

User manual

DNB-400

Passive 1-WIRE Bus Splitter



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1. GENERAL INFORMATION

Thank you for your purchase of CEL-MAR Company product. This product has been completely tested and is covered by two year warranty on parts and operation from date of sale.

If any questions or problems arise during installation or use of this product, please do not hesitate to contact Technical Support at +48 41 362-12-46 or e-mail support@cel-mar.pl.

1.1. WARRANTED INFORMATION

CEL-MAR Company gives the two year guarantee on the **DNB-400 splitter**. In case of being damaged it will be repair or the damaged component will be replace. The warranty does not cover damage caused from improper use, materials consumption or any unauthorized changes. If the product does not function (is damaged), or not operate in accordance with the instructions, will be repaired.

All warranty and no warranty repairs must be returned with paid transport and insuring to the **CEL-MAR Company**.

CEL-MAR Company under no circumstances won't be responsible for ensuing damage from improper using the product or as a result of random causes: the lightning discharge, the flood, the fire and the like.

CEL-MAR Company is not be held responsible for damages and loss including: loss of profits, loss of data, pecuniary losses ensuing from using or the impossibility of using this product.

In specific cases **CEL-MAR Company** discontinue all warranties and in particular do not follow the user manual and do not accept terms of warranty by the user.

1.2. GENERAL CONDITIONS FOR SAFE USE

The device should be installed in a safe and stable places, the powering cable should be arranged so as not to be exposed to trampling, attaching, or pulling out of the circuit.

Do not put device on the wet surface.

Do not connect devices for nondescript powering sources,

Do not damage or crush powering wires.

Do not make connection with wet hands.

Do not adapt, open or make holes in casings of the device!

Do not immerse device in water or no other liquid.

Do not put the fire opened on device sources: candles, an oil lamps and the like.

1.3. CE LABEL



The CE symbol on the device CEL-MAR means compatibility with electromagnetic compatibility Electromagnetic Compatibility Directive **EMC 89/336/EWG**. Declaration of Conformity is available by contact with Technical Service (email: support@cel-mar.pl; phone: +48 41 362-12-46).

1.4. ENVIRONMENTAL PRESERVATION



This sign on the device inform about putting expended device with other waste materials. Device should send to the recycling. (In accordance with the act about the Electronic Appliance Expended from day 29 of July 2005)

1.5. SERVICE AND MAINTENANCE

It is recommended to check the status of modular sockets and the sensors connecting cables, to eliminate the influence of mechanical damage on the quality of measurement .

Technical support is available at number +48 41 362-12-46 in 8.00-16.00, from Monday to Friday or e-mail support@cel-mar.pl.

2. PROPERTIES

- Supporting 1-WIRE bus of 2-wire (2W) and 3-wire (3W),
- Separation of 1-Wire bus for 8+LINK/9 branches, with the total length should not exceed 260m for the 64 sensors,
- Signalling of voltage on 1-WIRE Bus of 3-wire,
- Bus connection via standard modular sockets for RJ45,
- Designed to operating with structural cabling,
- Casing adapt to rail mounting according to DIN35 / TS35, standard
- Casing dimensions (W x D x H) 88mm x 58mm x 90 mm.

3. SOLUTIONS

Splitter DNB-400 is used to for connection of digital sensors as: DES-300, DES-215, DES-200, DTS-103, DTS-107 to remote multi-point measurement temperature system in:

- premises with structured cabling,
- automation cubicles,
- data communication cubicles,
- devices

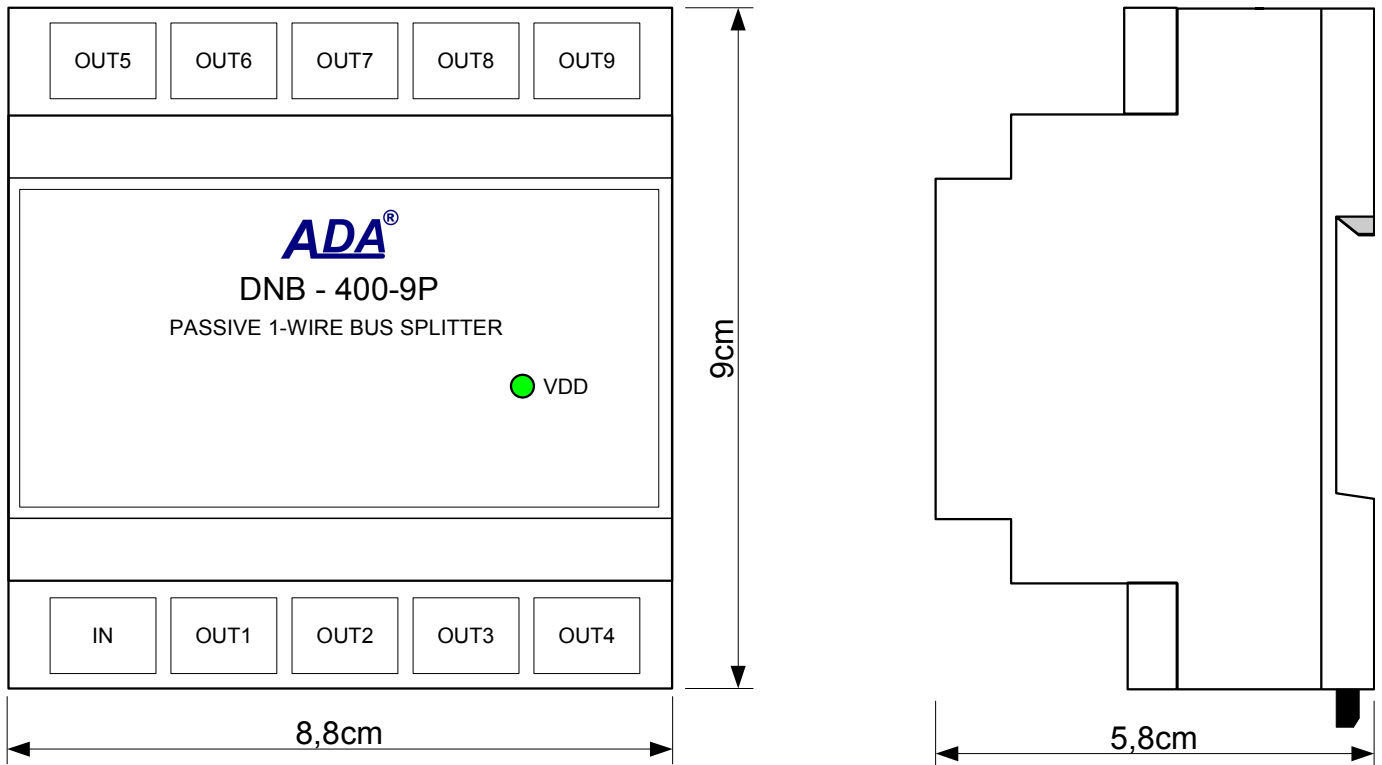
and outside temperature via the serial bus 1-WIRE.

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 260m,
- powering the sensors from the bus,
- guarantee the correct transmission of measurement data secure checksum CRC

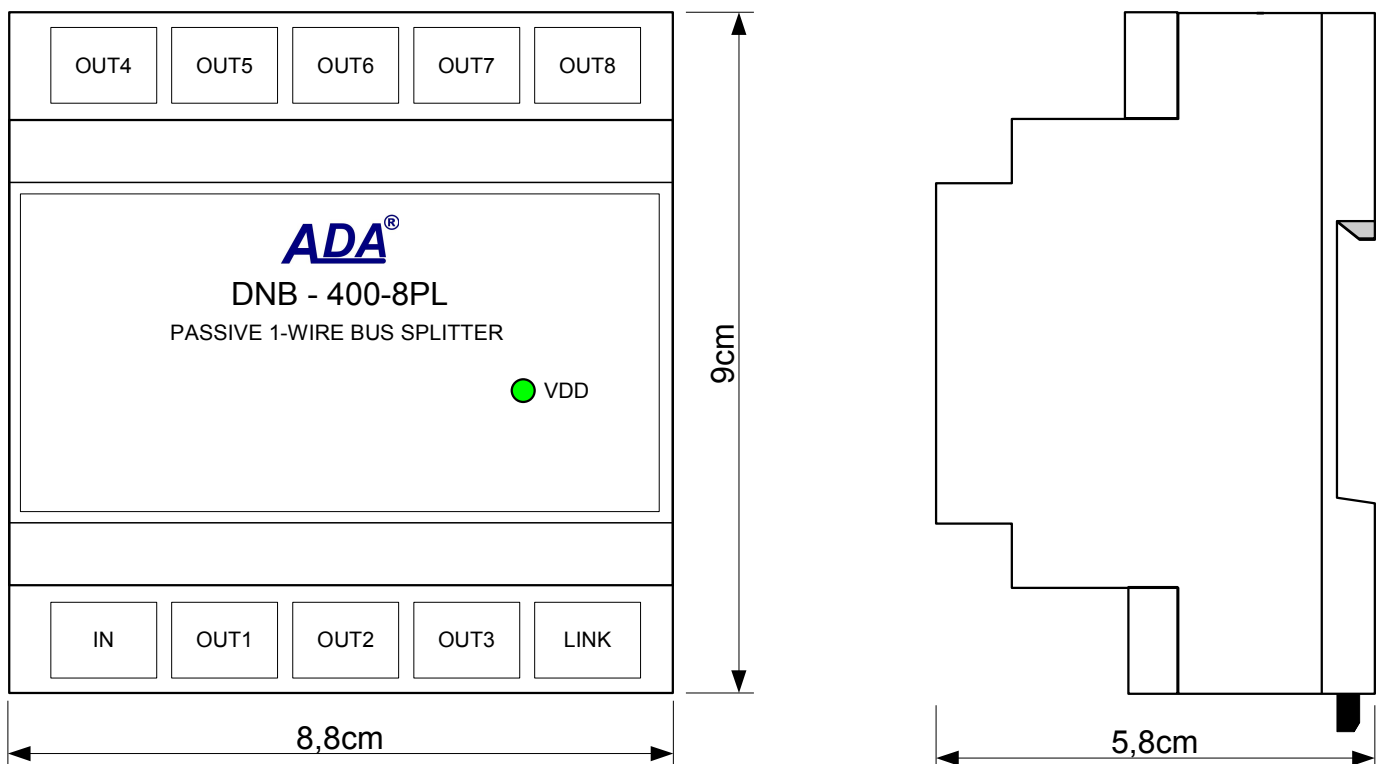
4. DNB-400-9P VIEW

On the below picture is shown the Passive 1-WIRE Bus Splitter DNB-400-9P in version with input IN port and 9 output ports.

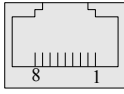


5. DNB-400-8PL VIEW

On the below picture is shown the Passive 1-WIRE Bus Splitter DNB-400-8PL in version with input IN port and 8 output ports and one LINK port for connection of another splitter.



6. THE SIGNALS ON THE PINS OF MODULAR SOCKET: IN, OUT, LINK PORTS

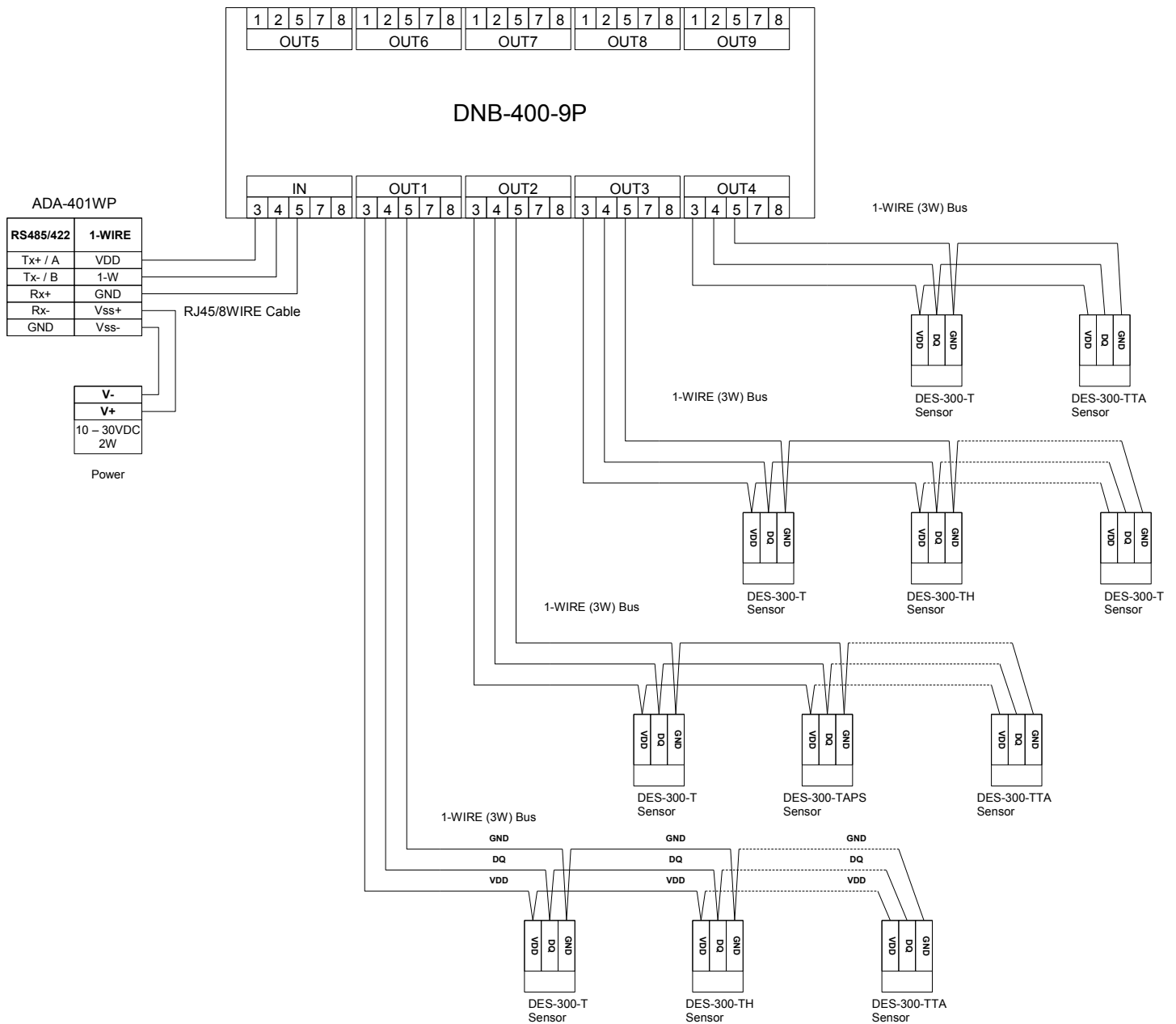


The signals on the pins of modular socket :

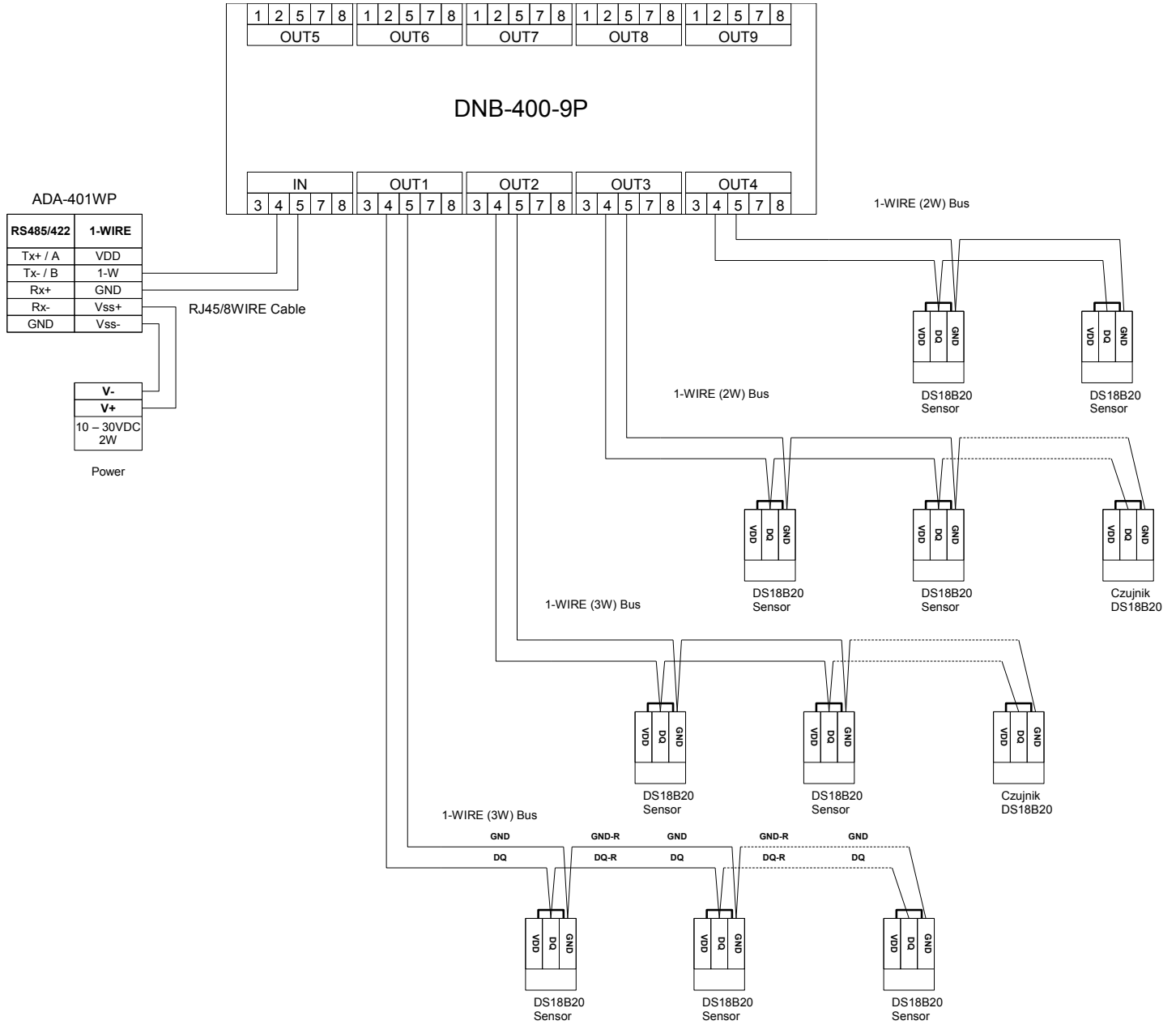
1. NW – not use (RJ45/8WIRE cable – white-orange)
2. NW – not use (RJ45/8WIRE cable - orange)
3. VDD – power +5VDC (RJ45/8WIRE cable - white-green)
4. DQ – data line (RJ45/8WIRE cable - blue)
5. GND – ground line (RJ45/8WIRE cable - white-blue)
6. NW - not use (RJ45/8WIRE cable - green)
7. NW - not use (RJ45/8WIRE cable - white-brown)
8. NW - not use (RJ45/8WIRE cable - brown)

7. EXAMPLE SOLUTIONS

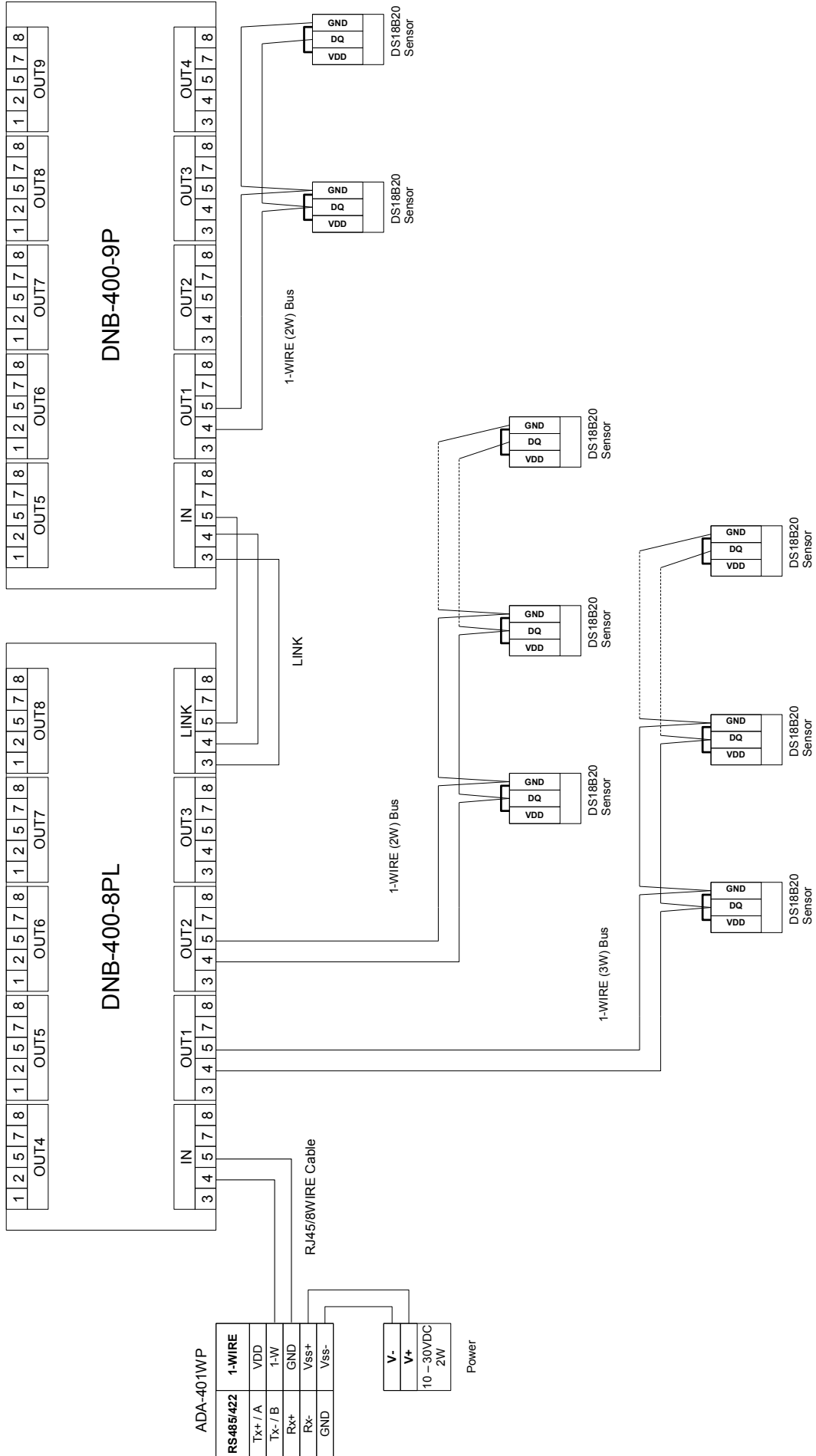
7.1. EXAMPLE CONNECTION OF 3-WIRE BUS



7.2. EXAMPLE CONNECTION OF 2-WIRE BUS



7.3. EXAMPLE CONNECTION OF TWO SPLITTERS DNB-400-8PL AND DNB-400-9P



8. SPECIFICATIONS

<i>Parameters</i>	<i>Data</i>
casing material	Noryl
Operating temperature	from -30°C to +70°C
Degree of protection	IP20
Dimensions	88 mm x 58 mm x 90 mm
Weight	0,1 kg
Storage and transport	
outdoor temperature	-30 ÷ +70°C
Relative air humidity	5 ÷ 95% - noncondensing

9. VERSIONS

DNB-400 -	
	9P
	8PL

Versions:

With IN port and with 9 OUT ports

With IN port and 8 OUT port and additionally with LINK port for connection of other splitter.

Order example:

Product symbol: **DNB-400-8PL**

8PL - Splitter with IN port and 8 OUT ports and additionally LINK port for connection other splitter.

Dear Customer,

Thank you for purchasing **CEL-MAR Company** product.

We hope that this user manual help simplify your network of 1-Wire sensor for industrial applications. We also wish to remind you that CEL-MAR Company are a manufacturer of the widest selections of data communications products in the world in applications such as: data transmission converters in RS232, RS485, RS422, USB, Current Loop, Fibre-Optic and Ethernet Converters and many others.

We welcome your feedback so please contact us to tell how you like our products and how we can satisfy you present and future needs.

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