

INDU AMBISTAT

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for the 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 ... +30°C to 0 ... +60°C	Repeatability	± 0.5 % FS typ.
Output signal	Floating change-over contact	Approval	EN60730-1/ EN60730-2-9: Typ 2.B.H

10/2015

Data sheet H72116h

Subject to change

Ordering information/type code

		XXX	XX	XX	XXXXXXXXXX	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, not adjustable		21			
	Adjustable standard switching differential		25			
Range	Range [°C]	Operating temperature [°C]				
	-30 ... +30	-30 ... +40		02		
	-20 ... +40	-30 ... +50		06		
	+5 ... +35	-30 ... +70		10		
	0 ... +60	-30 ... +70		12		
Sensor ¹⁾ / Fixing ²⁾	Sensor: Copper; Fixation: Bracket (open sensor coil)				522.27	
	Sensor: Copper nickel plated; Fixation: Bracket (open sensor coil)				523.27	
	Sensor: Copper; Fixation: Bracket, with protection tube L=215mm, steel nickel plated				422.27.2743.0215	
	Sensor: Copper nickel plated; Fixation: Bracket, with protection tube L=215mm, steel nickel plated				423.27.2743.0215	
Accessories	Signal lamp					14
	Set blocking ³⁾					15
	Switchpoint fixed and sealed upon customer's request ³⁾					88
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ³⁾					83
	Switchpoint adjustment please indicate when ordering:					
	- Switchpoint [bar]					
	- Increasing or decreasing					
	Railway version (UIC 616)					28
	Outdoor usage (aerated)					44

¹⁾ See data sheet H72114/H72163

²⁾ See data sheet H72106

³⁾ Only with type 419, internal adjustment

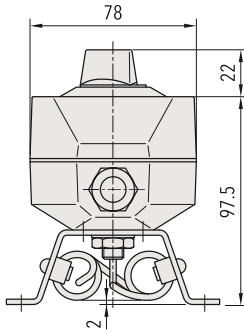
Standard products (extra short lead time)

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

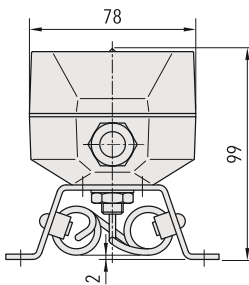
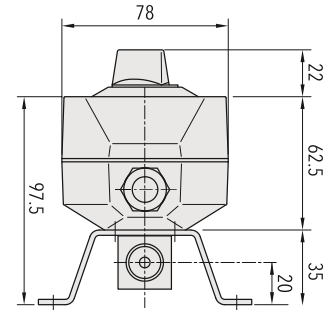
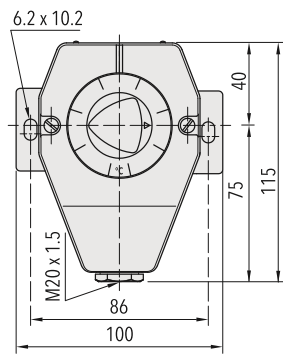
Specifications		
Accuracy	Repeatability	$\pm 0.5 \% \text{ FS typ.}$
	Scale accuracy typ.	$\pm 2 \% \text{ FS typ.}$
	Switching differential	See table
Environmental conditions	Ambient temperature	see ordering information
	Storage temperature	Range $\leq +40^{\circ}\text{C}$: $-30 \dots +50^{\circ}\text{C}$ 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	$\sim 950 \text{ g}$
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	$3 \times 1 \dots 2.5 \text{ mm}^2$

Additional information		
Documents	Data sheet	www.trafag.com/H72116
	Instructions	www.trafag.com/H73111
	Flyer	www.trafag.com/H70964

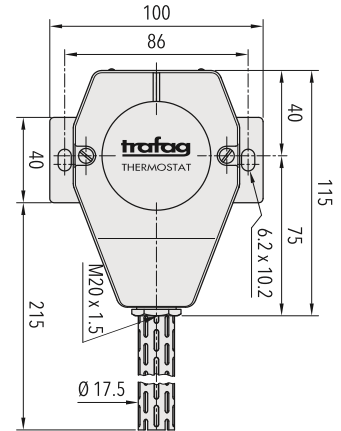
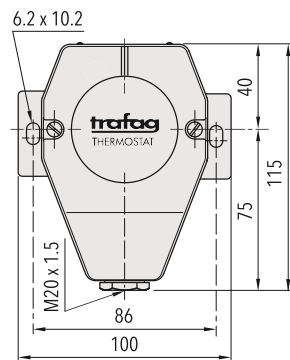
Dimensions



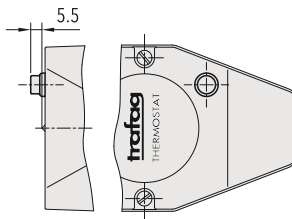
409.XXXX.52X.27 ...



419.XXXX.52X.27 ...



4X9.XXXX.42X.27.2743.0215



Accessory 14

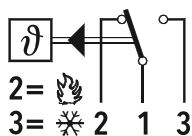
Switching differential typ.

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



409 / 419