



09353E00

Temperature Controller Series 8146/5041-R16A

Temperature Limiter Series 8146/5041-B16A

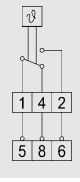
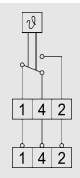
- Explosion protection
 - CENELEC
 - IEC
- For use in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- Switching capacity 16 A
- Liquid filled measuring system
- Continuous interruption when setpoint overflow (manual reset)
- Continuous interruption when measuring system is leaking
- Enclosure made of glass fibre reinforced polyester resin

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

Selection Table				
Version	Circuit diagram	Measuring range	Order number	Weight kg
8146/5041-R16A Temperature Controller		- 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		0 °C ... + 200 °C	8146/5041-B16A/0...+200GradC	1.100
		+ 50 °C ... + 300 °C	8146/5041-B16A/+50...+300GradC	1.100

Technical Data			
	- 20 °C ... + 50 °C	0 °C ... + 200 °C	+ 50 °C ... + 300 °C
Measuring range	- 20 °C ... + 50 °C	0 °C ... + 200 °C	+ 50 °C ... + 300 °C
Explosion protection			
Gas explosion protection	⊕ II 2 G Ex de IIC T6	⊕ II 2 G Ex de IIC T6	⊕ II 2 G Ex de IIC T6
Dust explosion protection	⊕ II 2 D Ex tD A21 IP66 T80 °C	⊕ II 2 D Ex tD A21 IP66 T80 °C	⊕ II 2 D Ex tD A21 IP66 T80 °C
Certificates	PTB 01 ATEX 1024	PTB 01 ATEX 1024	PTB 01 ATEX 1024
Ambient temperature	- 20 °C ... + 50 °C	- 20 °C ... + 50 °C	- 20 °C ... + 50 °C
Material			
Enclosure	glass fibre reinforced polyester resin	glass fibre reinforced polyester resin	glass fibre reinforced polyester resin
Seal	Polyurethane, foamed	Polyurethane, foamed	Polyurethane, foamed
Sensor	Stainless steel VA 1.4571 (AISI 316L)	Stainless steel VA 1.4571 (AISI 316L)	Stainless steel VA 1.4571 (AISI 316L)
Type of protection	IP66	IP66	IP66
Rated operational voltage	max. 250 V AC	max. 250 V AC	max. 250 V AC
Rated operational current			
Contact NC	16	16	16
Contact NO	10	10	10
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

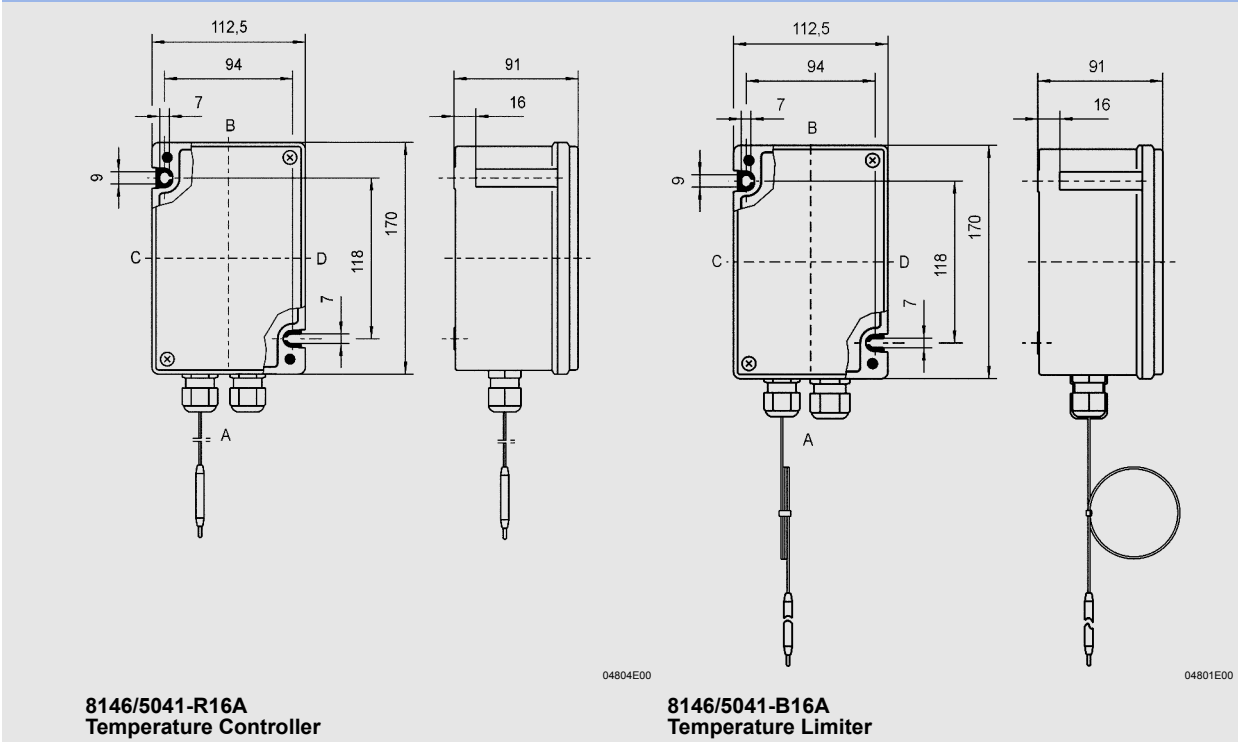


Temperature Controller Series 8146/5041-R16A Temperature Limiter Series 8146/5041-B16A

Technical Data

Measuring range	- 20 °C ... + 50 °C	0 °C ... + 200 °C	+ 50 °C ... + 300 °C
Permissible sensor temperature			
Minimum	- 30 °C	- 10 °C	- 10 °C
Maximum	+ 60 °C	+ 230 °C	+ 345 °C
Connection type	4 x screw terminals		
Connection cross-section	max. 2.5 mm ²		
Cable glands	1 x M 20 x 1.5 cable gland		
Cable dia. range	6 mm ... 13 mm		

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.