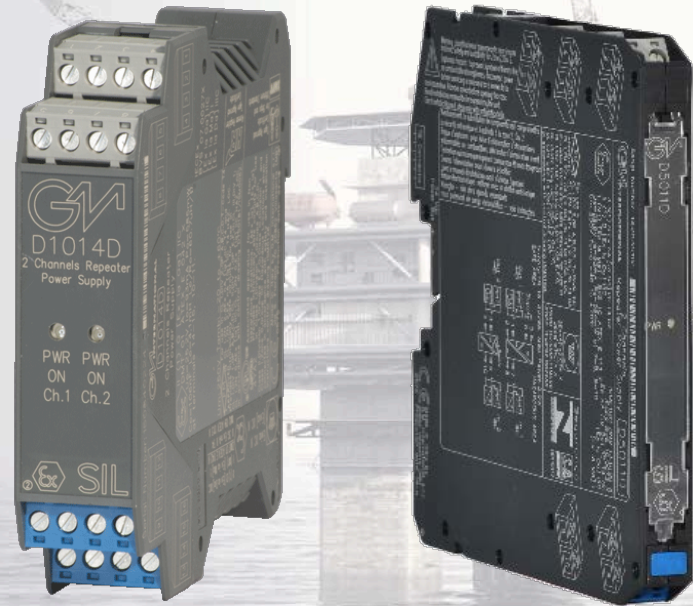


Intrinsically Safe Barriers

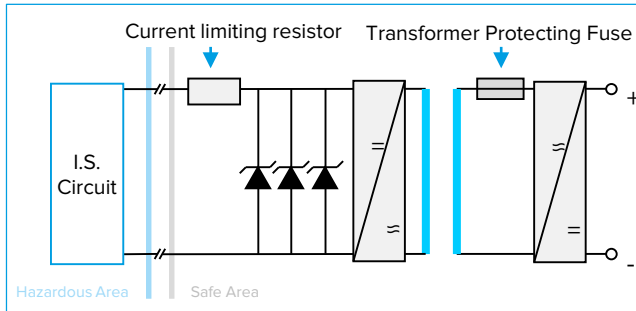
Series D5000, D1000



Galvanic isolators vs. Zener barriers

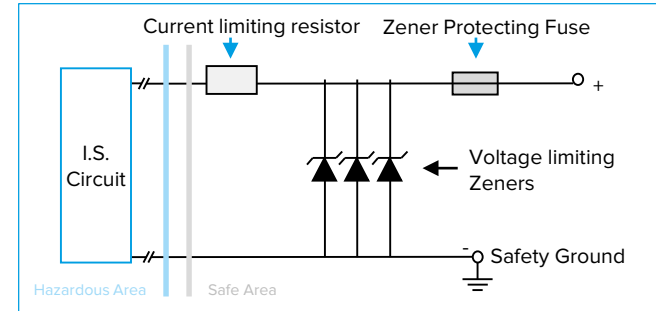
Galvanic Isolator Barrier

- ↑ No Safety Ground requirement (No cost / No maintenance)
- ↑ Better overall accuracy
- ↑ Lower installation cost
- ↑ Signal standardization (i.e 4-20mA, contact,...)
- ↑ Allows the use of grounded or poorly isolated sensors



Zener

- ↓ Dedicated Safety Ground Cost (installation & maintenance costs)
- ↓ Requires routine Checks
- ↓ Field sensor must be isolated
- ↓ Zener leakage Infl. Accuracy



Intrinsically safe barriers

Intrinsically Safe: Isolators, Conditioners, Trip Amplifiers



STRENGTHS

- Reduced Foot Print: **High Density**: 6 mm per Channel
- Reduced Bulk Power Supply: Low Power Consumption
- Reduced Cooling Needs: Low Heat Dissipation
- Higher Reliability In & Outdoor: Certified -40° to + 70° C
- Higher Resilience to Surges: 2.5 KV Isolation
- Data Guaranteed by 3rd Party: SIL 3 (2) TÜV certification
- Current & Valid Standard: Certified IEC 61508:2010, Ed.2
- Lower Ownership Cost: Certified for 20 years operation
- Reduced Spare Inventory: Universal Mounting (Stand Alone DIN-Rail, Power Bus System and Termination Boards)
- Totally independent Dual Ch.: Dual Power Supply

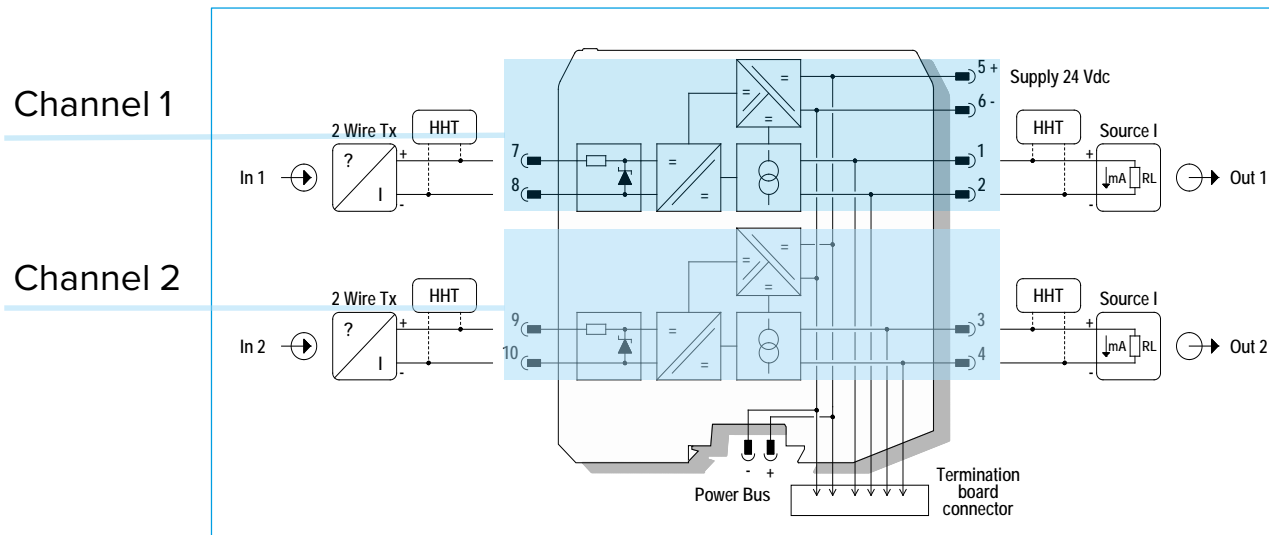
Intrinsically
safe barriers

Manufacturing excellence

SPECIAL DUAL CHANNEL FEATURE

Dual Power Supply, 2 totally independent circuits.

Independent **SIL certified** Dual Channel.



Intrinsically safe barriers

AI - Analog inputs

	N. Ch	In		Out		Duplicator	Other	Alarm out	SIL	Hart	Size
		Active	Passive	Source	Sink						
D5011	1 / 2	✓	-	✓	-	-	-	-	SIL3	✓	12,5 mm
D5014	1 / 2	✓	✓	✓	✓	✓	-	-	SIL3	✓	12,5 mm
D5015	1 / 2	✓	✓	✓	✓	✓	-	-	SIL2	✓	12,5 mm
D5212Q	4	✓	✓ (2)	✓	-	✓	Modbus	Yes, 1	SIL2	-	22,5 mm
D5254S	1	✓	✓	✓	✓	-	Modbus	Yes, 2	SIL2	-	22,5 mm
D1010	1 / 2	✓	✓	✓	✓	✓	-	-	SIL2	✓	22,5 mm
D1014	1 / 2	✓	-	✓	✓	-	-	-	SIL2	✓	22,5 mm
D1012Q	4	✓	-	✓	-	✓	-	-	-	-	22,5 mm
D1052	1 / 2	-	✓	✓	-	✓	Add, Sub	-	-	-	22,5 mm
D1053S	1	-	✓	✓	-	-	-	Yes, 2	SIL2	-	22,5 mm
D1054S	1	✓	✓	✓	-	-	-	Yes, 2	SIL2	✓	22,5 mm

Intrinsically
safe barriers

AO - Analog outputs

	Ch	L.M.	Output type	Hart	Fault output	SIL	Size
D5020	1 / 2	✓	4-20 mA	✓	✓	SIL2	12,5 mm
D1020	1 / 2	✓	4-20 mA	✓	-	SIL2	22,5 mm

Intrinsically safe barriers

DI - Digital inputs

	Ch.	L.M.	Output	Duplicator	Other	SIL	Size
D5030	1 / 2	✓	Relay	✓	-	SIL3	12,5 mm
D5031	1 / 2	✓	Transistor	✓	-	SIL3	12,5 mm
D5032	1 / 2	✓	Relay	✓	Only for TB	SIL3	12,5 mm
D5034	1 / 2	✓	Namur	-	Transparent for Namur	SIL3	12,5 mm
D5036	1 / 2	✓	Relay	-	No G3 Coating	SIL2	12,5 mm
D5037	1 / 2	✓	Transistor	-	No G3 Coating	SIL2	12,5 mm
D5231E	8	✓	Solid State Relay	✓	Logical out func. + Modbus	SIL2	22,5 mm
D1030	1 / 2	✓	Relay	✓	-	SIL2	22,5 mm
D1031	2 / 4	✓	Transistor	✓	-	SIL2	22,5 mm
D1032	2 / 4	✓	Relay	✓	-	SIL2	22,5 mm
D1033	2 / 4	✓	Transistor	✓	-	SIL2	22,5 mm
D1034	1 / 2	✓	Namur	-	Transparent for Namur	SIL3	22,5 mm
D1130	1 / 2	✓	Relay	✓	AC Supply	SIL2	22,5 mm

Intrinsically safe barriers

DO - Digital outputs

	Ch.	L.M.	Output	Power supply	Other	SIL	Size
D5040	1 / 2	-	Solenoid valve / LED	Loop powered	2/4 Field Selectable Outputs	SIL3	12,5 mm
D5048S	1	✓	Solenoid valve / LED	Loop powered	1/3 Field Selectable Outputs	SIL3	12,5 mm
D5049S	1	✓	Solenoid valve / LED	Bus powered	1/3 Field Selectable Outputs	SIL3	12,5 mm
D5240T	3	-	Solenoid valve / LED	Bus powered	3/9 Field Selectable Outputs	SIL2	22,5 mm
D5244	1 / 2	-	Solenoid valve / LED	Ext. powered	Voltage Free Relay Output	SIL2	22,5 mm
D1040Q	4	-	Solenoid valve / LED	Bus Powered / Loop powered	1/4 Field Selectable Outputs	SIL3	22,5 mm
D1041Q	4	-	LED	Bus Powered / Loop powered	1/4 Field Selectable Outputs (LED Driver)	SIL3	22,5 mm
D1042Q	4	-	Solenoid valve / LED	Bus Powered / Loop powered	1/4 Field Selectable Outputs	SIL3	22,5 mm
D1043Q	4	-	Solenoid valve / LED	Bus Powered / Loop powered	1/4 Field Selectable Outputs	SIL3	22,5 mm
D1044	1 / 2	-	Solenoid valve / LED	Loop powered	Voltage Free Relay Output	SIL2	22,5 mm

Intrinsically safe barriers

Universal temperature: TCs, RTDs, mV, Ω , Potentiometers

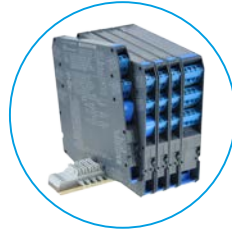
	Ch.	L.M.	OUTPUT type	Duplicator	Alarm output	Modbus	SIL	Size
D5072	1 / 2	✓	0/4-20 mA	✓	Yes	✓	SIL2	12,5 mm
D5273S	1	✓	0/4-20 mA	-	Yes, 2	✓	SIL2	22,5 mm
D5072S-087 (RTD input)	1	✓	2-3-4 wire RTD	-	-	-	SIL2	12,5 mm
D1072	1 / 2	✓	0/4-20 mA, 0-10V	✓	-	-	SIL2	22,5 mm
D1073S	1	✓	0/4-20 mA, 0-10V	-	Yes, 2	-	SIL2	22,5 mm

Intrinsically safe barriers

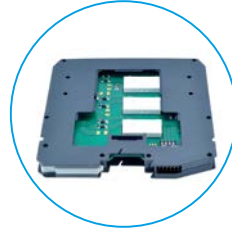
Others

	Function
D5062S	Vibration transducer interface
D5263S	Strain Gauge Bridge Isolating Repeater
D5264S	Strain Gauge Bridge Isolating Converter
D5202S	Power distribution and diagnostic module
D1035S	Frequency Repeater
D1060S	Frequency-Pulse Converter, Repeater and Trip Amplifier
D1061S	RS 422 / RS 485 Isolating Repeater
D1062S	Vibration Transducer Interface
D1063S	Load Cell / Strain Gauge Bridge Isolating Repeater
D1064S	Load Cell / Strain Gauge Bridge Isolating Converter
D1010-054	Fast Response mV to mA Converter
D1080D	Flammable Liquid Presence Detector Interface Relay Output
D1081D	Flammable Liquid Presence Detector Interface Transistor Output

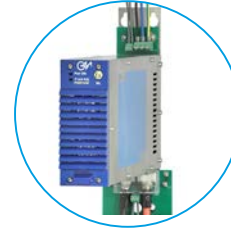
GMI Safety Solutions



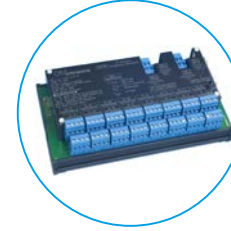
IS barriers



Safety Relays



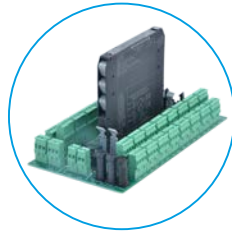
Power supplies



Multiplexers



Isolators



HART Multiplexers



Surge protectors



Loop indicators



FS Training
and Services