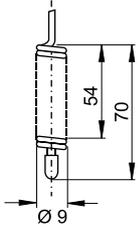
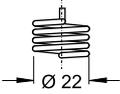
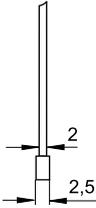
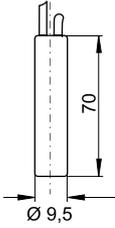
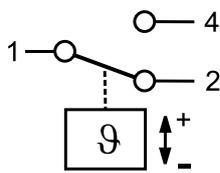


Bulb sizes

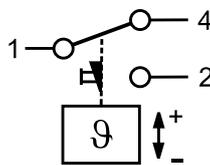
A	E	P	F
			
Vapor 2 m, Capillary with Bulb	Vapor Coil, 0 m	Vapor 2 m, Capillary with Function C and D 6 m	Adsorption 2 m, Capillary with Bulb

Function of contacts



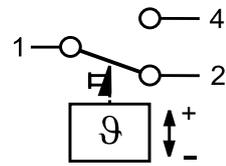
SPDT

- On temperature rise above setting 1-2 opens and 1-4 closes.
- On temperature drop below setting 1-2 closes and 1-4 opens.



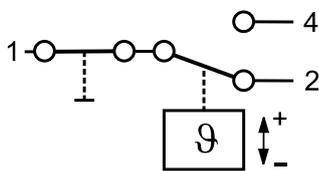
SPDT with manual reset min.

- On temperature drop below setting 1-2 closes. 1-4 opens and latches.
- The device can be manually reset when the temperature has risen at least 2K above setting.

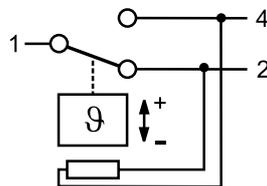


SPDT with manual reset max.

- On temperature rise above setting 1-2 opens and 1-4 closes and latches.
- The device can be manually reset when the temperature has dropped 2K below setting.



SPDT with off switch
AUTOmatic - STOP



SPDT with bellows heater
includes a 82 k Ohm, 230 V AC/DC resistor

Standards and regulations

Important for the installation of thermostats:

EN 60730-2-9 Specification for temperature controls and temperature cut-outs.

EN 60947-1/ Specifications for low-voltage switchgear.
EN 60947-5-1

Thermostats series TS1

Features

- Adjustable temperatures and differentials
- Chatter resistant contacts (bounce-free)
- High operational current, locked rotor max. 144 A (LRA)
- Standard SPDT with same operational current rating for both contacts
- Captive terminal and cover screws
- Range and differential individually lockable by wire seal

Technical data

Type of Contacts	1 SPDT
Heating Load (AC1)	24 A / 230 V AC
Inductive Load (AC15)	10 A / 230 V AC
Inductive Load (DC13)	0.1 A / 230V DC, 3 A / 24 V DC
Motor Rating (FLA):	24 A / 120/240 V AC
Locked Rotor (LRA):	144 A / 120/240 V AC
Ambient Temperature Range	-50 ... +70°C
Cable Entry	Grommet PG 16
Protection Acc. to EN 60529 / IEC 529	IP 44 (IP 30 with Selector Switch)
Bellows Heater at Vapor charge	82 KΩ, 230 V AC / DC (12 and 24 V DC upon request) sensing range: -55...+180°C



TS1 Top Operated

TS1 Flush Mounted

TS1 Front Operated

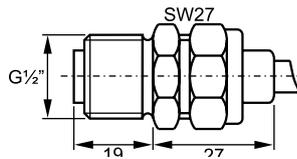
Standards

- per Low Voltage Directive
- Underwriter Laboratories File Nr: E85974

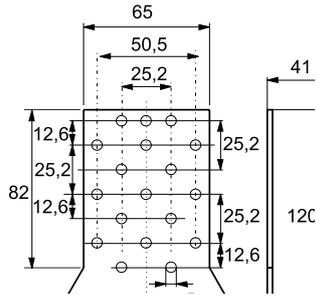
Type	Part No.	Adjustment Range		Lowest Setpoint	Factory Setting	Max. Bulb Temp.	Temperature Sensor	
		Upper Setpoint	Differential Setpoint ΔT				Charge	Cap. Tube Length
Thermostats Top Operated								
Thermostats without Off-Switch								
TS1-A2P	4 530 400	-30 ... +15°C	1.5 ... 16 K	-36°C	-1°C / -6°C	+150°C	Vapor	2 m Capillary
TS1-A3P	4 356 700	-10 ... +35°C	1.5 ... 16 K	-23°C	+3°C / -2°C			
TS1-A1A	4 351 500	-45 ... -10°C	1.5 ... 16 K	-55°C	-18°C / -20°C	+150°C	Vapor	2 m Capillary and Bulb
TS1-A2A	4 351 600	-30 ... +15°C	1.5 ... 16 K	-36°C	-1°C / -6°C			
TS1-A3A	4 352 500	-10 ... +35°C	1.5 ... 16 K	-23°C	+3°C / -2°C			
TS1-A4F Defrost- and Universal Thermostat	4 351 800	-30 ... +35°C	2.8 ... 20°C	-35°C	+5°C / 0°C	+100°C	Adsorption	2 m Capillary and Bulb
TS1-A5F	4 458 400	+20 ... +60°C	3 ... 10 K	+10°C	+35°C / +30°C			
Thermostats with Off-Switch								
TS1-B2A	4 366 800	-30 ... +15°C	1.5 ... 16 K	-36°C	-1v / -6°C	+100°C	Adsorption	
TS1-B3A	4 366 900	-10 ... +35°C	1.5 ... 16 K	-23°C	+3°C / -2°C			
TS1-B4F	4 367 000	-30 ... +35°C	2.8 ... 20 K	-35°C	+5°C / 0°C			
Frost Monitors Top Operated								
Frost Monitors without Off-Switch								
TS1-C0P	4 352 100	+4.5 ... +20°C	2.5 K fix	+2°C	4,5°C / +2°C	+150°C	Vapor	6 m Capillary
TS1-D0P Low Temp. Cut Out	4 352 200	+4.5 ... +20°C	Man. Reset ca. 2.5 K fix	+2°C	+2°C			

Type	Part No.	Adjustment Range		Lowest Setpoint	Factory Setting	Max. Bulb Temp.	Temperature Sensor	
		Upper Setpoint	Differential Setpoint ΔT				Charge	Cap. Tube Length
Room Thermostats Top Operated								
Room Thermostats without Off-Switch, Including Insulation Console								
TS1-A3E	4 355 300	-10 ... +35°C	1.5 ... 16 K	-23°C	+20 / +18°C	+70°C	Vapor	0 m coil
Room Thermostats with Off-Switch, Including Insulation Console								
TS1-B3E	4 344 500	-10 ... +35°C	1.5 ... 16 K	-23°C	+20 / +18°C	+70°C	Vapor	0 m coil
Thermostats Front Operated								
Thermostats without Off-Switch								
TS1-E1A	4 361 000	-45 ... -10°C	2 ... 16 K	-55°C	-18 / -20°C	+150°C	Vapor	2 m capillary and bulb
TS1-E2A	4 356 200	-30 ... +10°C	1.5 ... 15 K	-36°C	+4 / +2°C			
TS1-E3A	4 365 200	-10 ... +25°C	1.5 ... 15 K	-23°C	+3 / -2°C			
TS1-E4F Defrost- and universal thermostat	4 367 500	-25 ... +30°C	2.8 ... 20 K	-30°C	+5 / 0°C	+100°C	Adsorption	
TS1-E5F	4 338 100	+20 ... +60°C	3 ... 10 K	+10°C	+35 / +30°C			
Thermostats with Off-Switch								
TS1-F1A	4 367 100	-45 ... -10°C	2 ... 16 K	-55°C	-18 / -20°C	+150°C	Vapor	2 m capillary and bulb
TS1-F2A	4 367 200	-30 ... +10°C	1.5 ... 15 K	-36°C	-1 / -6°C			
TS1-F3A	4 367 400	-10 ... +25°C	1.5 ... 15 K	-23°C	+3 / -2°C			
Room Thermostats Front Operated								
Room Thermostats without Off-Switch, Including Insulation Console								
TS1-E1E	4 365 300	-45 ... -10°C	2 ... 16 K	-55°C	-18 / -20°C	+70°C	Vapor	0 m coil
TS1-E2E	4 356 800	-30 ... +10°C	1.5 ... 15 K	-36°C	+4 / +2°C			
Room Thermostats with Off-Switch, Including Insulation Console								
TS1-F1E	4 368 000	-45 ... -10°C	2 ... 16 K	-55°C	-18 / -20°C	+70°C	Vapor	0 m coil
TS1-F2E	4 368 100	-30 ... +10°C	1.5 ... 15 K	-36°C	+4 / +2°C			
TS1-F3E	4 368 200	-10 ... +25°C	1.5 ... 15 K	-23°C	+20 / +18°C			
Thermostats for Flush Mounting								
Thermostats for Flush Mounting without Off-Switch								
TS1-G2A	4 355 400	-30 ... +15°C	1.5 ... 15 K	-36°C	+4 / +2°C	+150°C	Vapor	2 m capillary and bulb
TS1-G4F Defrost- and universal thermostat	4 355 600	-30 ... +35°C	2.8 ... 20 K	-35°C	+5 / 0°C	+100°C	Adsorption	
Thermostats for Flush Mounting with Off-Switch								
TS1-H2A	4 355 500	-30 ... +15°C	1.5 ... 15 K	-36°C	-1 / -6°C	+150°C	Vapor	2 m capillary and bulb
TS1-H3A	4 367 900	-10 ... +35°C	1.5 ... 15 K	-23°C	+3 / +2°C			

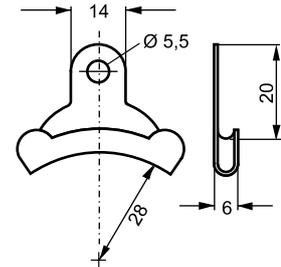
Accessories



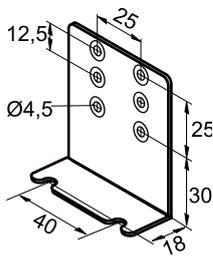
Capillary Tube Gland, Brass
for Bulb Style A / C
Part No.: 803 807



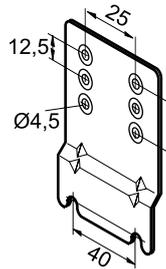
Universal Mounting Bracket
Part No.: 803 798



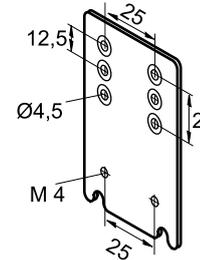
Capillary Tube Holder
for Frost Monitors Standard
Part No.: 803 778



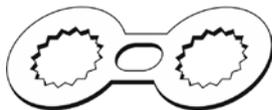
Mounting Bracket Angle
Part No.: 803 799



Mounting Plate
for Units with Hood
Part No.: 803 801



Extension Bracket
Part No.: 803 800



Locking Plate
Part No.: 803783 (20 pcs)