SERIES

X

UNIVERSAL MARSHALLING

gmi
technology for safety

FULL COMPATIBILITY

CUSTOMER INTEGRATION

SPACE REDUCTION

LOWER COSTS

Series X1 Dragon

is a complete range of interfaces for universal marshalling within limited spaces: pass-through, galvanic isolators, converters, relays and intrinsically safe modules.

Specifically designed for high risk industries, challenging functional safety (SIL) requirements and harsh environmental conditions.

The Series requires less maintenance and installation efforts on site, with a smaller cabinet footprint and more flexibility for spare channels.

Pending certifications:

GM International

engineers and manufactures products, to implement safety in process industries, in compliance with the most severe quality requirements.

The company was founded in 1993, but the core management's experience remarkably exceeds over fifty years of qualified activity in hazardous locations and industrial electronics.

GM International's products have been successfully installed in plants all over the world.

www.gminternational.com

Universal integrated marshalling

The Series X1 Dragon consists of a comprehensive solution for interfacing customers systems with a complete range of modules. The compact design of the board and its modules reduce cabinet utilization and therefore lower costs. Installation and maintenance are facilitaded thanks to innovative characteristics of the system.

Modules are available for all field signal types, both analog and digital, together with safety relays. Intrisically safe loops can also be interfaced, and the board itself can be installed in Zone 2 / Div 2.
Solutions for 8, 16 or 32 channels I/O cards can be customized to suite all specific requirements.

The whole series is SIL 2 / SIL 3 certified, ensuring the highest reliability in extreme applications.

Design

Retention and detachment **leverage** mechanism

Mechanical **polarization** key system, avoids misplacing and potentially destructive insertion of low-voltage modules into high-voltage slots and NIS modules into IS slots

Redundant and protected 24 Vdc power supply

High grade light plastic **IP20** housing, protects main board and I/O card cable connector
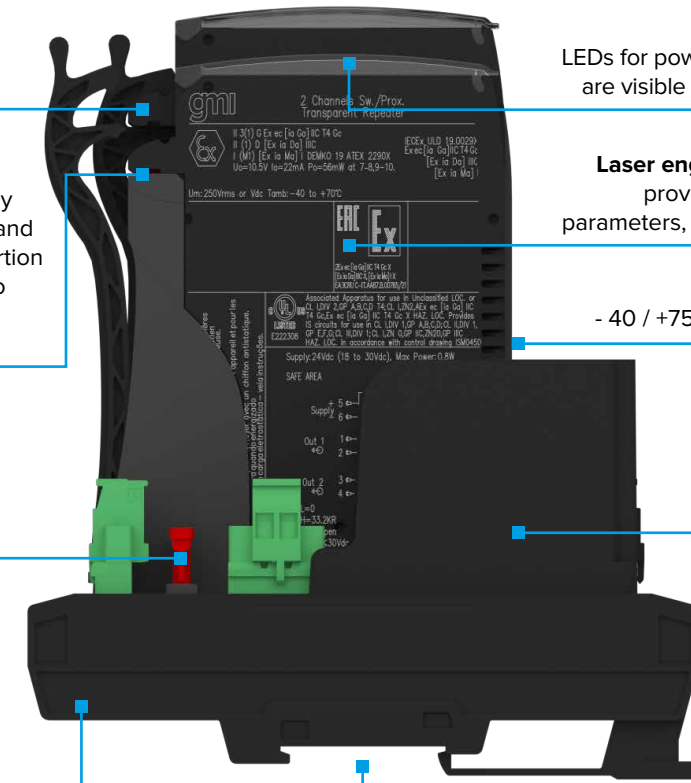
LEDs for power, status and **fault indication** are visible through the transparent cover

Laser engraving on module enclosure provides permanent marking of IS parameters, certifications and instructions

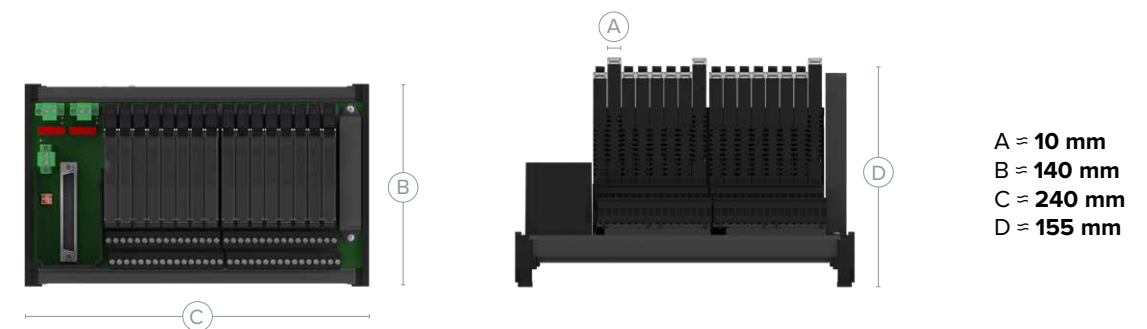High **thermal efficiency**: - 40 / +75°C extended operating range

Extractable screw or spring field terminal blocks

In-built TS35 **DIN rail** mounting capabilities

Dimensions

Smaller overall dimensions allow for more efficient space utilisation in the control room

A = **10 mm**
B = **140 mm**
C = **240 mm**
D = **155 mm**

Dragon lever system

The two-step lever retention mechanism firmly holds the module to the socket when latched in two positions

Operation position   Switch from operation to maintenance position   Maintenance position

Fail-proof architecture

Polarization keys ensure correct insertion on each module on the board, therefore preventing dangerous misplacements.

The gateway is able to identify each module's unique ID and characteristics (AI, AO, DI, DO, Pass-through).

Fully redundant on-board 24Vdc power supply.

Functional safety is achieved on all modules via SIL3 and SIL2 certifications according to IEC61508, ensuring the highest levels of reliability and system uptime.

Smart features

A single remote access point allows for identification, configuration, monitoring and SIL3 HART multiplexing via multiple industrial protocols.
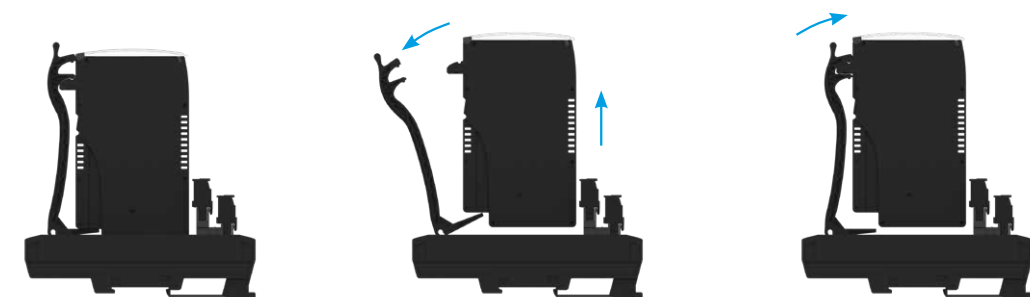
Fault diagnostics for each channel are transparently acquired by the I/O card.

Configuration of modules is achieved by Modbus protocol through the gateway.

Multiple boards can be daisy-chained and remotely connected.

Models

The following models can be mixed on the same board to obtain the desired I/O configuration. All models are isolated except for NIS-PAS.

Intrinsically Safe

Family	Description	SIL level
IS-AI	Analog Input + HART ®	3
IS-AO	Analog Output + HART ®	2
IS-DI	Digital Input	3
IS-DO	Digital Output	3
IS-TMP	Temperature	2
IS-UNI	Universal	2

Non Intrinsically Safe

Family	Description	SIL level
NIS-PAS	Pass-Through	3 or Non SIL
NIS-AI	Analog Input + HART ®	3
NIS-AO	Analog Output + HART ®	2
NIS-DI	Digital Input	3
NIS-DO	Digital Output	3
NIS-RLI	Relay Input	3
NIS-RLO	Relay Output	3 or Non SIL
NIS-TMP	Temperature	2
NIS-UNI	Universal	2

Labels color and coding

LEDs

Logo

Family Identifier

IS / NIS

The front panel has multicolor LEDs, to indicate power presence (green LED) and it is color coded to identify module family and IS/NIS loops.

AI AO DI DO TMP RLI RLO PAS UNI DUM

IS NIS