

Electrical Switching / Locking

NCS - Coded Non Contact Switch



amGardnct provides 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 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 EN ISO 14119 (Type 4 Low Level Coded)
MTTF	High
DCAVG	High
SFF	99%
PFH	10 ⁻⁹

Mating Cables Technical Specification	
Colour	Dark Grey
Ingress Protection	IP67
Screw Sleeve	Nickel Plated Brass (Cu Zn)
Seal	Viton O-Ring
Cable	PUR
Overmoulding	PUR

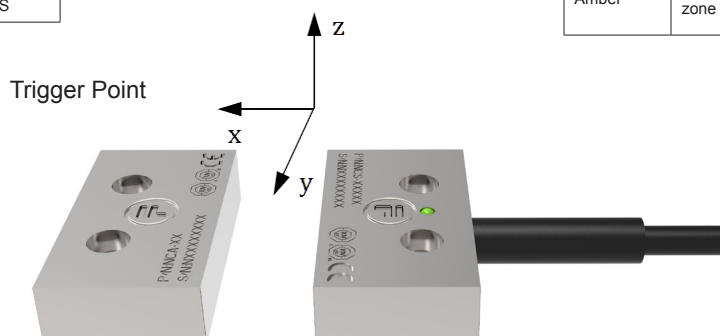
Mating Cables	
Cable Length	Cable Part Number
2M	Cable-2M-NCS
5M	Cable-5M-NCS
10M	Cable-10M-NCS
20M	Cable-20M-NCS

amGardnct Technical Specification	
Case	Stainless Steel (EN 1.4435 / AISI 316L)
Ingress Protection	IP69K
Ambient Temperature	-5°C to + 60°C
Supply Voltage	24V DC +10% / -15%
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
Potting	Epoxy
Cable Grommet	Elastollan C70 A HPM
Screw Sleeve	Stainless Steel
Rated Insulation Voltage	60V
Rated Impulse Withstand Voltage	500V
Monitor / Fault Output	24V 200mA DC-12
Safety Switches	24V 200mA DC-12 AC-12

Part Number	Description
NCS-11SSR-0	Sensor only with M12 8 pin male connector on 150mm lead
NCS-11SSR-A	Actuator and sensor with M12 8 pin male connector on 150mm lead
NCS-21SSR-0	Sensor only with 2m lead
NCS-21SSR-A	Actuator and sensor with 2m lead
NCS-51SSR-0	Sensor only with 5m lead
NCS-51SSR-A	Actuator and sensor with 5m lead
NCS-01SSR-0	Sensor only with 10m lead
NCS-01SSR-A	Actuator and sensor with 10m lead
NCA -SR	Actuator only

Operating Distances	
Operating Distance	20mm
Release Distance	24mm

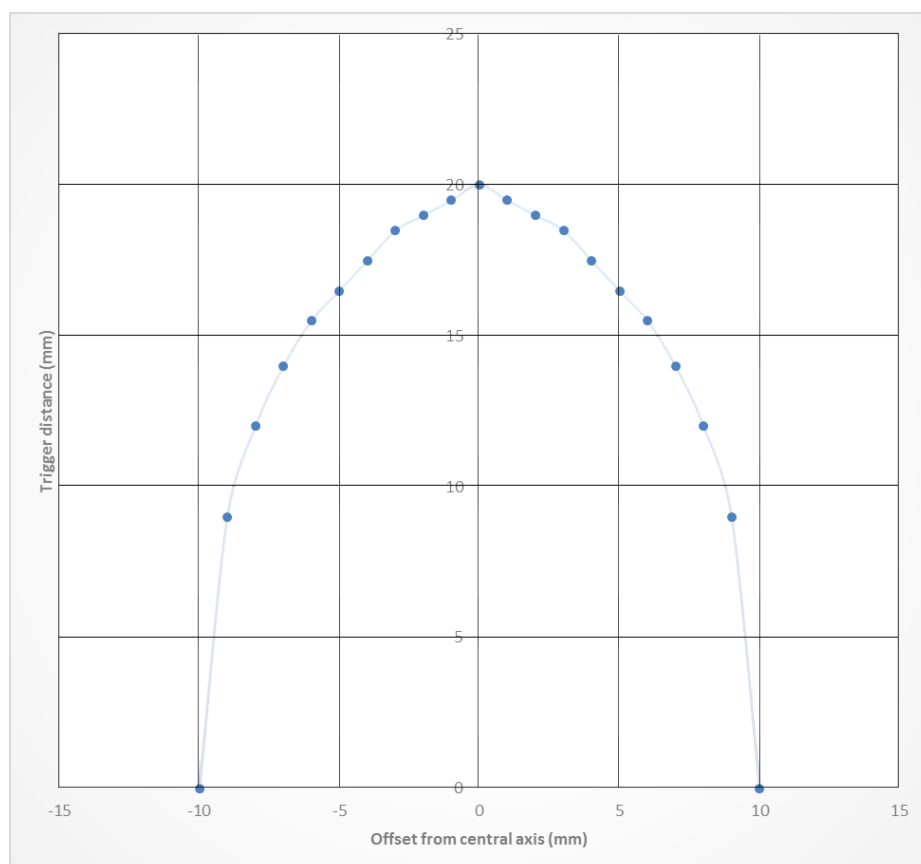
LED Operation	
Green	Actuator in detection range
Red	Actuator out of detection range
Amber	Unit in fault state (move actuator fully out of detection zone to reset)



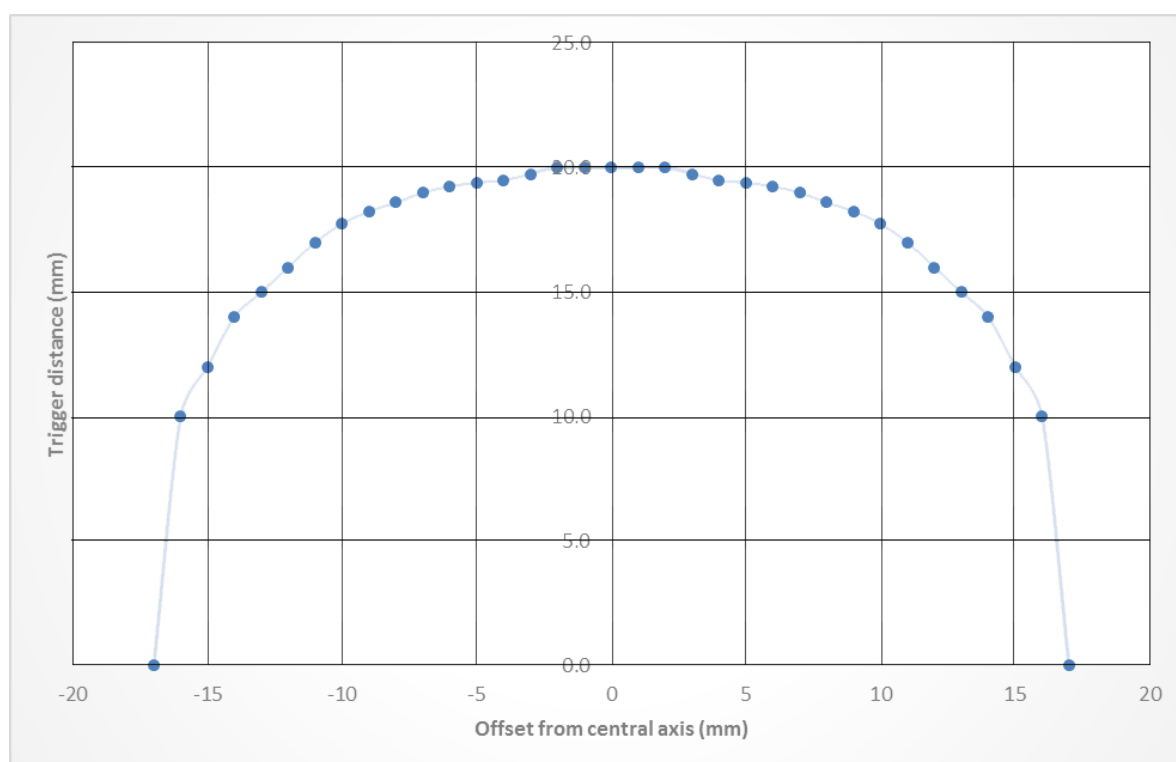
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Operation point in Y direction



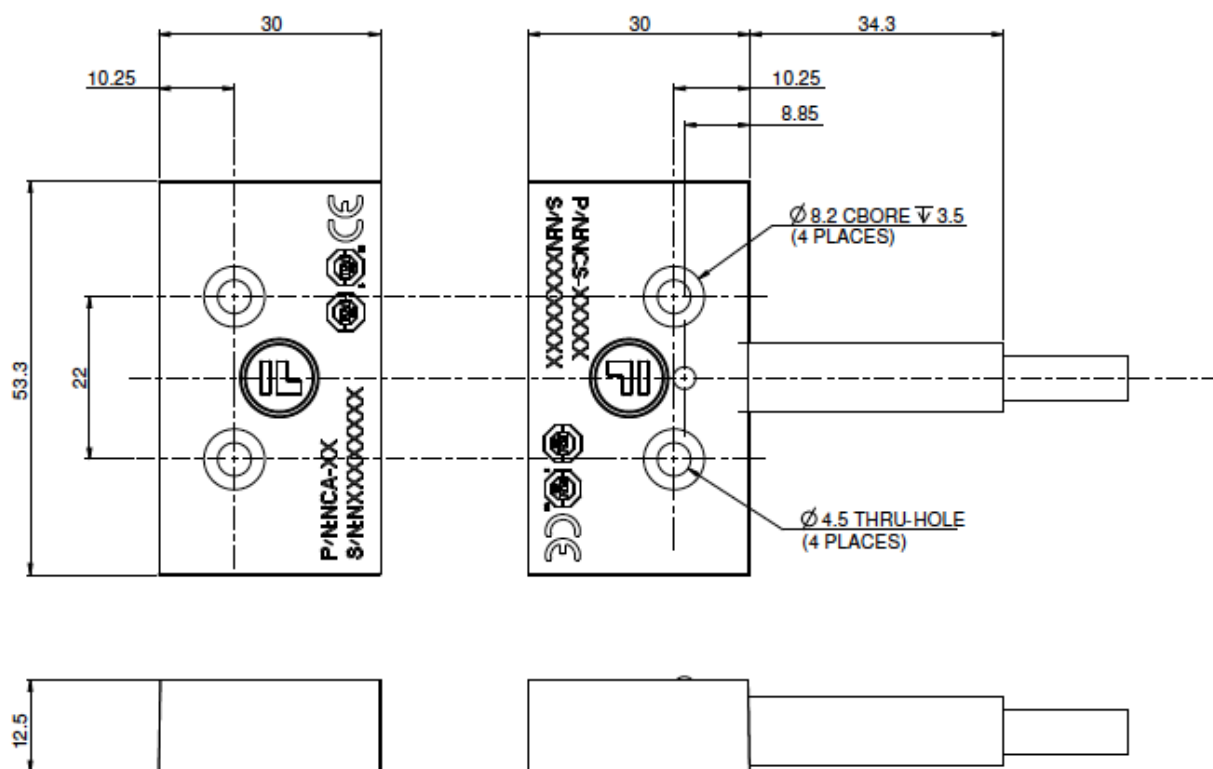
Operation point in Z direction



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Dimensional Drawing

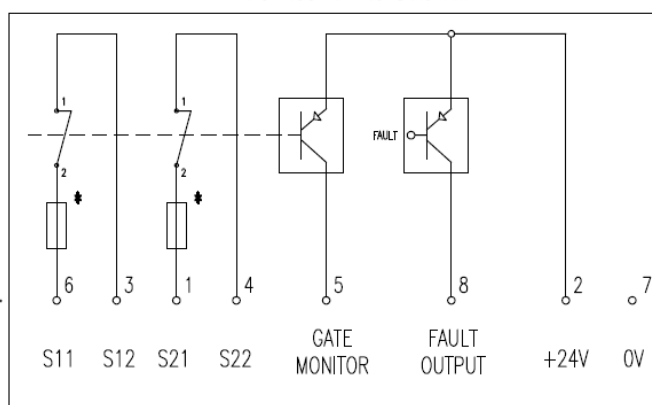


PRO NCS WIRING DIAGRAM

GUARD CLOSED
(ACTUATOR IN
DETECTION ZONE)

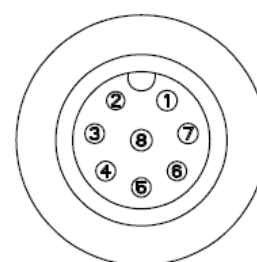
CONNECTOR PIN NO.

FUNCTION



* INTERNAL SELF
RESETTING FUSE

PIN OUT



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