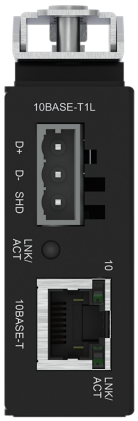
Data Sheet | Item Number: 852-1705

Industrial Media Converter; Single Pair Ethernet; 10 BASE-T1L to 10 BASE-T

https://www.wago.com/852-1705




2
3
10BASE-T1L
10
LNK/
ACT
D+ D- SHD
LNK/
ACT
10BASE-T
6
5
4
LED 1: Supply voltage status
LED 2: 10BASE-T connection
LED 3: 10BASE-T data transfer
4: 1 x RJ-45 port (10BASE-T)
LED 5: 10-BASE-T1L status
6: SPE connector (10BASE-T1L)
WAGO
852-1705
12-48V DC
FUN
1 Auto Mode
2 ON: Master
OFF: Slave
ON
OFF
PWR
1

This device is an industrial media converter with one 10 Mbit/s RJ-45 ETHERNET port (10BASE-T) and one Single Pair Ethernet port (10BASE-T1L).

The media converter enables ETHERNET communication at a bandwidth of 10 Mbit/s using shielded twisted-pair cabling over a maximum transmission distance of 1,000 m (approx. 3,280 ft).

The automatic transmission rate detection (auto-negotiation) of the connected ETHERNET device enables simple plug-and-play operation. Connecting the SPE cable to the female connector with lever actuation is straightforward and time-efficient.

Using Single Pair Ethernet significantly reduces the cost of integrating an Ethernet connection over long transmission distances. In particular, reusing existing cabling can significantly reduce the cost of connecting decentralized Ethernet-capable sensors to an automation system. Another application involves networking remote Ethernet devices using two SPE media converters over a maximum distance of 1,000 m (approx. 3,280 ft). This application makes it possible to substitute DSL modems or fiber optic connections. Its compact design with a DIN-rail adapter makes installation in control cabinets easier and provides high heat, vibration and shock resistance. The device operates on 24 VDC, the standard supply voltage used in control cabinets.

Technical data	
Communication standards	IEEE 802.3i 10BASE-T IEEE 802.3cg 10BASE-T1L (Single Pair Ethernet)
Configuration options	DIP switch for configuring the Single Pair Ethernet port
Jumbo frame size	16000 bytes
Supply voltage	12 … 48 VDC; (±15 %); 12 … 48 VDC (UL)
Power consumption (max.)	3 W
Current consumption (max.)	250 mA
Transmission rate	10BASE-T: 10 Mbit/s; 10BASE-T1L: 10 Mbit/s
Transmission medium (communication/fieldbus)	10BASE-T: Copper cable, Cat 5 or better, 100 m maximum cable length; 10BASE-T1L: SPE (10BASE-T1L) compatible cable, 1000 m maximum cable length
Indicators	Device: LED (PWR), green: Supply voltage status; Ports: LED 10BASE-T connection (10, LNK/ACT), green: Connection, data transmission; LED 10BASE-T1L connection (LNK/ACT), green/amber: SPE status

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Connection data

Connection technology: communication/fieldbus	10BASE-T: 1 x RJ-45; 10BASE-T1L: 1 x Built-in male connector: 231-433/001-000; included female connector (*MCS* Connectors): 2231-1103/327-000
Connection technology: supply	1 x Built-in male connector: 231-433/001-000; included female connector (*MCS* Connectors): 2231-1103/327-000
Connectable conductor materials	Copper

Physical data

Width	23.4 mm / 0.921 inches
Height	103.4 mm / 4.071 inches
Depth from upper-edge of DIN-rail	68 mm / 2.677 inches

Mechanical data

Weight	87 g
Housing material	Electrolytically galvanized steel (SECC)

Environmental requirements

Ambient temperature (operation)	-40 … +75 °C
Ambient temperature (storage)	-40 … +80 °C
Protection type	IP30
Relative humidity (without condensation)	95 %
Mounting type	DIN-35 rail
Vibration resistance	Per IEC 60068-2-6
Shock resistance	per IEC 60068-2-27
EMC immunity to interference	Per EN IEC 61000-6-2
EMC emission of interference	Per EN IEC 61000-6-4
Fire load	0 MJ

Commercial data

PU (SPU)	1 pcs
Packaging type	Box
Country of origin	TW
GTIN	4066966672787
Customs tariff number	85176200000

Product classification

UNSPSC	43222605
ETIM 9.0	EC001467
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-ISW852
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
SDoC for FCC WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 852-1705

Documentation

Manual

Product Manual Industrial Media Converter	3555343627 | 1 | en-US | 2025-01-15 07:21 16.01.2025	pdf 8901.86 KB

CAD/CAE-Data

CAD data

2D/3D Models 852-1705