INOR

Intelligent, Economy 2-wire Transmitter

MIN I^PAQ®-L

CE 5 YEAR WARRANTY

The user instruction must be read prior to adjustment and/or installation.
All information subject to change without notice.

MEASURE OF SUCCESS

CERTIFIED ISO 9001 ISO 14001 SEMKO-DEKRA

INOR

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This product should not be mixed with other kind of scrap, after usage.
It should be handled as an electronic/electric device.

GENERAL INFORMATION

MinIPAQ-L is a basic, programmable, non-isolated, easy-to-use 2-wire temperature transmitter intended to be used in industrial environment.

The transmitter is configured from a PC via a USB port, connected via the INOR USB Interface, by using the ConSoft program together with the MinIPAQ Soft program.
When the transmitter is set from a PC no calibration is needed.
ConSoft is compatible with Windows 2000 (SP3), Windows XP and Windows Vista (32-bit).
All necessary hardware and software for configuration are included in the ICON Configuration Kit, 70CFGUS001.

DATA (shortform)

Input	See "Input Connections"
Sensor failure	Upscale, downscale or off
Adjustments - Zero	Any value within range limits
Adjustments - Minimum spans	
Pt100, Pt1000, Ni100, Ni120, Ni1000	10°C / 18°F
Cu10	100°C / 180°F
T/C	2 mV
Output	4-20 mA, temperature linear
Operating temperature	-20 to +70°C / -4 to +158°F
Galvanic isolation	No
Power supply	8 to 32 VDC
Typical accuracy	±0.15 % of temperature span
Mounting	Rail acc. to DIN EN 50022, 35 mm

CONFIGURATION

Guidelines for ConSoft version 1.1.0.2 or higher.

Before making a configuration of MinIPAQ-L you need to do following:
1. Install the drivers for the INOR USB Interface.
2. Install the PC configuration software ConSoft in your PC.
3. Install the PC configuration software MinIPAQ Soft, version 1.24.00 or higher, in your PC.

Please refer to "Installation Guide for ICON", 86BCONF004, for detailed installation instructions. All software and guides are included in the ICON Configuration Kit, 70CFGUS001, and can also be downloaded from the web site www.inor.com.
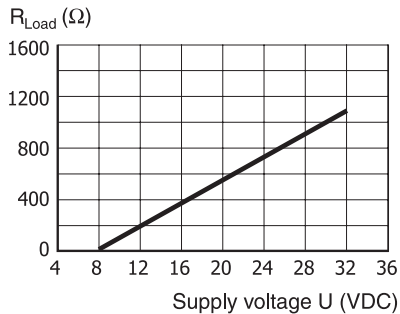
Configuration procedure:
The help files in ConSoft and MinIPAQ Soft contains complete information about the configuration procedure. Here is a short-form guide:
1. Connect the MinIPAQ-L to the PC via the USB Interface. Configuration can be performed with or without connected power supply.
2. In ConSoft, click on the upper left "Read from transmitter" button. The software will automatically recognize the connected transmitter and open the MinIPAQ Soft program. The MinIPAQ Soft program will automatically find the correct communication port (first time MinIPAQ Soft is used it will open the Com port selection window).
3. In the configuration window you can set the following parameters:
   a. Input (RTD or Thermocouple type)
   b. 3- or 4-wire connection (for RTD input)
   c. Activation of Cold Junction Compensation (for T/C input)
   d. Measuring range in three different engineering units
   e. Upscale or downscale action at sensor break or short-circuit
   f. Compensation for known sensor errors
   g. Activation of a Low pass filter
4. The selected configuration is downloaded to the transmitter by clicking the button "Transfer to transmitter". If the transmitter is in operation during transmission from the PC, the transmitter output is frozen. When the transfer is complete, the transmitter begins using the new parameters directly.
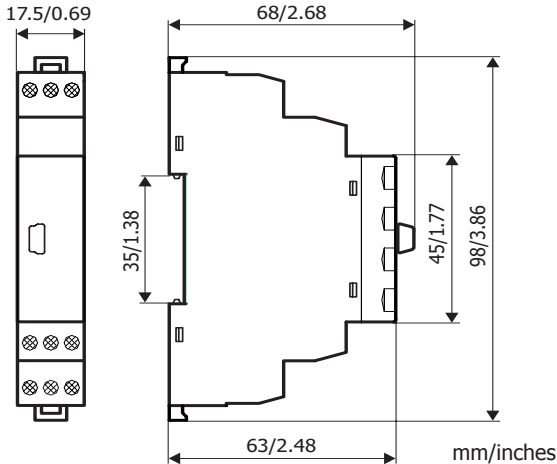
Permissible R_{Load} at 22 mA output

R_{Load} (Ω)

Supply voltage U (VDC)

$R_{Load} = (U-8)/0.022$
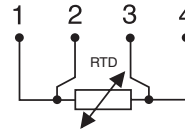
17.5/0.69
68/2.68
35/1.38
45/1.77
98/3.86
63/2.48
mm/inches

Input connections

RTD, 3-wire connection
Pt100, α =0.00385, Pt1000, α=0.00385
Pt100, α = 0.003902, Pt100, α=0.003916
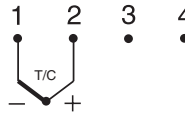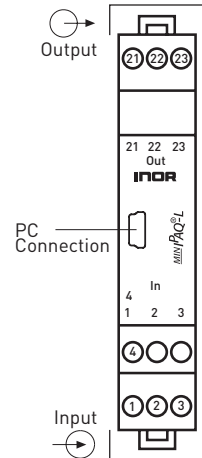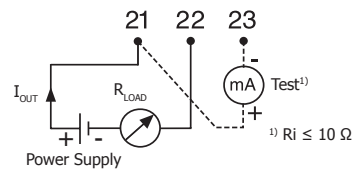Ni100, Ni120, Cu10, Ni1000,
Pt(Spec), α=0.00385

RTD, 4-wire connection
Pt100, α=0.00385, Pt1000, α=0.00385
Pt100, α=0.003902, Pt100, α=0.003916
Ni100, Ni120, Cu10, Ni1000
Pt(Spec), α=0.00385

Thermocouple
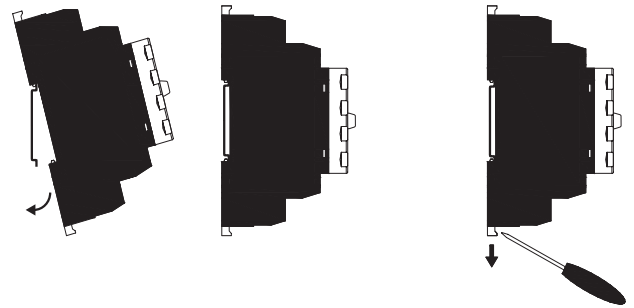B, C, E, J, K, L, N, R, S, T, U

Output connections

I_{OUT} R_{LOAD} (mA) Test[1]
Power Supply [1] Ri $\leq$ 10 Ω

Output
21 22 23 Out
PC Connection
4 In 1 2 3
Input

Mounting of MinIPAQ-L on rail DIN EN 50022, 35 mm.

1. Fix the upper part of the transmitter onto the rail.
2. Press the lower part of the transmitter against the rail.
3. To remove the transmitter, use a screwdriver and bend the locking under the transmitter downwards.

It is recommended to check the calibration once a year. Use equipment with an inaccuracy of at least 5 times better than the checked transmitter, e.g. if you are checking a transmitter with an inaccuracy of maximum 0.1% use instrument with an inaccuracy of maximum 0.02%.
Use the MinIPAQ Soft Basic Calibration function in the Options menu, and follow the instructions on the screen.

MinIPAQ-L	70MQL00003
Configuration	70CAL00001
ICON Configuration Kit (non-Ex)	70CFGUS001