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Flue Gas Temperature Monitor Type STM-RW-2

approved to DIN 3440, DIN Reg.No. ATW 86205

Brief description

The flue gas temperature monitor is used for monitoring flue gas temperatures of solid-fuel boilers in dual operation with oil-heated boilers. It is also employed for the interlocking of ventilation systems that cause a vacuum in conjunction with tiled ovens and fireplaces.

The flue gas temperature monitor operates on the principle of rod expansion. The immersion tube and the metal rod mounted inside have different expansion coefficients, so that changes in temperature produce differences in length. These act through a transmission mechanism on a microswitch which is actuated above a set temperature limit. After the immersion tube has cooled down by about 10 to 30 °C, the microswitch is reset. In the event of an immersion tube break, the circuit remains permanently open.



Technical data

Electrical data

Switching device	STM-RW-2	STM-RW-2/OS
	1-pole microswitch with changeover (SPDT) contact	microswitch with 2 separate circuits 1 x break (SPST-NC) and 1 x make (SPST-NO)
Max. permissible contact rating	10 (2) A, 230 V AC +10%, p.f. = 1 (0.6) 0.25 A, 230 V DC +10%	
Contact reliability	To ensure maximum switching reliability, we recommend a minimum loading of: 20 mA, 24 V AC/DC	
Rated surge voltage	2500 V (via the switching contacts: 400 V)	
Overvoltage Category II	required fusing, see max. contact rating	

Operating data

Limit range	as standard: special version:			+40°C to +120°C (factory-set to +100°C) +20°C to +400°C (factory-set to +120°C)
Switching differential	Limit range	STM-RW-2	STM-RW-2/OS	
	+40°C to +120°C +20°C to +400°C	10 to 18 °C 10 to 22 °C	10 to 30 °C 10 to 40 °C	
Switching point accuracy referred to switch-off point	Limit range	Scale start		Scale end
	+40°C to +120°C +20°C to +400°C	+0/-10 °C +0/-15 °C		+0/-10 °C +0/-20 °C
Time constant	flue gas: ≤45 sec			
Mean ambient temperature error	switching point displacement referred to deviation from +22°C ~ 0.07 °C/°C			
Permissible ambient temperature	at probe: at switch head:		+700°C max. + 80°C max., -50°C min.	
Setpoint adjustment	against internal scale, after removing housing cover			
Permissible storage temperature	+80°C max. / -50°C min.			
Nominal position (NL)	to DIN 16 257, NL 0 — NL 90 (other NL on request)			

Housing

Housing	die-cast aluminium housing with lead-sealable screws	
Cable entry	as standard: at extra cost:	clamping nipple M 20 x 1.5, for 8 — 10 mm cable dia. cable gland M 20 x 1.5 to EN 50 262 CuZn
Enclosure protection	IP54 to EN 60 529	
Weight	approx. 0.8 kg	

Process connection

Connection circuit	Form DZ, G 1/2 (fixed hexagon with external thread G 1/2), material: steel		
Immersion tube	15 x 150 mm, material: steel		

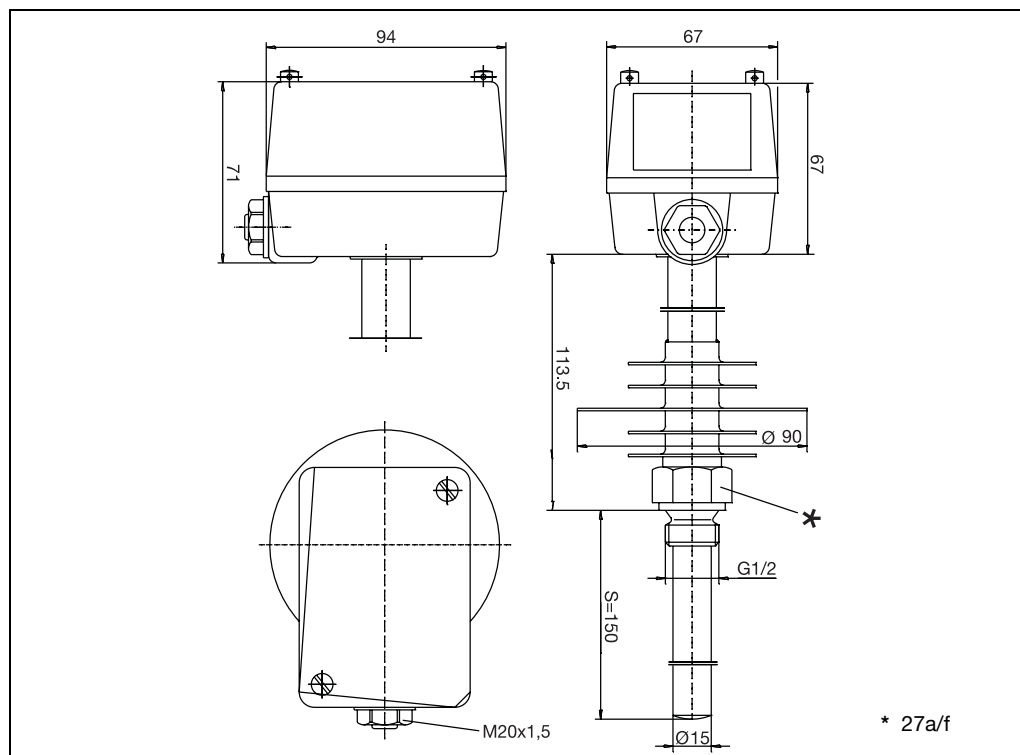
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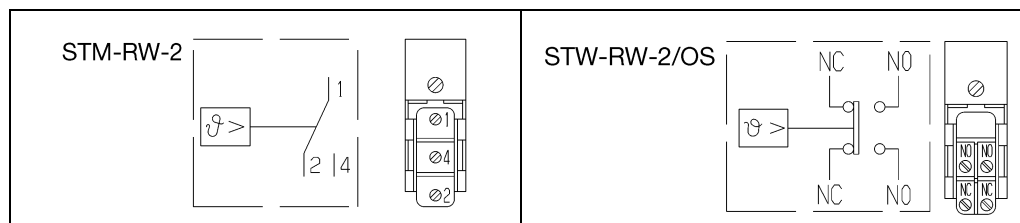
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Dimensions



Connection diagrams



Stock items

(shipment: 3 working days after receipt of order)

Sales No.	Type	Limit range °C	Switching differential °C	Connection	Immersion tube length mm
60/60000903	STM-RW-2	+40 to +120	10-18	DZ G 1/2 (1/2" pipe)	150
60/60001115	STM-RW-2	+20 to +400 calibration point +120			
60/60000904	STM-RW-2/OS	+40 to +120	10-30		

Order details

STM-RW-2 Series

Order code	(1) Basic type (basic version)
601540	STM-RW-2 Rod thermostat with microswitch as flue gas temperature monitor (ATW) with changeover (SPDT) contact
(2) Control/limit ranges	
056	+40 to +120 °C
045	+20 to +400 °C
(3) Extra code OS	
000	no extra code
729	microswitch with 2 separate circuits, 1 x break (SPST-NC) and 1 x make (SPST-NO)

Order code

(1)	(2)	(3)
601540	...	...

Order example

601540	/	056	/	729
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