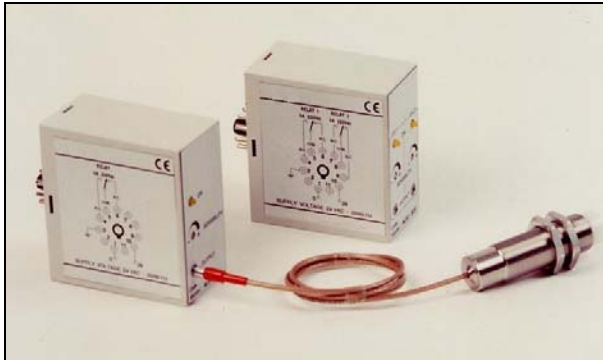


Capacitive

High Temperature Capacitive



FEATURES:

- Sensor temperature range -200 to +250° C (-382 to +482° F)
- Operating distance of 5 or 15mm
- Sensitivity adjustment
- Stainless steel sensor housing
- 18 and 30mm diameters
- One or two sensor amplifiers
- Sensor protection degree IP68: dust tight and protection against submersion

APPLICATIONS:

Typical applications include the level control of hot materials such as liquids, oils, powder and plastic granules. These sensors can also be used to sense solid metallic and non-metallic bodies positioned in areas of high temperature.

DESCRIPTION:

These high temperature sensors have an amplifier completely separate from the sensor. This allows the sensor to withstand temperatures from -200 to +250°C (-382 to +482°F). The amplifier is supplied in two different types, models S3624 & S3625, which is suitable for one sensor, and models S3626 & S3627, which is suitable for two sensors. The model S3624 & S3625 can be supplied with delayed sensing. The sensors are available in 18mm and 30mm diameters, made of stainless steel and PTFE. Each sensor's operating distance is adjustable. This sensitivity regulation is useful in applications such as detection of full containers and non-detection of empty containers.

OPERATING PRINCIPLE:

Capacitive proximity sensors use an oscillating field that can sense conductive and non-conductive materials (metals, liquids, glass, plastic, wood, paper and rubber). When an object enters this field, an electronic circuit begins to oscillate. The rise or fall of the oscillation is identified by a threshold circuit that drives an amplifier for the operation of an external load. The operating distance of the sensor depends on the target's shape and size and is strictly linked to the nature of the material (Table 1).

| Capacitive sensors | |
|--------------------|------------|
| Metal | ~ 1 x Sn |
| Water | ~ 1 x Sn |
| Plastic | ~ 0.5 x Sn |
| Glass | ~ 0.5 x Sn |
| Wood | ~ 0.4 x Sn |

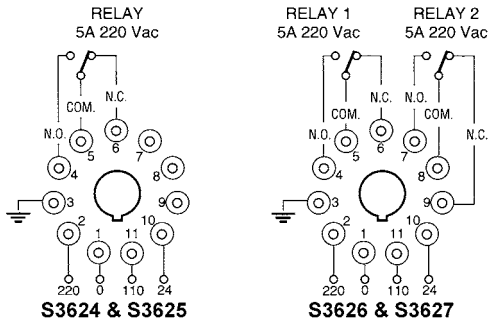
Table 1. Sensitivity with different materials present. Sn=operating distance.

SPECIFICATIONS:

| Sensor Model | S3620 M18 x 1 | S3621 M18 x 1, 5m cable | S3622 M30 x 1.5 | S3623 M30 x 1.5, 5m cable |
|----------------------|---|----------------------------|------------------------|------------------------------|
| Operating distance | 5mm | | 15mm | |
| Temperature range | -200 to +250 °C (-382 to +482° F) | | | |
| Degree of protection | IP68 | | | |
| Housing | Housing and nuts Stainless steel AISI 303, Sensing part in PTFE | | | |
| Flush mounting | No | | | |
| Output connection | L=2m w/ plug connector | L=5m w/ plug connector | L=2m w/ plug connector | L=5m w/ plug connector |

| Amplifier Model | S3624 | S3625 | S3626 | S3627 |
|------------------------|-----------------------------------|----------------------|------------------------------------|----------------------|
| Number of sensors | 1 | | 2 | |
| Power supply | 24 Vac 50-60 Hz | 110/220 Vac 50-60 Hz | 24 Vac 50-60 Hz | 110/220 Vac 50-60 Hz |
| Absorption | 3 VA | | | |
| Operation indicator | Yellow LED x 1 | | Yellow LED x 2 | |
| Temperature range | -20 to +60 °C (-4 to +140 °F) | | | |
| Output relay | 1 relay - changeover, 5A @ 220Vac | | 2 relays - changeover, 5A @ 220Vac | |
| Housing | ABS | | | |
| Degree of protection | IP40 | | | |
| Sensitivity adjustment | Incorporated | | | |

WIRING



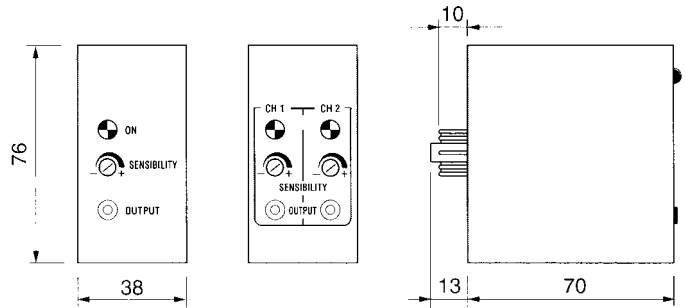
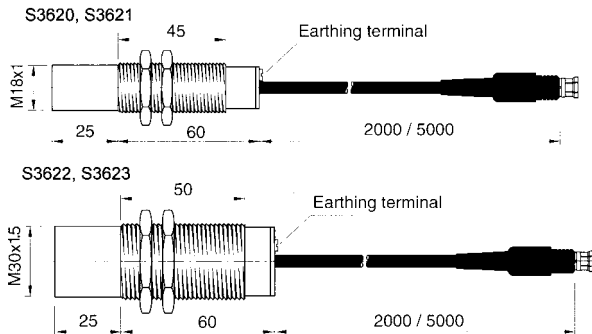
INSTALLATION INSTRUCTIONS

If the material to be controlled is in a metallic container, the container and terminal 3 of the amplifier must be grounded.

If the container is non-metallic, connect terminal 3 of the amplifier and the earthing terminal on sensor body to ground.

The connection wire between the sensor and the amplifier must be separated from the power supply.

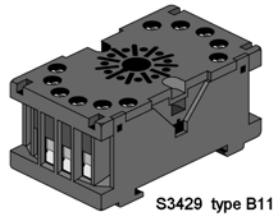
DIMENSIONS (mm) 1mm = .03937"



For a correct fixing of the amplifiers socket S3429 type B11 and fixing spring type S3430 MF are required.

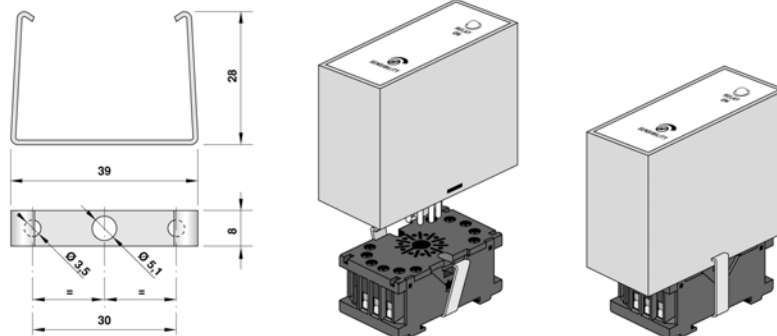
ACCESSORIES

SOCKET FOR AMPLIFIERS - POWER SUPPLIES



socket for panel or DIN rail mounting.

FIXING SPRING S3430 MF



For a correct fixing of the units it is recommended to use socket S3429 type B11 with fixing spring S3430 MF.