

User manual

ADA-DNB400T

Passive 1-WIRE Bus Splitter



APPLICATION

ADA-DNB400T Splitter is used to for changing the 1-WIRE bus topology from **lineal (chain type)** to **star type**. ADA-DNB400T allows connection of digital sensors like: DS-18B20, DES-300, DES-215, DES-200, DTS-103, DTS-107; to multipoint measurement temperature system, based on ADA-401WP module in:

- in silos to connect temperature measurement probes,
- places with structured cabling,
- automation cubicles,
- data communication cubicles,
- devices

and outside temperature via the serial bus 1-WIRE.

Application of 1-Wire bus enables:

- the cooperation of many sensors connected to the same data lines,
- the deployment of sensors in various locations up to 300m,
- powering the sensors from the bus,
- guarantee the correct transmission of measurement data secure checksum CRC

TECHNICAL DATE

Transition Parameters	
Interface	1-WIRE
Connector	Screw terminal, wire max.. Ø 1,5mm ²
Line length	Up to 300 m depend on topology of 1-WIRE network and cables used
Baud rates (bps)	standard: do 16,3 kbps,
Transmission line	For Home & Office recommend: Twisted cable 1-pair or 2-pair, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG)
Standards	1-WIRE
Optical signalization	<ul style="list-style-type: none"> • VDD – green LED power 5VDC, • VCC – red LED additional power 12VDC
Electrical Parameters	
Power voltage VDD	5VDC
Circuit Load VDD	500mA
Power voltage VCC	12VDC
Circuit Load VCC	500mA
Electromagnetic compatibility	Resistance it disruptions according it the standard PN-EN 55024. Emission of disruptions according it the standard PN-EN 55022.
Safety requiring	According it the PN-EN 60950 norms.
Environment	Commercial and light industrial.
Environmental Parameters	
Operating temperature	-30 ÷ 60°C
Humidity	5 ÷ 95% - non-condensing
Storage temperature	-40 ÷ 70 °C
Casing	
Dimensions	88 mm x 58 mm x 90 mm
Material	ABS
Degree of casing protection	IP40
Weight	IP20
According is a standard	0,20 kg
Position during operation	DIN EN50022, DIN EN43880
Mounting	Free
Dimensions	Rail mounting according it is DIN35 standard / TS35.

PROPERTIES

- Support 1-WIRE bus of 2-wire (2W) and 3-wire (3W),
- Separation of 1-Wire bus for 7 branches, with the total length should not exceed 300m for the 64 sensors,
- Signalling of voltage VDD (green LED) 1-WIRE network 3-wire,
- Signalling of voltage VCC (red LED) - additional 12VDC voltage to power the sensors DES-300, DES-216,
- Connection 1-WIRE network via plug-in screw terminal block,

VIEW & DIMENSIONS

