S E R I E S

U N I V E R S A L M A R S H A L L I N G

gmi technology for safety

Universal integrated marshalling

The X1 Series consists of a comprehensive solution for interfacing customers systems with a complete range of modules.
The compact design of the board and its modules reduces cabinet utilization and therefore lowers 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 or 16 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.

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, Relay, 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

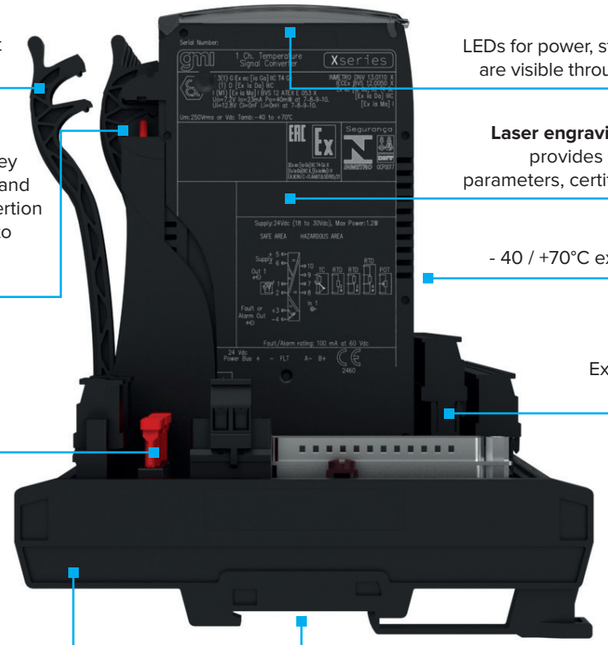
A single remote access point allows for identification, configuration, monitoring and SIL3 HART Multiplexing.

Fault diagnostics for each channel is transparently acquired by the I/O card.

Multiple industrial protocols available through the gateway.

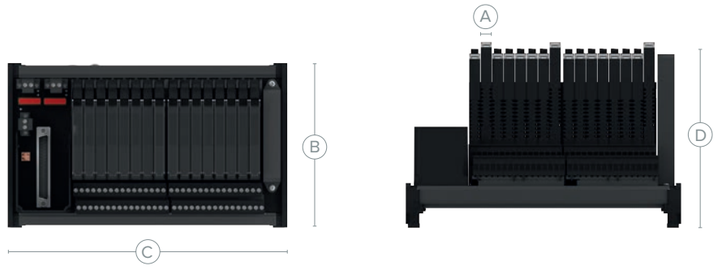
Multiple boards can be daisy-chained and remotely connected.

Design



Dimensions

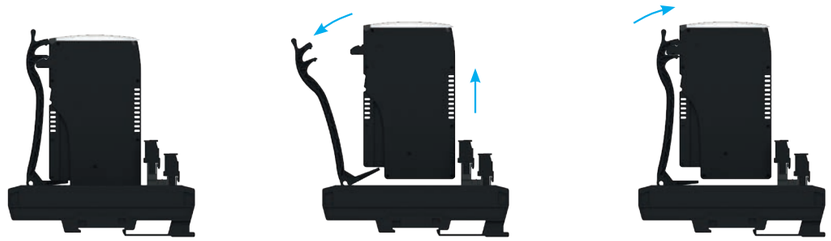
Smaller overall dimensions allow for more efficient space utilisation in the control room



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

Two-step 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

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.

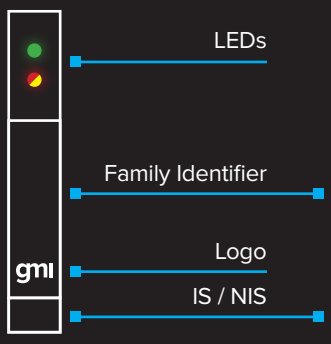
Intrinsically Safe

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

Non Intrinsically Safe

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

Labels color and coding



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.

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