rx+
3	Tx-
4	Rx-

CONNECTOR X4 (POWER SUPPLY)

Terminal	Label	Assignment
1	PE	Module frame
2	GND	Power supply, ground
3	VCC	Power supply 24 V DC

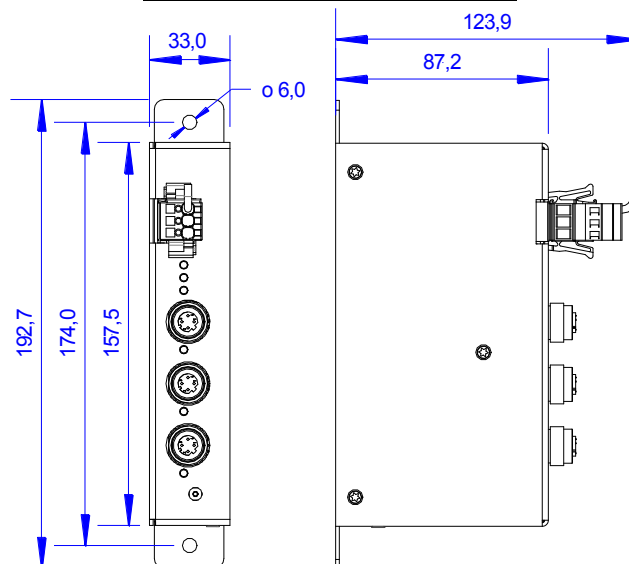
LED ASSIGNMENT

LED	Status	Assignment
PWR	shines	Switch on indication
ACT	blinks	Indication of frame transmission
SYNC	blinks	Synchronization indication
X1, X2, X3	shines blinks	LINK – connection detection ACT – communication flow

RECOMMENDED CABLING

CAT5 or higher. Cable must be twisted.

PHYSICAL DIMENSIONS



- TCN – Train Communication Network – data communication network for rolling stock
- ECN – Ethernet consist network – railway vehicle Ethernet network
- ETB – Ethernet train backbone – backbone train Ethernet network

Data specified in this datasheet is informative only. Detailed information can be found in Operation manual (ert03_g_en_XXX.pdf). Documentation and examples can be found at www.amit-transportation.com.