ISO-SLICE

ISOLATED BUS I/O SYSTEM

- Universal Configurable input & outpus
- Communicates to Ethernet / RS232 or ZigBee Network Coordinator
- Inter-channel & input/output isolation
- Automatic Bus & Power connection via DIN rail bus connector
- Multiple inputs in one module
- Isolated Transmitter Supply
- Very High Accuracy, Low Cost

Description

The new **ISO-SLICE** isolated Bus I/O system combines full three-port isolation with access to an industrial bus. This bus connects to the E-100, or Z-200 coordinator modules can then be used to transmit the process values via either Ethernet or RS232/485 wired communications or ZigBee wireless networks.

A wide range of modules are available, from a single universal input to 8-way 4-20ma units. A selection guide is shown overleaf.

Full 3 port isolation is standard as is an isolated transmitter supply which can be used to power any standard 2-wire 4-20mA transmitter.

The input type and range can be user selected using simple DIL switches inside the unit. All RTD and Thermocouple inputs can be fully linearised.

Non-interactive zero and span controls make adjustment and calibration of the unit quick and simple.

The units have a wide ranging 12 to 36 Vdc. This supply can either be wired to the appropriate terminals or picked up automatically from the Bus connector.

Outputs

DC Current and Voltage
0-20mA, 4-20mA, 0-10mA into 750Ω
0-1V, 0-10V, 1-5V into a minimum 100kΩ
Others available up to a maximum of:
Current: 0-20mA.   Voltage: 0-10Vdc

Inputs

DC/AC Current & Voltage
0-20mA, 4-20mA, 0-10mA into 15Ω
0-1V, 0-10V, 1-5V into 1MΩ

Min & Max Full Scale Ranges are:

DC Current	0 - 1mA	0 - 5A
Bipolar DC Current	±5mA	±10mA
DC Voltage	0 - 1V	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
For 4 channel t/c input specify -4

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
For 4 channel RTD module specify -3

Frequency Input
Wide range of freq inputs to 250kHz.   Specify -7

Digital Input and Output modules
8 inputs, or 4 outputs   Specify -5 or -6

Multi-input analogue modules

8 off 4-20mA or 0-10Vdc Modules Specify -2

Parameter	Min	Typ	Max	Comments
Supply Voltage	12	24V	36Vdc	
Supply Current (mA)		45	90	For 24 V dc supply (260mA for 50mS on start up)
Bus Connection				16-bit bus connection
Input Impedance (Volt)		1MΩ		Dependent on range (Typ=10V)
Input Impedance(mA)		15Ω		Dependent on range (Typ=20mA)
Volt drop (mA input)		0.3		At 20mA input
Output Linearity Error		±0.01%	±0.05%	
Temp Coefficient			±50ppm/ºC	
Load Resistance Error			+/-5ppm/Ω	$0 < R_L < 750Ω$
Time Constant (10-90%)	25mS (fast)	60ms (normal)		Selectable fast/normal response
Operating Ambient	0ºC		55ºC	
Relative Humidity	0%		90%	
Isolation Voltage [see note 1]	1kV			
Surge Voltage		2.5kV for 50µS		Transient of 10kV/µS
Notes		Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. Accuracy figures based on 24Vdc supply, 4-20mA output with 250Ω load and 20≡C ambient. Device is protected against reverse polarity connection.		
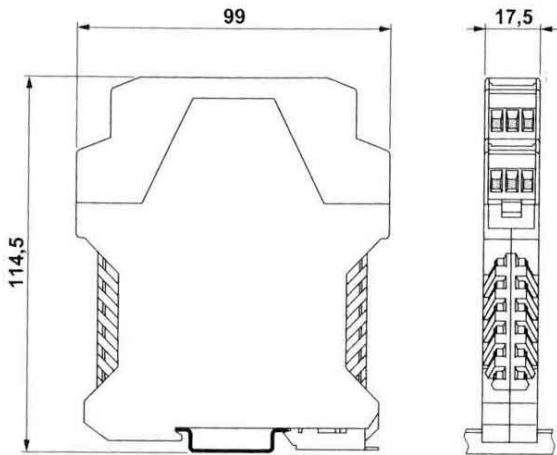
Installation Data

Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 95g

Ordering Information

Part Number	Universal inputs	mA or Vdc inputs	RTD inputs	Thermocouple inputs	Digital inputs	Digital outputs
ISOSLICE-1	1					
ISOSLICE-2		8				
ISOSLICE-3			4			
ISOSLICE-4				4		
ISOSLICE-5					8	
ISOSLICE-6						4
ISOSLICE-7	Freq Input					