

INDU AMBISTAT

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



Applications

- HVAC

Features

- Compact design
- Rugged housing
- Protection IP65
- Any mounting position possible

Technical Data

Designation of application	Industrial room thermostat	Switching differential	Adjustable / not adjustable
Measuring range	-30°C ... +30°C to 0°C ... +60°C	Repeatability	± 0.5 % FS typ.
Output signal	Floating change-over contact	Approval / conformity	EN60730-1/ EN60730-2-9: Typ 2.B.H

05/2024

Data sheet H721160

Subject to change

Ordering information/type code

		XXX	XX	XX	XXXXXX	XX
Custom build code	External adjustment	409				
	Internal adjustment	419				
Microswitch	Small switching differential, not adjustable		10			
	Average switching differential, not adjustable		11			
	With gold plated contacts, switching differential not adjustable		21			
	Adjustable standard switching differential		25			
Range	Range [°C]	Operating temperature [°C]				
	-30 ... +30	-30 ... +40		02		
	-20 ... +40 ²⁾	-30 ... +50		06		
	+5 ... +35 ²⁾	-30 ... +70		10		
	0 ... +60	-30 ... +70		12		
Sensor / Fixing	Sensor: Copper; Fixation: Bracket (open sensor coil)				522.27	
	Sensor: Copper nickel plated; Fixation: Bracket (open sensor coil)				523.27	
Accessories	Switchpoint locking ¹⁾					15
	Switchpoint fixed and sealed upon customer's request ¹⁾					88
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ¹⁾					83
	Switchpoint adjustment please indicate when ordering: - Switchpoint [°C] - Increasing or decreasing					
	Railway version IEC 61373, category 2					28
	Outdoor application (vented)					44

¹⁾ Only with type 419, internal adjustment

²⁾ Do not use for new designs. Will be phased out in 2024.

Standard products (extra short lead time)

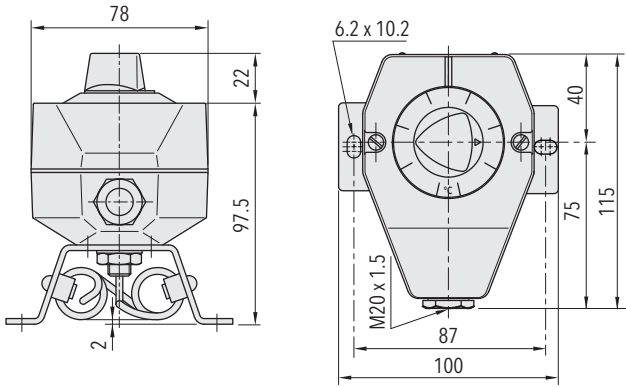
Product No.	Type Code	Temperature range [°C]	Switching differential [°C]	Operating temperature [°C]
IA33	409 2502 522 27	-30 ... +30	0.7 ... 6 (adjustable)	-30 ... +40
IA35	409 2510 522 27	+5 ... +35	0.7 ... 6 (adjustable)	-30 ... +50
IA60	409 2512 522 27	0 ... +60	0.7 ... 6 (adjustable)	-30 ... +70
IAS33	419 2502 522 27	-30 ... +30	0.7 ... 6 (adjustable)	-30 ... +40
IAS35	419 2510 522 27	+5 ... +35	0.7 ... 6 (adjustable)	-30 ... +50
IAS60	419 2512 522 27	0 ... +60	0.7 ... 6 (adjustable)	-30 ... +70

Specifications		
Accuracy	Repeatability	$\pm 0.5\%$ FS typ.
	Scale accuracy typ.	$\pm 2\%$ FS typ.
	Switching differential	See table
Environmental conditions	Ambient temperature	see ordering information
	Storage temperature	Range $\leq +40^\circ\text{C}$: $-30 \dots +50^\circ\text{C}$ Range $> +40^\circ\text{C}$: $-30 \dots +85^\circ\text{C}$
	Protection	IP65
	Humidity	Max. 95% relative
Mechanical Data	Sensor housing	See ordering information
	Filling	Liquid
	Housing	AlSi9Cu3, coated
	Screwed cable gland	Brass nickel plated
	Installation	any position
	Weight	~ 950 g
Microswitch	Rating	See table
	Resistance of insulation	$> 2\text{ M}\Omega$
	Dielectric strength	$U \leq 250\text{V}$: 1.45 kV / $U \leq 500\text{V}$: 2 kV terminal ground
	Life time (mechanical)	Microswitch 10/11/25: 20 Mio. cycles Microswitch 21: 0.5 Mio. cycles
Electrical connection	Cable gland	M20x1.5 Cable- \varnothing 4...10 mm
	Terminal screw	3 x 1...2.5 mm ²

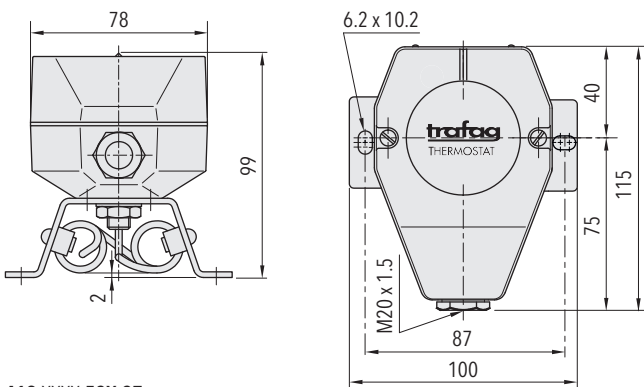
Additional information

Documents	Data sheet	www.trafag.com/H72116
	Instructions	www.trafag.com/H73111

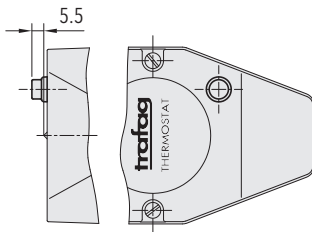
Dimensions



409.XXXX.52X.27...



419.XXXX.52X.27...

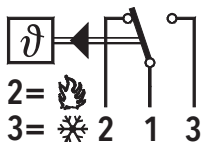


Accessory 14

Switching differential typ.		
Range	[°C]	-30 ... +30 -20 ... +40 +5 ... +35 0 ... +60
Microswitch 10 Switching differential (fixed value, not adjustable)	[°C]	0.3
Microswitch 11 Switching differential (fixed value, not adjustable)	[°C]	0.7
Microswitch 21 Switching differential (fixed value, not adjustable)	[°C]	0.7
Microswitch 25 Switching differential (adjustable value)	[°C]	0.7 ... 6

Electrical data switch			
Type	Features	Rating	
		Resistive Load (Inductive Load)	
		AC	DC
10	Small switching differential, not adjustable	125 V, 10 (1.5) A 250 V, 10 (1.25) A	250 V, 0.2 (0.02) A 125 V, 0.4 (0.03) A 30 V, 2 (1) A 14 V, 15 (2.5) A
11	Average switching differential, not adjustable	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25(0.03) A 125 V, 0.5(0.05) A 30 V, 6 (1.5) A 14 V, 15 (1.5) A
21	Gold plated contacts, not adjustable	24 V, 0.1(0.1) A 12 V, 1 (1) A 5 V, 2 (2) A	24 V, 0.1(0.1) A 12 V, 1 (1) A 5 V, 2 (2) A
25	Adjustable standard switching differential	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25(0.03) A 125 V, 0.5(0.05) A 30 V, 6 (1.5) A 14 V, 15 (2.5) A

Electrical Connection



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