

# SC750 Capacitive Point Level Detection

**Level Detection for liquids and solids**

**Adjustment of Sensibility**

**Power Supply: 24Vcc / 85...240Vca**

**Output: 1 SPDT / 1NO + 1NC**

The SC750 Capacitance Level Switches are ideal for High/Low level detection for liquid, solids, granular materials and pastes. These units can also detect level without being in contact with the product through a sight glass. Unlike other capacitance probes, the SC750 Series can detect conductive, non-conductive or low dielectric materials with extremely accurate performance without requiring an external reference or installation in a metal vessel.

The SC750 is also designed for level detection in large depths and in media with vortex agitation, it can be made with cable (to depths up to 2 meters) or rod rigid stainless steel (up to 2 meters) giving more flexibility to complex applications, where it is impractical to use standard Capacitive Probes.

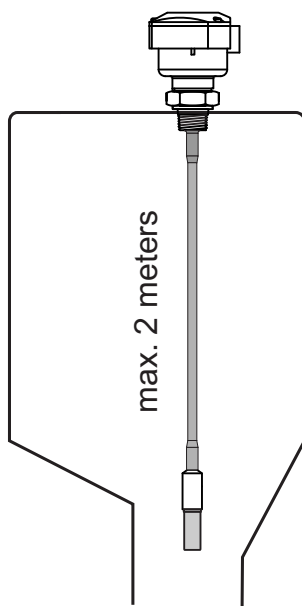
Available in, 24Vdc and 85...240Vac, with electronics incorporated in the housing, the SC750 is one of the most versatile and compact probes that exist. It has a relay output (SPDT), sensitivity adjustment and time delay (adjustable from 0.1 to 20 seconds), allowing it to be used in almost any type of product.

Available in rigid rod or cable. The SC750's connection is made with 316 Stainless Steel and the sensor tip is made in PTFE. This model is also offered in a wide variety of threaded, flange or sanitary connections.

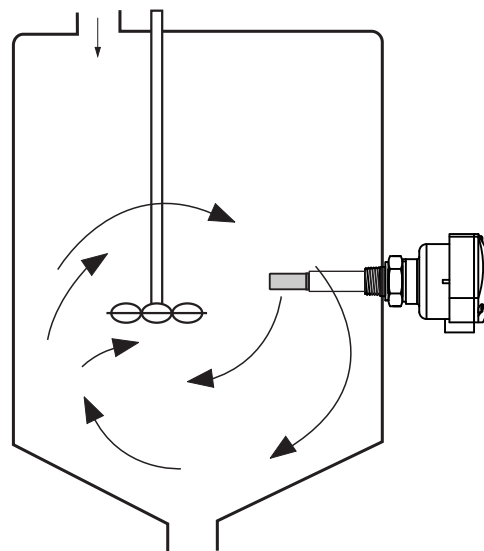


## Application

Low level detection

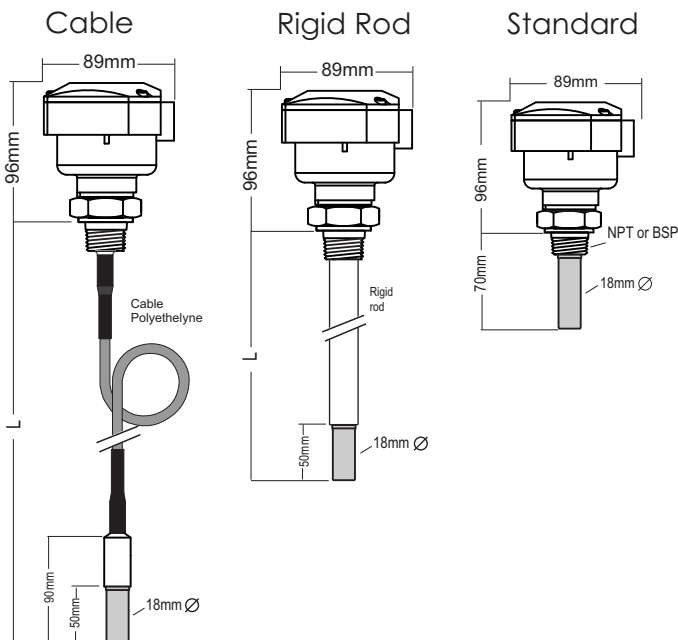


Detection with turbulence



# Dimensions & Features

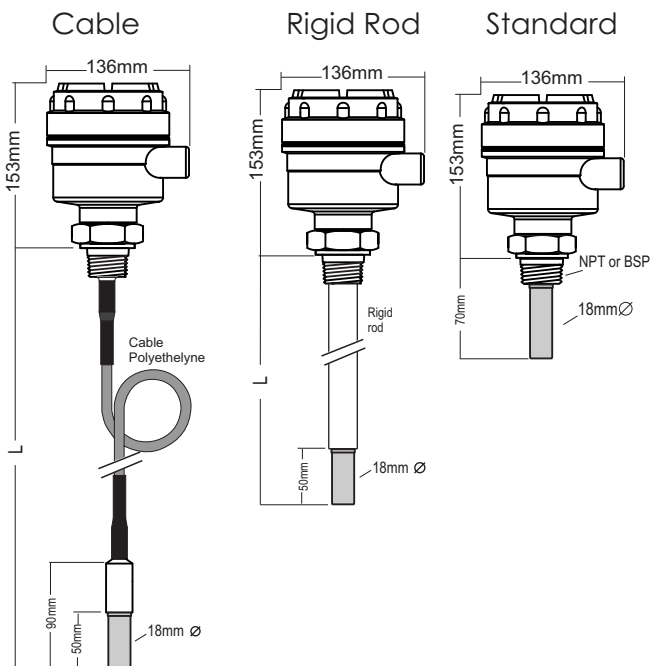
## SC750



L: Insertion length

### SC750-X-X-X-X-N1

**Application:** Level detection for liquids and solids  
**Power Supply:** 24Vcc ( $\pm 10\%$ )  
**Consumption:** 2VA  
**Output:** Relay (1SPDT) 5A-250Vac  
**Adjust:** Sensibility  
**Time Delay:** 0,1 to 20 seconds  
**Oscillation Frequency:** 5MHz  
**Housing:** N1 Nylon w/ Fiberglass  
**Electrical Connection:** Cable Gland 1/2"NPT or BSP  
**Process Connection:** 3/4" to 1 1/2"BSP, NPT flange or sanitary connections  
**Body Material:** Polythelyne cable, 316SS  
**Sensor Material:** PTFE  
**Work Temperature:** -10 a + 80°C  
**Max. Pressure:** 10 Bar  
**Class Protection:** IP 65

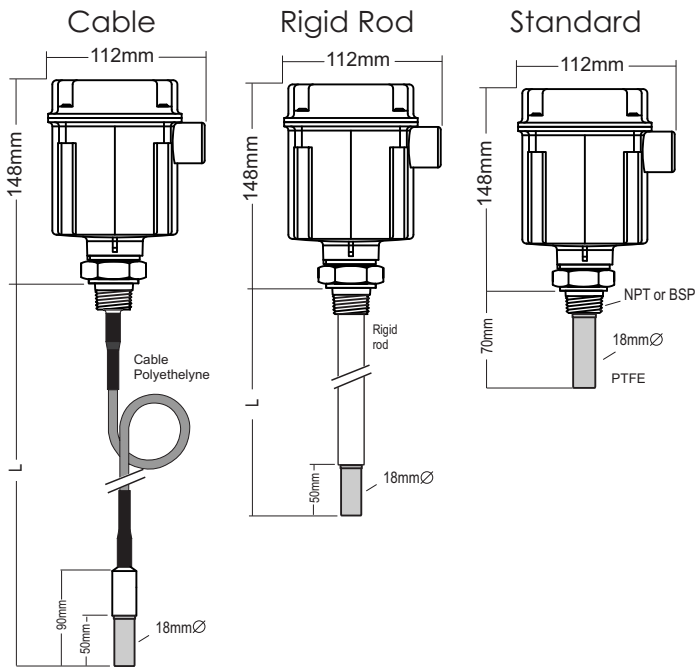


L: Insertion length

### SC750-X-X-X-X-G2

**Application:** Level detection for liquids and solids  
**Power Supply:** DC:24Vcc ( $\pm 10\%$ )  
 AC: 85...240Vac  
**Consumption:** 4VA  
**Output:** Relay (NO + NC) 5A-250Vac  
**Adjust:** Sensibility  
**Time Delay:** 0,1 to 20 seconds  
**Oscillation Frequency:** 5MHz  
**Housing:** G2 Aluminum or N2 Nylon  
**Electrical Connection:** Cable Gland 1/2"NPT or BSP  
**Process Connection:** 3/4" to 1 1/2"BSP, NPT flange or sanitary connections  
**Body Material:** Polyethelyne cable, 316SS  
**Sensor Material:** PTFE  
**Work Temperature:** -10 a + 80°C  
**Max. Pressure:** 10 Bar  
**Class Protection:** IP 65

# Dimensions & Electrical connections



L: Insertion length

## SC750-X-X-X-X-N2

**Application:** Level detection for liquids and solids

**Power Supply:** DC: 24Vcc ( $\pm 10\%$ )

AC: 85...240Vac

**Consumption:** 4VA

**Output:** Relay (NO + NC) 5A-250Vac

**Adjust:** Sensibility

**Time Delay:** 0,1 to 20 seconds

**Oscillation Frequency:** 5MHz

**Housing:** N2 Nylon

**Electrical Connection:** Cable Gland 1/2"NPT

**Process Connection:** 3/4" to 1 1/2"BSP, NPT flange or sanitary connections

**Body Material:** Polyethylene cable, 316SS

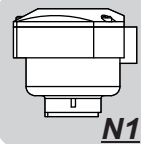
**Sensor Material:** PTFE

**Work Temperature:** -10 a + 80°C

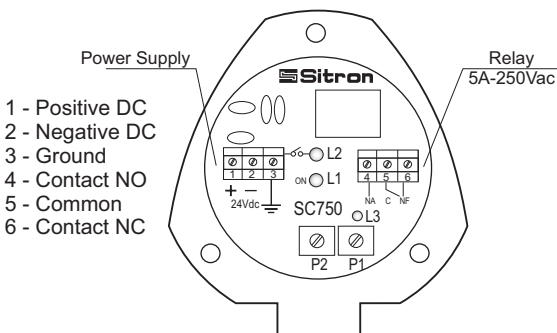
**Max. Pressure:** 10 Bar

**Class Protection:** IP 65

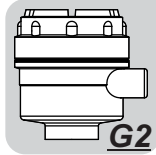
## Electrical Connections



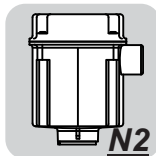
### SC750 N1 Housing



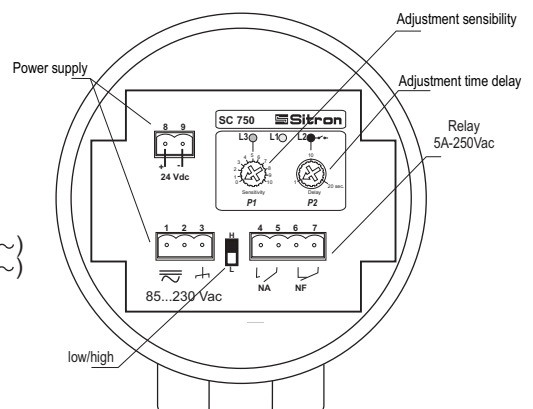
- L1 - ON (Green)
- L2 - Output state (Red)
- L3 - Sensor state (Yellow)
- P1 - Sensibility Adjustment
- P2 - Time delay Adjustment



### SC750 N2 and G2 Housing



- 1 - Power supply ( $\sim$ )
- 2 - Power supply ( $\sim$ )
- 3 - Ground
- 4 - Common
- 5 - Contact NO
- 6 - Common
- 7 - Contact NC
- 8 - Positive DC
- 9 - Negative DC



- L1 - ON (Green)
- L2 - Output state (Red)
- L3 - Sensor state (Yellow)
- P1 - Sensibility Adjustment
- P2 - Time delay Adjustment

# Ordering Information

MODEL	
SC750	Power Supply 24Vdc - PTFE TIP
SC750U	Universal Power Supply (24Vdc/125Vdc/85...240Vac) - PTFE TIP
SIZE	
4	3/4"
5	1"
6	1 1/2"
7	2"
9	3"
Q	4"
X	OTHER - SPECIFY
PROCESS CONNECTION TYPE	
B	BSP
E	FLANGE ANSI 150# - 316 SS
F	FLANGE ANSI 150# - PVC
K	FLANGE ANSI 150# - 304 SS
N	NPT
T	TRI-CLAMP
X	OTHER-SPECIFY
TYPE OF ROD OR CABLE	
J	POLYACETHAL DELRIN TIP - FIXED ROD 316 SS
K	PTFE TIP - FIXED ROD 316 SS
G	PVC TIP - FIXED ROD 316 SS
P	POLYURETHANE CABLE with POLYACETHAL DELRIN TIP
V	CONNECTION, ROD & TIP IN PVC
PV	POLYURETHANE CABLE with CONNECTION & TIP IN PVC
Y	POLYURETHANE CABLE with PTFE TIP
COATING	
S	NONE
T	Encapsulated PTFE
INSERTION LENGTH	
L120	STANDARD 4 3/4" (120mm) SC700/SC700U
L70	STANDARD (70mm) SC750 PTFE only
L	SPECIFY
HOUSING	
N1	SMALL NYLON (DC only)
N2	LARGE NYLON (U only)
G2	LARGE ALUMINUM (U Only)
ELECTRICAL CONNECTION	
1	1/2" BSP
2	CABLE GLAND W/1/2" BSP
4	3/4" BSP
5	CABLE GLAND W/ 3/4" BSP
6	1/2" NPT
7	CABLE GLAND W/ 1/2" NPT
9	3/4" NPT
M	M12 ELECTRIC CONNECTION
P	M20 threaded (N1, N2, G2)
C	CABLE GLAND W/ 3/4" NPT
OPTIONS	
C	SHEATH

## NOTES:

SC750: Supply Voltage 24 Vdc

SC750U - UNIVERSAL POWER SUPPLY 85 to 240VAC OR 24VDC (Available in the Large Nylon or Aluminum Housing Only)

Triclamp connections start at 1 1/2"

SC750 should only be used on products with a Low Dielectric Constant.

SC700/SC750 will not work with mediums with High Dielectrics such as Maionese or Shampoo with high salt content.