



Top product features!

- Fail-safe inductive sensors do not require a special key or coded magnet for a target, reducing installation time and alignment issues
- High tolerance to misalignment and nuisance tripping
- Multi-function safety relay compatible with industry-standard safety devices
- Self-monitoring circuit verifies that the sensor is functioning correctly
- Rated up to SIL 2 or SIL 3 according to IEC 61508

Non-contact, fail-safe inductive sensors for safety applications



ifm's non-contact fail-safe sensors incorporate inductive technology that detects standard metal target material such as stainless or mild steel. Coded magnets or mechanical keys are not required as targets, greatly reducing installation time and avoiding misalignment issues and nuisance tripping. The sensors continuously monitor the sensing window for target position and dwell time.

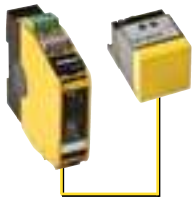
ifm's non-contact fail-safe sensors may be used with any standard safety relay, safety PLC and bus system.

Fail-Safe Sensors for Series Connection (Gx5 Series)

Up to 10 non-contact, fail-safe sensors can be connected in a series with the ifm clocked input versions. Ideal for monitoring multiple stations, such as robotics cells, the fail-safe sensors will provide an output if one point along the chain is stopped. Using ifm's quick disconnect T-piece connectors, wiring is greatly reduced and simplified.

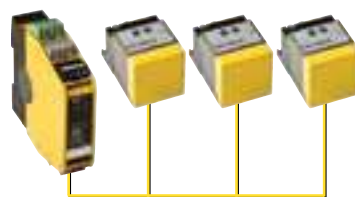
Single connection

Safety relay Safety sensor



Series connection (up to 10 sensors)

Safety relay Safety sensors



ifm's fail-safe sensors are a better alternative



Challenge: 2-piece interlocking mechanical switch is prone to misalignment and time-consuming setup.



ifm solution: Setup is fast. ifm inductive non-contact fail-safe sensors do not require coded magnets or keys.



ifm's safety relays are ideal for connecting electronic and mechanical fail-safe sensors / switches and for use as two-hand control.

IO-Link

Company

IO-Link

Position Sensors

Inductive

Capacitive

Cylinder / valve position

Photoelectrics / lasers / fiber optics

Distance / Application specific

Ultrasonic

Motion Control

Encoders / Speed monitors

Vision Sensors

2D / 3D inspection



1 - 5



6 - 21



22 - 55



56 - 61



62 - 71



72 - 111



112 - 117



118 - 119



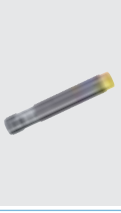

120 - 127





128 - 143







Product + accessory selector

Housing	Dimensions [mm]	Enable Zone [mm]	Approval	Response Time on Removal	Response Time on Approach	Protection Rating	Housing Material	Part No.	List Price (1-pc.)
Non-contact, fail-safe inductive sensors for safety applications • 2 x PNP output (OSSD)									
	M12 x 70	0.5...4 nf	SIL 2, PL d	≤ 1 ms	≤ 1 ms	IP67	316 S.S., PBT	GF711S	\$176.00
	M18 x 71	1...5 f	SIL 2, PL d	≤ 1 ms	≤ 1 ms	IP67	Plated brass, PBT	GG712S	\$181.00
	M18 x 71	1...8 nf	SIL 2, PL d	≤ 1 ms	≤ 1 ms	IP67	316 S.S., PBT	GG711S	\$181.00
	M30 x 70	1...10 f	SIL 2, PL d	≤ 10 ms	≤ 1 ms	IP67	Plated brass / PBT	GI712S	\$192.00
	M30 x 70	1...15 nf	SIL 2, PL d	≤ 10 ms	≤ 1 ms	IP67	316 S.S., PBT	GI711S	\$188.00
	M30 x 80	6...12 nf	SIL 3, PL e	< 50 ms	< 200 ms	IP69K	316 S.S., PBT	GI701S	\$188.00
	40 x 40 x 66	10...15 nf	SIL 3, PL e	< 50 ms	< 200 ms	IP67	PPE, diecast zinc	GM701S	\$236.00
	40 x 40 x 66	4...20 nf	SIL 3, PL e	< 50 ms	< 200 ms	IP67	PPE, diecast zinc	GM705S	\$236.00



Fail-Safe sensors for series connection* – for connection to ifm safety relays or Safety at Work									
	M18 x 91	1...4 f	SIL 3, PL e	< 20 ms	< 200 ms	IP69K	Plated brass, PBT	GG507S	\$236.00
	M18 x 91	3...6 nf	SIL 3, PL e	< 20 ms	< 200 ms	IP69K	316 S.S., PBT	GG505S	\$236.00
	M30 x 80	6...12 nf	SIL 3, PL e	< 20 ms	< 200 ms	IP69K	316 S.S. / PEEK	GI505S	\$236.00
	40 x 40 x 66	10...15 nf	SIL 3, PL e	< 20 ms	< 200 ms	IP67	PPE, diecast zinc	GM504S	\$229.00
	40 x 40 x 66	10...20 nf	SIL 3, PL e	< 20 ms	< 200 ms	IP67	PPE, diecast zinc	GM505S	\$236.00


* Requires safety splitter E11569 for series connection.

Accessories

Type	Safety Outputs	Non-safe Outputs	Part No.	List Price
	2 x relay (N.O.)	1 x PNP	G1501S	\$181.00
	2 x PNP	1 x PNP	G1503S	\$165.00
	3 x relay (N.O.)	1 x relay (N.O.)	G1502S	\$292.00
	2 x relay (N.O.) with time delay	1 x relay (N.C.) 1 x PNP with time delay		
	AS-i ClassicLine module for Gx7 Series		AC507S	\$272.00
	Safety splitter (see cable section for M12 patchcords)		E11569	\$26.00












Cordsets

Type	Description	Part No.	List Price (1-pc.)
	M12 Micro DC (4-pin) 2 m, PUR	EVC001	\$11.00
	M12 Micro DC (4-pin) 5 m, PUR	EVC002	\$15.00
	M12 Micro DC (4-pin) 2 m, PUR	EVC004	\$11.00
	M12 Micro DC (4-pin) 5 m, PUR	EVC005	\$15.00

 Want to learn more about safety approvals, visit www.ifm.com/us

Technical Specs

Operating voltage: 19.2...30 VDC
 Number of wires: 4-wire
 Connector: M12
 Operating temperature: -13...158 °F (-25...70 °C)

Safety Technology	Process Sensors				Industrial Networks	ID Systems	Machine Condition	Power Supplies	Wiring Technology	
Safety products	Pressure	Flow	Level	Temperature	AS-i network	Safety systems	RF identification systems	Diagnostic systems	Power supplies	Cordset solutions
										
144 - 155	156 - 175	176 - 191	192 - 207	208 - 225	226 - 239	240 - 251	252 - 253	254 - 259	260 - 263	264 - 277