



**FEATURES**

- 0÷20 mA isolated conversion
- No external supply required
- 3000 Vac galvanic isolation
- Good accuracy and performance stability
- EMC compliant – CE mark
- Suitable for DIN rail mounting in compliance with EN 50022 and EN-50035



**GENERAL DESCRIPTION**

The transmitter DAT 511 is a passive 0÷20 mA current loop isolator.

The input current, variable from 0 up to 20 mA, is converted in an output current of the same value but keeping a galvanic isolation from the input circuit.

The converter is a passive isolator: this means that the device uses the input signal to power itself, so it does not require any external power supply.

It is housed in a plastic enclosure of 17 mm thickness suitable for DIN rail mounting in compliance with EN-50022 and EN-50035 standards.

**USER INSTRUCTIONS**

The device DAT 511 must be connected as follows.

The input connections must be made as shown in the section "Input connections".

The input signal, coming from an active loop must be applied between the terminals E ( IN+) and F ( IN- ).

The output connections must be made as shown in the section "Output connections".

The output signal is provided between the terminals C ( +OUT ) and D ( -OUT ).

Notes of installation:

- the DAT 511 causes a maximum voltage drop of 3 Vdc on the input current loop;
  - if there is an interruption either in the input or in the output current loop, the output signal will be 0 mA.
- To install the device refer to section "Installation Instructions".

<b>TECHNICAL SPECIFICATIONS (Typical @ 25 °C and in nominal conditions)</b>	
<b>Input</b>	
Signal type(*)	Current: 0 ÷ 20 mA
Maximum input signal	50 mA
Voltage drop	3 Vdc max.
<b>Output</b>	
Signal type	Current: 0 ÷ 20 mA
Load resistance (Rload)	from 0 up to 700 ohm
<b>Performances</b>	
Transmission error	± 0.25 % of f.s.
Load resistance influence	± 0.085 % of f.s./100 Ω
Thermal drift	0.02 % of f.s./°C
Response time	20 ms
Isolation voltage	3000 Vac, 50 Hz, 1 min
Electromagnetic Compatibility (EMC) ( for industrial environment )	Immunity: EN 61000-6-2; Emission : EN 61000-6-4
Operating temperature	0 ÷ 55 °C
Storage temperature	- 40 ÷ 85 °C
Relative humidity (non cond.)	0 ÷ 90%
Maximum Altitude	2000 m
Installation	Indoor
Category of installation	II
Pollution Degree	2
Weight	approx. 60 g
<b>Mechanical Specifications</b>	
Material	Self-extinguish plastic
IP Code	IP20
Wiring	wires with diameter 0.8÷2.1 mm <sup>2</sup> /AWG 14-18
Tightening Torque	0.8 N m
Mounting	in compliance with DIN rail standard EN-50022 and EN-50035
(*) internally protected against polarity reversion.	

## INSTALLATION INSTRUCTIONS

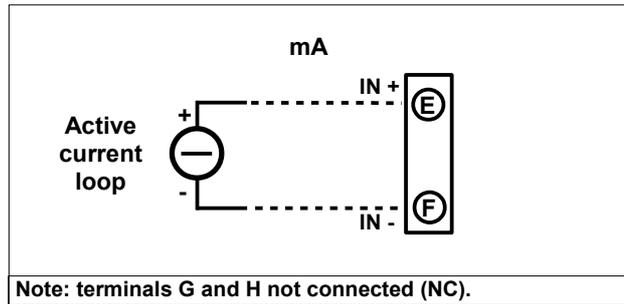
The device DAT 511 is suitable for DIN rail mounting.

It is necessary to install the device in a place without vibrations; avoid to routing conductors near power signal cables .

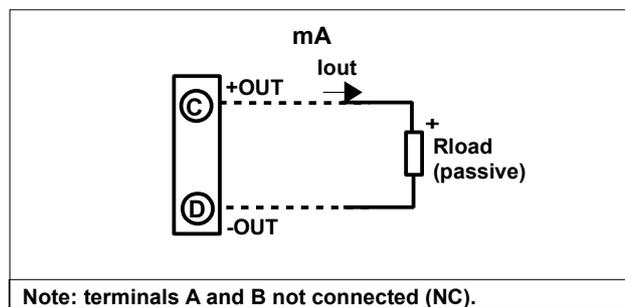
Note: in order to protect the device against eventual electrostatic discharges due to a not correct handling, the DAT 511 is supplied with a transparent protection plastic cap on the terminals which can be removed during the installation.

## DAT 511 CONNECTIONS

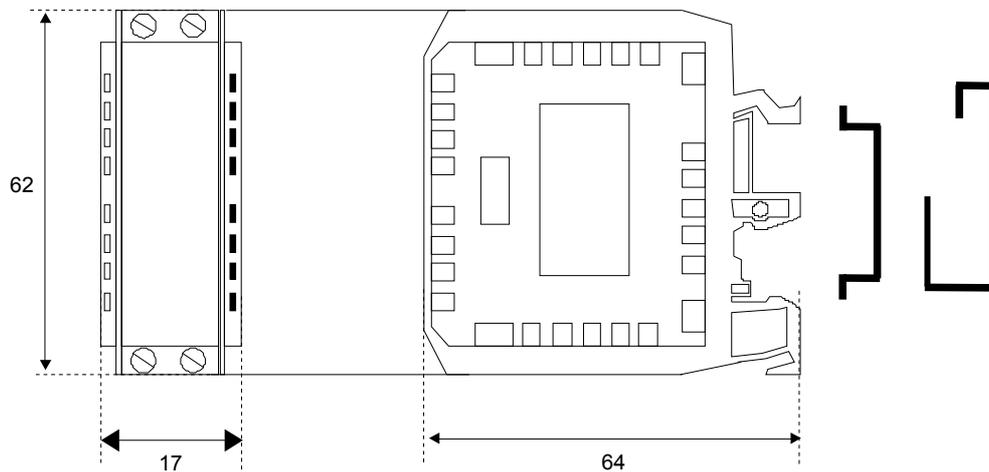
### INPUT CONNECTIONS



### OUTPUT CONNECTIONS



## DIMENSIONS (mm)



## ISOLATIONS STRUCTURE



### HOW TO ORDER

The DAT 511 is supplied for the conversion 0÷20 mA 0÷20 mA

ORDER CODE: DAT 511