



SHORT FORM

INTRINSICALLY SAFE, SIL CERTIFIED
INSTRUMENTATION FOR HAZARDOUS AREAS

COMPANY PROFILE



Headquarter offices in Villasanta (Milan) ITALY

GLISENTE LANDRINI

is the President and Managing Director of G.M. International and of its worldwide subsidiaries.

The company was founded in 1993, but the core Management experience remarkably exceeds over 30 years of qualified activity in Intrinsic Safety and industrial electronics.

In 1970 Mr. Landrini founded Elcon Instruments, which has been acknowledged as an international leader in the design and manufacturing of Intrinsic Safety interface products and systems.

Mr. Landrini started G.M. International to provide state of the art SIL rated products and services to support Intrinsically Safe applications in Oil & Gas, Petrochemicals and Pharmaceutical Industries.

G.M. International's products have been successfully installed in plants all over the world, including Europe, Russia, North America, Middle and Far East and China.



RESEARCH AND DEVELOPMENT

All products are designed, developed and manufactured internally.

G.M. International gives great value to R&D activities and strives to keep its production updated with the latest safety and quality standards. 20% of total employees are devoted to research and development of our products.

Tight relationships with customers worldwide combined with personal experience in the most various fields of application are key points for delivering products that meet requirements and needs of the market.

Continuous training and improvement of our staff's skills and capacities are important for enhancing the company's standard of efficiency.



COMPANY GOAL AND VALUES

Our **goals** are:

- To design and manufacturer Intrinsically Safe Instruments suitable to operate at Safety Integrity Level 3 (SIL 3) with Digital Control, Emergency Shutdowns and Fire & Gas Systems,
- To understand, manage and reduce risk,
- To prevent accidents,
- To stop unsafe operations,
- To minimize impact on environment and climate,
- To create a safe and healthy working environment,
- To improve HSE results,
- To succeed over time in a competitive environment.

For the achievement of such goals our **values** are:

- To identify opportunities and challenges,
- To be imaginative and stimulate new ideas,
- To be truthful and act with integrity,
- To work together and share experience,
- To strive for simplification and clarity, and focus on value-adding activities,
- To demonstrate social responsibility and contribute to sustainable development,
- To help others to succeed and contribute to a positive working environment.



MANUFACTURING FACILITIES

Quality in service is very important to achieve market penetration.

G.M. International considers service an integral part of Customer's requirements and satisfaction.

G.M. International's products satisfy customers' expectations and meet the specifications of international standards.

Safety, Performance, reliability and product documentation are the basic principles of product Quality.

G.M. International SMD products are manufactured internally, in our production facilities.

This allows high quality management and handling of relatively small batches, resulting in better delivery times.

Large quantity batches can also be handled for a production of up to 500 modules per day.



PCB Serigraphy



Assembly



Optical Inspection



Laser Engraving



Microprocessor Programming



Burn-In test



Conformal Coating



Testing



Final testing

APPROVALS AND CERTIFICATIONS

Intrinsically Safe products



G.M. International's products have been granted IS certificates from the most credited Notified bodies in the world. Certificates are available for ATEX (Europe), IECEX (International), Russian and Ukrainian standards, USA and Canada. Certificates have been integrally scanned and are available for download from our website.

SIL Certifications according IEC 61508 and IEC 61511



G.M. International offers a wide range of products that have been proved to comply with the most severe quality and safety requirements. IEC 61508 and IEC 61511 standards represent a milestone in the progress of industry in the achievement of supreme levels of safety through the entire instrumented system lifecycle. The majority of our products are SIL certified; reports and analyses from TUV and EXIDA are available for download from our website.

Marine Type Approval



G.M. International offers Type Approval Certificates for its line of Intrinsically Safe Isolators D1000 Series and Power Supplies for use in Marine and Offshore applications. Certificates have been released both by Korean Register of Shipping and Det Norske Veritas.

Company Quality System





























G.M. International's Production Quality System is certified by Det Norske Veritas (Norway) to be compliant with ATEX 94/9/EC Directive and ISO 9001/2000. This means our production facilities are periodically re-assessed throughout the whole manufacturing process, to ensure that the highest quality standards are met.

All certificates are freely downloadable from www.gmintsr.com

	Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level
ANALOG IN		D1010S		4-20 mA 0-20 mA (source or sink)	1		SIL 3
		D1010D	4-20 mA 0-20 mA 2/3-Wires Tx Smart compatible	1-5 V 0-5 V	2	20-30 Vdc	SIL 3
		D1010D		Two duplicated outputs	2		SIL 3
		D1010S-046	4-20 mA 0-20 mA 2/3-Wires Tx Smart compatible	4-20 mA 0-20 mA (source or sink)	1	20-30 Vdc	-
		D1010D-046	Certified with lower safety parameters	1-5 V 0-5 V	2		-
		D1012Q	4-20 mA 2-Wires Tx	4-20 mA (source)	4	20-30 Vdc	-
		D1014S	4-20 mA 2-Wires Tx	4-20 mA (source or sink)	1	10-30 Vdc	SIL 3
		D1014D	Hart compatible	1-5 V	2		SIL 3
ANALOG OUT		D1020S	4-20 mA 0-20 mA	4-20 mA 0-20 mA Bus powered signal from DCS, PLC or other control devices.	1		SIL 2
		D1020D	Analog Signal to I/P Converters, Electrovalves, Actuators and Displays Smart compatible		2	20-30 Vdc	SIL 2
		D1021S		plus line and load fault detection	1		SIL 2
FIRE & GAS DETECTOR		D1022S	1 to 40 mA Fire/Smoke Detector or	1 to 40 mA to DCS, PLC or other control devices	1	Loop powered	-
		D1022D	Loop powered AI/AO isolator		2		-

D1000 - SELECTION TABLE

Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level	
DIGITAL IN	 D1030S	Voltage free Contact, Proximity Switch Line fault detection	1 SPDT (relay contact) + 1 SPDT (alarm or duplicator) + LED (fault status)	1	20-30 Vdc	-	
	 D1030D		2 SPDT (relay contact) + LED (fault status)	2		-	
	 D1130S	Voltage free Contact, Proximity Switch Line fault detection	1 SPDT (relay contact) + 1 SPDT (alarm or duplicator) + LED (fault status)	1	85-264 Vac	-	
	 D1130D		2 SPDT (relay contact) + LED (fault status)	2	100-350 Vdc	-	
	 D1031D	Voltage free Contact, Proximity Switch Line fault detection	2 Open Collectors + 2 OC (alarm or duplicator) + LED (fault status)	2	10-30 Vdc	-	
	 D1031Q		4 Open Collectors + LED (fault status)	4		-	
	 D1032D	Voltage free Contact, Proximity Switch Line fault detection Isolated inputs	2 SPST (relay contact) + 2 SPST (alarm or duplicator) + LED (fault status)	2	20-30 Vdc	SIL 2	
	 D1032Q		4 SPST (relay contact) + LED (fault status)	4		SIL 2	
	 D1033D	Voltage free Contact, Proximity Switch Line fault detection Isolated inputs	2 Open Collectors + 2 OC (alarm or duplicator) + LED (fault status)	2	20-30 Vdc	SIL 2	
	 D1033Q		4 Open Collectors + LED (fault status)	4		SIL 2	
	 D1034S	Voltage free Contact, Proximity Switch Line fault detection Isolated inputs	Transparent repeater of input status 0 to 8 mA range		1	10-30 Vdc	SIL 3
	 D1034D				2		SIL 3
	 D1035S	0-50 KHz Magnetic Pickup or Proximity Switch	Voltage free SPST optocoupled OC transistor	1	10-30 Vdc	-	

Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level
DIGITAL OUT	 D1040Q	Electrovalve, Audible Alarm or other devices		4	21.5-30 Vdc	SIL 2 Bus powered
	 D1041Q	LED	Voltage free Contact, Logic Level, Loop powered 24 Vdc from DCS, PLC or other control devices	4		
	 D1042Q	Electrovalve, Audible Alarm or other devices		4	20-30 Vdc	SIL 3 Loop powered
	 D1043Q	Electrovalve, Audible Alarm or other devices		4		
	 D1044S	1 SPDT (relay contact)	Voltage free Contact, Logic Level, from DCS, PLC or other control devices	1		
	 D1044D	2 SPDT (relay contact)	Bus powered	2		
	 D1045Y	Electrovalve, Audible Alarm or other devices	Voltage free Contact, Logic Level, Loop powered 24 Vdc from DCS, PLC or other control devices	2 alternate	21.5-30 Vdc	-
	 D1046Y	Electrovalve, Audible Alarm or other devices		2 alternate		
	 D1047S	ND solenoid valve, other control devices. Line/Load fault detection.	Loop Powered control signal from safety PLC, DCS	1	20-30 Vdc	SIL 2
	 D1048S	NE solenoid valve, other control devices. Line/Load fault detection.	Loop Powered control signal from safety PLC, DCS	1	20-30 Vdc	SIL 3
	 D1048D			2		
	 D1049S	NE solenoid valve, other control devices. Line/Load fault detection.	Voltage free Contact, Logic Level, from DCS, PLC or other control devices	1	20-30 Vdc	SIL 3
	 D1049D		Bus powered	2		

D1000 - SELECTION TABLE

	Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level
SIGNAL CONVERTERS		D1052S	4-20 mA, 0-20 mA 1-5 V, 0-5 V, 2-10 V, 0-10 V	4-20 mA, 0-20 mA (source)	1	10-30 Vdc	-
		D1052D	from 3/4-Wires powered Tx or other instrument	1-5 V, 0-5 V, 2-10 V, 0-10 V	2		-
SIGNAL CONVERTER + TRIP AMPLIFIERS		D1053S	4-20 mA, 0-20 mA 1-5 V, 0-5 V, 2-10 V, 0-10 V	4-20 mA, 0-20 mA (source)	1	20-30 Vdc	SIL 2
		D1054S	4-20 mA, 0-20 mA 2/3-Wires Tx, Smart compatible	1-5 V, 0-5 V, 2-10 V, 0-10 V 2 Independent set points via 2 SPST Relays	1	10-30 Vdc	-
		D1073S	Universal TC, 3/4-Wires RTD, Potentiometer, mV		1	20-30 Vdc	SIL 2
		D1060S	0-50 KHz Magnetic Pickup or Proximity Switch	mA (source) or V Out, Pulse repeater Output	1	10-30 Vdc	-
SERIAL CONVERT.	RS-485 RS-422	D1061S	RS-485, RS-422 up to 1.5 Mbit/s	RS-485, RS-422, RS-232	1	20-30 Vdc	-
VIBRATION INTERFACE		D1062S	Vibration Transducers, Accelerometers, 2/3-Wires sensors	Transparent input repeater	1	20-30 Vdc	SIL 2
LOAD CELLS ISOLATORS CONVERTERS		D1063S	Up to 4, 350 Ω, 6-Wires Load Cells in parallel.	Transparent input repeater.	1	20-30 Vdc	-
		D1064S		mA (source or sink) and V Output and MODBUS RTU	1		-
DIGITAL IN 3-WIRES SENSORS		D1080D	3-Wires sensors, Electro-optic, photo-cells and other devices	2 SPDT (relay contact)	2	20-30 Vdc	-
		D1180D			2	85-264 Vac 100-350 Vdc	-
		D1081D			2	14-30 Vdc	-

Configurable via PPC1090 or PPC1092 with Software SWC1090

Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level
TEMPERATURE CONVERTERS	D1072S		4-20 mA, 0-20 mA (source) or 1-5 V, 0-5 V, 2-10 V, 0-10 V	1		SIL 2
	D1072D	Universal TC, 3/4-Wires RTD, Potentiometer, mV		2	10-30 Vdc	-
	D1072D		Two duplicated outputs	2		-
	D1010S-054	-5 to +55 mV Thermocouple.	4-20 mA (source)	1		SIL 3
	D1010S-056	-5 to +35 mV Thermocouple.	Fast response time for temperature measurements in critical applications (i.e: gas turbines)	1	20-30 Vdc	SIL 3
	D1010S-057	-5 to +10 mV Thermocouple.		1		SIL 3
SHUNT RESISTOR	D1090Q	Separately powered 4-20 mA, 0-20 mA	10 to 50 mV or 0 to 50 mV to D2010M, D2011M	4	-	-
	D1094Q	Separately powered 0-5 V, 0-10 V	0 to 20 mV or 0 to 40 mV to D2010M, D2011M	4	-	-
SAFETY RELAY OUTPUTS	D1092S	1 SPST for NE Load 1 SPST for ND Load		1		SIL 3
	D1092D	2 SPST for NE Load 2 SPST for ND Load		2		SIL 3
	D1092S-069	1 SPST NO Contact plus 1 SPST NC Contact	Loop Powered control signal from safety PLC, DCS to drive Ex 'd' valves or other devices	1		SIL 3
	D1092D-069	2 SPST NO Contacts plus 2 SPST NC Contacts		2		SIL 3
	D1093S	1 SPST for NE Load 1 SPST for ND Load Line/Load monitoring		1	20-30 Vdc	SIL 3

Configurable via PPC1090 or PPC1092 with Software SWC1090

	Field device	Model	Hazardous Area	Safe Area	Channels per unit	Supply	SIL level	
SURGE ARRESTORS		D1097S	2/3-Wires devices		1	-	-	
		D1097D	Two 2/3-Wires devices or One 4-Wires device	30 V, 10 KA surge arrester	2	-	-	
POWER SUPPLIES		PSD1000	Installation in Safe Area or Zone 2 / Div. 2	24 V, 500 mA to power D1000 Series Modules	1	95-264 Vac 115-350 Vdc	-	
		PSD1001	15 V, 20 mA 3-Wires Tx or other devices	24 Vdc	4	21.5-30 Vdc	SIL 2 Bus powered	
		PSD1001C	13.5 V, 100 mA 3-Wires Tx or other devices	24 Vdc	1		SIL 3 Loop powered	
		PSU1003		PCB Mounting	1		-	
			5 V, 160 mA			via PSD1001C		
		PSD1004		DIN-Rail mounting	1		-	
		PSD1206			24 V, 6 A	1	95-264 Vac	SIL 2
		PSD1210	Installation in Safe Area or Zone 2 / Div. 2		24 V, 10 A	1	115-350 Vdc	SIL 3 redundant configuration
CONFIGURATION ACCESSORIES		PPC1090	Pocket Portable Configurator for D1000 Series Configurable Units. Supplied directly by the isolator, can be used in the field.					
		PPC1092	Serial adapter for connecting D1000 Series units to PC. Includes RS-232 Null-Modem cable and USB to Serial Adapter. Requires SWC1090 software to be installed on computer.					
		SWC1090	Configuration Software available for free on www.gmintsr.com website. Modify module's parameters in an easy user-interface. Save to file, print report sheets and do live input variable monitoring.					

SERIES D1000 INTRINSICALLY SAFE ISOLATORS

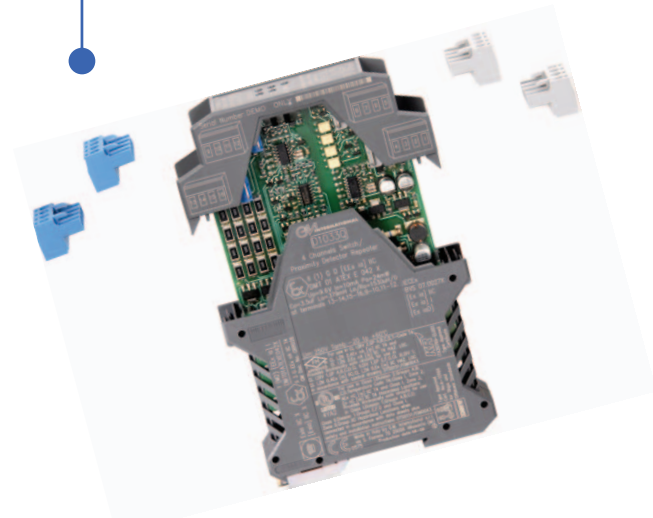
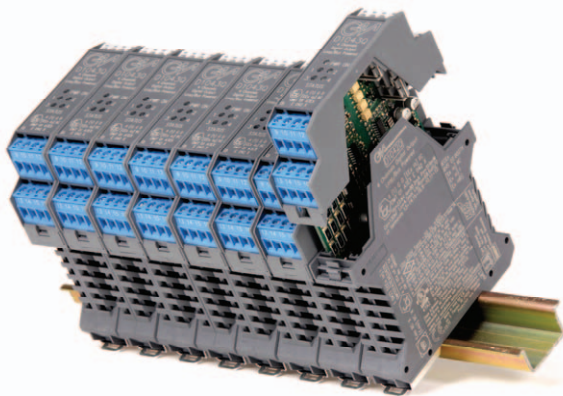
Intrinsically Safe Galvanic Isolators SERIES D1000, for DIN Rail Mounting, provides the most simple and cost effective means of implementing Intrinsic Safety into Hazardous Area applications.

- Input and Output short circuit proof.
- High Performance and Reliability.
- Field Programmability.
- Three port isolation: Input/Output/Supply.
- High density (1, 2, 4 channels per unit).
- Operating Temperature limits: -20 to +60 Celsius.

- CE - EMC: according to 94/9/EC Atex Directive and to 89/336/CEE EMC Directive.
- EMC compatibility to EN61000-6-2 and EN61000-6-4.
- Approvals: see back page.
- Modules can be used with Custom Boards with suitable adapter cables for connection to DCS.

PLUG-IN TYPE TERMINAL BLOCKS

Standard on all models;
Gray color towards Safe Area and
Blue towards Hazardous Area.



PACKAGING DETAILS

Each module has Aeration slots; Laser engraving on both sides detailing schematic diagram, connections, tables and instructions; LEDs for status and fault indication.

D1010

SIL 3 REPEATER POWER SUPPLY (AI)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels
- SMART Transmitters
- Active - Passive Inputs
- Sink - Source Output
- Output Signal 0/4 - 20 mA, linear 0 to 22 mA
- D1010D can be used for Signal Duplication
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1014

SIL 3 REPEATER POWER SUPPLY (AI)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels HART Passive TX
- 1 - 2 Sink - Source Outputs 4 - 20 mA, linear 2 to 22 mA
- Independent Power Supply for each Input
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1000

D1012

**4 CHANNELS
REPEATER POWER SUPPLY (AI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 4 Channels Passive transmitters
- 4 Source Outputs 4-20 mA, linear 1 to 21 mA
- 4 inputs / 4 Outputs or 2 Inputs / 2 Double Outputs (2 duplicators) or 1 Input / 4 Outputs (1 quadruplicator)
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1021

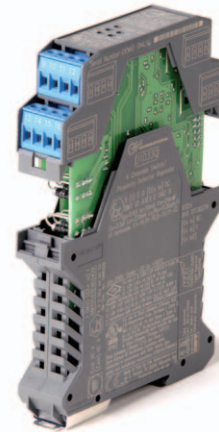
SIL 2 POWERED ISOLATING DRIVER FOR I/P, VALVE ACTUATORS (AO)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 Channel from SMART-HART valves
- Output Signal 4 - 20 mA, linear from 0 to 22 mA
- Local and Remote independent signaling for line Open and Short / Open Circuit
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



FULLY PLUG-IN

Plug-In Terminal Blocks avoid wiring mistakes and simplify module replacement. Plug-In Modules simplify and speed-up maintenance operations.



PACKAGING DETAILS

Front Panel and Printed Circuit Board are removable by applying pressure with a tool, without disconnecting power

D1020

SIL 2 POWERED ISOLATING DRIVER FOR I/P, VALVE ACTUATORS (AO)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels from SMART-HART valves
- Output Signal 4 - 20 mA, linear from 0 to 22 mA
- Local independent signaling for line Open
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1022

LOOP POWERED FIRE/SMOKE DETECTOR INTERFACE (AO)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1-2 Channels
- Input Signal from Safe Area 1-40 mA (loop powered)
- Output Signal to Hazardous Area 1-40 mA
- Operating voltage 6-30 V (loop powered)
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1000

D1030
**SWITCH/PROXIMITY
DETECTOR REPEATER (DI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels Relay Output SPDT
- Input from Zone 0 / Div. 1
- Installation in Safe Area
- Zone 2 / Div. 2 installation


RACK MOUNTING

19" rack mounting option D1000R


D1033
**SIL 2 SWITCH/PROXIMITY
DETECTOR REPEATER (DI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 2 - 4 Channels O.C. Transistor Output
- Max. Frequency 2000 Hz
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2


D1032Q SIL 2 QUAD CHANNEL

Switch / Proximity Detector Repeater


D1031
**SWITCH/PROXIMITY
DETECTOR REPEATER (DI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 2 - 4 Channels Transistor Outputs
- Max. Frequency 1000 Hz
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2


D1034
**SIL 3 SWITCH/PROXIMITY
DETECTOR INTERFACE (DI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels Input Impedance Repeater
- Independent Power Supply for each Input
- Inputs from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2


D1032
**SIL 2 SWITCH/PROXIMITY
DETECTOR REPEATER (DI)**

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 2 - 4 Channels Relay Output SPST
- Input from Zone 0 / Div. 1
- Installation in Safe Area
- Zone 2 / Div. 2 installation


D1035
**FREQUENCY – PULSE
ISOLATING REPEATER (DI)**

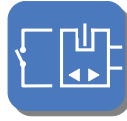
- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- Input Frequency 0 to 50 KHz
- Input from Proximity, Magnetic Pick-Up
- 1 channel Transistor Output
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2



D1130

SWITCH/PROXIMITY DETECTOR REPEATER (DI)

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- 1 - 2 Channels Relay Output SPDT
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation
- Power Supply 90 - 250 Vac



T3010S

4.5 digit LOOP POWERED INDICATOR

- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- Large LCD Display, 20 mm high
- Less than 1 V drop, Supply 4 - 20 mA
- IP65 Enclosure with 2 separated chambers for Wall, Pipe-Post, or Panel mounting.
- Zone 0 IIC T5 / T6 or Div. 1 Installation
- Field configurable

D1130

Switch / Proximity Detector Repeater



T3010S I.S. LOOP INDICATOR

2" pipe mounted complete unit with covers.



SAFETY INTEGRITY LEVELS

G.M. International offers a wide range of products that have been proved to comply with the most severe quality and safety requirements. IEC 61508 and IEC 61511 standards represent a milestone in the progress of industry in the achievement of supreme levels of safety through the entire instrumented system lifecycle. The majority of our products are SIL certified; reports and analyses from TUV and EXIDA are available for download from our website.

SIL Safety Integrity Level	PFDavg Average probability of failure on demand per year (low demand)	RRF Risk Reduction Factor	PFDavg Average probability of failure on demand per hour (high demand)
SIL 4	$\geq 10^{-5}$ and $< 10^{-4}$	100000 to 10000	$\geq 10^{-9}$ and $< 10^{-8}$
SIL 3	$\geq 10^{-4}$ and $< 10^{-3}$	10000 to 1000	$\geq 10^{-8}$ and $< 10^{-7}$
SIL 2	$\geq 10^{-3}$ and $< 10^{-2}$	1000 to 100	$\geq 10^{-7}$ and $< 10^{-6}$
SIL 1	$\geq 10^{-2}$ and $< 10^{-1}$	100 to 10	$\geq 10^{-6}$ and $< 10^{-5}$

• Table for low and high demand modes of operation according IEC 61508 and IEC 61511

DIGITAL OUTPUT MODELS

SIL 2 – SIL 3 for ND-NE LOADS
D1040Q, D1041Q, D1042Q, D1043Q, D1044D, D1045Y, D1046Y, D1047S, D1048S, D1049S
SOLENOID DRIVERS (DO)

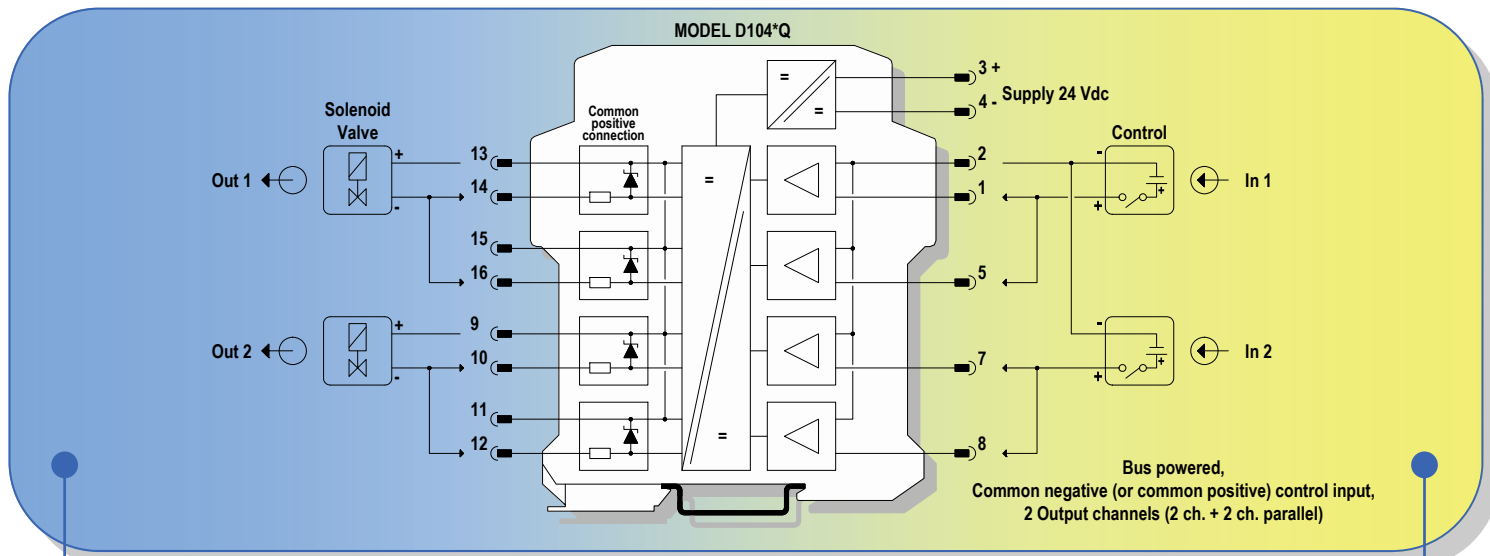
- II (1) G [Ex ia] IIC, II (1) D [Ex iaD], I (M2) [Ex ia] I, II 3G Ex nA IIC T4
- F&G, ESD applications with line/valve detection for NE or ND loads
- Loop/Bus Powered
- Output to Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2



D1044

New DIGITAL RELAY OUTPUT

- Output to Zone 0 (Zone 20), Division 1, installation in Zone 2, Division 2.
- Voltage, contact, logic level input.
- Two SPDT Relay Output Signals.
- Three port isolation.
- Simplified installation using standard DIN Rail and plug-in terminal blocks.



HAZARDOUS AREA ZONE 0 / DIV. 1

SAFE AREA / ZONE 2, DIV. 2

Output channels can be **paralleled** if more power is required; 2 or 3 channels in parallel (depending on the model) are still suitable for Gas Group II C. Four basic models meet a large number of applications: it is possible to obtain **16 different combinations** of safety parameters and driving currents.

D1040 / D1041

SIL 3 - SIL 2 DIGITAL OUTPUT LOOP / BUS POWERED (DO)

- Output to Zone 0 (Zone 20), Division 1, installation in Zone 2, Division 2.
- Voltage input, contact, logic level, common positive or common negative, loop powered or bus powered.
- Flexible modular multiple output capability.
- Output short circuit proof and current limited.
- Three port isolation, Input/Output/Supply.
- D1041Q suitable for LED driving
- SIL 2 when Bus powered
- SIL 3 when Loop powered



D1042 / D1043

SIL 3 - SIL 2 DIGITAL OUTPUT LOOP / BUS POWERED (DO)

- Output to Zone 0 (Zone 20), Division 1, installation in Zone 2, Division 2.
- Voltage input, contact, logic level, common positive or common negative, loop powered or bus powered.
- Flexible modular multiple output capability.
- Output short circuit proof and current limited.
- Three port isolation, Input/Output/Supply.
- SIL 2 when Bus powered
- SIL 3 when Loop powered



D1045 / D1046

New DIGITAL OUTPUT LOOP / BUS POWERED (DO)

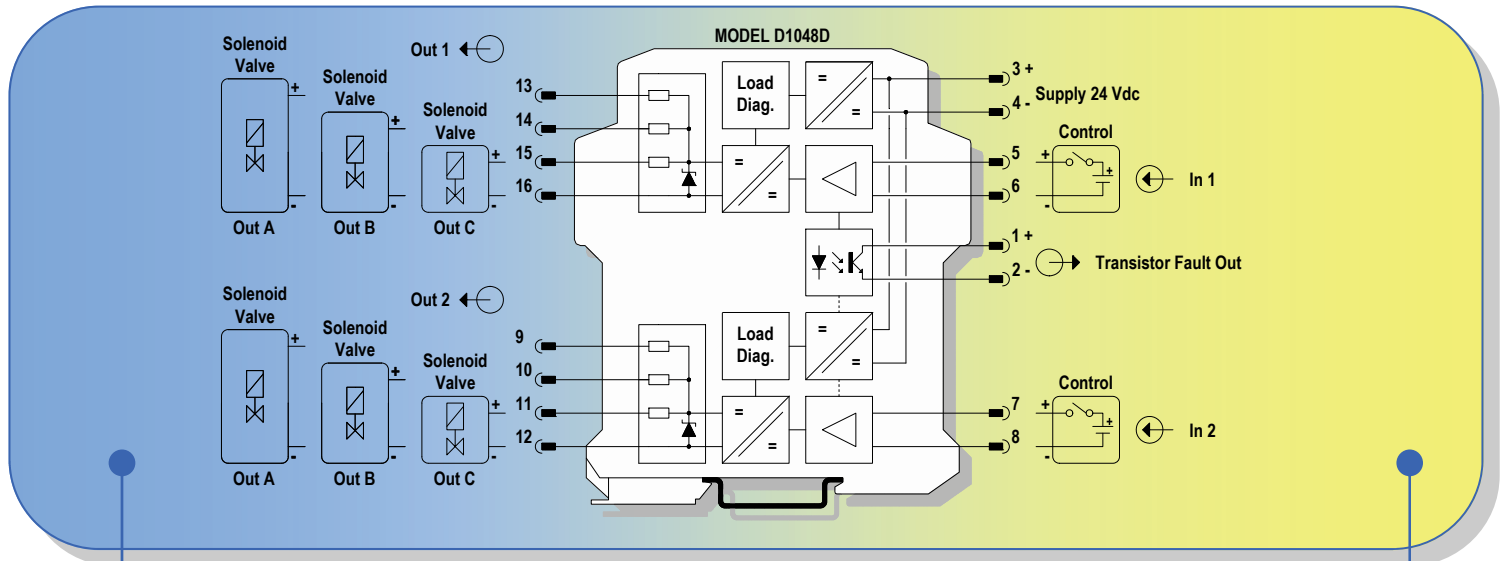
- Output to Zone 0 (Zone 20), Division 1, installation in Zone 2, Division 2.
- Voltage input with isolated commands, loop or bus powered.
- Suitable for driving 1 or 2 positions directional solenoid valves.
- Output short circuit proof and current limited.
- Three port isolation, Input/Output/Supply.



D1048

New SIL 3 DIGITAL OUTPUT DRIVER LOOP POWERED FOR NE LOADS

- SIL 3 for 10 years
- ESD, DCS, PLC application
- Output to Zone 0, Division 1, installation in Zone 2, Division 2.
- Two independent driving circuits.
- Loop powered for NE loads.
- Output line short or open reflected on the input signal with LED indication.
- Three port isolation, Input/Output/Supply.



HAZARDOUS AREA ZONE 0 / DIV. 1

SAFE AREA / ZONE 2, DIV. 2

Three basic output circuits are available, with different safety parameters, to interface the majority of solenoids on the market. The selection among the **three output characteristics** is obtained by connecting the final element to a different terminal block.

D1047

New SIL 3 DIGITAL OUTPUT DRIVER LOOP POWERED FOR ND LOADS

- SIL 3 for 20 years.
- F&G application.
- Output to Zone 0 (Zone 20), Div. 1, installation in Zone 2, Division 2.
- Two redundant driving circuits.
- Interfaces the majority of solenoids on the market.
- Loop powered for ND loads.
- Short and open circuit load diagnostic monitoring with LED and transistor output.
- Output short circuit proof and current limited.
- Triple independent and isolated units in 1oo3D architecture



D1049

New SIL 3 DIGITAL OUTPUT DRIVER BUS POWERED FOR NE LOADS

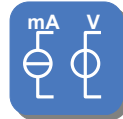
- SIL 3 for 10 years.
- ESD, DCS, PLC application.
- Output to Zone 0 (Zone 20), Div. 1, installation in Zone 2, Division 2.
- Two independent driving circuits.
- Bus powered for NE loads.
- Output line short or open reflected on the input signal with LED indication.
- Output short circuit proof and current limited.



D1052

SWITCH/PROXIMITY DETECTOR REPEATER (DI)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- 1 - 2 Channels 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10 V, Input / Output
- Fully programmable
- D1052D can be used as Duplicator, Adder, Subtractor, High-Low signal Selector.
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2



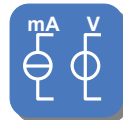
F.A.P TESTS

G.M. International welcomes Factory Acceptance Tests on standard products or on completely assembled projects. Our facilities in Villasanta (Italy) are fully capable of handling projects of any size.

D1053

SIL 2 ANALOG SIGNAL CONVERTER + DOUBLE TRIP AMPLIFIER (SC-TA)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- 1 Channel 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10 V, Input / Output
- 2 Independent Trip Amplifiers, SPST Relay
- Fully programmable (PPC1090 or PPC1092)
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1054

SIL 2 POWER SUPPLY REPEATER + DOUBLE TRIP AMPLIFIER (SC-TA)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- SMART Active - Passive Transmitters
- Input 0 /4 - 20 mA
- Output 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10 V
- 2 Independent Trip Amplifiers, SPST Relay
- Fully programmable (PPC1090 or PPC1092)
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



CABINET INSTALLATION

Instructions and suggestions on the use of our units in cabinets can be found on document ISM0075.

D1060

FREQUENCY - PULSE ISOLATING REPEATER

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- Input Frequency 0 to 50 KHz
- Input from Proximity, Magnetic Pick-Up
- One 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10 V Source Out
- 1 channel Transistor Output for Pulse repeater
- 1 channel Transistor Output for Trip Amplifier
- Fully programmable (PPC1090 or PPC1092)
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2



D1000

D1061

RS-485 FIELDBUS ISOLATING REPEATER (SLC)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- RS-485/422 from Hazardous Area
- RS-485/422 / 232 to Safe Area
- Transmission Speed up to 1.5 Mbit/s
- Up to 31 Inputs / Outputs
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2

RS-485
RS-422

D1064

New

LOAD CELL / STRAIN GAUGE BRIDGE ISOLATING CONVERTER

- II (1) G D [EEx ia] IIC; I (M2) [EEx ia]
- Up to four 350 Ohm load cells in parallel
- 0/4-20 mA, 0/1-5 V, 0/2-10 V Output
- RS-485 Modbus Output
- Software programmable
- Field automatic calibration
- Zone 2 / Div. 2 installation



HIGH DENSITY

Offshore and maritime applications, more than others, require that instrumentation occupies the least amount of space. D1000 Series modules can be packed up together for configurations of up to 180 channels per meter in case of Digital Output units and offer a great simplification in cabling and cost reduction.

D1062

New SIL 2 VIBRATION TRANSDUCER INTERFACE (TC)

- II (1) G D [EEx ia] IIC or I (M2)
- - 0.5 to - 20 V Input, Output signal
- DC to 10 KHz within 0,1 dB
- 10 KHz to 20 KHz within 3 dB.
- Zone 2 / Div. 2 Installation



D1063

STRAIN GAUGE BRIDGE SUPPLY AND ISOLATING CONVERTER

- II (1) G D [EEx ia] IIC; I (M2) [EEx ia]
- Up to four 350 Ohm load cells in parallel
- 4 wire Supply 5 - 10 V
- mV Isolated Output
- Accuracy 0.003 %
- Eliminates the need of 6 channel Zener Barriers
- No need for expensive safety ground connections
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1000

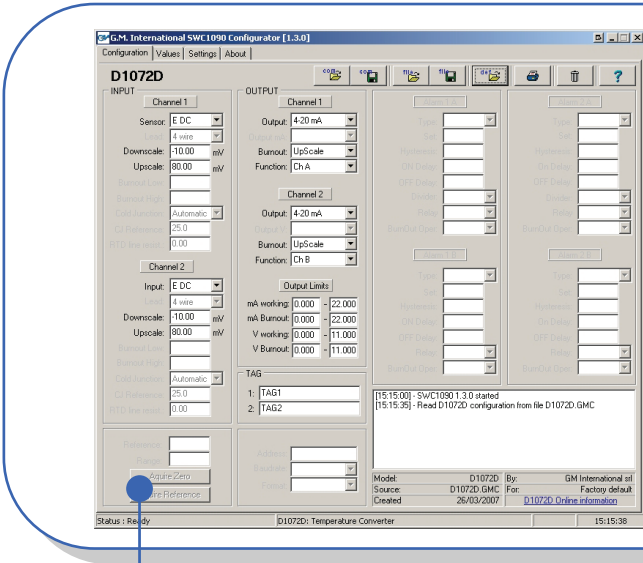
D1000 CONFIGURABILITY

The **SWC1090** software is designed to provide a PC user interface to configure programmable D1000 modules.

- Read and write configuration parameters to the units (via COM port);
- Store and restore data to and from local hard drive for backup or archive;
- Load factory default configurations;
- Monitor Input values via USB/COM port;
- Print a report sheet containing configuration parameters and additional information (see example on the right).
- SWC1090 software is downloadable free of charge.

D1000 Models can be configured via **SWC1090** PC Software by using the **PPC1092** adapter. All parameters can be easily accessed, modified and stored as a backup on file for further use.

PPC1090 is a small and handy Pocket Portable Configurator suitable to program configuration parameters of D1000 series modules like. The Configurator is powered by the unit and can be plugged in without disconnecting the module.



SWC1090 SOFTWARE



PPC1092

PPC1090

D1072

SIL 2 TEMPERATURE CONVERTER (TC)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- 1 - 2 Channels, 2-3-4 wire RTD, Pt100, Pt50,
- Ni100, Cu100, Cu53, Cu50, Cu46, TC Type A1, A2, A3, B, E, J, K, L, Lr, N, R, S, T, U
- 1 - 2 Outputs, 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10V
- Fully programmable (PPC1090 or PPC1092)
- D1072D can be used as Duplicator, Adder, Subtractor, High-Low signal Selector.
- Input from Zone 0 / Div. 1
- Installation in Zone 2 / Div. 2



D1073

SIL 2 TEMPERATURE CONVERTER + DOUBLE TRIP AMPLIFIER (TC-TA)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- 1 Channel, 2-3-4 wire RTD, Pt100, Pt50, Ni100, Cu100, Cu53, Cu50, Cu46, TC Type A1, A2, A3, B, E, J, K, L, Lr, N, R, S, T, U
- 1 Output, 0/4 - 20 mA, 0/1 - 5 V, 0/2 - 10V
- 2 Independent Trip Amplifiers, SPST Relay
- Fully programmable (PPC1090 or PPC1092)
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



D1000

SAFETY RELAYS

SIL 3 Safety Relays are used to drive high power solenoid valves for use in critical applications such as **ESD** (Emergency Shutdown) and **F&G** (Fire and Gas) systems.

Unlike the majority of similar products on the market, G.M. International D1000 safety relays offer the possibility to interface both **NE** (ESD) and **ND** (F&G) loads, covering almost 100% of possible applications.

Moreover, model D1093S is the only safety relay available with inbuilt **diagnostic circuit** capable of detecting line and load breakages.

D1092-069

New **SIL 3** RELAY OUTPUT MODULE (DO)

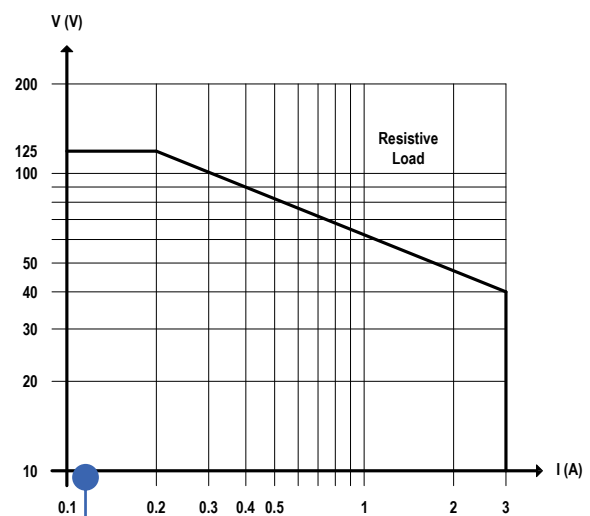
- 1 SPST NO contact and 1 SPST NC contact for NE Loads
- 1 or 2 fully independent channels
- SIL 3 for T proof = 20 yrs
- Line and Valve fault detection
- Zone 2 / Div. 2 installation
- TUV Certification for SIL.
- High Reliability.



D1092D



D1093S



DC Load Breaking capacity

D1092

New **SIL 3** RELAY OUTPUT MODULE (DO)

- 1 or 2 fully Independent Channels
- 1 or 2 SPST for NE Loads and 1 or 2 SPST for ND Loads
- SIL 3 for T proof = 20 yrs
- Zone 2 / Div. 2 installation
- TUV Certification for SIL.
- High Reliability, SMD components.
- High Density, two channels per unit.
- Simplified installation using standard DIN Rail and plug-in terminal blocks.



D1093

New **SIL 3** RELAY OUTPUT MODULE (DO)

- 1 SPST for NE Loads and 1 SPST for ND Loads
- SIL 3 for T proof = 10 yrs
- Line and Load open diagnostic in NE and ND conditions (requires 24 Vdc auxiliary supply)
- Zone 2 / Div. 2 installation
- TUV Certification for SIL.
- High Reliability, SMD components.
- High Density, two channels per unit.
- Simplified installation using standard DIN Rail and plug-in terminal blocks.



Relay

PSD1000

UNIVERSAL INPUT POWER SUPPLY FOR D1000 SERIES ISOLATORS (PS)

- Supply 90 - 265 Vac
- Output 24 Vdc, 500 mA
- 2 Units can be paralleled for Redundancy or additional power
- Remote indication for Power Failure
- Installation next to the D1000 Series Modules, without the Safety distance of 50 mm, because Supply and Outputs Terminal Blocks are on the same side
- Zone 2 / Div. 2 installation



PSD1001C

SIL 2 1 CHANNEL INTRINSICALLY SAFE POWER SUPPLY (PS)

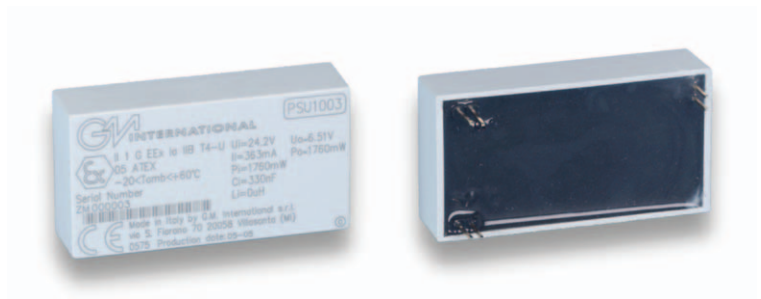
- II (1) G D [EEx ia] IIB; I M2 [EEx ia]
- 1 Output 13.5 V - 100 mA or 10 V - 150 mA
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation



PSU1003 PCB MODULE



PSD1001 4 CHANNEL P.S.



PSD1001

SIL 2 4 CHANNELS INTRINSICALLY SAFE POWER SUPPLY (PS)

- II (1) G D [EEx ia] IIC; I M2 [EEx ia]
- 4 Independent Outputs 15 V, 20 mA
- Input from Zone 0 / Div. 1
- Zone 2 / Div. 2 installation
- Flexible modular multiple output capability.
- Output short circuit proof and current limited.
- High Reliability, SMD components.
- High Density, four channels per unit.
- Simplified installation using standard DIN Rail and plug-in terminal blocks.



PSD1004

INTRINSICALLY SAFE POWER SUPPLY (PS)

- II 1 G EEx ia IIB T4
- Output 5 Vdc, 160 mA
- Supplied by PSD1001C
- Zone 0 Installation
- 500 V input/output isolation



PSU1003

1 CHANNEL INTRINSICALLY SAFE POWER SUPPLY PCB MODULE (PS)

- II 1 G EEx ia IIB T4
- Output 5 Vdc, 160 mA, supplied by PSD1001C
- Zone 0 Installation
- Module for PCB Mounting
- 500 V input/output isolation
- Width 55 mm, Depth 30 mm, Height 15 mm



PSD1000

PSD1206 (PSD1210)

SIL 2 - SIL 3 NON/INCENDIVE POWER SUPPLY (PS)

- II 3 G EEx nA IIC T4
- Output: 24 V, 6 A (10 A), 150 W (250 W)
- Line and Load Regulation 0.2 %
- Supply 95 to 264 Vac
- Power Factor correction 0.95



- Parallel operation for Redundancy with load sharing capability
- Redundant crowbars for overvoltage protection
- SPST O.C. transistor for remote alarm
- Zone 2 / Div. 2 installation
- External connections for T-proof testing

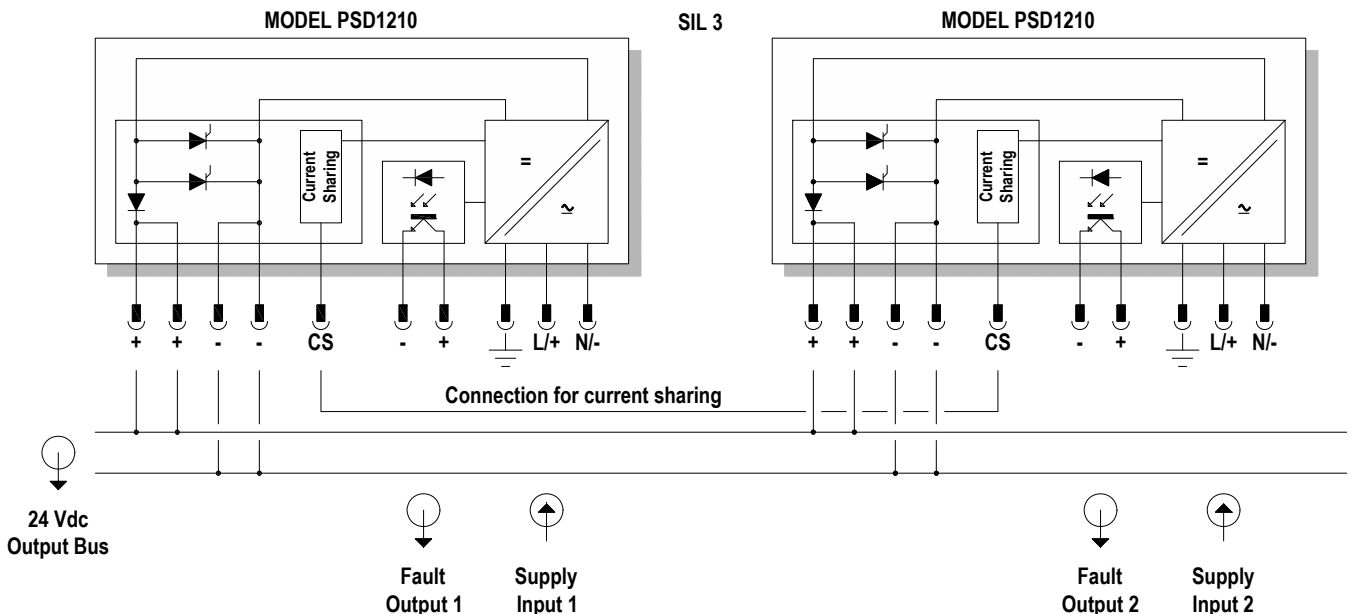
PSD1210 FRONT VIEW

PSD1210 REAR VIEW



FUNCTION DIAGRAM

PSD1200 units can be paralleled for redundancy operation to increase availability upgrading the system from SIL 2 to SIL 3 or to increase the output power. Internal power diodes for parallel operation prevent fault propagation in parallel connected supply systems and **load sharing** distributes current load equally to each power supply to increase reliability and reduce internal power dissipation.

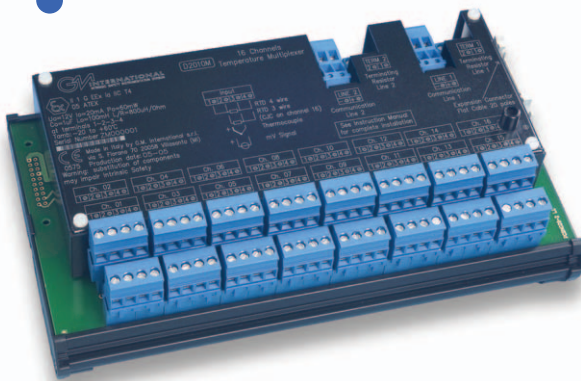


SERIES D2000M MULTIPLEXER

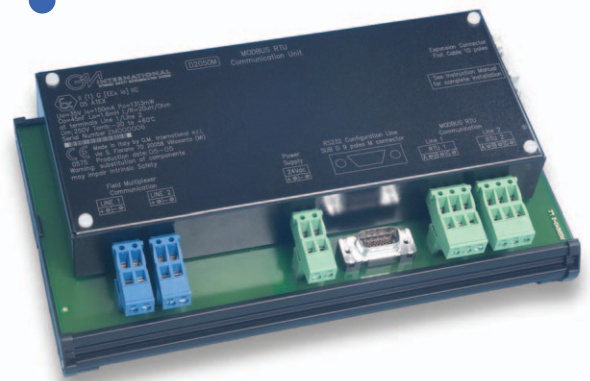
SYSTEM FEATURES

- High density, up to 256 Analog Inputs (TC, RTD, mV) and up to 128 digital Inputs (contact / proximity) in the same system (expandable up to 7936 inputs)
- Robust Isolation (± 200 V channel to channel), provides high immunity against interference and ground loops
- Intrinsically safe for installation in Zone 0, 1, 2
- Field units can be placed up to 5 km from Gateway
- High accuracy 18 bit A/D converter
- Redundant communication lines
- Programmable via PC (RS232) and Modbus (RS485)
- Repeats input contact via Relays or Transistor Output
- Reduces field wiring and installation costs
- Eliminates the need of PLC - DCS I/O cards.
- Field unit operating temperature: - 40 to + 60 Celsius.
- AISI 316 stainless steel enclosures are available for field units (Series GM2300).
- Gateway D2050M can be installed in Zone 1 / Div. 1 by using an explosion proof enclosure.

D2010M TEMPERATURE UNIT



D2050M GATEWAY UNIT



MODELS D2010M - D2011M

ANALOG / TEMPERATURE MULTIPLEXER UNIT



- II 1 G EEx ia IIC T4
- 16 Channels per Unit, each for 2-3-4 wire RTD, Pt100, Pt50, Ni 100, Cu100, Cu53, Cu50, Cu46, TC Type A1, A2, A3, B, E, J, K, L, Lr, N, R, S, T, U.
- Up to 16 Units per System
- Redundant Communication with gateway D2050M
- PC Programmable via SWC2090 software
- Zone 0 / Div. 1 Installation
- Operating Temperature - 40 to + 60 ° Celsius

MODEL D2030M

SWITCH / PROXIMITY MULTIPLEXER UNIT



- II 1 G EEx ia IIC T4
- 32 Input Channels per Unit
- Up to 4 Units per System
- Input from Contact-Proximity Sensors
- 128 Channels are scanned in 100 ms
- Redundant Communication with D2050M Gateway
- PC Programmable via SWC2090 software
- Zone 0 / Div. 1 Installation
- Operating Temperature - 40 to + 60 ° Celsius

D2000M

MODEL D2050M

GATEWAY MULTIPLEXER UNIT

- II (1) G [EEx ia] IIC
- Supply 24 V - 350 mA
- Redundant MODBUS RTU - RS485 lines up to 115200 bauds
- 1 RS-232 line for configuration via PC
- Suitable to drive contact/proximity output repeaters
- Safe Area Installation or Zone 1 / Div. 1 when mounted in an explosion proof housing
- Operating Temperature - 20 to + 60 °Celsius

D2010M
D2030M

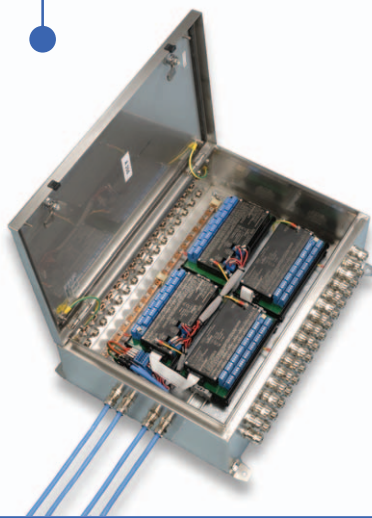
MODEL D2052M / D2053M

CONTACT / PROXIMITY OUTPUT REPEATER



- 32 Isolated Channels with SPDT Relay contacts (D2052M) or Open Collector Transistors (D2053M)
- 128 Channels are scanned in 50 ms
- Operating Temperature - 20 to + 60 ° Celsius
- Safe Area Installation or Zone 1 / Div. 1 when mounted in an explosion proof housing

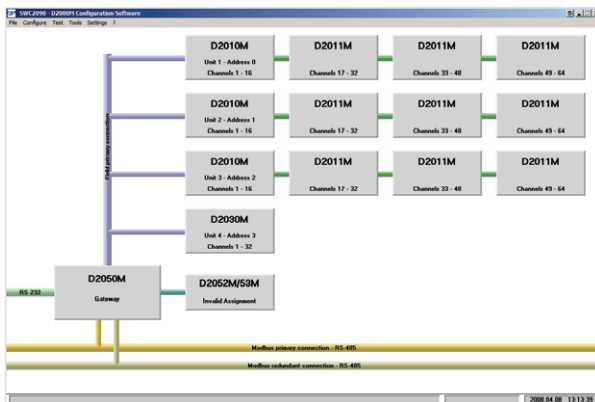
GM2320 FIELD ENCLOSURE



D2052M OUTPUT REPEATER



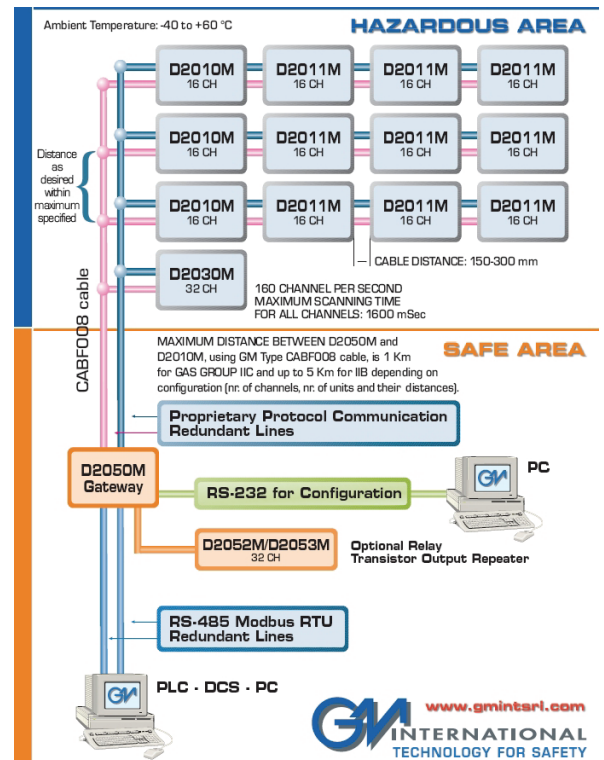
SWC2090 CONFIGURATOR



SOFTWARE CONFIGURATOR FOR D2000M

- Configure and monitor the entire system with your PC / Laptop via RS232 and/or RS485 connections
- Guided user interface
- Print complete report sheets
- Save configurations to file for backup
- Multilanguage

EXAMPLE OF ARCHITECTURE

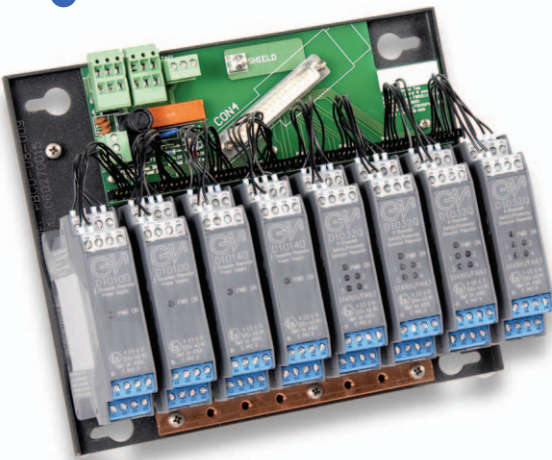


CONNECTOR OUTPUT CUSTOM PANELS

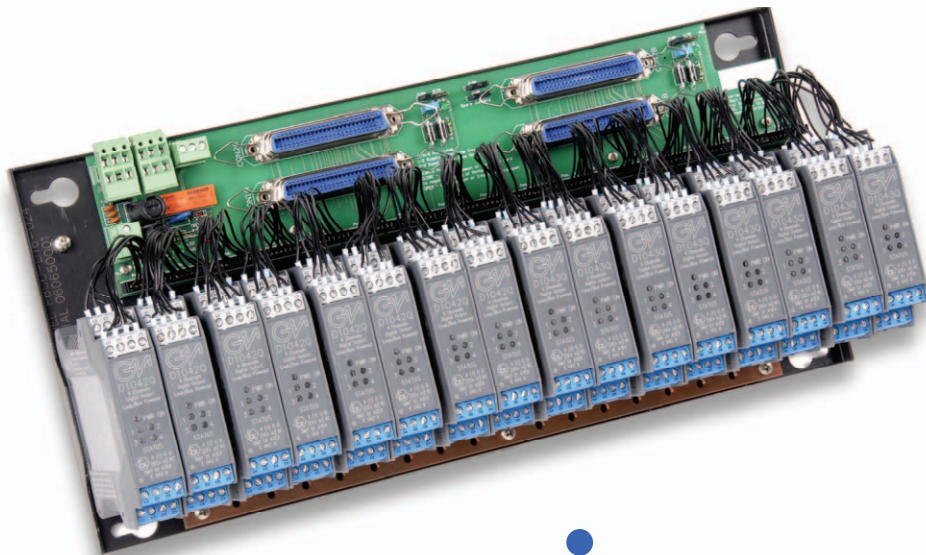
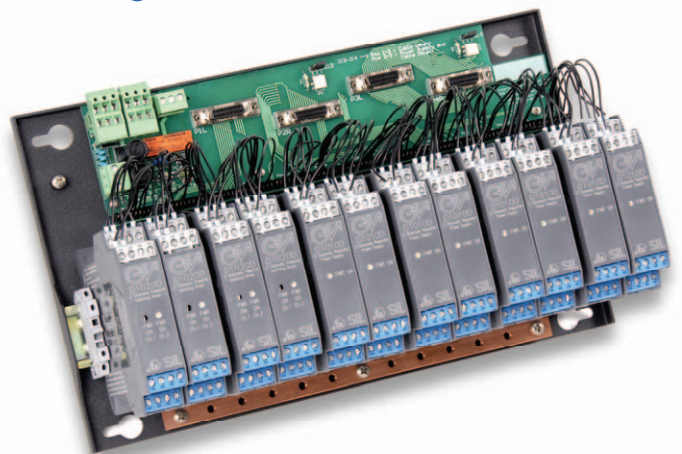
G.M. International offers many solutions for Customized Boards for an easy integration with instrumentation of manufacturers like Invensys Foxboro, ABB, Triconex, Yokogawa, Honeywell and many more.

New Board models are engineered on customer request for any system or application: contact us for details. In the following page a selection of Customized PBCO Series Boards among our entire production.

8 MODULES - PBCO-D8



12 MODULES - PBCO-D12




16 MODULES - PBCO-D16

PBCO Boards

CUSTOM BOARD MODELS

Code	Description	Ch.
Boards with Output Connectors suitable for Foxboro FBM 200		
PBCO-D8-009	16 Ch. Board: 16 AI or 8 DI + 8 DO or 16 DI suitable for FBM 211, 241, 242, 207, single connector	16
PBCO-D8-010	8 Ch. Board: 8 AO or 8 AI or 4AO + 4AI suitable for FBM 237, 201, single or redundant connector	8
PBCO-D8-011	32 Ch. Board: 32 DI suitable for FBM 217 single connector	32
Boards with Output Connectors suitable for Triconex TMR Version 9		
PBCO-D16-012	32 AI Ch. Board + Hart connector suitable for TMR 3704 E	32
PBCO-D16-013	32 DI Ch. Board suitable for TMR 3505 E	32
PBCO-D8-014	16 Ch. Board AO + Hart connector, suitable for TMR 3805E	16
PBCO-D16-015	32 DI Ch. Board suitable for TMR 3504 A, 3564	32
PBCO-D16-042	32 AI Ch. Board + Hart connector suitable for TMR 3700 A	32
PBCO-D16-043	32 DI Ch. Board suitable for TMR 3503 E	32
Boards with Output connector suitable for ABB		
PBCO-D8-001	Analog Board for 6 Double Analog modules, suitable for 8 AI and 4 AO channels	12
PBCO-D8-002	Digital Board for 8 four channel Digital Input modules, suitable for 32 input channels	32
PBCO-D8-003	Relay Board for DO Signal customized for ABB System Six, + 8 Relays 24 Vdc driven by DCS	8
PBCO-D12-008	Analog Board for 12 Double Analog modules, suitable for 16 AI and 8 AO channels	24
PBCO-D04-038	4 Module / 8 Channels DI Board for ABB TC-200 System	8
PBCO-D04-039	4 Module / 4 Channels DO Board for ABB TC-200 System	4
PBCO-D04-040	4 Module / 8 Channels AI Board for ABB TC-200 System with Hart	8
PBCO-D01-041	1 Hart MUX Module / 32 Channels Board for ABB TC-200 System	32
Boards with Output Connectors suitable for Yokogawa Centrum CS 3000 R3		
PBCO-D16-025	16+16 AI Ch. Board suitable for cards AAI 141 - 16+16 AI ch. each	32
PBCO-D16-026	16+16 AO Ch. Board suitable for card AAI 543 - 16 + 16 AO ch. each	32
PBCO-D16-027	32 or 64 DI Board suitable for card ADV 151 - 32/64 DI (use 16 dual/quad ch. modules)	32
PBCO-D16-028	32 DO Board suitable for card ADV 551- 32 DO each (use 16 dual ch. modules)	32
Boards with Output Connectors suitable for Honeywell		
PBCO-D16-021	16 Modules Board for IOP, HLAI, CC, P/N 51304754-150	32
PBCO-D16-022	16 Modules Board for IOP, A/O, CC, P/N 51309152-175	32
PBCO-D16-023	16 Modules Board for IOP, DI, CC, P/N 51304485-150	32
PBCO-D16-024	16 Modules Board for IOP, DO, CC, P/N 51304485-150	32
Boards with Output Connectors suitable for Emerson DeltaV		
PBCO-D8-033	16 AI + 16 AO or 32 DI + Hart connector suitable for DeltaV	32
Boards with Output Connectors suitable for Bailey Infi 90		
PBCO-D16-029	15 AI, Simplex or Redundant Configuration	15
PBCO-D16-030	16 DI + 16 DO, Simplex or Redundant Configuration	32
PBCO-D16-031	16 DO, Simplex or Redundant Configuration	16
Boards Standard D1000 Series		
PBCO-D8-032	32 DI or 32 DO or 16AI or 16 AO + HART Connector with standard ELCO 56 Pin Output Conn.	32
PBCO-D16-035	16 AI or 16 AO with standard ELCON 56 Pin Output Connector	16
PBCO-D16-036	32 AI or 32 AO + HART Connector with 2 standard ELCO 56 Pin Output Connectors	32
PBCO-D16-037	32 AI or 32 AO + HART Multiplexer Ready with Terminal Block output	32
PBCO-D8-044	16 Ch (8 Modules) with Terminal Block output	16

D1000 SERIES ACCESSORIES

Image	Code	Description
	MCHP065	DIN-Rail Anchor for terminal block side of the Power Bus
	MCHP139	5 mm spacer for modules on DIN-Rail
	MOR016	DIN-Rail Stopper
	MOR015	Plug-in terminal block male, vertical out, for Power Bus
	MOR017	Plug-in terminal block male, horizontal out, for Power Bus
	MOR022	Plug-in terminal block female, horizontal out, for Power Bus
	OPT1091	Cold Junction Compensator
	OPT1096	Kit for Bus Mounting: 2 x MOR016, 1 x MOR017, 1 x MOR022, 2 x MCHP065
	/B	Power Bus Enclosure (see next page)
	D1091S	Common Bus Alarm Module with SPDT Relay Fault Output indication
	PPC1090	Pocket Portable Configurator with cables
	PPC1092	RS-232 Serial Adapter for Configuration via PC, includes USBADAPT and cables
	USBADAPT	USB to RS-232 Adapter for PC
	SWC1090	PC Software for Configuration (free of charge at www.gmintsr.com)
	D1000R	19" Rack Unit, 3 units high, suitable for 16 modules

More information on www.gmintsr.com

ELCON INSTRUMENTS ADAPTERS

G.M. International offers continuity in the service of Elcon Instruments 1000 series (no longer available from the manufacturer). ATEX, FM, FM-C Certifications.

- Interchangeability with Elcon 1000 Series modules.
- Possibility to replace Elcon modules without modifying any wiring or connections.
- Use of the same Elcon boards.
- Identification using the same Elcon part-number.

EIADP ELCON ADAPTER



FULL INTERCHANGEABILITY



LIST OF ELCON ADAPTABLE MODELS

- **Analog Input, Power Supply Repeaters**
1021, 1022, 1023, 1025, 1025G, 1026, 1026G, 1029, 1030
- **Analog Input, Power Supply Repeater and Trip Amplifier**
1020, 1027
- **Analog Output, Powered Isolating Drivers for I/P**
1031, 1032, 1033, 1034, 1037, 1038
- **Fire and Smoke Detectors Repeaters**
1035, 1036, 1039, 1040
- **Analog Signal and Temperature Converters Fully Programmable**
1061, 1062, 1065, 1066, 1071, 1072, 1073, 1074, 1090
- **Digital Input Switch/Proximity Repeater**
1821, 1822, 1841, 1842
- **Digital Output Drivers for Solenoid Valves, LEDs, Horns**
1861, 1862, 1871, 1872, 1873, 1874, 1881, 1882
- **Frequency to Analog Converter + Pulse Repeater**
1891, 1893
- **Analog Signal and Temperature Trip Amplifiers Fully Programmable**
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