

# E1000 Series

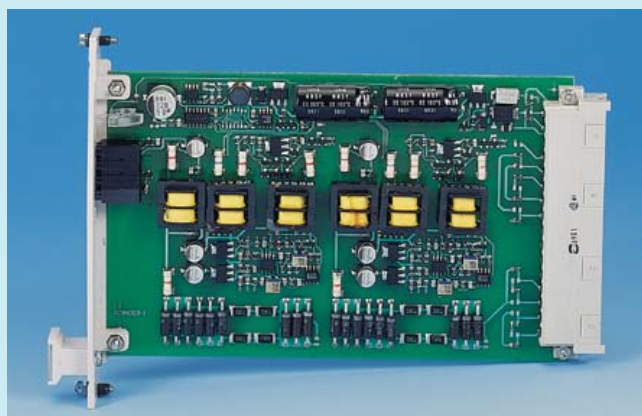
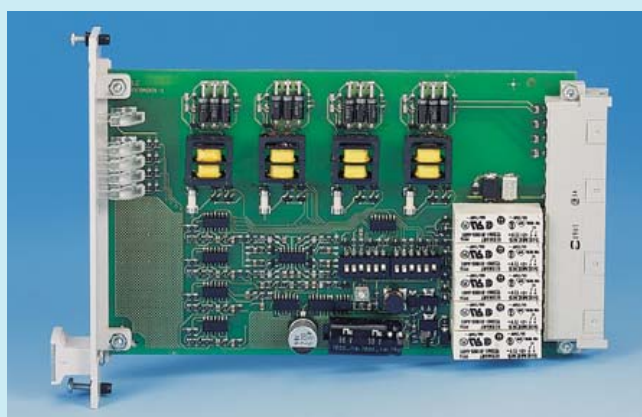
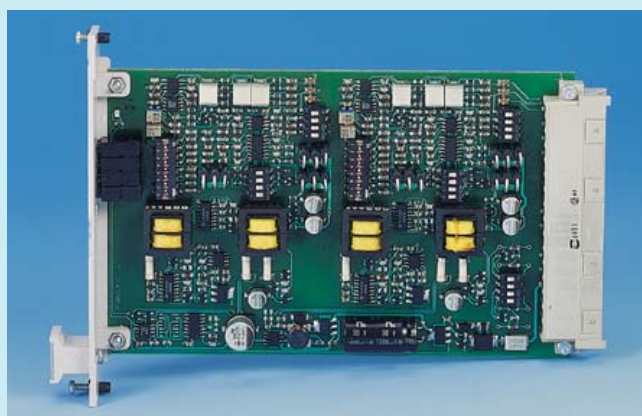
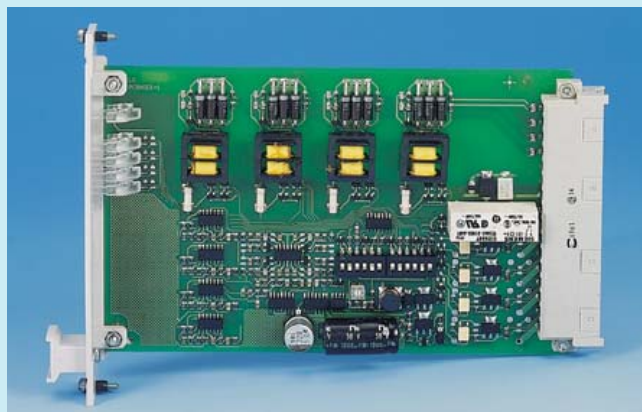


Intrinsically Safe  
Isolators Signal  
and Temperature  
Converters with  
Trip Amplifiers

19" Rack Mounting

# Large Choice of Models

Over **50**  
Different  
Types  
Available



# E 1000 SERIES EUROCARD Features

## G.M. International Eurocard mounting Intrinsic Safety Galvanic Isolators.

The Eurocard provides the most simple and cost effective means of implementing Intrinsic Safety into your Hazardous Area applications.

### HIGH PACKING DENSITY

- High channel density result from innovative circuit design using advanced surface mount components.
- Ultra slim 4 channels 20 mm wide Eurocard mounting modules.
- 5 mm per channel.
- 80 I/O channels per 19" Rack.
- Single, dual or quad channels cards.

### HIGH PERFORMANCE

- High signal transfer accuracy and repeatability.
- Advanced circuitry provides low heat dissipation, ensuring modules run cool despite their high functionality.
- Low power consumption.
- SMD manufacturing to maximise long, reliable life.

### WIDE FUNCTIONALITY

- Wide range of digital switch and analog I/O.
- Relay contacts rated for 2 amp. to directly switch high loads.
- Over 40 different models available up to 4 channels per cards or two inputs with 4 Trip Amplifiers
- Three port galvanic isolation to eliminate noise, ground loop problems and to provide Intrinsic Safety without a high integrity safety earth connection.
- Line fault alarm detects open or short circuit of field cables.

### GENERAL FEATURES






- Single loop versions available (AI+AO) if required, to provide single loop integrity on Emergency Shut Down and Fire & Gas applications.

- Configured using DIP switch for easy field setup of AI, AO, DI, DO types.
- Total Programmability, with a Pocket Portable Configurator (mod PPC 1090 + PPC 1092) for Analog/Temperature inputs with or without Trip Amplifiers.
- LED indication for power, signal status and line fault conditions.
- Eurocard plug-in 20 cards per 19" Rack, 3 unit high.
- Accept DC power supply over a wide (20-30 V) range.
- Wide operating temperature range.

### APPROVALS

- ATEX.
- GOST.
- GOSGORTEKNADSOR.
- ISO 9001:2000.
- CE-EMC.
- Barrier circuits have patent held or applied for.




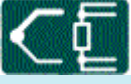

	Field Device	Model	Hazardous Area	Safe Area	Nr. of Channel per unit	Supply	Pin compatible with
ANALOG IN		E1010 S E1010 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	TURCK Model MC 33-22 Ex 0i
		E1011 S E1011 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	CEAG Model CS 3/420 CS 3/520 CS 4/520
		E1012 S E1012 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	HUNSBACH Model 77261
		E1013 S E1013 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	SIEMENS 7NG Series
		E1014 S E1014 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	ECKARDT Model MUS 80
		E1015 S E1015 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	STAHL 9601/25-22-11
		E1019 S E1019 D	4-20 mA/0-20 mA (15 V) floating supply and signal to Smart, or non Smart, two wire Tx.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1 - 2	24 Vdc	GM Standard Bus
ANALOG OUT		E1020 S E1020 D	4-20 mA/0-20 mA and Smart Signal to I/P Converters, Electrovalve Actuators and Displays.	Bus powered 4-20mA/0-20mA Signal from DCS, PLC or other control devices. Smart compatible.	1 - 2	24 Vdc	CEAG Model MC 2/304
		E1021 S E1021 D	4-20 mA/0-20 mA and Smart Signal to I/P Converters, Electrovalve Actuators and Displays.	Bus powered 4-20mA/0-20mA Signal from DCS, PLC or other control devices. Smart compatible.	1 - 2	24 Vdc	HUNSBACH Model 77239
		E1029 S E1029 D	4-20 mA/0-20 mA and Smart Signal to I/P Converters, Electrovalve Actuators and Displays.	Bus powered 4-20mA/0-20mA Signal from DCS, PLC or other control devices. Smart compatible.	1 - 2	24 Vdc	GM Standard Bus

	Field Device	Model	Hazardous Area	Safe Area	Nr. of Channel per unit	Supply	Pin compatible with
ANALOG IN		E1022 S E1022 D	4-20 mA/0-20 mA and Smart Signal to I/P Converters, Electrovalve Actuators and Displays.	Bus powered 4-20mA/0-20mA Signal from DCS, PLC or other control devices. Smart compatible.	1 - 2	24 Vdc	STAHL 9618/24-11-11
		DIGITAL IN		E1030 D E1030 Q	Dry contact Proximity Switch	4 SPDT (relay contact) 2A/40V plus 1 SPDT (fault detection contact) 2A/40V for common line fault detection and LED.	2 - 4
E1031 D E1031 Q	Dry contact Proximity Switch			1 Open collector per channel plus line fault detection relay 2A/40V for common line fault detection and LED.	2 - 4	24 Vdc	P+F Model ED 2 - ST - Ex 2 ED 2 - ST - Ex 4 ED 2 - SOT - Ex 4
E1032 D E1032 Q	Dry contact Proximity Switch		1 Open collector per channel plus line fault detection relay 2A/40V for common line fault detection and LED.	2 - 4	24 Vdc	P+F Model EG 4 - T	
E1033 D E1033 Q	Dry contact Proximity Switch		1 Open collector per channel plus line fault detection.	2 - 4	24 Vdc	STAHL 9650/40-14-10	
E1038 D E1038 Q	Dry contact Proximity Switch		4 SPDT Relay Contact 2 A / 40 V Line fault detection and LED.	2 - 4	24 Vdc	GM Standard Bus	
E1039 D E1039 Q	Dry contact Proximity Switch		1 Open collector per channel plus line fault detection.	2 - 4	24 Vdc	GM Standard Bus	
DIGITAL OUT			E1040 Q	Electrovalve, LED, Audible Alarm or other devices.	Dry Contact, Logic Level, Loop Powered 24 Vdc from DCS, PLC or other control devices.	4	24 Vdc
CONFIGURATOR		PPC 1090	Pocket Portable Configurator suitable to programm type of input Sensors, input and output Ranges, Burnout conditions, High/Low Alarm mode, Relay NE/ND, Alarm Trip Point, Deadband value and Alarm Delay, in the units Series 1000, DIN or Eurocard, which require the Operator to access the Configuration. (powered by the unit in configuration).				
PC ADAPTER	<p><b>PPC 1092 ADAPTER and CABF 010 Sub-D 9 poles, female-female, Nul-Modem cable</b></p>						

(\*) Microprocessor based units require configurator Mod. PPC-1090 or PPC 1092 with PC.



Field Device	Model	Hazardous Area	Safe Area	Nr. of Channel	Supply	Pin compatible with
	<b>E1059 S</b> (* )	4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1	24 Vdc	GM Standard Bus
	<b>E1059 D</b> (* )			2	24 Vdc	GM Standard Bus
	<b>E1059 X</b> (* )	One Input 4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1	24 Vdc	GM Standard Bus
	<b>E1059 Y</b> (* )	Two Input 4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. (A, B, A+B and A-B)	2	24 Vdc	GM Standard Bus
	<b>E1079 S</b> (* )	Input from TC with Automatic ref. cold junction compensation or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1	24 Vdc	GM Standard Bus
	<b>E1079 D</b> (* )			2	24 Vdc	
	<b>E1079 X</b> (* )	One Input from TC with Automatic ref. cold junction compensation or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply.	1	24 Vdc	GM Standard Bus
	<b>E1079 Y</b> (* )	Two Input from TC with Automatic ref. cold junction compensation, burnout indication or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. (A, B, A+B and A-B)	2	24 Vdc	GM Standard Bus
	<b>E1070 S</b> <b>E1070 D</b>	2, 3, 4 wire RTD Pt 100 Ω DIN 43760 or ANSI	4-20mA/0-20mA (1-5 / 0-5 V) output signal totally isolated from input and supply.	1 - 2	24 Vdc	ECKARDT Model TSY 175
	<b>E1071 S</b> (* )	Input from TC with Automatic reference cold junction compensation, or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	4-20 mA / 0-20 mA (1-5 / 0-5 V) output signal totally isolated from input and supply, 2 Independent set point, 2 SPST relay, 2 A / 40 V	1	24 Vdc	ECKARDT Model TSY 175 TSV 175

Field	Model	Hazardous	Safe	Nr. of	Supply	Pin compatible
Device		Area	Area	Channel		with
				per unit		
SIGNAL - TEMPERATURE CONVERTERS AND TRIP AMPLIFIERS	 <b>E1058 S</b> (* )	4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	1	24 Vdc	GM Standard Bus
	 <b>E1058 D</b> (* )			2	24 Vdc	GM Standard Bus
	 <b>E1058 X</b> (* )	One Input 4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	1	24 Vdc	GM Standard Bus
	 <b>E1058 Y</b> (* )	Two Input 4-20 mA / 0-20 mA or 1-5 V / 0-5 V / 0-10 V from 3 wire powered Tx or other instruments	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. (A, B, A+B and A-B) 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	2	24 Vdc	GM Standard Bus
	 <b>E1078 S</b> (* )	Input from TC with Automatic ref. cold junction compensation or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	1	24 Vdc	GM Standard Bus
	 <b>E1078 D</b> (* )			2	24 Vdc	
	 <b>E1078 X</b> (* )	One Input from TC with Automatic ref. cold junction compensation or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	1	24 Vdc	GM Standard Bus
	 <b>E1078 Y</b> (* )	Two Input from TC with Automatic ref. cold junction compensation or 2, 3, 4 wire RTD, Pt 100 Ω DIN 43760 or ANSI, burnout indication, Transmitter Pot, 100 Ω min., 10 KΩ max.	Two Independent 4-20 mA/0-20 mA (1-5V/0-5V) output signal totally isolated from Input and Supply. (A, B, A+B and A-B) 2 Independent set points, 2 SPST Relay 2 A / 40 V for each output.	2	24 Vdc	GM Standard Bus