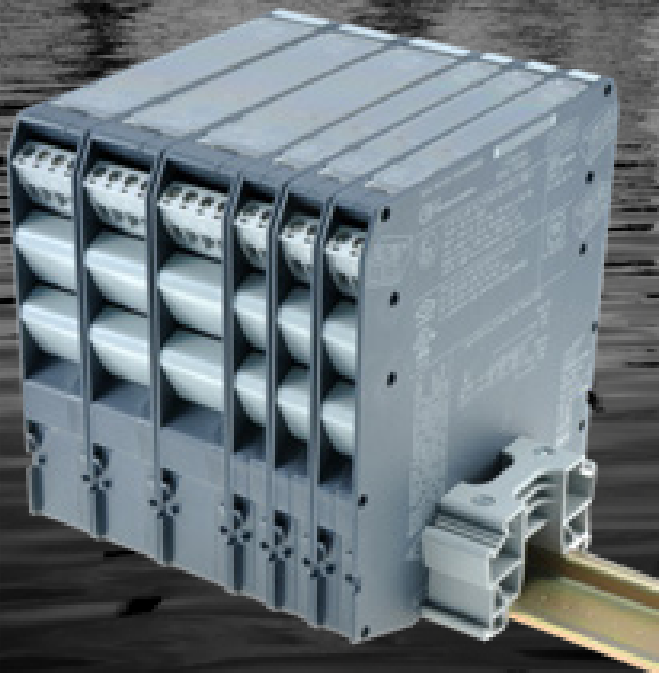


Galvanic Isolators

D6000 Series

03

GM International new universal mount Galvanic Isolators provide a simple and cost effective means of implementing isolation in non hazardous applications where SIL certification and/or high reliability are a requirement.



STRENGTHS

- **SIL 2:** TÜV certification; according IEC 61508:2010, Ed.2
- **Reduced Foot Print; High density:** 1, 2, 4 or 8 ch.s each
- **Simplified Installation/Config.:** DIP switch configurability
- **Faster Reaction Time; Lower Down Time:** LED indication for power, signal status and line fault
- **Lower Ownership Cost:** Certified for 20 years operation
- **Reduced Spare Inventory:** Universal Mounting (Stand Alone DIN-Rail, Power Bus System and Termination Boards)
- **Improved Reliability:** Low power consumption and heat dissipation
- **Higher Reliability In & Outdoor:** Certified -40° to +70° C
- **RS-485 Modbus** output version available

Structure



ENCLOSURE CHARACTERISTICS

- High channel density (3/6/12 mm per channel) resulting from innovative circuit design using advanced surface mount components
- Single, dual or quad channel models
- Plug-in screw terminal blocks to secure wires up to 2.5 mm²
- Configuration components are easily accessed by removing the side cover or via connector front panel

Enhanced Galvanic Isolators

GM International SIL 2 certified Isolators are suitable for applications in all industrial sectors and designed to achieve the highest possible reliability and availability through the use of high temperature class components and low dissipation circuitry. By avoiding the use of electrolytical capacitors, and with state-of-the-art assembly and testing facilities, 20 years useful life time is achieved.



LONGER LIFETIME

Capability to withstand higher temperatures, improves the lifetime in normal conditions.

- Operating temperature certified from -40°C to +70°C
- Very high reliability in extreme environment applications.
- G3 conformal coating
- Reduced cabinet dimensions, require less ventilation.



WIDE FUNCTIONALITY

- Modules suitable for **SIL 2** applications according to IEC61508, IEC61511
- Three port galvanic isolation to eliminate noise, ground loop problems
- Line fault alarm detects open or short circuit of field cables
- Optional power bus DIN-Rail connector
- Standard Termination Board with custom connectors for integration into customized Boards
- EMC Compatibility to EN61000-6-2, EN61000-6-4, EN61326-1, EN61326-3-1 for safety system
- DIP switch configurability for easy field setup
- LED indication for power, signal status and line fault conditions
- Modules accept DC power supply over a wide range for 24 Vdc (18-30 Vdc) applications

Operating temperature certified

from -40°C to +70°C

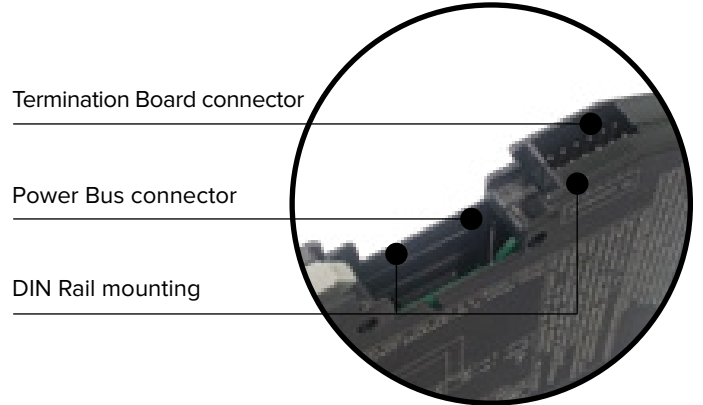
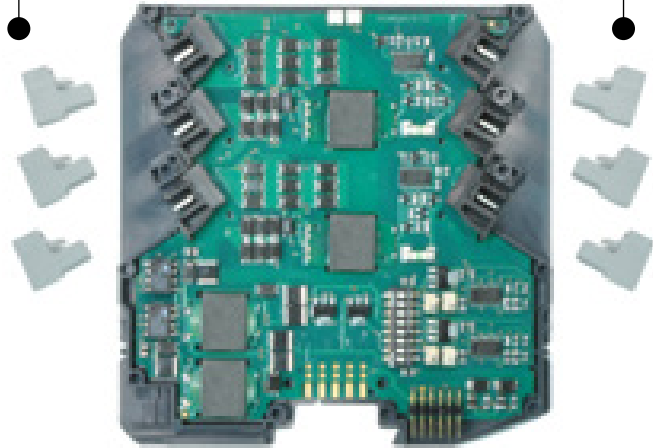
Universal Mounting units

The **same device** can be used in **all applications** to reduce spare inventory.

- DIN-rail stand-alone devices
- Standard and customized termination boards
- Power bus using standard TS 35 DIN-rail

Terminal Blocks for Field connections

Terminal Blocks for control room connection

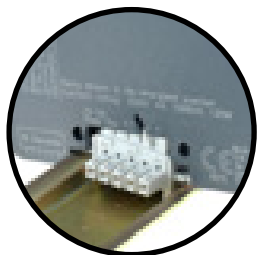


Enhanced Power Bus Mounting

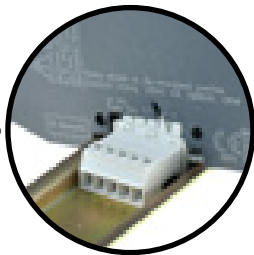
24 Vdc Power Supply Voltage **can be applied** to the module by directly connecting to the plug-in Terminal Block of each module, or **via the Power Bus System**. The system consists of standard DIN-Rail modules mounted on DIN-Rail Bus connectors. The maximum allowed powering capacity per trunk is **8 A**. It is always possible to remove modules, without disconnecting the bus connector which remains attached to the DIN-Rail. Communication bus is provided, on suitable models, to transmit via Modbus to DCS PLC logic solver. Cumulative Fault Alarm indication is provided on the Bus connection.

D5202S redundant power supply feed module provides SPST Relay contact for common and power supply faults; both supply voltages are **independently monitored**.

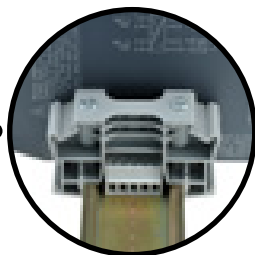
- Redundant 4 Amp power supply with alarm
- Remote alarm indication
- Modules can be combined for additional redundancy



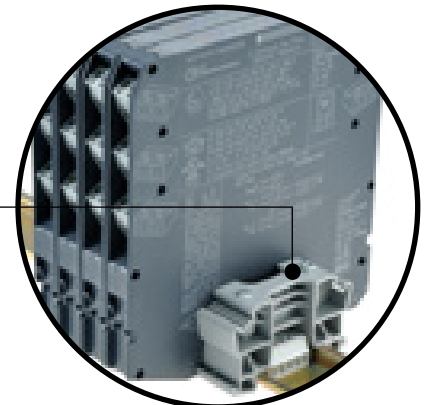
Bus plug-in connector



Bus connector terminal



DIN Rail stopper



Customized Termination Boards for an easy integration with instrumentation of manufacturers are available:

- | | | | | |
|----------|-----------|-------------|-------------|------------|
| • ABB | • Foxboro | • Honeywell | • Schneider | • Triconex |
| • Bailey | • Hima | • Invensys | • Siemens | • Yokogawa |

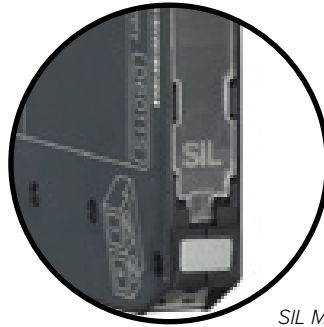
SIL Certification

20 years
SIL
certification

GM International D6000 series is designed and certified **SIL 2** according to IEC 61508 ed.2 and 61511 ed.2 **latest standards**. GM International System Capability SC3 allow the use of our isolators in 1oo2 or 2oo3 architecture for up to SIL 3 applications.

SIL data is guaranteed for a useful life time of **20 years** thanks to GM International's state-of-the-art solutions and manufacturing excellence. G3 conformal coating and vibration proof design guarantee problem free long operation life in standard and harsh conditions:

- High signal transfer accuracy and repeatability
- Advanced circuitry provides very low heat dissipation, ensuring modules run cool despite their high density and functionality
- SMD manufacturing for a long, reliable life
- Complete absence of electrolytic capacitors ensures minimum 20 years lifetime



SIL Marking

Configuration Tools & Software

SWC5090 software is designed to provide a PC user interface to configure suitable D6000, D6200 modules, via PPC5092 adapter.

It allows the user to easily:

- Read and write configuration parameters to the unit
- Store and restore data to and from local hard drive for backup or archive
- Load factory default configurations
- Monitor real time Input values for debug or test
- Print a report sheet containing configuration parameters and additional information

SWC5090 is freely distributed on our website: www.gminternational.com



Easy
USB
configuration



PPC5092 interface allows the configuration of D6000, D6200 modules via SWC5090 software.

Modules are supplied via USB and therefore do not need external power supply while being programmed.

PPC5092 comes with mini-USB cable and CD-Rom containing SWC5090 software.



Galvanic Isolators

ANALOG INPUT

Models	N. Ch.	L.M.	Input		Output		Duplicator	Alarm	SIL	Size	Note
			Active	Passive	Source	Sink					
D6011	1/2	●	●	-	●	-	-	-	2	12,5 mm	HART
D6014	1/2	●	●	●	●	●	●	-	2	12,5 mm	HART
D6015	1/2	●	●	●	●	●	●	-	2	12,5 mm	HART
D6212Q	4	●	●	●	●	-	●	●	2	22,5 mm	Modbus
D6254S	1	●	●	●	●	●	-	●	2	22,5 mm	Modbus
D6072	1/2	●	TC, mV, RTD, Ω, Pot		●	●	●	●	2	12,5 mm	Modbus
D6072S-087	1	●	2-3-4 wire RTD		2-3-4 wire RTD		-	●	2	12,5 mm	RTD to RTD
D6072-096	1/2	●	TC, mV		mV		●	●	2	12,5 mm	mV to mV
D6273S	1	●	TC, mV, RTD, Ω, Pot		●	●	-	●	2	22,5 mm	Modbus

ANALOG OUTPUT

Models	N. Ch.	L.M.	Input	Output	Duplicator	Alarm	SIL	Size	Note
D6020	1/2	●	4-20 mA	4-20 mA	●	●	2	12,5 mm	HART

DIGITAL INPUT

Models	N. Ch.	L.M.	Input	Output	Duplicator	Alarm	SIL	Size	Note
D6030	1/2	●	Dry contact/Namur	Relay	●	●	2	12,5 mm	
D6031	1/2	●	Dry contact/Namur	Voltage free contact	●	●	2	12,5 mm	
D6032	1/2	●	Dry contact/Namur	Relay	●	●	2	12,5 mm	Only for TB
D6034	1/2	●	Namur	Namur	-	-	2	12,5 mm	Transparent for Namur
D6036	1/2	●	Dry contact/Namur	Relay	-	-	2	12,5 mm	No G3 Coating
D6037	1/2	●	Dry contact/Namur	Voltage free contact	-	-	2	12,5 mm	No G3 Coating
D6231E	8	●	Dry contact/Namur	Solid State Relay	●	●	2	22,5 mm	Logical out func. + Modbus

OTHERS

Models	N. Ch.	L.M.	Input	Output	Power supply	Alarm	SIL	Size	Note
D6263S	1	-	Strain gauges	Strain gauges	Bus powered	-	2	22,5 mm	
D6264S	1	●	Strain gauges	4-20 mA	Bus powered	●	2	22,5 mm	Modbus