E-100

ANALOGUE I/O TO COMMS GATEWAY

- MODBUS TCP or RTU Protocol
- Ethernet or RS232/485 Comms Port
- Universal Configurable Analogue Input
- IsoSlice I/O system for additional I/O
- Built in web-page for live monitoring of data

Description

The E-100 Ethernet Gateway module provides a straight forward method of interfacing analogue and digital process parameters to an Ethernet or RS232/485 network. The E-100 allows the user to view the status of the individual inputs via the front panel display.

The E-100 unit can have one or two analogue inputs but the system can be expanded through the use of the optional ISO-SLICE slice I/O modules.

These modules connect automatically via the DIN rail mounted bus connector, allowing the easy addition and removal of extra I/O.

A built-in display allows local monitoring of the individual inputs and outputs, a useful commissioning and operations tool.

Additionally the Ethernet version has a built-in web page which can be used to display live data using any standard web browser.

Using the E-100 is a simple way to implement an Ethernet measurement and control system or can be used to add additional inputs and outputs to an existing Ethernet installation.

Inputs

The input types and ranges included below are our standard ones only. Contact Sales for others.

DC Current & Voltage

0-20mA, 4-20mA, 0-10mA into 15/30 Ω

0-1V, 0-10V, 1-5V into 100kΩ / 1MΩ

0-25mV, 0-100mV, 0-500mV into >10MΩ

Min & Max Full Scale Ranges are:

DC Current	0 – 1mA	0 – 5A
Bipolar DC Current	±5mA	±10mA
DC Voltage	0 – 25mV	0 – 300V*
Bipolar DC Voltage	±5V	±10V
2 Wire Pot	0 – 125Ω	0 – 1kΩ
3 Wire Pot	0 – 1kΩ	0 – 100kΩ

* Note: For input voltages greater than 60Vdc a Divider unit must be specified.

Thermocouples

Types E,J,K,N,R,S,T,B linearised or non-linearised
Ranges: Wide range of inputs
Cold junction compensation (can be turned off)
Upscale or downscale t/c burnout options

Resistance Thermometers

2, 3 or 4 wire PT100 or PT1000, linearised or non-linearised
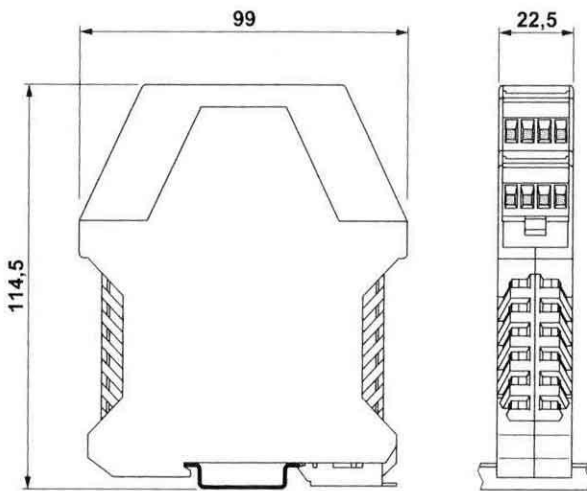Ranges: Wide range of inputs
Upscale or downscale RTD burnout options

Additional I/O

Extra analogue and digital inputs and outputs are available through the ISO-SLICE slice I/O modules.

Industrial Interface

Technical specifications

Parameter	Min	Typ	Max	Comments
Supply Voltage	16	24V	30	
Supply Current (mA)	65		120	24 V dc supply
Input Impedance (Volt)		1MΩ		
Input Impedance(mA)		15Ω		
Volt drop (mA input)		0.3		At 20mA input
Output Linearity Error		±0.01%	±0.05%	
Temp Coefficient			±100ppm/°C	
Operating Ambient	0°C		55°C	
Relative Humidity	0%		90%	
Isolation Voltage see note 1	1kV			
Surge Voltage		2.5kV for 50µS		Transient of 10kV/µS
Notes	The process input level is shown on the 4 digit LED display. Figures based on 24 Vdc supply 20 °C ambient.			

Installation data

Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5–4.0mm
Insulation Stripping	12mm
Weight	Approx 120g

Connection details

3.	Tx supply +ve		RTD 4th wire
5.	Input mA +ve	T/C +ve	RTD +ve
4.	Input mA –Ve	T/C –ve	RTD –ve
6.			RTD 3rd wire
1.	Power Supply –ve		
2.	Power Suplpy +ve		

Ordering information

Please supply:

Part Number:	E–100
Input Type:	e.g mA, Volt, T/C, RTD
Input Range:	e.g 4–20, 0–10, 0–500°C
Protocol:	MODBUS TCP or other RS232 Version –RS
Power Supply:	24 Vdc
Options:	RS232/485 or Ethernet port 1 or 2 inputs extra I/O available through ISO–SLICE modules