

## ST01H Series with PTC self-hold, no automatic reset



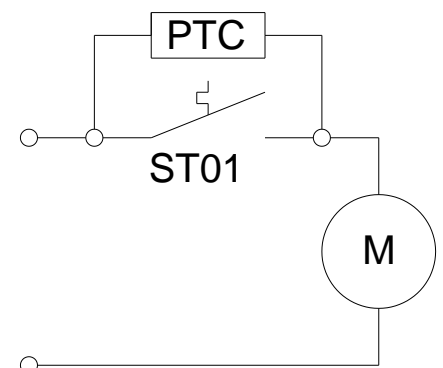
- **Temperature range from 60 ... 180°C**
- **With PTC self-hold ,not reset automatically**
- **Good sealed, suitable for impregnation process**
- **Small & round shape for being buried inside the coil.**
- **Metal case, can withstand 40kg coil shaping pressure,**
- **good thermal conductivity, sensitive to temperature.**
- **Not sensitive to current, no self-heating effect**

### Applications

Thermal switches of the ST01H series with PTC self-hold are used wherever automatic switching back on after cooling is not desired or even forbidden. This can be, for example, applications such as electric table saws or agitators, where there is a considerable risk if the application starts up again automatically.

### Function

The ST01H manual reset thermal protector integrates a PTC ceramic heating element on the base of the primary thermal protector, which forms a parallel circuit with the protector contacts, and the PTC does not generate high temperatures during normal load operation. When the load is abnormal, the high temperature or large current generated will make the protector disconnect, at this time the PTC element will produce high temperature and high resistance, and the high temperature generated by PTC will keep the thermal protector in an open circuit state, and the load will maintain a stopped operating state. When the host disconnects the power supply, the PTC heating element stops heating, and the protector can automatically reset after a certain period of cooling, turn on the power again, and the load runs.



### Technical Data

Function	Normally closed (NC)
Nominal switching temperature in 5K steps	60°C ... 180°C
Tolerance (Standard)	± 5K
Reset temperature	See details on page 3
Cycles at AC 277V / 2.5A cos φ 1.0	1.000
Cycles at AC 277V / 10.0A cos φ 1.0	1.000
Contact resistance	< 50mΩ
Insulation voltage	AC 1.5kV / 1 min.
pressure resistance	450N
Bounce time	<1ms
Recognized standards	TÜV EN IEC 60730-2-22 & EN 60730-1 UL 2111/60730-2-2 (60°C ... 155°C) CQC GB/T14536.1, 3, 10 (60°C ... 180°C)

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## Designs

Type	Model	Illustration	Dimensions ( mm )	Description
ST01H with PTC Self-holding	U1			Isolation cap Self-holding (PTC)  Completely isolated

## Order Code

	<b>ST01H</b>	-	<b>A</b>	-	<b>U1</b>	.	<b>125</b>	.	<b>05</b>	.	<b>100-6/100-6</b>
<b>Type:</b> ST01H											
<b>Function:</b> A = Normally Closed (NC)											
<b>Design:</b> U1 = Isolation cap											
<b>Nominal switching temperature:</b> 60°C ... 180°C in steps of 5K											
<b>Tolerance:</b> 05 (± 5K)											
<b>Wire length:</b> Example = L1&L2 = 100mm Stripping length = 6mm											

### Example: ST01H-A-U1.125.05.100-6/100-6

For different or unlisted specifications, please contact us. Customization is always possible.

## Available standard connection wires

Isolation material	Temperature max.	Max. operating voltage	Size	UL-Style
XLPE	150°C	300V	AWG 22	3398
			AWG 24	
PFA	250°C	600V	AWG 22	10362
			AWG 24	

Up to 150°C, white XLPE stranded wires in AWG 22 used as standard. (UL3398)

Above 150°C, yellow PFA stranded wire in AWG 22 used as standard. (UL10362)

## Available switching & reset temperatures

Switching temperature	Reset temperature
60°C ± 5K	35°C - 53°C
65°C ± 5K	36°C - 57°C
70°C ± 5K	36°C - 57°C
75°C ± 5K	38°C - 63°C
80°C ± 5K	53 ± 15K
85°C ± 5K	57 ± 15K
90°C ± 5K	60 ± 15K
95°C ± 5K	64 ± 15K
100°C ± 5K	65 ± 15K

Switching temperature	Reset temperature
105°C ± 5K	65 ± 15K
110°C ± 5K	65 ± 15K
115°C ± 5K	65 ± 15K
120°C ± 5K	65 ± 15K
125°C ± 5K	65 ± 15K
130°C ± 5K	70°C ± 15K
135°C ± 5K	70°C ± 15K
140°C ± 5K	75°C ± 15K

Switching temperature	Reset temperature
145°C ± 5K	75°C ± 15K
150°C ± 5K	80°C ± 15K
155°C ± 5K	80°C ± 15K
160°C ± 5K	80°C ± 15K
165°C ± 5K	80°C ± 15K
170°C ± 5K	80°C ± 15K
175°C ± 5K	85°C ± 15K
180°C ± 5K	85°C ± 15K