



09353E00

**Temperature Controller
(Switching Capacity 16 A)
Series 8146/5041-R16A**

**Temperature Limiter
(Switching Capacity 16 A)
Series 8146/5041-B16A**

- Explosion protection
 - CENELEC
 - IEC
- Can be used
 - in Zone 1 and Zone 2
 - in Zone 21 and Zone 22
- Liquid filled measuring system
- Continuous interruption when setpoint overflow (manual reset)
- Continuous interruption when measuring system is leaking
- Expanded security in accordance with DIN 3440
- Enclosure made of glass fibre reinforced polyester resin

STAHL

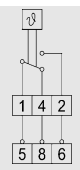
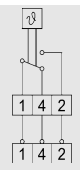
The liquid filled measuring system changes its volume as a function of temperature changes. A changeover contact therefore is actuated by mechanical transmission.

In case that the setpoint is overflow the controller switches off. After the temperature drops below the setpoint the temperature controller can be reset manually.

When the system leaks the temperature controller remains in the off-position. When the sensor temperature drops below the minimum the circuit opens but closes again when the temperature rises.

Zones 1 & 2, 21 & 22

Temperature Controller (Switching Capacity 16 A) Series 8146/5041-R16A Temperature Limiter (Switching Capacity 16 A) Series 8146/5041-B16A

Selection table				
Version	Schematic	Measuring range	Ordering code	Weight kg
8146/5041-R16A Temperature Controller	 09166E00	- 20 °C ... + 50 °C	8146/5041-R16A/-20...+50GradC	1,000
		0 °C ... + 200 °C	8146/5041-R16A/0...+200GradC	1,000
		+ 50 °C ... + 300 °C	8146/5041-R16A/+50...+300GradC	1,000
8146/5041-B16A Temperature Limiter	 09167E00	0 °C ... + 200 °C	8146/5041-B16A/0...+200GradC	1,100
		+ 50 °C ... + 300 °C	8146/5041-B16A/+50...+300GradC	1,100

Technical Data			
Measuring range	- 20 °C ... + 50 °C	0 °C ... + 200 °C	+ 50 °C ... + 300 °C
Explosion protection			
Gas explosion protection	⊗ II 2 G EEx ed IIC T6 or T5	⊗ II 2 G EEx ed IIC T6 or T5	⊗ II 2 G EEx ed IIC T6 or T5
Dust explosion protection	⊗ II 2 D IP66 T80 °C, T95 °C	⊗ II 2 D IP66 T80 °C, T95 °C	⊗ II 2 D IP66 T80 °C, T95 °C
Certificates			
Gas explosion protection	PTB 01 ATEX 1024	PTB 01 ATEX 1024	PTB 01 ATEX 1024
Dust explosion protection	LCIE 02 ATEX 6241	LCIE 02 ATEX 6241	LCIE 02 ATEX 6241
Material			
Housing	glass fibre reinforced polyester resin	glass fibre reinforced polyester resin	glass fibre reinforced polyester resin
Gaskets	Polyurethane, foamed	Polyurethane, foamed	Polyurethane, foamed
Sensor	VA 1.4571	VA 1.4571	VA 1.4571
Degree of protection	IP 65	IP 65	IP 65
Rated Voltage	max. 250 V, AC	max. 250 V, AC	max. 250 V, AC
Rated current			
Contact NC	16 A	16 A	16 A
Contact NO	10 A	10 A	10 A
Capillar tube			
Length	1 m	1 m	1 m
Diameter	1,5 mm	1,5 mm	1,5 mm
Min. bending radius	5 mm	5 mm	5 mm
Sensor			
Diameter	6 mm	6 mm	6 mm
Length	129 mm	71 mm	57 mm
Contact	1 changeover	1 changeover	1 changeover
Setpoint accuracy			
in the lower third of scale	0 K ... - 3,5 K	0 K ... - 8 K	
in the upper third of scale			0 K ... - 12,5 K
Allowable temperature limits at the sensor			
Minimum	- 30 °C	- 10 °C	- 10 °C
Maximum	+ 60 °C	+ 230 °C	+ 345 °C
Ambient temperature	- 20 °C ... + 50 °C (T5) - 20 °C ... + 40 °C (T6)	- 20 °C ... + 50 °C (T5) - 20 °C ... + 40 °C (T6)	- 20 °C ... + 50 °C (T5) - 20 °C ... + 40 °C (T6)
Terminal	4 x spring-loaded terminal 2,5 mm ²		
Cable entry	1 x cable gland M 20 x 1,5 (bottom)		

Dimension drawings see page 9/143

