

Conductive Sensors Amplifier Types SV 120/220, SV 125/225 (Charging)



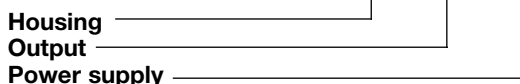
- Level control for conductive liquids
- Max.-min. control of CHARGING
- SV 120/220: Fixed sensitivity
- SV 125/225: Adjustable sensitivity
- 10 A SPDT or 8 A DPDT output relay
- LED-indications: Power supply and relay on
- AC or DC power supply

Product Description

Level control relay for conductive liquids which can control two levels of charging. Usable for one level detection with pin 5 and 7 short-circuited.

Ordering Key

SV 120 230



Type Selection

Plug	Output	Supply: 24 VAC	Supply: 115 VAC	Supply: 230 VAC	Supply: 24 VDC
Circular	SPDT	SV 120 024	SV 120 115	SV 120 230	SV 120 724
	DP DT	SV 220 024	SV 220 115	SV 220 230	SV 220 724
	SPDT	SV 125 024	SV 125 115	SV 125 230	SV 125 724
	DPDT	SV 225 024	SV 225 115	SV 225 230	SV 225 724

Input Specifications

Level probe supply	Max. 24 VAC
Level probe current	Max. 2.5 mA
Sensitivity	
SV120/SV220	ON From 25 to 50 kΩ OFF From 15 to 37 kΩ
SV125/SV225	ON From 3-11 to 35-55 kΩ (adj.) OFF From 1-5 to 20-30 kΩ (adj.)

General Specifications

Indication for	
Power supply ON	LED, green
Output ON	LED, red (724 only red)
Environment	
Degree of protection	IP 20 B
Pollution degree	3 (IEC 60664)
Operating temperature	-20 to +50°C (-4 to +122°F)
Storage temperature	-50 to +85°C (-58 to +185°F)
Approvals	UL, CSA
CE-marking	Yes

Supply Specifications

Power supply	AC types	Overvoltage cat. II (IEC 60664)
Rated operational voltage	230	230 VAC ± 15%
through pins 2 and 10		50/60 Hz, -5/+5 Hz
	115	115 VAC ± 15%
		50/60 Hz, -5/+5 Hz
	024	24 VAC ± 15%
		50/60 Hz, -5/+5 Hz
Rated insulation voltage		250 VAC (rms)
Rated impulse withstand volt.		4 kV (1.2/50 μs) (line/neutral)
Power supply	DC types	Overvoltage cat. II (IEC 60664)
Rated operational voltage	724	24 VDC ± 15% (pin 2 pos.)
Rated insulation voltage		None
Rated impulse withstand volt.		800 V (1.2/50 μs)

Output Specifications

		SV120/SV125	SV220/SV225
Output		SPDT relay	DPDT relay
Rated insulation voltage		250 VAC (rms) (cont./elec.)	250 VAC (rms) (cont./elec., cont./cont.)
Contact ratings (Ag-CdO)		μ (micro gap)	μ (micro gap)
Resistive loads	AC 1 DC 1 or	10 A/250 VAC (2500 VAC) 1 A/250 VAC (250 W) 10 A/25 VDC (250 W)	8 A/250 VAC (200 VA) 0,4 A/250 VDC (100 W) 4 A/25 VDC (100 W)
Small inductive loads	AC 15 DC 13	2.5 A/230 VAC 5 A/24 VDC	2.5 A/230 VAC 5 A/24 VDC
Mechanical life		≥ 5 x 10 ⁷ operations	≥ 5 x 10 ⁷ operations
Electrical life		≥ 10 ⁵ operations	≥ 10 ⁵ operations
Operation frequency		≤ 7200 operations/h	≤ 7200 operations/h
Insulation voltages			
Rated insulation voltage	AC	≥ 2.0 kVAC (rms) (cont./elect.)	≥ 2.0 kVAC (rms) (cont./elect.)
	DC	None	None
Rated impulse withstand voltage	AC	4 kV (1.2/50 μs) (cont./elect.) (IEC 60664)	4 kV (1.2/50 μs) (cont./elect.) (IEC 60664)
	DC	800 V	800 V

Mode of Operation

Max. and min. control of charging.

tion of 2 levels. The relay releases until the max. electrode is in contact with the liquid. The relay operates when the min. electrode is no longer in contact with the liquid. By use of a container of

a conductive material (pin 7) can be connected to the container. If the container is made of a non-conductive material, an additional electrode is needed, indicated by the dotted line in the diagram.

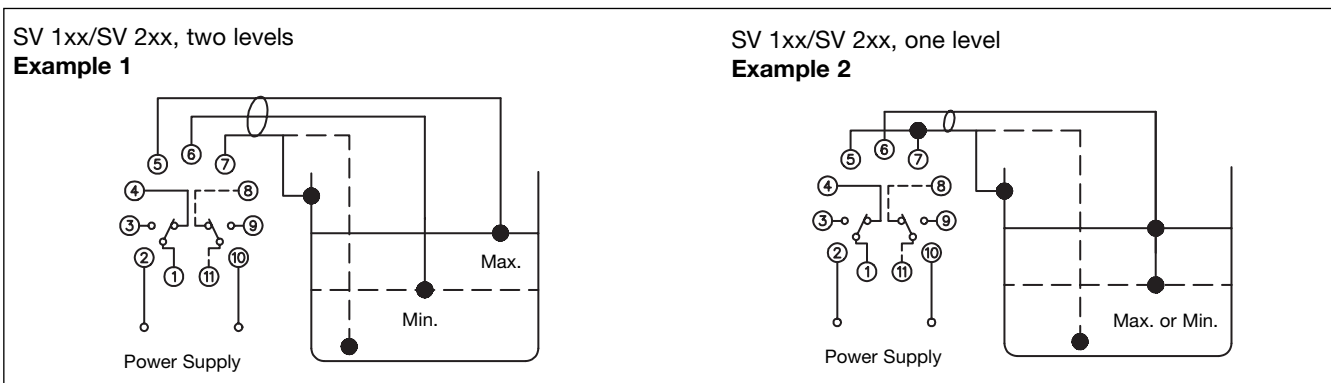
Example 2

If only one level is required, pins 5 and 7 must be interconnected to select either max. or min. control.

Example 1

The diagram shows the level control connected as max. and min. control, i.e. detec-

Wiring Diagrams



Operation Diagram



Accessories

Conductive level probe: 1 or 2 electrodes
 VH..., VPC..., VPP...
 VN..., VNY..., VNI...
 VT..., VTI..., VS...