

JUMO GmbH & Co. KG

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JUMO Instrument Co. Ltd.

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JUMO Process Control, Inc.

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Flue gas temperature monitor

Type STM-RW-2

Special features

- with micro switch
- Aluminum die cast case
- Protection rating IP54
- High contact reliability

Brief description

The flue gas temperature monitor is used to monitor the flue gas temperature of solid fuel boilers during bivalent operation with oil heating boilers. Furthermore it is used to block ventilation systems causing vacuum in connection with tile stoves and fireplaces.

The flue gas temperature monitor operates according to the rod expansion principle. The immersion tube and an integrated metal rod have different expansion coefficients so that a temperature-dependent length difference occurs. A micro switch, which is actuated when a set limit value temperature is exceeded, is affected due to mechanical transmission. The micro switch is reset once the immersion tube has cooled down by approx. 10-30 K. In the event of an immersion tube breakage, the current circuit will be permanently opened.



Approval / approval marks (see Technical Data)



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Technical data

Electrical data	STM-RW-2	STM-RW-2/OS (729)
Switching element	Micro switch with change-over contact	Micro switch with 2 separate current circuits 1 x N/C contact and 1 x N/O contact
maximum permissible contact rating	AC 230 V +10%, 10 (2) A, cos φ = 1 (0.6) DC 230 V +10%, 0.25A	
Contact reliability	To ensure high switching reliability, we recommend a minimum load of: AC / DC 24 V, 20 mA	
Rating surge voltage	2500 V (via the switching contacts 400 V)	
Overvoltage category II	Required fusing, see maximum switching current	

Operating data

Limit value range	+40 °C to +120 °C (factory-set to +100 °C) +20 °C to +400 °C (factory-set to +120 °C)		
Hysteresis	Limit value range	STM-RW-2	STM-RW-2/OS (729)
	+40 °C to +120 °C +20 °C to +400 °C	10 - 18 K 10 - 22 K	10 - 30 K 10 - 40 K
Switching point accuracy referring to the switch-off point	Limit value range	Scale beginning	Scale end
	+40 °C to +120 °C +20 °C to +400 °C	+0/-10 K +0/-15 K	+0/-10 K +0/-20 K
Time constant	Flue gas: ≤ 45 sec.		
Average ambient temperature influence	Switching point offset referring to the deviation of +22 °C ~ 0.07 K/K		

Temperatures / Position

	STM-RW-2
Permissible ambient temperature	on the probe: max. +700 °C on the switch head: max. +80 °C, min. -50 °C
Set point adjustment	after removal of the case lid via internal scale
Permissible storage temperature	max. +80 °C / min. -50 °C
Rated position	as per DIN 16257, NL 0 to NL 90 (different rated positions (NL) on request)

Case

Case	Aluminum die cast, surface with impact resistant textured paint; lid: RAL 7032, bottom section: RAL 7015
Cable inlet	clamping gland M 20 × 1.5
Protection class	EN 60 529-IP54
Weight	approx. 0.8 kg

Process connection

Connection type	"DZ" G 1/2 (fixed hexagon with external thread G 1/2), material: Steel
Immersion tube	15 x 150 mm, Material: Steel

Approvals/Approval marks

Approval marks	Inspection authority	Certificates / Inspection number	Inspection basics	valid for
DIN EN 14597	DIN CERTCO / TÜV Süd	ATW 862	DIN EN 14597	STM-RW-2
EAC ^a	Gost Norm AG	TC RU C-DE.AB98.B.00348	Technical rules of the customs union Russia/Belarus/ Kazakhstan	STM-RW-2

^a Russian documentation upon request

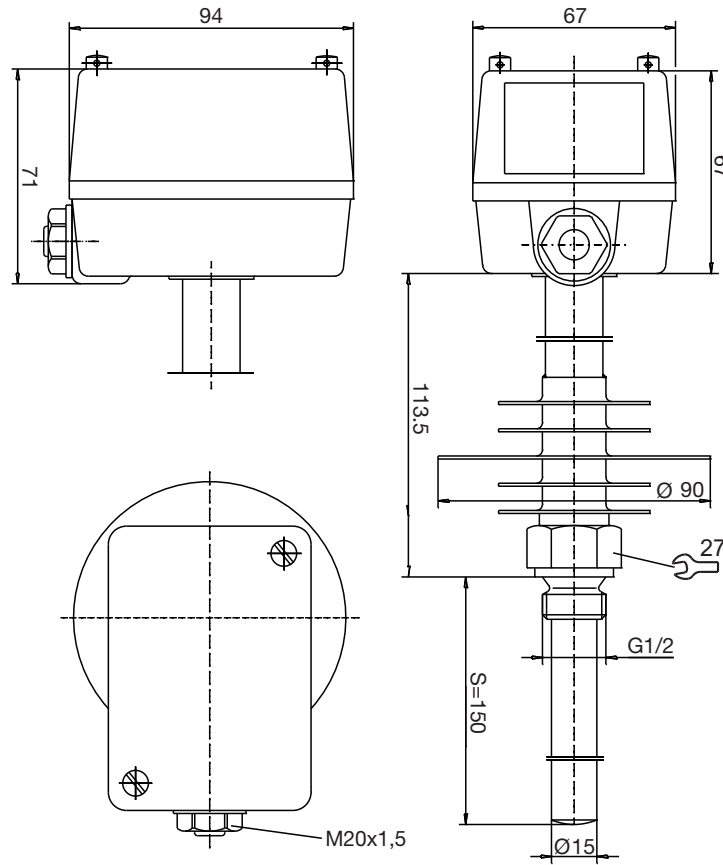
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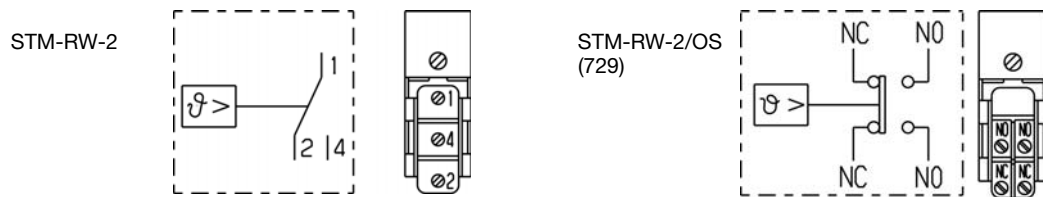
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Dimensions



Wiring diagram



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Stock versions

Part No.	Type	Range °C	Hysteresis K	Thread of process connection	Fitting length mm
60000903	STM-RW-2	+40 to +120	10-18	DZ G 1/2	150
60000904	STM-RW-2/OS	+40 to +120	10-30		
60001115	STM-RW-2	+20 to +400 Adjusted point +120	10-22		

Order specifications

Order code	(1) Model
601540	STM-RW-2 exhaust gas temperature monitor (ATW)
	(2) Range
045	+40 to +400 °C
056	+40 to +120 °C
	(3) Switching differential
00	without switching differential
	(4) Process connection
48	DZ G 1/2 solid hexagon w. outer thread
	(5) Thread of process connection
13	G 1/2
	(6) Material of process connection
01	Steel
	(7) Fitting length
150	150 mm
	(8) Diameter of immersion tube
15	15 mm
	(9) Extra code
729	Microswitch with 2 separate circuits

Order code / - - - - - - /

Order example 601540 / 056 - 00 - 48 - 13 - 01 - 150 - 15 / 729