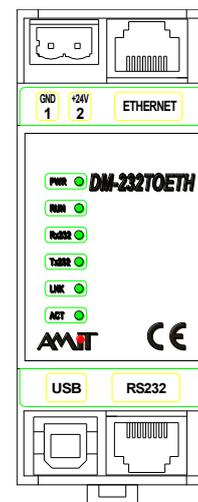**AMiT**

Industrial
Control Systems

DM-232TOETH

Converter from RS232 to Ethernet

- **Access to Ethernet network via RS232 interface**

- **Communication interface RS232 (APE protocol)**

- **Communication interface Ethernet (DB-Net/IP protocol)**

- **Applicable only to CS by AMiT**

- **On DIN 35 mm rail**

- **Line activity indicated by LED**

- **Power supply 24 V DC**

TECHNICAL DATA

RS232 transmission speed	38,400 bps
RS232 galvanic isolation	No
RS232 line signals	RTS, CTS
RS232 connector	RJ45
Ethernet transmission speed	10/100 Mbps
Ethernet galvanic isolation	Yes [1])
Ethernet connector	RJ45
USB (only service)	Version 2.0
Power supply	10 V DC to 30 V DC
Maximum consumption	100 mA at 24 V DC
Communication protocols	Ethernet: DB-Net/IP (non-public protocol)
	RS232: APE (public protocol)
Ingress protection rate	IP20
Mounting	On DIN 35 mm rail
Operating temperature	-20 °C to 50 °C
Maximum ambient humidity	< 95 % non-condensing
Weight	100 g
Dimensions (w × h × d)	(36 × 91 × 73) mm

[1]) Isolation strength 500 V AC / 1 min., galvanic isolation must not be used for separation of dangerous voltages.

ORDERING INFORMATION

DM-232TOETH	Communication converter from RS232 to Ethernet
KABEL 232RMS	Connecting cable control system – converter (D-sub DE-9 / RJ45), 2 m
KABEL 232RR	Connecting cable control system – converter (RJ45 / RJ45), 2 m
KABEL 232RRA	Connecting cable control system – converter (RJ45 / RJ45), 0.5 m

As standard, the converter is equipped with firmware providing bilateral transfer of IP packets from/to Ethernet network via RS232 interface. The IP packets are received and transmitted in RS232 interface via the company protocol APE. The APE protocol is supported by control systems with NOS operating system from version 3.24. We parametrize **DM-232TOETH** independently from the control system and there is no need for any applicator interference or any convertor setting. Control system parametrization is described in AP0006 "Communication in Ethernet network" which is available for download at amitomation.com. Information on the IP address, default gateway and sub-network mask are saved in the control system and transferred at the moment communication with **DM-232TOETH** is established.

This converter cannot be used with other control systems.

There are six LEDs on the front panel of the converter; five of them is hardware-controlled, LED RUN is software-controlled and signalizes the converter status:

LED DESCRIPTION

| LED	Description
PWR	The converter is powered
Tx232	Transmission via RS232 interface
Rx232	Receiving on part of RS232
LNK	Indicates physical connection with active counterpart
ACT	Signalizes receiving or transmitting of an ethernet frame

LED RUN DESCRIPTION

LED RUN	Description
Blinking in periods of ca 100 ms	The converter is not configured, does not know its IP address, awaits a configuration frame from the superior system. Typical state after the power supply turns on.
Blinking in periods of ca 300 ms	The converter communicates in a half-duplex mode where a converter to RS485 is connected to the RS232 interface. We can also connect an automatic converter as well as a converter with controlled switching to the converter. In such case, transmission is activated via RTS signal.
Blinking in periods of ca 2,000 ms	The converter communicates in full-duplex mode via RS232 interface.

LOCATIONS OF TERMINALS

RECOMMENDED DRAWING SYMBOL
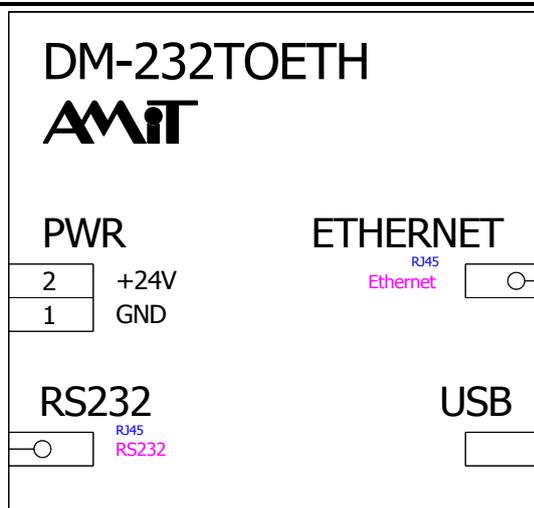
CONNECTING RS232

Pin	Signal	Type to DM-232TOETH	Pin	Signal	Type to DM-232TOETH
1	NC	not connected	5	TxD	Output
2	NC	not connected	6	RxD	Input
3	NC	not connected	7	RTS	Output
4	GND	–	8	CTS	Input

The unit can be connected to the control system via RS232 (KABEL 232RMS, KABEL 232RR, KABEL 232RRA).

Mounting warning:
If RS232 interface serves for service purposes only or is used within the switchboard, a flat unshielded communication cable is sufficient. It is necessary to use shielded conductors in case of permanent usage outside the switchboard. Connect the shielding right at the switchboard input on PE. Connect Ethernet interface with a shielded cable.