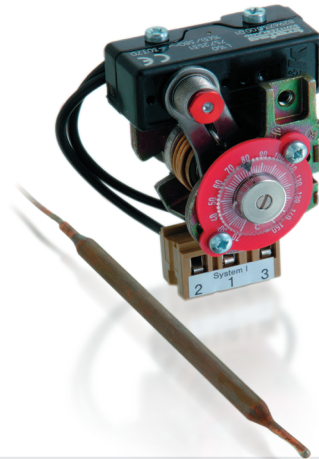


# LABOR LIMISTAT

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



## Applications

- Machine tools

## Features

- Without housing
- Short response time
- Electrical connection on terminal screw

02/2025

Data sheet H72124r

Subject to change

### Technical Data

|                            |                                                       |                        |                                   |
|----------------------------|-------------------------------------------------------|------------------------|-----------------------------------|
| Designation of application | Remote sensing thermostat with limiter, skeleton type | 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  | EN60730-1/ EN60730-2-9: Typ 2.B.H |

## Ordering information/type code

|                              |                                                                                                                                                      |                            |    |                      |                            |    |            |    |    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----|----------------------|----------------------------|----|------------|----|----|
|                              |                                                                                                                                                      | 755 .                      | XX | XX                   | XXX                        | XX | XXXXXXXXXX | XX | XX |
| <b>Microswitch</b>           | For increasing temperatures, screw terminal                                                                                                          | 12                         |    |                      |                            |    |            |    |    |
| <b>Range</b>                 | <b>Range</b><br>[°C]                                                                                                                                 | <b>Sensor max.</b><br>[°C] |    | <b>Range</b><br>[°C] | <b>Sensor max.</b><br>[°C] |    |            |    |    |
|                              | -30 ... +40                                                                                                                                          | 45                         | 01 | +20 ... +150         | 165                        | 31 |            |    |    |
|                              | 0 ... +35                                                                                                                                            | 70                         | 09 | +20 ... +230         | 250                        | 24 |            |    |    |
|                              | -10 ... +35                                                                                                                                          | 70                         | 94 | +40 ... +300         | 330                        | 53 |            |    |    |
|                              | +5 ... +95                                                                                                                                           | 105                        | 20 | +70 ... +350         | 380                        | 54 |            |    |    |
|                              | +20 ... +110                                                                                                                                         | 115                        | 23 |                      |                            |    |            |    |    |
| <b>Sensor</b> <sup>1)</sup>  | See table "Ordering-no. for sensors"                                                                                                                 |                            |    | XXX                  |                            |    |            |    |    |
| <b>Fixing</b> <sup>2)</sup>  | Nut M10 (for remote sensing version)                                                                                                                 |                            |    |                      |                            | 10 |            |    |    |
|                              | Angle bracket (for remote sensing version)                                                                                                           |                            |    |                      |                            | 17 |            |    |    |
|                              | Bracket (for remote sensing version)                                                                                                                 |                            |    |                      |                            | 27 |            |    |    |
|                              | Grubscrew locked, lateral (direct mounting version) <sup>4)</sup>                                                                                    |                            |    |                      |                            | 12 |            |    |    |
|                              | Cap nut (for direct mounting version) <sup>4)</sup>                                                                                                  |                            |    |                      |                            | 14 |            |    |    |
|                              | Grubscrew locked with spacer (cooling element) (for direct mounting version)                                                                         |                            |    |                      |                            | 18 |            |    |    |
| <b>Protection tube</b>       | See data sheet <a href="http://www.trafag.com/H72114">www.trafag.com/H72114</a> and <a href="http://www.trafag.com/H72163">www.trafag.com/H72163</a> |                            |    |                      |                            |    | XXXX.XXXX  |    |    |
| <b>Accessories</b>           | Switchpoint locking                                                                                                                                  |                            |    |                      |                            |    |            |    | 15 |
|                              | Switchpoint fixed and sealed upon customer's request                                                                                                 |                            |    |                      |                            |    |            |    | 88 |
|                              | Switchpoint preset upon customer's request, no guarantee on switching accuracy                                                                       |                            |    |                      |                            |    |            |    | 83 |
|                              | Switchpoint adjustment please indicate when ordering:<br>- Switchpoint [°C]<br>- Increasing or decreasing                                            |                            |    |                      |                            |    |            |    |    |
|                              | Capacitor over Pin 1-4                                                                                                                               |                            |    |                      |                            |    |            |    | 13 |
|                              | Railway version IEC 61373, category 2                                                                                                                |                            |    |                      |                            |    |            |    | 28 |
|                              | Capillary tube protection: Flexible metal tube, brass nickel-plated                                                                                  |                            |    |                      |                            |    |            |    | 90 |
|                              | Capillary tube protection: Flexible metal tube 1.4301 (AISI 304)                                                                                     |                            |    |                      |                            |    |            |    | 91 |
|                              | Capillary tube protection: PVC tube                                                                                                                  |                            |    |                      |                            |    |            |    | 92 |
|                              |                                                                                                                                                      |                            |    |                      |                            |    |            |    |    |
| <b>Capillary tube length</b> | Capillary tube length up to 5000 mm (no specification required for direct mounting on protection tube) L=XXXX <sup>3)</sup>                          |                            |    |                      |                            |    |            |    |    |
|                              |                                                                                                                                                      |                            |    |                      |                            |    |            |    |    |

<sup>1)</sup> See data sheet [www.trafag.com/H72114](http://www.trafag.com/H72114) and [www.trafag.com/H72163](http://www.trafag.com/H72163)

<sup>2)</sup> See data sheet [www.trafag.com/H72106](http://www.trafag.com/H72106)

<sup>3)</sup> Overlengths upon request

<sup>4)</sup> Media max. 150°C in continuous operation

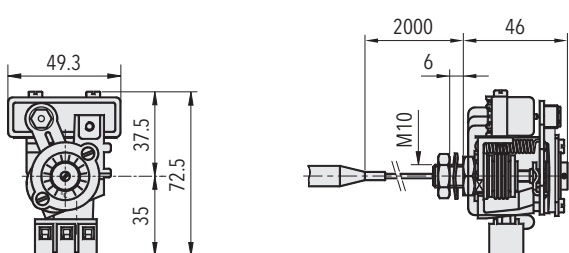
## Ordering no. for sensors

| Range      | Sensor-Ø | Sensor material |        |
|------------|----------|-----------------|--------|
|            |          | Stainless steel | Copper |
| 01, 09     | 7.0 mm   | 421             | 422    |
|            | 9.0 mm   | –               | 432    |
| 94, 20, 23 | 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    |

## Standard products (extra short lead time)

| Product No. | Type Code       | Sensor material   | Temperature range [°C] | Sensor max. [°C] |
|-------------|-----------------|-------------------|------------------------|------------------|
| L95R        | 755 1220 322 10 | Copper            | +5 ... +95             | 105              |
| L150R       | 755 1231 122 10 | Copper            | +20 ... +150           | 165              |
| L230SR      | 755 1224 021 10 | 1.4435 (AISI316L) | +20 ... +230           | 250              |
| L350SR      | 755 1254 021 10 | 1.4435 (AISI316L) | +70 ... +350           | 380              |

## Dimensions



755.12XX.XXX.XX...

| Specifications           |                          |                                                                                                                                                                                               |
|--------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy                 | Repeatability            | ± 0.5 % FS typ.                                                                                                                                                                               |
|                          | Scale accuracy typ.      | ± 2 % FS typ.                                                                                                                                                                                 |
|                          | Switching differential   | See table                                                                                                                                                                                     |
|                          | Switching point          | Temperature compensated with bimetal switch lever                                                                                                                                             |
| Environmental conditions | Ambient temperature      | Range ≤ +45°C: -30°C ... +50°C<br>Range +45°C ... +250°C: -30°C ... +70°C<br>Range > + 250°C: -10°C ... +70°C<br>(Important: Temperature at sensor may not exceed maximum sensor temperature) |
|                          | Storage temperature      | -20°C ... +40°C                                                                                                                                                                               |
|                          | Protection               | IP00                                                                                                                                                                                          |
|                          | Humidity                 | Max. 95 % relative                                                                                                                                                                            |
| Mechanical data          | Filling                  | Liquid                                                                                                                                                                                        |
|                          | Housing                  | See ordering information                                                                                                                                                                      |
| Microswitch              | Rating                   | See table                                                                                                                                                                                     |
|                          | Resistance of insulation | > 2 MΩ                                                                                                                                                                                        |
|                          | Dielectric strength      | 2 kV terminal ground                                                                                                                                                                          |
|                          | Life time (mechanical)   | 0.3 Mio. cycles                                                                                                                                                                               |
| Electrical connection    | Terminal screw           | 3 x 1 ... 2.5 mm²                                                                                                                                                                             |

| Additional information |              |                                                                  |
|------------------------|--------------|------------------------------------------------------------------|
| Documents              | Data sheet   | <a href="http://www.trafag.com/H72124">www.trafag.com/H72124</a> |
|                        | Instructions | <a href="http://www.trafag.com/H70211">www.trafag.com/H70211</a> |

## Switching differential typ.

| Measuring range                                                 | [°C] | -30 ... +40<br>0 ... +35 | -10 ... +35<br>+5 ... +95<br>+20 ... +110 | +20 ... +150 | +20 ... +230 | +40 ... +300<br>+70 ... +350 |
|-----------------------------------------------------------------|------|--------------------------|-------------------------------------------|--------------|--------------|------------------------------|
| <b>Microswitch 12:</b><br>Switching differential not adjustable | [°C] | 2.0                      | 6.0                                       | 7.5          | 9.0          | 12.0                         |

## Electrical data switch

| Type      | Features                                                  | Rating<br>Resistive Load (Inductive Load)                     |                                                                                   |
|-----------|-----------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------|
|           |                                                           | AC                                                            | DC                                                                                |
| <b>12</b> | Average switching differential, high vibration resistance | 125 V, 15 (1.5) A<br>250 V, 15 (1.25) A<br>500 V, 10 (0.75) A | 250 V, 0.3 (0.2) A<br>125 V, 0.75 (0.4) A<br>30 V, 15 (1.5) A<br>14 V, 15 (1.5) A |

## Electrical Connection



With accessory 13