

EX INDUSTRISTAT

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature.



Applications

- Ex II 2 G / D



Features

- Compact design
- Rugged housing
- Any mounting position possible
- Ex db eb IIC T6 Gb
- Ex tb IIIC T80°C Db

Technical Data

Designation of application	Ex industrial thermostat with remote sensor	Switching differential	Not adjustable
Measuring range	-30°C ... +40°C to +70°C ... +350°C	Repeatability	± 0.5 % FS typ.
Output signal	Floating change-over contact	Approval / conformity	ATEX, UKEX

12/2025

Data sheet H72108z

Subject to change

Ordering information/type code

				XXX	XX	XX	XXX	XX	XXXXXXXXXX	XX	XX
Custom build code	External adjustment			404							
	Internal adjustment			414							
Microswitch	Standard, switching differential not adjustable			91							
Range	Range [°C]	Sensor max. [°C]			Range [°C]	Sensor max. [°C]					
	-30 ... +40	50	01		+20 ... +110	115	23				
	0 ... +35	70	09		+20 ... +150	165	31				
	-10 ... +35 ⁴⁾	70	94		+20 ... +230	250	24				
	+20 ... +115	130	57		+40 ... +300	330	53				
	-10 ... +80 ⁴⁾	85	95		+70 ... +350	380	54				
	+5 ... +95	105	20								
Sensor ¹⁾	See table "Ordering-no. for sensors"						XXX				
Fixing ²⁾	Nut M10 (for remote sensing version)							10			
	Bracket (for remote sensing version)							27			
	Grubscrew locked, lateral (direct mounting version) ⁵⁾							12			
	Cap nut (for direct mounting version) ⁵⁾							14			
	Grubscrew locked with spacer (cooling element) (for direct mounting version)							18			
Protection tube	See data sheet www.trafag.com/H72114 and www.trafag.com/H72163								XXXX.XXXX		
Accessories	Switchpoint locking ⁴⁾									15	
	Switchpoint fixed and sealed upon customer's request ⁴⁾									88	
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ⁴⁾									83	
	Switchpoint adjustment please indicate when ordering:										
	- Switchpoint [°C]										
	- Increasing or decreasing										
	Capillary tube protection: Flexible metal tube, brass nickel-plated ⁶⁾									90	
Capillary tube length	Capillary tube protection: Flexible metal tube 1.4301 (AISI 304)									91	
	Capillary tube length up to 5000 mm (no specification required for direct mounting on protection tube) L=XXXX ³⁾										

¹⁾ See data sheet www.trafag.com/H72114 and www.trafag.com/H72163

²⁾ See data sheet www.trafag.com/H72106

³⁾ Overlengths upon request

⁴⁾ Only with type 414, internal adjustment

⁵⁾ Media max. 150°C in continuous operation

⁶⁾ Do not use for new designs. Will be phased out in 2026.



In applications with acetylene or similar critical media, use appropriate protection tubes/thermowells and/or capillary protection tubes.

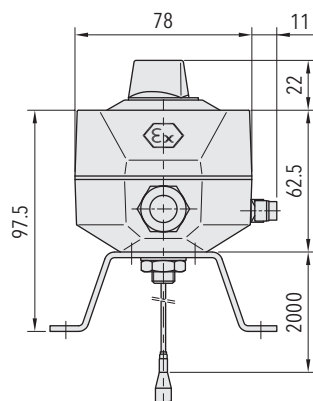
Ordering no. for sensors			
Range	Sensor-Ø	Sensor material	
		Stainless steel	Copper
01, 09	7.0 mm	421	422
	9.0 mm		432
94, 95, 20, 23, 57	7.0 mm	321	322
	9.0 mm		332
31	7.0 mm	121	122
	9.0 mm		132
24, 53, 54	7.0 mm	021	022
	9.0 mm		032

Cooper with nickel plating is phased out.

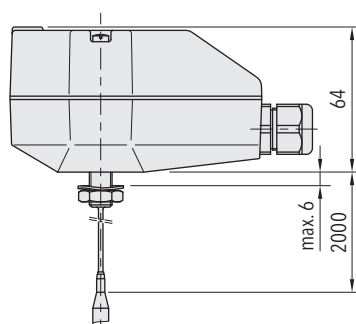
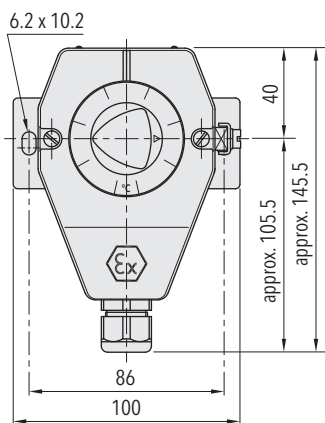
Standard products (extra short lead time)					
Product No.	Type Code	Sensor material	Temperature range [°C]	Switching differential [°C]	Sensor max. [°C]
EXS230S	414 9124 021 27	1.4435 (AISI316L)	+20 ... +230	16 (fixed)	250
EXS350S	414 9154 021 27	1.4435 (AISI316L)	+70 ... +350	20 (fixed)	380

Specifications		
Accuracy	Repeatability	$\pm 0.5 \% \text{ FS typ.}$
	Scale accuracy typ.	$\pm 2 \% \text{ FS typ.}$
	Switching differential	See table
	Switching point	Temperature compensated with bimetal switch lever
Environmental conditions	Ambient temperature	Range $\leq +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +50^{\circ}\text{C}$ Range $+45^{\circ}\text{C} \dots +250^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +60^{\circ}\text{C}$ Range $> +250^{\circ}\text{C}$: $-10^{\circ}\text{C} \dots +60^{\circ}\text{C}$
	Storage temperature	Range $\leq +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +50^{\circ}\text{C}$ Range $> +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +60^{\circ}\text{C}$
	Protection	IP65
	Humidity	Max. 95 % relative
	Vibration	5...25 Hz: $\pm 1.6 \text{ mm}$ 25...100 Hz: 4 g
	Shock	50 g / 11 ms
Mechanical data	Sensor housing	See ordering information
	Filling	Liquid
	Housing	AlSi9Cu3, coated
	Screwed cable gland	Polyamide (PA)
	Installation	any position
	Weight	$\sim 950 \text{ g}$
Microswitch	Rating	See table
	Resistance of insulation	$> 2 \text{ M}\Omega$
	Dielectric strength	1.5 kV
	Life time (mechanical)	1 Mio. cycles
Electrical connection	Cable gland	M20x1.5/HEX24 Cable-Ø 4.0 – 13.0 mmm
	Terminal screw	3 x 1 ... 2.5 mm ² Permitted cable-Ø ranges 4.0 – 13.0 mm

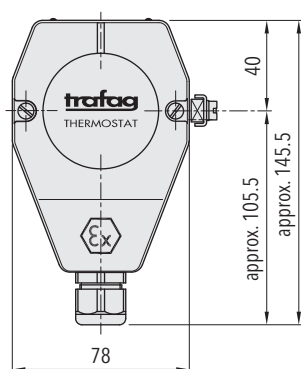
Dimensions



404.XXXX.XXX.27...



414.XXXX.XXX.10...



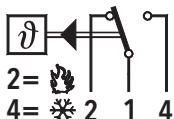
Switching differential typ.

Measuring range	[°C]	-30 ... +40 0 ... +35	-10 ... +35 -10 ... +80 +5 ... +95 +20 ... +110 +20 ... +115	+20 ... +150	+20 ... +230	+40 ... +300 +70 ... +350
Microswitch 91: Switching differential not adjustable	[°C]	2.5	3.5	11	16	20

Electrical data switch

		Rating Resistive Load (Inductive Load)	
Type	Features	AC	DC
91	Standard Ex	250V 5(5) A 125V 5(5) A	250 V 0.25 (0.03) A 125 V 0.5 (0.06) A 75 V 0.75 (0.25) A 50 V 1 (1) A 30 V 5 (3) A 15 V 5 (3) A

Electrical connection



404 / 414

Additional information

Documents	Data sheet	www.trafag.com/H72108
	Instructions	www.trafag.com/H73172