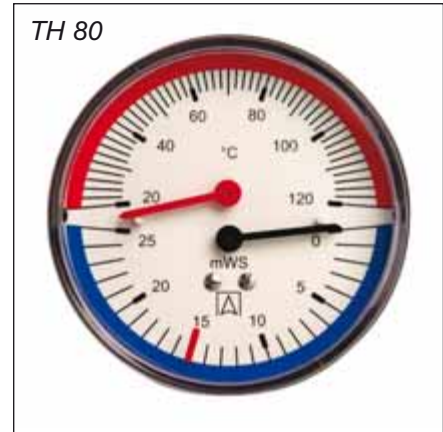


# Combined thermometer – pressure gauge/ thermo-hydrometer



## Application

For liquid media which are not highly viscous, do not crystallize and do not attack copper alloys. For combined measurement of pressure and temperature, especially in heating systems and heating boilers.

## Description

The combined thermometer-pressure gauge/thermo-hydrometer consists of a Bourdon tube system for pressure measurement and a bimetal system for simultaneous temperature measurement. Both values are measured and displayed by a single gauge. A self-closing mounting valve enables easy replacement of the gauge without having to drain the system. An optional M 18 x 1 to G<sup>1</sup>/<sub>4</sub> adapter is available if the combined thermometer-pressure gauge has to be mounted into an existing thermo-well with M 18 x 1 female thread.

## Type

D 1/D 2

## Nominal size

63 – 80

## Accuracy class

Pressure gauge/hydrometer:  
2.5 (EN 837-1/6)

Thermometer:  
2 (EN 13190)

## Application area

Pressure gauge/hydrometer:

Static load:

$\frac{3}{4}$  x full scale value

Dynamic load:

$\frac{2}{3}$  x full scale value

Short term:

full scale value

Thermometer:

20/120 °C

## Ranges

Pressure gauge/hydrometer:

0/4 bar and 0/6mWS to 0/60 mWS

Thermometer:

20/120 °C

## Operating temperature range

Medium:  $T_{max} = +120$  °C

Ambient:  $T_{min} = -20$  °C

$T_{max} = +60$  °C

## Temperature performance

Pressure gauge/hydrometer:

Indication error when the temperature of the measuring element deviates from 20 °C:

rising temp. approx.  $\pm 0.4$  %/10 K

falling temp. approx.  $\pm 0.4$  %/10 K

percentage of full scale value

## Protection

IP 32 (EN 60529)

## Standard version

### Connection

Brass, centre back G<sup>1</sup>/<sub>4</sub>B with mounting valve G<sup>1</sup>/<sub>4</sub> to R<sup>1</sup>/<sub>2</sub>

### Measuring element

Pressure: Bourdon tube element, copper alloy

Temperature: bimetal element

### Dial

Plastic, white

Dial marking black

with red/blue circular arcs

### Pointer

Pressure gauge/hydrometer:

Plastic, black

Thermometer:

Plastic, red

### Housing

D1 – plastic

D2 – black sheet steel

### Front glass

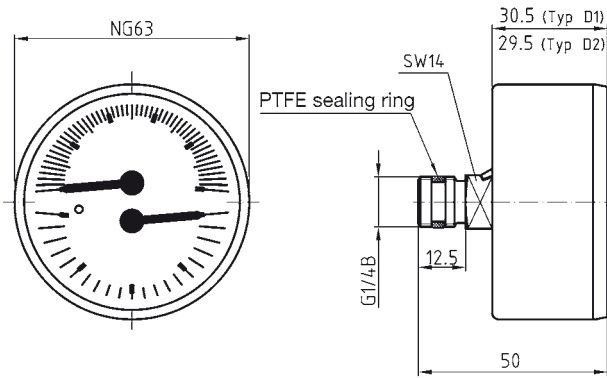
Clip-in plastic with adjustable red mark

## Options

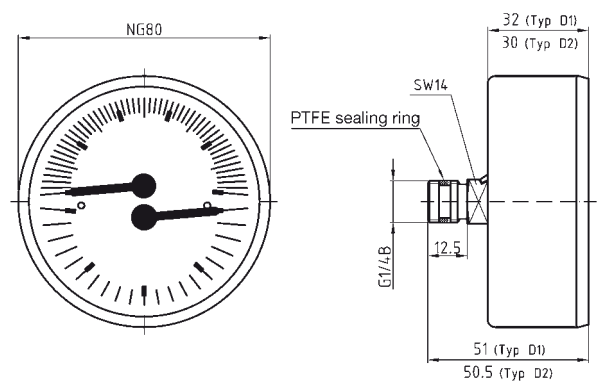
- Adapter M 18 x 1 to G<sup>1</sup>/<sub>4</sub>
- Special scales

# Combined thermometer – pressure gauge/ thermo-hydrometer

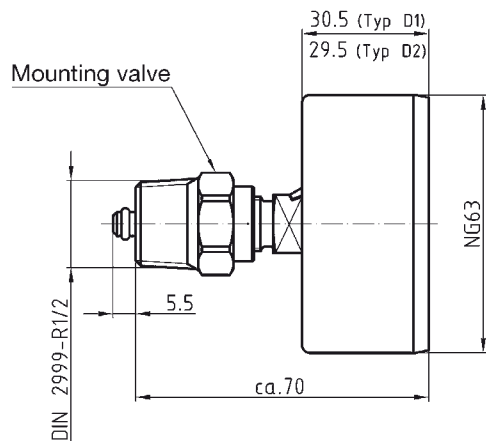
TM 63



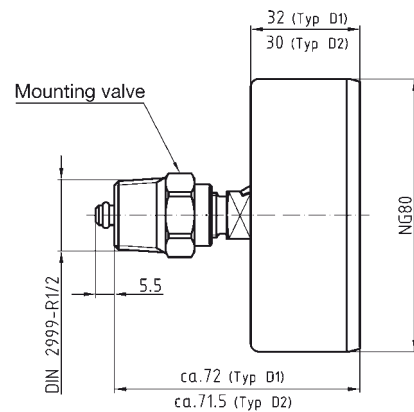
TM 80



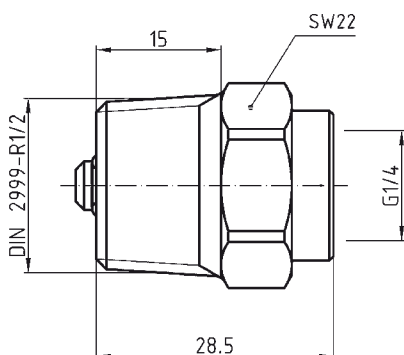
TM 63 with mounting valve



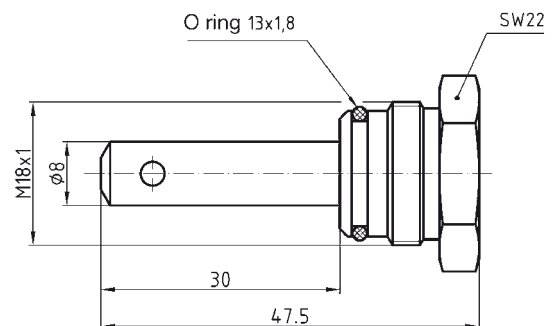
TM 63 with mounting valve



Mounting valve









Adapter



# Combined thermometer – pressure gauge/ thermo-hydrometer

DG: G

Type	TM 63,D211	TM 63,D211		TM 80,D111	TM 80,D211	TM 80,D211	TH 80,D211
Version							
Housing-Ø	63	63		80	80	80	80
Housing	Black steel sheet			Plastic	Black steel sheet		
Accuracy class	Pressure gauge/hydrometer 2.5 – thermometer 2						
Connection	G <sup>1</sup> / <sub>4</sub> B with mounting valve G <sup>1</sup> / <sub>4</sub> to R <sup>1</sup> / <sub>2</sub>						
Adapter	without	with		without	without	with	without
Range	Part no.	Part no.		Part no.	Part no.	Part no.	Part no.
<b>Price €</b>							
0/4 bar 20/120 °C	63318	<b>63346</b>		63317	<b>63341</b>	63348	---
Range							
0/6 mWS 20/120 °C	---	---		---	---	---	<b>63311</b>
0/10 mWS 20/120 °C	---	---		---	---	---	<b>63312</b>
0/16 mWS 20/120 °C	---	---		---	---	---	<b>63313</b>
0/25 mWS 20/120 °C	---	---		---	---	---	<b>63314</b>
0/40 mWS 20/120 °C	---	---		---	---	---	<b>63315</b>
0/60 mWS 20/120 °C	---	---		---	---	---	<b>63316</b>

Minimum order quantity for non-stock items = 100 pieces

## Spare parts

DG: G	Part no.	Price €
Mounting valve G <sup>1</sup> / <sub>4</sub> to R <sup>1</sup> / <sub>2</sub> , brass	05 00 25 12	
Adapter G <sup>1</sup> / <sub>4</sub> to M 18 x 1, brass	05 00 40 01	