

ALTERO 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
- Refrigeration

Features

- With 1 adjustable step between 2 stages
- Short response time
- Protection IP54
- Electrical connection on terminal screw

Technical Data

| | | | |
|----------------------------|----------------------------------|------------------------|-----------------------------------|
| Designation of application | Multistage room thermostat | Switching differential | Not adjustable |
| Measuring range | -45°C ... +15°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 |

02/2021

Data sheet H72137n

Subject to change

Ordering information/type code

| | | XXX | XX | XX | XXX | XX | XX |
|-----------------------------|--|-----------------------------------|----|----|-----|----|----|
| Custom build code | Internal adjustment | 198 | | | | | |
| | External adjustment | 199 | | | | | |
| Microswitch | Small switching differential, not adjustable | | 10 | | | | |
| | Average switching differential, not adjustable | | 11 | | | | |
| | With gold plated contacts, switching differential not adjustable | | 21 | | | | |
| Range | Range [°C] | Operating temperature [°C] | | | | | |
| | -45 ... +15 ¹⁾ | -45 ... +30 | | 05 | | | |
| | -30 ... +30 | -30 ... +40 | | 02 | | | |
| | -20 ... +40 ¹⁾ | -30 ... +50 | | 06 | | | |
| | 0 ... +30 | -30 ... +50 | | 03 | | | |
| | +10 ... +40 | -30 ... +70 | | 04 | | | |
| | 0 ... +60 | -30 ... +70 | | 12 | | | |
| Sensor | Copper | | | | 402 | | |
| | Copper nickel plated | | | | 403 | | |
| Fixing ²⁾ | Mounting bracket | | | | | | 19 |
| 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 |
| | Desired stage difference to be indicated when ordering (without indication = switches synchronous) Switch 1 on scale, difference switch 2 to scale -6 °C...+15 °C | | | | | | |
| | Minimum distance between switches: Switch 10: ±1 °C Switch 11/21: ±2 °C | | | | | | |

¹⁾ Only with type 198, internal adjustment

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

Standard products (extra short lead time)

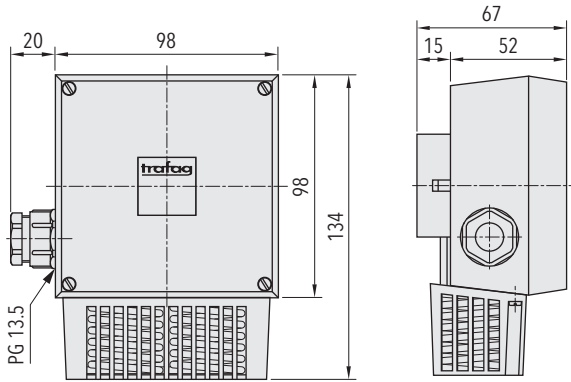
| Product No. | Type Code | Temperature range [°C] | Switching differential [°C] | Smallest stage difference [°C] | Largest stage difference [°C] | Operating temperature [°C] |
|-------------|-----------------|------------------------|-----------------------------|--------------------------------|-------------------------------|----------------------------|
| A230 | 199 1103 402 19 | 0 ... +30 | 0.7 (fixed) | -6 | 15 | -30 ... +50 |
| A233 | 199 1102 402 19 | -30 ... +30 | 0.7 (fixed) | -6 | 15 | -30 ... +40 |
| A260 | 199 1112 402 19 | 0 ... +60 | 0.7 (fixed) | -6 | 15 | -30 ... +70 |
| A2S30 | 198 1103 402 19 | 0 ... +30 | 0.7 (fixed) | -6 | 15 | -30 ... +50 |
| A2S33 | 198 1102 402 19 | -30 ... +30 | 0.7 (fixed) | -6 | 15 | -30 ... +40 |
| A2S60 | 198 1112 402 19 | 0 ... +60 | 0.7 (fixed) | -6 | 15 | -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 $< +40^{\circ}\text{C}$: $-30\dots+50^{\circ}\text{C}$ Range $> +40^{\circ}\text{C}$: $-30\dots+85^{\circ}\text{C}$ |
| | Protection | IP54 |
| | Humidity | Max. 95 % relative |
| Mechanical Data | Sensor housing | see ordering information |
| | Filling | Liquid |
| | Housing | Noryl |
| | Screwed cable gland | PA, Polyamid |
| | Installation | any position |
| | Weight | $\sim 480\text{ g}$ |
| 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: 20 Mio. cycles Microswitch 21: 0.5 Mio. cycles |
| Electrical connection | Cable gland | PG13.5 Cable- \varnothing 5...12.5 mm |
| | Terminal screw | $6 \times 1\dots 2.5\text{ mm}^2$ |

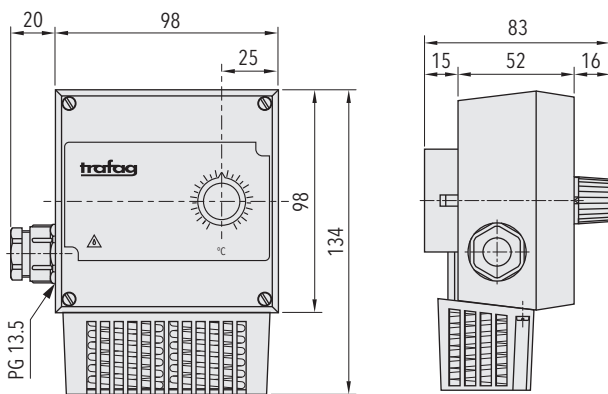
Additional information

| | | |
|------------------|--------------|--|
| Documents | Data sheet | www.trafag.com/H72137 |
| | Instructions | www.trafag.com/H70311 |
| | Flyer | www.trafag.com/H70962 |

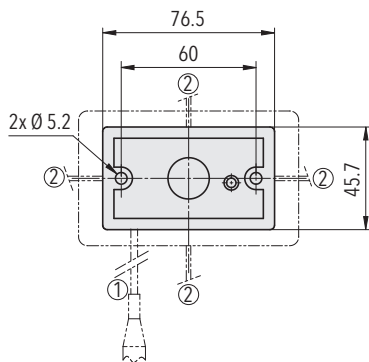
Dimensions



198.XXXX.XXX.XX.XX



199.XXXX.XXX.XX.XX



19X.XXXX.XXX.19.XX

Switching differential typ.

| | | |
|---|------|--|
| Range | [°C] | -45 ... +15 -30 ... +30 -20 ... +40 0 ... +30 +10 ... +40 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 |

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 |

Electrical Connection

