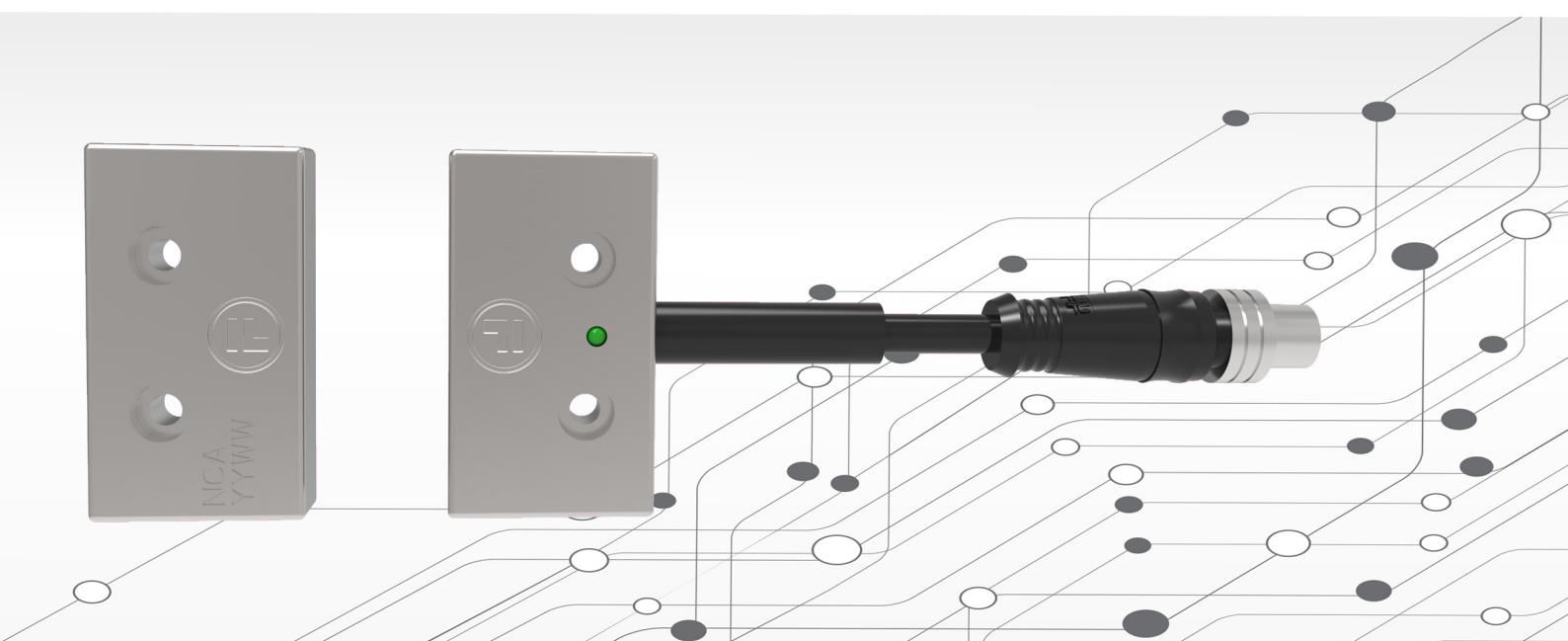


Protecting People, Industry and Productivity



Coded Non Contact Switch

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Approvals


Non Contact Switches

Non-contact safety switches are interlocking devices that are designed to protect people, industry and productivity.

Non-contact safety switches are ideal for use in applications where precise guidance of guards is difficult. Due to the design they are extremely long-lasting devices that require minimal maintenance. In addition they are resistant to shock and vibrations and offer a high level of prevention against tampering.



Fortress have developed the amGard ncs, a coded non-contact, safety, proximity switch in a robust package, featuring:

- Stainless Steel IP69K housing, ideal for food, beverage and pharmaceutical environments or anywhere hygiene or robustness are paramount.
- PLe Cat 4/SIL3 safety rating.
- Can be used as a coded interlock in accordance with EN14119.
- Based on solid state Hall Effect sensors that do not suffer from vibration and contact bounce.
- Copes with a very high level of misalignment
- Integrated electronics that monitors for faults and ensure the safety relay does not enter a fault state, irrelevant of the approach direction.



- Local user indication.
- Monitor outputs for use in the control system.
- Available with a variety of termination options; Mating cables are available.

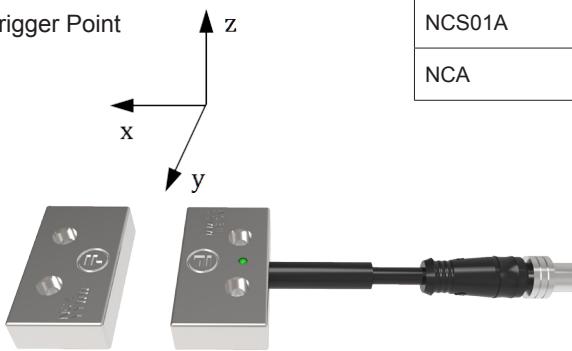


Approvals



Safety Data	
Standards	IEC 60947-5-3: 2013 EN ISO 13849-1: 2008 EN62061:2005/A1: 2012 ISO 14119:2013
Category	EN ISO13849 PLe category 4 EN62061 SIL3
MTTF	High
DC avg	High
SFF	99%
PFH	10^{-9}

Trigger Point



Part Number	Description
NCS11A	Actuator and sensor with M12 8 pin male connector on 150mm lead
NCS11	Sensor only with M12 8 pin male connector on 150mm lead
NCS21A	Actuator and sensor with 2m lead
NCS21	Sensor only with 2m lead
NCS51	Sensor only with 5m lead
NCS51A	Actuator and sensor with 5m lead
NCS01	Sensor only with 10m lead
NCS01A	Actuator and sensor with 5m lead
NCA	Actuator only

Operating Distances	
Operating Distance	20mm
Release Distance	24mm

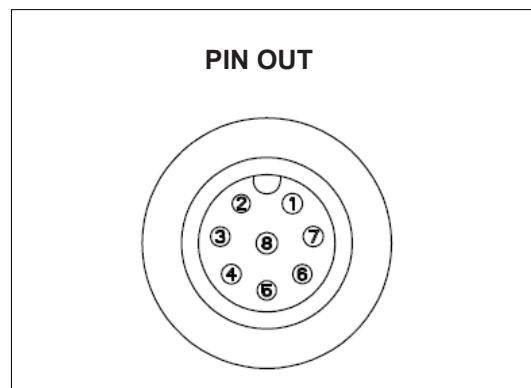
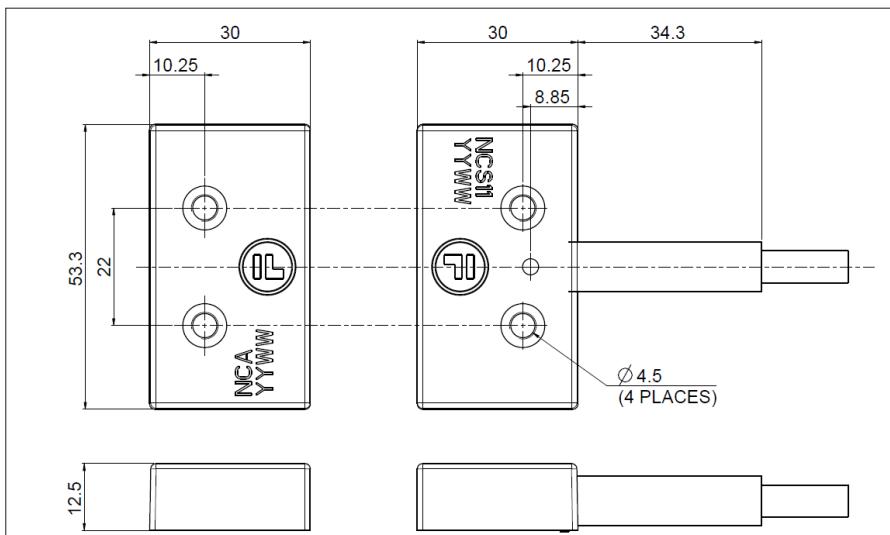
Mating Cables	
Cable Length	Cable Part Number
2M	Cable-2M-NCS
5M	Cable-5M-NCS
10M	Cable-10M-NCS
20M	Cable-20M-NCS

amGard ncs Technical Specification	
Ingress Protection	IP69K
Ambient Temperature	-5°C to + 60°C
Maximum Altitude	2000m
Maximum Humidity	50%RH at 70°C
Pollution Degree	4
Shock (EN60068-2-27)	30gn, 11ms
Vibration (EN60068-2-6)	10 to 55Hz, 1mm amplitude, 5min sweep cycle
Max Operation Speed	7200 operations per minute

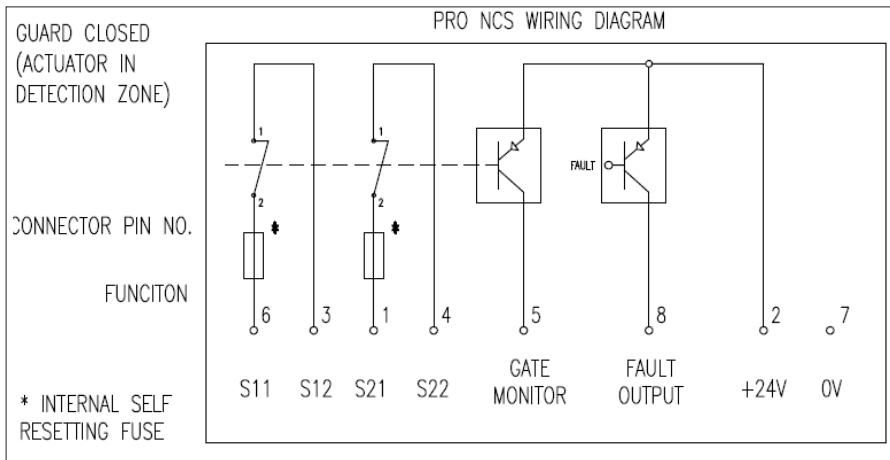
Mating Cables Technical Specification	
Colour	Dark Grey
Ingress Protection	IP67
Seal	Viton O-Ring
Cable	PUR
Overmoulding	PUR

LED Operation	
Green	Actuator in detection range
Red	Actuator out of detection range
Amber	Unit in fault state (move actuator fully out of detection zone to reset)

Dimensional Drawing



8 PIN QD PIN VIEW



8 PIN CONNECTOR PIN No	WIRE COLOUR	FUNCTION
1	WHITE	S21
2	BROWN	+24V
3	GREEN	S12
4	YELLOW	S22
5	GREY	GATE
6	PINK	S11
7	BLUE	0V
8	RED	FAULT

Protecting People, Industry and Productivity



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