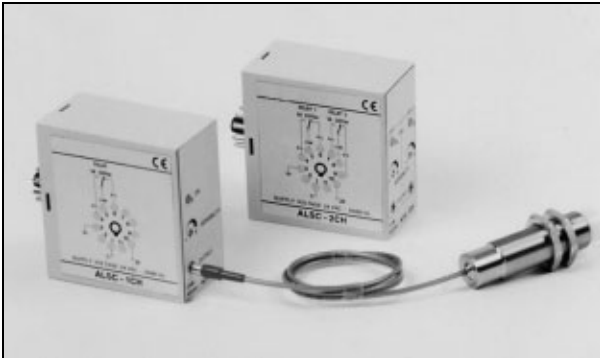


Capacitive

## 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, model ALSC-1CH, which is suitable for one sensor, and model ALSC-2CH, which is suitable for two sensors. The model ALSC-1CH 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

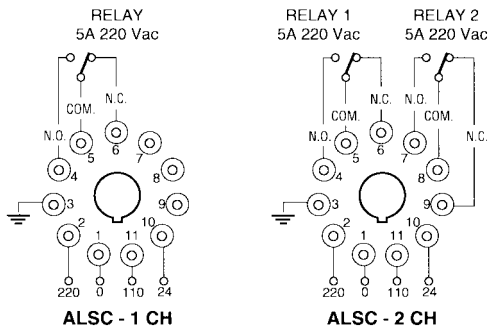
Table 1. Sensitivity with different materials present. Sn=operating distance.

**SPECIFICATIONS:**

Sensor Model	S3620 SC18M-HT-2MT	S3621 SC18M-HT-5MT	S3622 SC30M-HT-2MT	S3623 SC30M-HT-5MT
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 ALSC-1CH-24	S3625 ALSC-1CH-110/220	S3626 ALSC-2CH-24	S3627 ALSC-2CH-110/220
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**



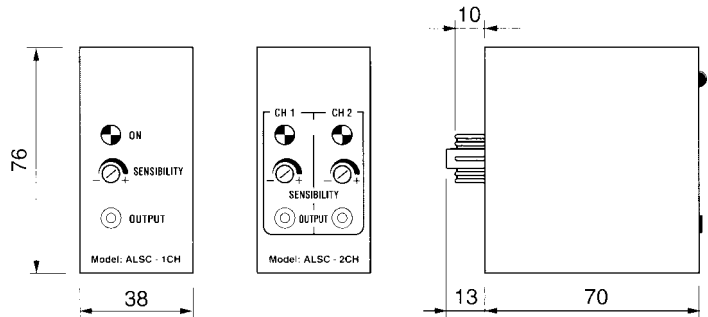
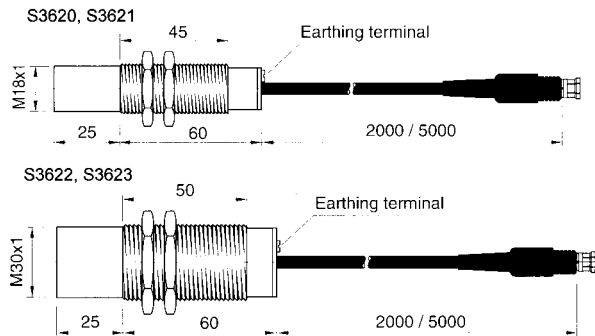
**INSTALLATION INSTRUCTIONS**

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.

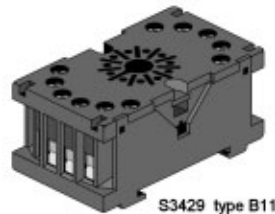
**DIMENSIONS (mm) 1mm = .03937"**



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

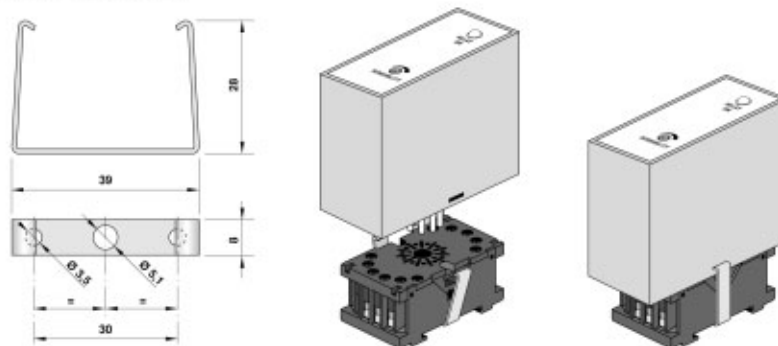
**ACCESSORIES**

**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.