

# Model **SCAP**

Capacitance Type Level Switch  
Automatic Calibration and Self Testing



**SEOJIN INSTECH CO., LTD.**



# SCAP



**Capacitance type level switch**  
**Designed to be calibrated easily by using the automatic switch and detect even the variation of very low capacitance (1 pF).**

## Features

- Simple adjustment
- Wide applications
- Selectable High/Low Alarm
- Memory Function
- Self-diagnosis
- Availability of various probe types
- Detectable even the very low capacitance (1pF)
- Wide adjustable range (1~1,000pF)
- Adjustable probe length



### Simple Adjustment

most capacitance level switches require setting the initial value against the measuring material. in most other products, it is a complicated procedure. However, SCAP AUTO simply accomplishes the task by using two small switches.



### Self-Diagnosis

SCAP AUTO diagnoses itself if there is a wrong adjustment or hardware problem. The green LED lamp inside the case can be used to pin-point the cause.



### Model Selection

Model	Type	Range(mm)
SCAP-1	Bar, Lining	250~1000
SCAP-2	Wire (Normal)	300~4,000
SCAP-3	Wire (High tension)	300~4,000
SCAP-4	Wire (Variable)	300~5,000
SCAP-5	Flat , Flash	63
SCAP-6	Over Flow	23~100

### Function



The initial capacitance can be adjusted by using the high/low keys: Set Low with no measuring material on probe, Set High with measuring material on probe. An error code will appear if the initial condition is improperly set.

### H/L Alarm Selection



High/Low alarms can be set with a High/Low alarm switch.

### Delay Time



DELAY

Adjustable delay time of 0.5~10 seconds may be used to protect a motor or valve.



### Error Code Output



An error code is produced if the initial condition is improperly set, there is a problem in the IC memory chip or in other hardware.



When red LED blinks	Cause
Error 1	When capacitance for low set is higher than that of high set.
Error 2	When capacitance is the same for low and high set.
Error 3	When the set value in EEPROM is bad or broken.

### Applications

Resin Powder, Resin Pellet, Fertilizer, Wheat Flour, Rice, Barley, Butter, Distilled Water, Chocolate, Iron Powder, Carbon Calcium, Interface Activate Source, Slurry, Sewage, Coal, Water, Wax, Live Cream, Sodium Carbonate, Paint, Ink, Alcohol, Beer, Milling Water, Waste Water, Sludge, Make up lotion, Syrup, Sesame, Chromium Acid, Silicone, Carbon. etc.

## Overall Dimensions

SCAP-1A1A	SCAP-1A1B	SCAP-1A2A	SCAP-1A2B	SCAP-2A1A	SCAP-2A2B
SCAP-3A1B	SCAP-4A1B	SCAP-4A2B	SCAP-5A1B	SCAP-6A1A	SCAP-EX

## Specifications

Description	Model	SCAP-1	SCAP-2	SCAP-3	SCAP-4	SCAP - 5	SCAP-6
Application		Powder Liquid, Solid	Powder, Solid	Powder	Powder, Liquid		Liquid
Measuring Length(mm)		250 ~ 1000	300 ~ 4,000	300 ~ 4,000	300 ~ 5,000	63	23 ~ 100
Measuring Range(pF)		1 ~ 1,000pF					
Output Contact		DPDT (5A, 250VAC)					
Function		Auto Calibration (H/L setting, Data back up), H/L Alarm Set, Delay Time (0.5 ~ 10 Sec)					
Indicator		LED(Red) for Relay Output Display, LED(Green) for Calibrator/Error Display					
Pressure		1kg/cm <sup>2</sup>					
Material Load(kgf/cm <sup>2</sup> )		Approx 20	Approx 40	Approx 60	Approx 30	Approx 60	Approx 20
Temp'	Electronics(°C)	0 ~ +50					
	Probe(°C)	- 20 ~ +80(Max.230)	- 10 ~ +80	- 20 ~ +80(Max.230)	- 10 ~ +80		
Power Supply		110V/220V AC ±10%, 50/60 Hz					
Material	Head	ADC / C.AI					
	Probe	304SS(316SS) / PTFE / PPS / Ceramic(Al <sub>2</sub> O <sub>3</sub> )					
Enclosure	Electronics	Dust Proof / Explosion Proof					
	Probe	Weather Proof					
Mounting		PT 1" Nipple JIS 5K 65A Flange	JIS 5K 65A FF Flange (In Option for Other Flange)				PT1" Nipple
Explosion Proof		Ex d IIC T6, IP65					

■ CAPACITANCE TYPE LEVEL SWITCH

SCAP - 1 A 1 A 1 A 1 mm

EXTENSION LENGTH

CONDUIT CONNECTION

- 1 = PF 3/4" & PF 1/2"(Std.)
- 2 = PT 3/4" & PT 1/2"
- 3 = PF 3/4" Explosion proof type
- 4 = PT 3/4" Explosion proof type
- OP = etc.

ENCLOSURE

- A = Weather proof (Std.)
- B = Explosion proof (Ex d IIC T6, IP65)
- C = Probe separation type (Max. 5m)  
(Application for vibrating&high temp. silo.hopper. bin)

MEASURING LENGTH

- 1 = 250mm (Std. length)
- 2 = 251~1000mm (SCAP-1 type)
- 3 = Per 500mm (SCAP-2 type)
- 4 = Per 500mm (SCAP-3 type)
- OP = etc.

MOUNTING SIZE

- A = PT 1"(Std.)
- B = JIS 5K 65A FF (Std.)
- OP = etc.

OPERATING TEMPERATURE

- 1 = -10 ~ + 80 °C
- 2 = -20 ~ + 230 °C

WET PART MATERIAL

- A = 304SS (Std.)
- B = 316SS (Only Rod)
- C = PTFE Tubing(Bar type only)
- D = Water Type

TYPE OF PROBE

- 1 = Rod(ø22 pipe), 250 ~ 1000mm
- 2 = Fixed wire(ø4 wire), 300 ~ 4,000mm
- 3 = Fixed wire(High tension type, ø9.5 wire), 300 ~ 4,000mm
- 4 = Various wire(ø4 wire), 300 ~ 5,000mm
- 5 = Flat(ø60), 63mm
- 6 = Overflow Detector, 23 ~100mm (-20 ~ +80°C, Nipple only)
- OP= etc.

■ When placing an order, selected ordering number should be indicated on the purchase order sheet.

