SPC600 series static capacitance level switch
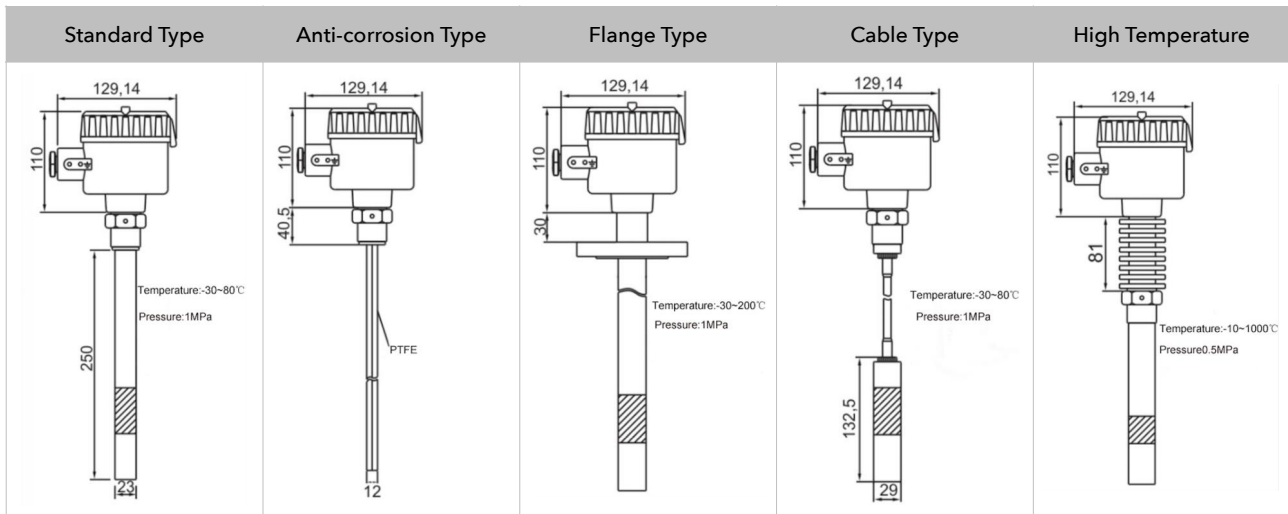
WORKING PRINCIPLE

The capacitive level switch determines the presence of media or air by detecting the dielectric constant of the medium. Based on the capacitance formed between the capacitive level switch and the medium (liquid or air) it is in. When the probe tip of the electrostatic capacitance level switch is immersed in a liquid, the capacitance changes greatly, and a change in the state of the switch is formed to achieve the purpose of indicating and controlling the liquid level.
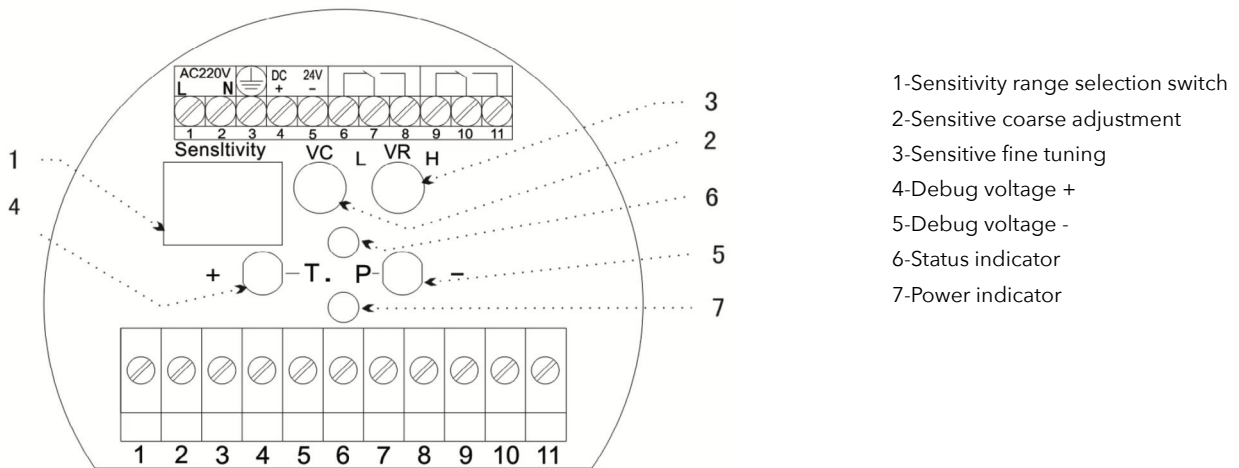

Container wall
C_x
C
Level

SPECIFICATION

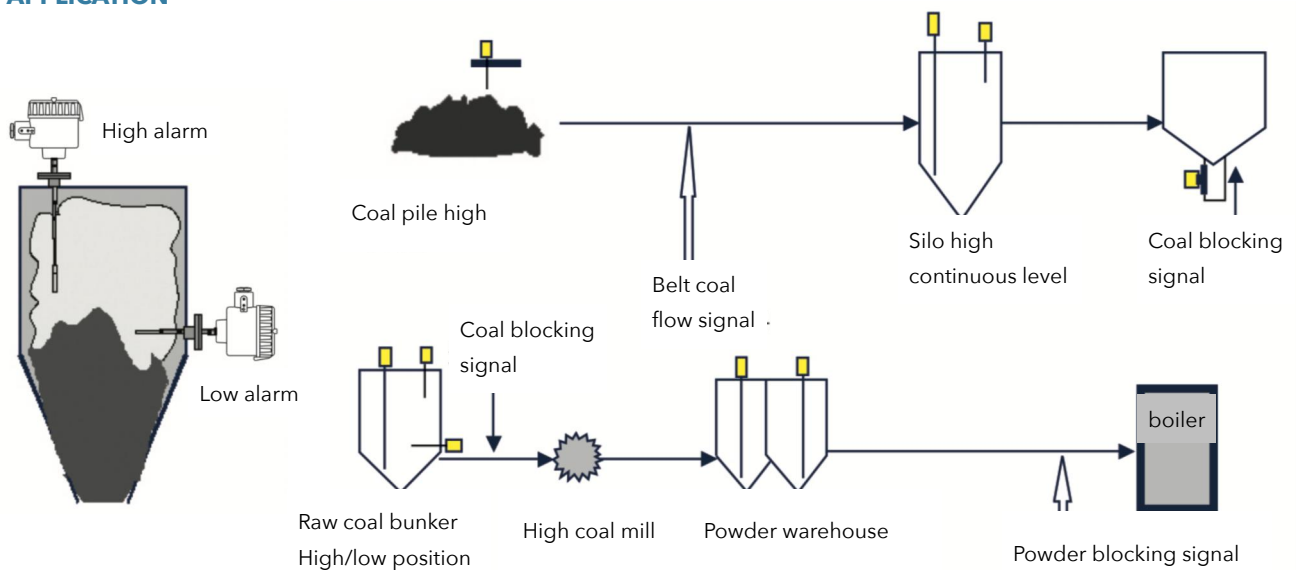| ITEMS	PARAMETER
Measuring medium	Liquid/powder
Media density	≥0.3g/cm
Accuracy	±1mm, ±5mm
Instruction mode	LED,OLED liquid crystal display
Voltage	DC 24V / AC 220V
No-load current consumption	≤30mA, when powered by 24Vdc
Output signal	◇Switch output Output type: PNP / NPN optional normally open normally closed can be set Output current: <500mA Voltage drop: <1V ◇Current type analog output Output type: three-wire 0...20mA/4...20mA can be set Load RA: RA≤500ohm Linearity: ≤±1.5% of range ◇Voltage type analog output Output type: three-wire 0...5V/1...5V can be set Load RA: RA>10Kohm Linearity: ≤±1.5% of range
Wiring protection	reverse phase, overload, short circuit protection
Pressure range	-98Kpa~2Mpa
Temperature	◇Working temperature: -20...80°C ◇Medium temperature: -20...100°C (high temperature type: -50...200°C, higher temperature can be customized) ◇ Storage temperature: -30...80°C
Protection level	IP67
Shell material	Aluminum alloy/stainless steel 304
Sensor material	Stainless steel / stainless steel + PTFE / stainless steel + ceramic/PTFE/PEEK Natura
Connection method	M20*1.5/3/4"NPT/M12×1 or customized

CONSTRUCTION

Standard Type	Anti-corrosion Type	Flange Type	Cable Type	High Temperature

Standard Type — 129,14 / 110 / 250 / 23 — Temperature:-30~80℃ Pressure:1MPa

Anti-corrosion Type — 129,14 / 110 / 40.5 / 12 — PTFE

Flange Type — 129,14 / 110 / 30 — Temperature:-30~200℃ Pressure:1MPa

Cable Type — 129,14 / 110 / 132,5 / 29 — Temperature:-30~80℃ Pressure:1MPa

High Temperature — 129,14 / 110 / 81 — Temperature:-10~1000℃ Pressure0.5MPa

WIRING

AC220V L N
DC 24V + −
1 2 3 4 5 6 7 8 9 10 11
Sensltivity   VC   L   VR   H
+ − T. P −

1-Sensitivity range selection switch
2-Sensitive coarse adjustment
3-Sensitive fine tuning
4-Debug voltage +
5-Debug voltage -
6-Status indicator
7-Power indicator

APPLICATION

High alarm

Low alarm

Coal pile high

Belt coal flow signal

Silo high continuous level

Coal blocking signal

Coal blocking signal

Raw coal bunker High/low position

High coal mill

Powder warehouse

boiler

Powder blocking signal

ORDER GUIDE

SPC600	static capacitance level switch						
	CODE	type					
	A	Ordinary type					
	B	High temperature type					
	C	Hygienic type					
	D	Anticorrosive type					
		CODE	Insertion depth				
		1	250m (standard)				
		2	Pole type extension 250-1000 optional				
		3	Cable type extended split 1-100m optional				
			CODE	Voltage			
			A	220V AC ±10%			
			D	24V DC ±10%			
				CODE	Material		
				1	304(standard)		
				2	316		
				3	Stainless steel + PTFE		
					CODE	Process connection	
					G	G1 "thread (standard)	
					T	1 "NPT thread	
					F	Flange installation (flange specification and standard shall be indicated)	
					C	Other customized	
						CODE	Other parameters
						A	Normal tempeature_° C
						B	Normal pressure_Kpa
						C	Protection level IP66
						D	Flameproof level ExdIICT6
						E	Maximum temperature _° C
						F	Maximum pressure Kpa or Mpa
						G	Other requirements
SPC600	A	1	A	1	G	AB	Order example