SIEMENS

Special SICONT Limit Switches

Type 3SE3

Introduction :

Limit switches are used to determine the position of moving machine parts, doors or objects and to convert these positions into electrical signals for further processing in the control circuit. Special executions of SICONT 3SE3 limit switches are offered to suit various applications **requiring ring cable lug termination**.

Standards :

The 3SE3 limit switches conform to the following standards :

– Electro mechanical control switches according to IS 13947-5-1-3 IEC947-5-1-3

Construction :

Special 3SE3 limit switches are designed to enable easy termination of ring cable lugs. All contact blocks have a black moulded plastic housing, in which the fixed contacts are accomodated. The moving contacts are located on the plastic slider (spring loaded) which performs double break operation. An extension plunger is also provided. These limit switches are available with 2 or 3 contacts.

Contact reliability :

Each moving contact actually comprises two parallel moving contacts. This increases the contact reliability even when the switch has to be operated with low voltages and currents i.e. 5VDC/1 mA.

Positive Opening :

The NC contact of the limit switch is forced open mechanically by the plunger (Positive Opening). In order to ensure this positive opening, the limit switch must be actuated in such a way that the nominal stroke is substantially exceeded. In addition to this, the NO contact closes only after the NC contact has opened.

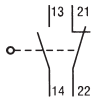
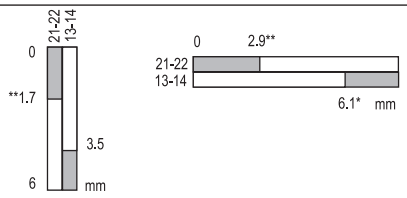
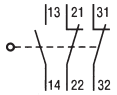
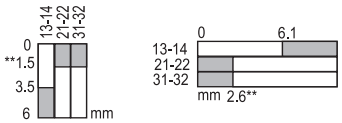
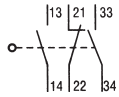
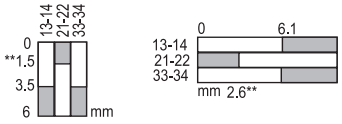
Technical Details

Rated insulation voltage	500 V AC; 600 V DC					
Rated thermal current	10 A					
Rated operation current	AC (40 to 60 Hz)			DC		
	Ue V	Ie/AC 12 A	Ie/AC 15 A	Ue V	Ie/DC 12 A	Ie/DC 13 A
	24	10	10	24	10	10
	125	10	10	48	6	4
	230	10	6	110	4	1
	400	10	4	220	1	0.4
	500	10	3	440	0.5	0.2
Short circuit protection HRC fuse	10 A					
Mechanical endurance	30 million switching cycles					
Electrical endurance, (AC15)	30 million switching cycles with 3TH / 3TF contactors					
Switching frequency	6 x 10^3 switching cycles per hour					
Ambient temperature	– 40°C to + 80°C					
Degree of protection	Terminal IP 00					
	Switching Chamber IP 40					
Conductor Size (M3.5 screw terminal)	Ring / Fork type lug 2x2.5mm2 stranded cable					
Mounting	Any position					

Selection Table:

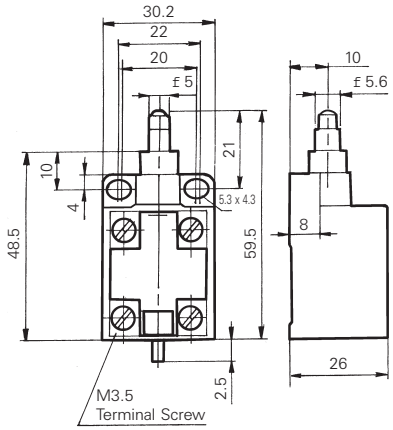
Description	Contacts		Type	Std. Pkg. (Nos.)
	Arrangement	No. of Contacts		
Special Limit s/w (open): 1NO+1NC	Normal	1NO+1NC	3SE3 020-0AZ1	10
Special Limit s/w (open): 1NO+2NC	Normal	1NO+2NC	3SE3 023-0AZ1	10
Special Limit s/w (open): 2NO+1NC	Normal	2NO+1NC	3SE3 023-1AZ1	10

Travel Diagram

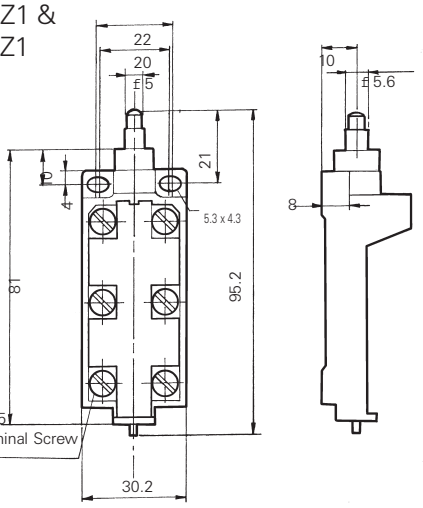
Diagram Terminal Designation to DIN EN 50 013	Order No.	Weight approx. kg	Nominal travel related terminals 0-line commencement of plunger travel contact closed contact open * operating point on return ** positive opening to IEC 947-5-1-3 along plunger perpendicular to plunger axis a = 30°	Minimum force required along plunger axis N
Slow-action contacts, 6 mm stroke; 2 contacts				
	3SE3 020-0AZ1	0.035		8
Slow action contacts, 6mm stroke, 3 Contacts				
	3SE3 023-0AZ1	0.055		11
	3SE3 023-1AZ1	0.055		13

Dimensions in mm

3SE3 020-0AZ1



3SE3 023-0AZ1 &
3SE3 023-1AZ1



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