CATALOG

SIGNAL UNVERSAL MONITOR - MONIUNI

SUMMARY

INTRODUCTION

The MoniUni Universal Signal Monitor is a high-precision microprocessor instrument used for various processes of digitizing signals and quantities. It can be used to indicate Temperature, Pressure, Level, Relative Humidity, Rotation and other quantities with the signal inputs.

MoniUni has 3 (Three) signal inputs, which can be inputs for RTD, 4 to 20 mA and level percentage 3 (Three) Relays for programming alarms with programmable hysteresis and with programmable delay in seconds, 3 (three) outputs of Independent relays for alarms and 1 (one), relay for fault indication, 1 (one) RS485 output with Modbus RTU and DNP 3 Level 1 protocols, up to three configurable analog outputs that can be from 0 to 1, 0 to 5, 0 to 10, 0 to 20 and 4 to 20 mA.

Its enclosure is built in aluminum according to DIN standards for panel fixing and the electronic circuit was developed in compliance with strict quality and design standards to withstand severe working conditions, and can be installed in energy substations yards, offshore platforms and chemical industries. and meets the requirements, supportability and reliability levels according to IEC, DIN, IEEE and ABNT standards.

MAIN FEATURES

- 4-digit display with high brightness 20 mm height and 13 mm decimal place (red);
- Temperature measurement range from -99 to 850°C;
- Current signal input from 4 to 20 mA;
- Compensated input for PT100 / PT200 / PT500 / PT1000 3-wire RTD sensors and level;
- Universal power supply 48 to 265 Vdc/Vac;
- Analog Output from 0 to 1, 0 to 5, 0 to 10, 0 to 20 and 4 to 20mA configurable directly on the front end;
- Front USB 2.0 for parameterization through UseEasy™ software;
- Stores the maximum and minimum values reached in the memory;
- 1 Fault Indication Contact (Watchdog);
- 3 NAF Alarm Contacts with programmable timing and hysteresis;
- Protection system against changing parameters via the Serial network;
- Degree of protection IP20 (NBR IEC 60529);
- Automatically detects the communication network speed;
- High mechanical resistance box, built entirely in aluminum standard DIN IEC 61554;
- Reduced size 48x96x140mm;
- Easy parameterization and use;
- 2 years warranty;

TECHNICAL DATA

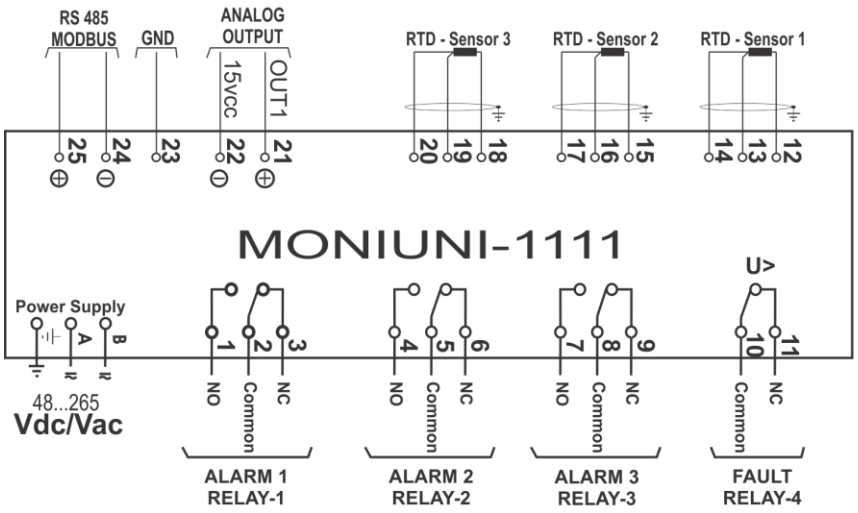
UNIVERSAL SGINALS MONITOR - MONIUNI	
Operating Voltage	48 to 265 Vdc/Vac 50/60 Hz
Operating Temperature	- 40 to +85°C
Consumption	< 15 W
Temperature Measurement Input	PT100 / PT200 / PT500 / PT1000 a 3 fios
Temperature Measurement Range	- 99 to +850 °C
Current Measurement Input	4 to 20 mA
Level Measurement Range	Resistive - 0 to 5000 Ohms
Options of 3 analog outputs and Maximum load	0 ... 1 mA – 8000 Ohms
Analog Outputs and Maximum Load Options	0 ... 5 mA – 1600 Ohms
	0 ... 10 mA – 800 Ohms
	0 ... 20 mA – 400 Ohms
	4 ... 20 mA – 400 Ohms
	0,5 % end of scale
Maximum Error of Measurement Inputs	0,5 % end of scale
Analog Output Maximum Error	0,5 % end of scale
Output Contacts	4 – Potential free
Maximum Switching Power	250 VA / 70 W
Maximum Switching Voltage	250 Vca / 125 Vcc
Maximum Driving Current	10 A
Serial Communication Port	RS485
Communication protocol	Modbus RTU and DNP 3
Auto Baud Rate	1.200 to 57.600 bps
Front USB Port	USB Serial
Enclosure (DIN EIC 61544)	48 x 96 x 140mm - Aluminum
Equipment Fixation	Built-in Panel Mounting

TYPE TESTS PERFORMED

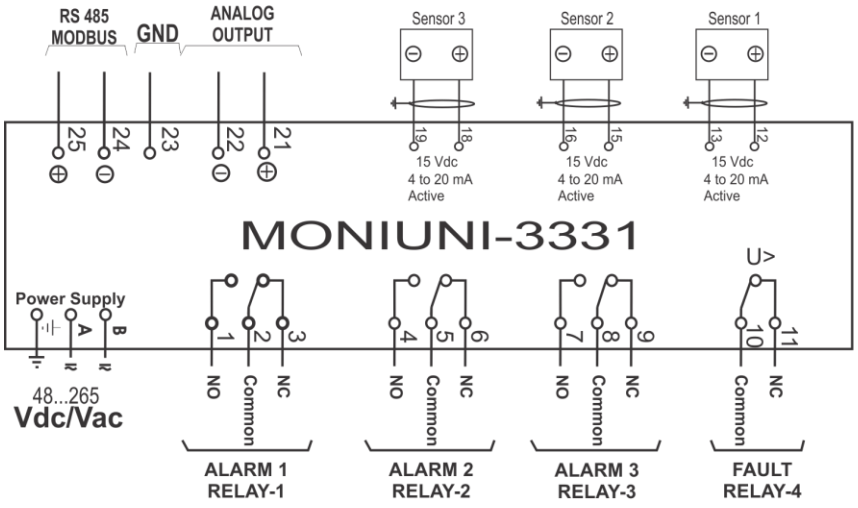
• Voltage Boost (IEC 60255-5): 1.2/50 sec. / 5kV / 3 neg. and 3 pos. / 5 sec. Break;
• Electrostatic Discharges (IEC 60255-22-2): Air mode = 8kV / Counted mode = 6 kV;
• Immunity to radiated electromagnetic disturbance (IEC61000-4-3): 80 to 1000 MHz /10V/m;
• Fast Electrical Transient Immunity (IEC60255-22-4): Power/Input/Output=4KV/common. 2kV;
• Surge Immunity (IEC60255-22-5): phase/neutral 1KV, 5 per polar. (±) - phase-earth/neutral-ground 2KV, 5 per polar (±);
• Immunity to Electromagnetic disturbances at 0.10-4-6 (IEC610-4-6): 0.15 MHz / 80 MHz / m;
• Climate Test (IEC60068-21-14): - 10ºC + 70ºC / 72 hours;
• Vibration Resistance (IEC60255-21-1): 3 axes / 10 to 150Hz / 2G / 160min/axis;
• Vibration Response (IEC60255-21-1): 3 axis / 0.075mm-10 at 58 Hz / 1G from 58 to 150 Hz / 8min/axis;

CONNECTION DIAGRAMS

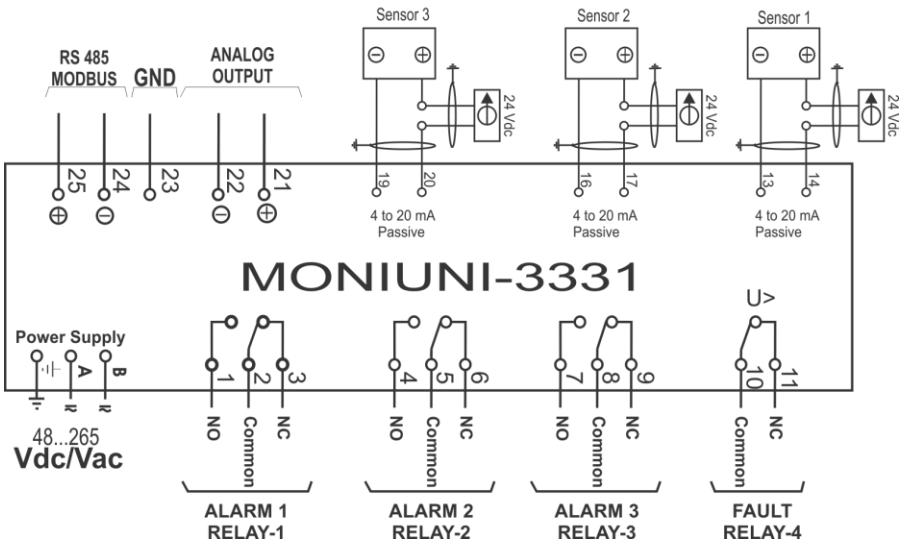
RTD Inputs Connection Diagrams



4 to 20mA active Connection Diagrams

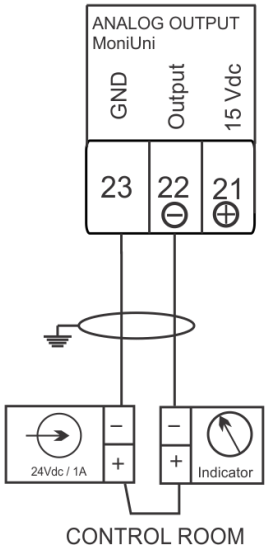


4 to 20 mA Passive Connection Diagrams

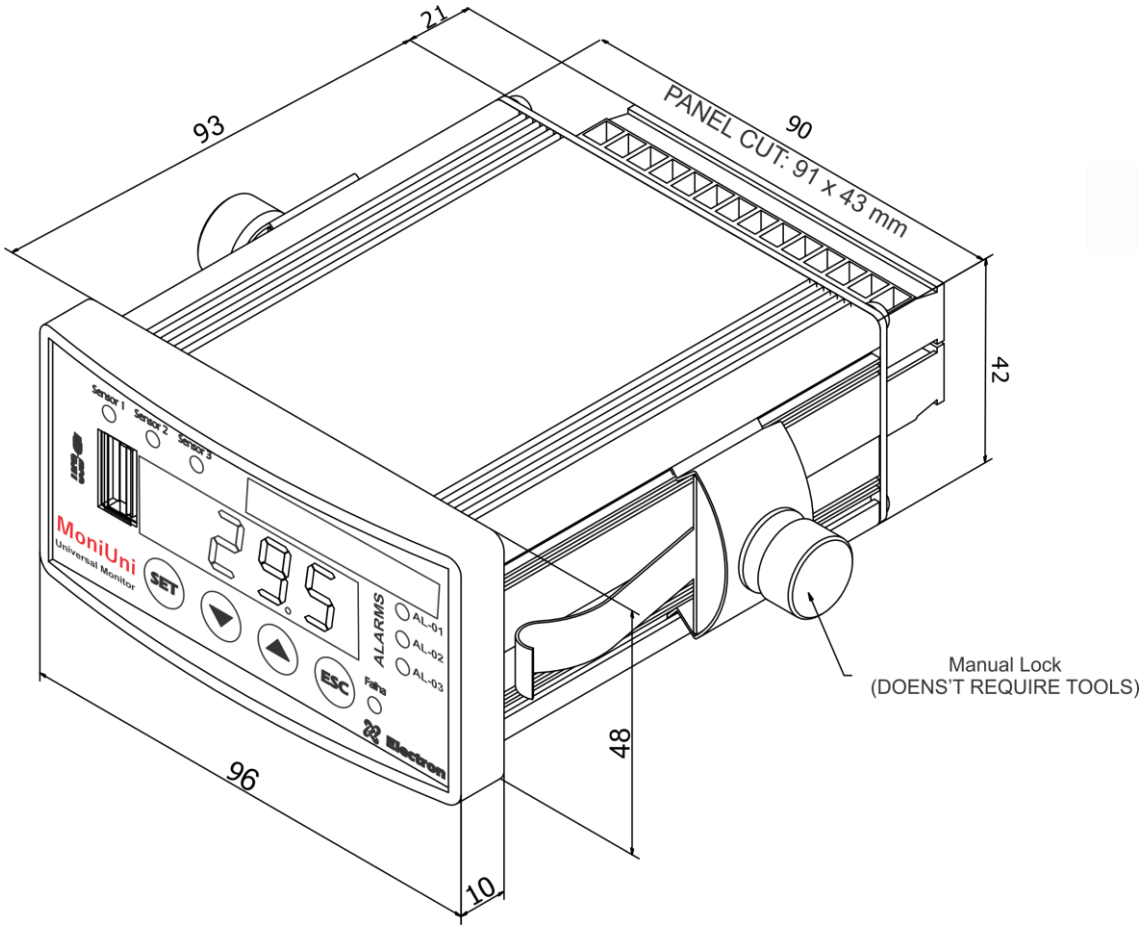


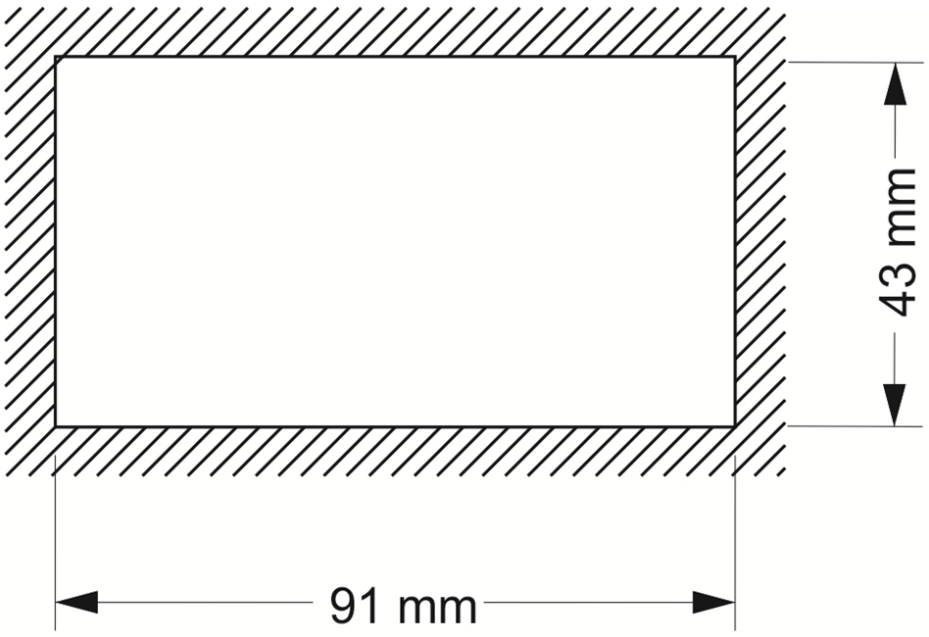
DIAGRAMAS DE DIAGRAM

Connection diagrams of analog output with external supply .



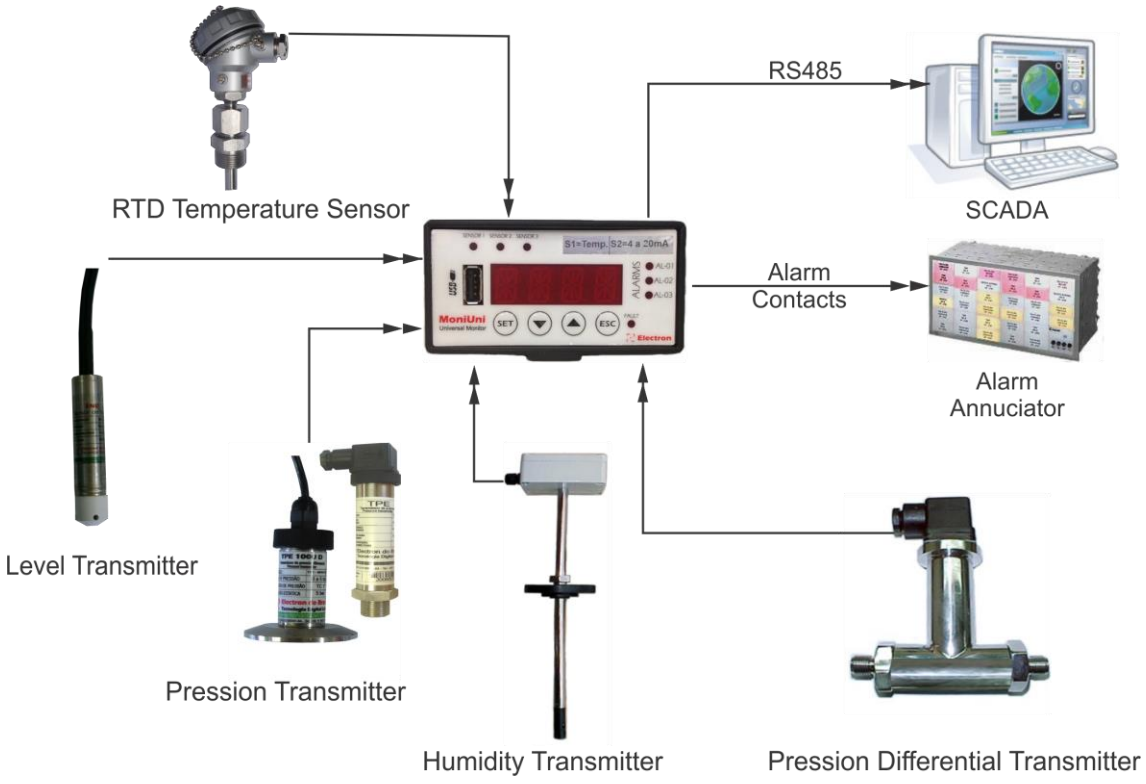
PHYSICAL DIMENSIONS





Panel Cut

APPLICATION EXAMPLE



INSTALLATION ACCESSORIES

Mask Adaptation

Panel for Outdoor usage

ORDER SPECIFICATION

MoniUni - [ ] [ ] [ ] [ ]

SENSOR 1 INPUT	
1	Resistive / RTD
2	Cu10
3	4 a 20 mA

SENSOR 2 INPUT	
0	No Input
1	Resistive / RTD
2	Cu10
3	4 a 20 mA

SENSOR 3 INPUT	
0	No Input
1	Resistive / RTD
2	Cu10
3	4 to 20 mA

ANALOG OUTPUT	
0	No Output
1	1 Output
2	2 Output
3	3 Output

OBS: Moniuni models with 3 current outputs are only possible when sensor 3 input is equal to 0, without input or equal to 3, input from 4 to 20 mA, in other cases only one current output is possible.