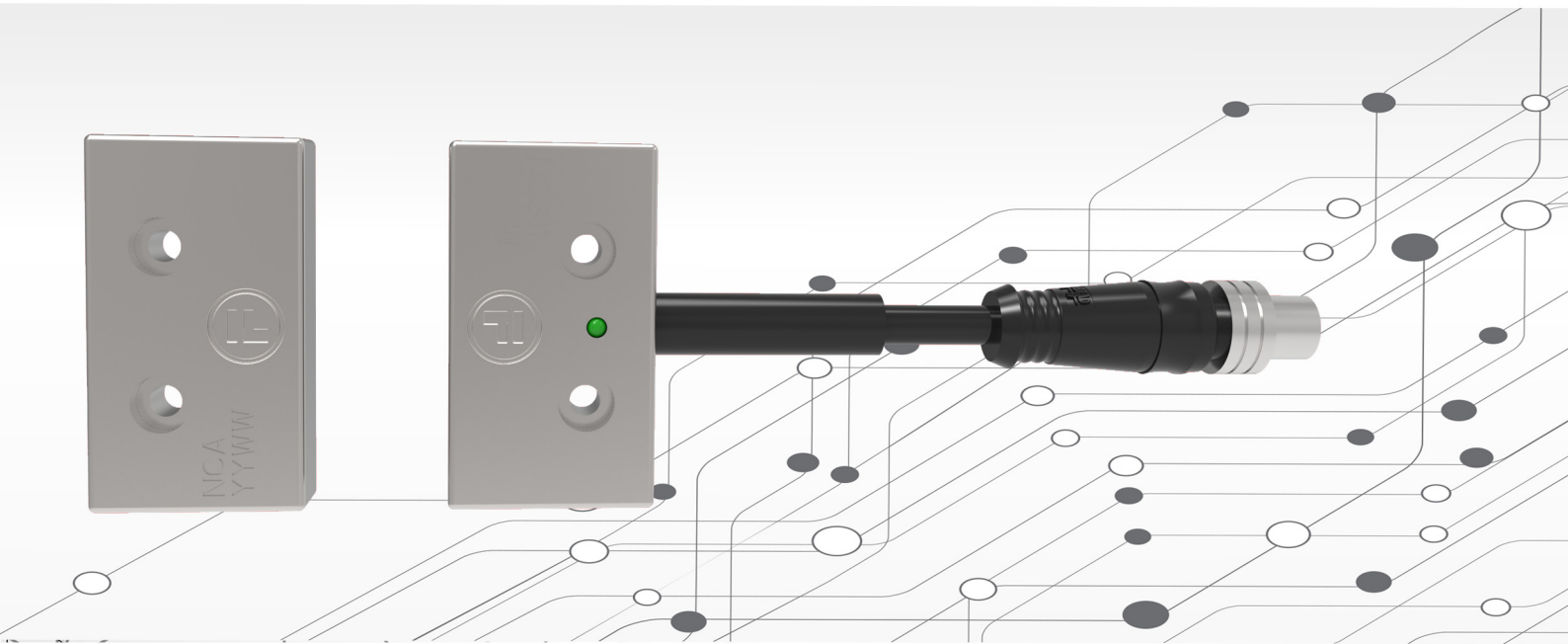


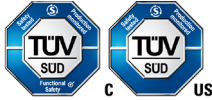
Protecting People, Industry and Productivity



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.

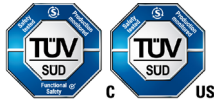
Non-contact safety switches are ideal for use in applications where precise guidance of guards is difficult. Due to the design they are extremely long-lasting devices that require minimal maintenance. In addition they are resistant to shock and vibrations and offer a high level of prevention against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

Fortress have developed the amGardnct, 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



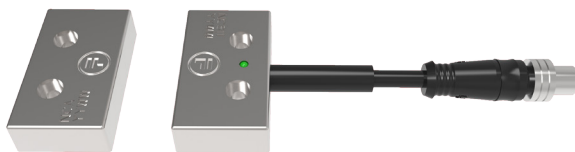
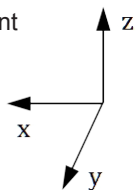
| Safety Data | |
|-------------|--|
| Standards | IEC 60947-5-3: 2013 EN ISO 13849-1: 2008 EN62061:2005/A1: 2012 ISO 14119:2013 |
| Category | EN ISO13849 PLe category 4 EN62061 SIL3 |
| MTTF | High |
| DC avg | High |
| SFF | 99% |
| PFH | 10 ⁻⁹ |

| 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 |

| 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 | |
|-----------------------------------|---|
| 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 |

Trigger Point



Operating Distances

| | |
|--------------------|------|
| Operating Distance | 20mm |
| Release Distance | 24mm |

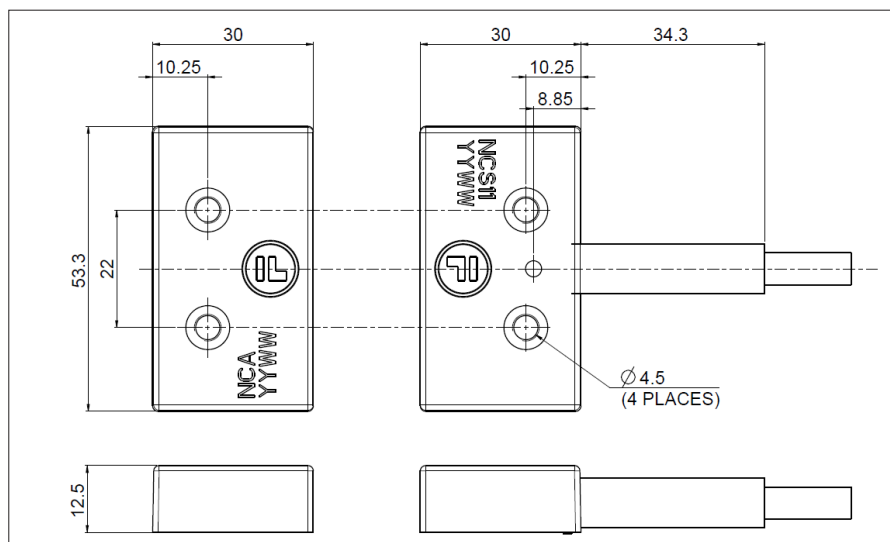
Mating Cables Technical Specification

| | |
|--------------------|--------------|
| Colour | Dark Grey |
| Ingress Protection | IP67 |
| Seal | Viton O-Ring |
| Cable | PUR |
| Overmoulding | PUR |

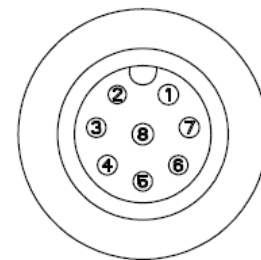
LED Operation

| | |
|-------|--|
| 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



PIN OUT



8 PIN QD PIN VIEW

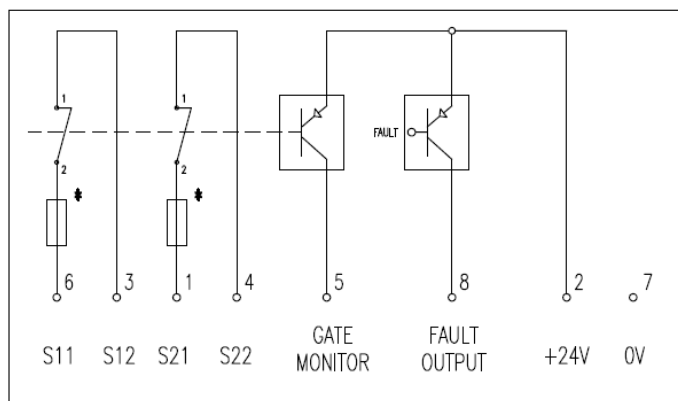
GUARD CLOSED
(ACTUATOR IN
DETECTION ZONE)

CONNECTOR PIN NO.

FUNCTION

* INTERNAL SELF
RESETTING FUSE

PRO NCS WIRING DIAGRAM



| 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

A HALMA COMPANY



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