

Operating Instructions

Frequency Transducer PROF31

ARTEL

1. Cautions

The proper and safe operation of the device assumes that the operating instruction is read carefully and safety warnings given in the various sections. Mountings and electrical sections are observed.

The device should only be handled by appropriately trained personnel who are familiar with it and authorized work in electrical installations. Unauthorized repair or alternation of the unit invalidates the warranty.



The sign indicates there is potential electrical power danger, which might result in the harm if not following the rule.

For your safety reason, please properly use our products. It is strongly recommended that you follow the instructions:

1. Please connect to the power and load as rated in label.
2. Please confirm the wire is connected correct, to avoid the harm resulted from the wrong connection.
3. Please turn off the power system before releasing the transducer from DIN rail.

2. Brief description

PROF31 Frequency transducer is designed to convert Frequency into a DC Current or Voltage proportional to the measured value.

3. Technical Data

Accuracy: Class0.2, Class0.5
Auxiliary Power Supply: 24~80VAC/DC, 85~265VAC/DC
Stability: Annual Change Rate $\leq 0.2\%$

Input :

Input Voltage (PROF31): 100VAC, 220VAC
Input Frequency: 45~50~55Hz, 48~50~52Hz,
49~50~51Hz, 55~60~65Hz,
58~60~62Hz, 59~60~61Hz.

Continuous Overload Capacity $\leq 2X$
Transient Overload Capacity Voltage Limit $\leq 3X$
Current Limit $\leq 50X$

Output:

4~20mA, 4~12~20mA, 0~±20mA, 0~±1mA, 0~±10mA, 0~±1V,
0~±5V, 0~±10V

Constant Voltage Output, Load Resistor: $R_{ext} \geq 250 \Omega$

Constant Current Output, Load Resistor : $R_{ext} \leq 500 \Omega$

$R_{ext} = \infty$ Voltage $\leq 20V$

Alternating Wave: $\leq 18mV(\text{Peak-Peak})$

Own power consumption: $< 2VA$

Striking Voltage: $\leq 2.5kV$

Response Time: $\leq 300ms$

Housing: PC

Operating Temperature: $-10^{\circ}C \sim +50^{\circ}C$

Storage Temperature: $-40^{\circ}C \sim +85^{\circ}C$

Humidity: $\leq 90\%RH$

Installation: DIN 35mm Rail

Size: 35mm×69mm×110mm



PROF31

4. Mounting and Releasing the transducer

4.1 Installing the transducer

Simply clip the transducer on DIN rail as shown in fig.1.

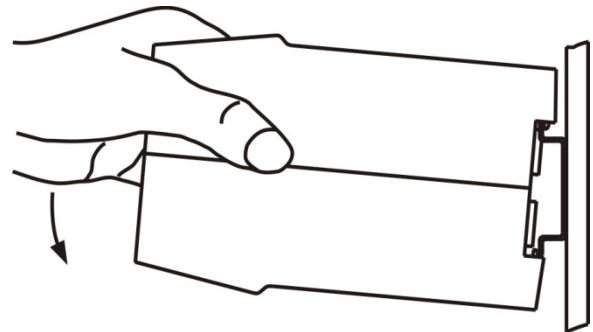
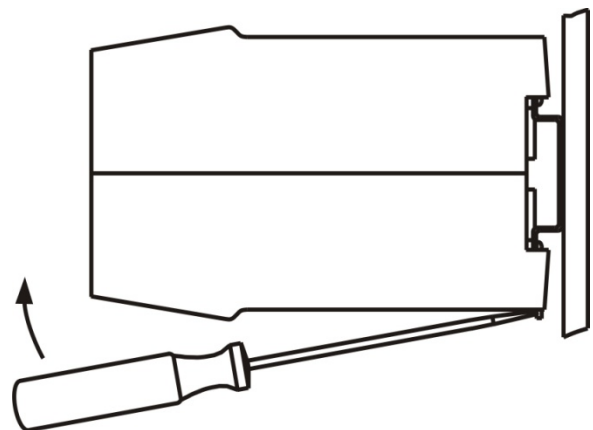


Fig1. Mounting onto a DIN rail 35mm

4.2 Releasing the transducer

Release the transducer from a DIN rail as shown in fig.2.



Fit 2. Release from a DIN rail 35mm

5. Commissioning and maintenance

Switch on the power supply and the measuring input. It is possible during the operation to disconnect the output line and to connect a check instrument, e.g. For a functional test.

No maintenance is required.

Measuring input and output are specified and labeled on the nameplate according to the different type ordered.

6. Electrical connections



Make sure that cables are not live when making the connections

Connect the leads acc. To the instructions on nameplate.

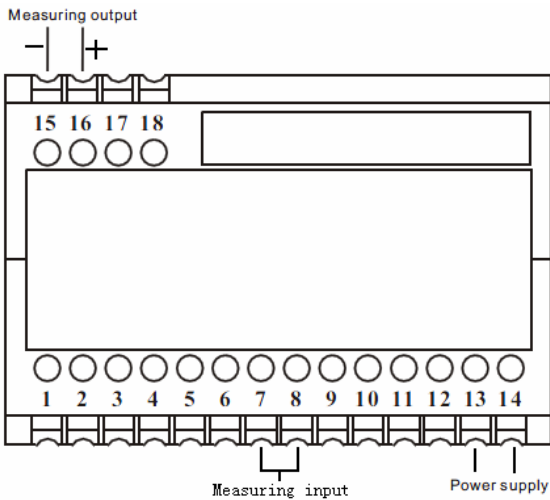


Fig. 3. Wiring diagram for PROF31 Frequency Transducer

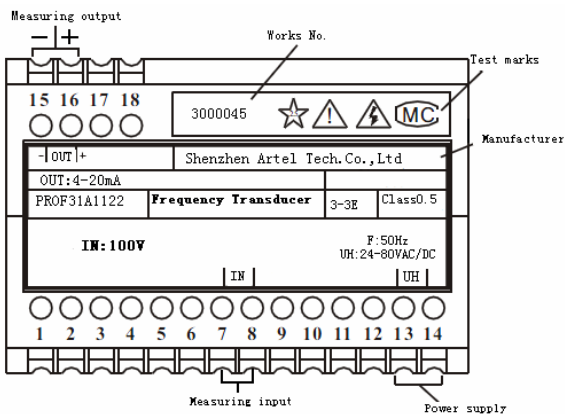


Fig. 4. Declaration to the label for PROF31 Frequency Transducer

7. Dimensional drawing

Unit: mm

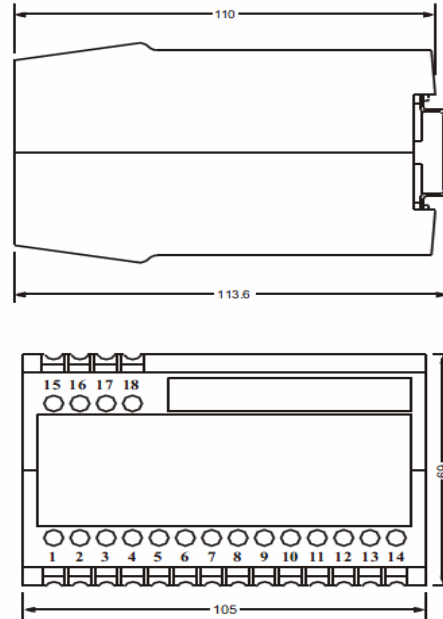


Fig.5. Dimensional Size

Declaration

This manual represents you PROF31 transducer as manufactured at the time of publication. Every effort has been made to ensure that the information in this manual is complete and accurate. We reserve the right to make changes and improvements to the product without obligation to incorporate these changes and improvements into units previously shipped.

Note: when in the DC power supply system, no polarity for power supply connection.