

# Humidity transmitter RF 90

## Rod shape



## Wall mounting



## Duct mounting



## Features

- Capacity measurement for non aggressive gases
- Humidity output : 0...10 V or 4...20 mA = 0...100 % r.h.
- Temperature output : 0...10 V or 4...20 mA (Pt100)  
 RF90 -1 and 3 : rod shape and duct mounting = -30 ... 70 °C (-22 ... 158 °F)  
 RF90 -2 : wall mounting = -20 ... 80 °C (-4 ... 176 °F)
- Good dynamic performance
- Resistance to dew formation
- Humidity output : measuring element FE09/1; accuracy ±2 % r.h.
- Temperature output : measuring element RTD Pt100 class B acc. to DIN IEC 751; accuracy ± 0,3 K
- Response time : 60 s for air speed 1m/s to humidity and temperature
- Protection  
 Sensor : IP30 (standard with gauze filter)  
 Case : IP54  
 Connection head : IP65
- Supply voltage  
 for current output : 4 ... 20 mA, 12 ... 30 V DC  
 for voltage output : 0 ... 10 V , 24 VDC ±10 %
- Operating temperature : -40 ... +80 °C (-40 ... 176°F)

### Ordering code:

RF90 -  -

#### 1. Model

- 1 rod shape with 1.5m connection cable
- 2 wall mounting
- 3 duct mounting

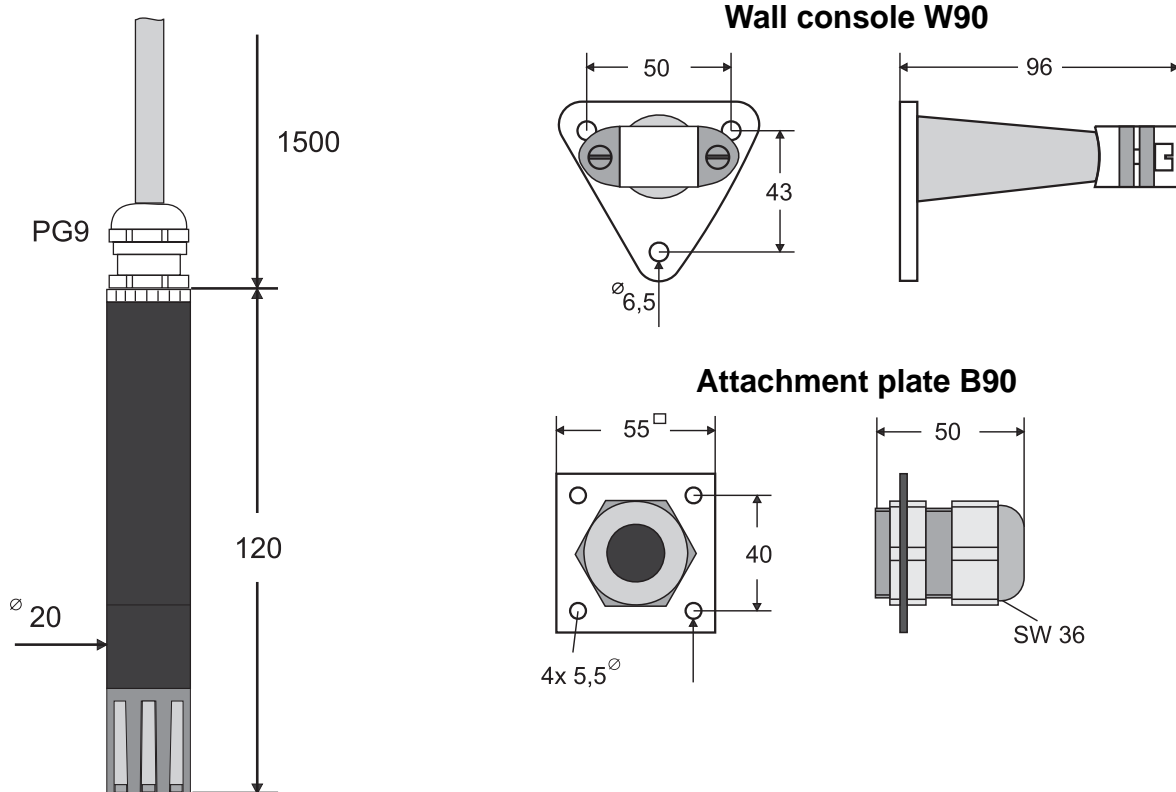
#### 2. Output

- 1 rel. humidity, 0 ... 10 V DC
- 2 rel. humidity 4 ... 20 mA
- 3 rel. humidity & temperature 0 ... 10 V DC
- 4 rel. humidity & temperature 4 ... 20 mA

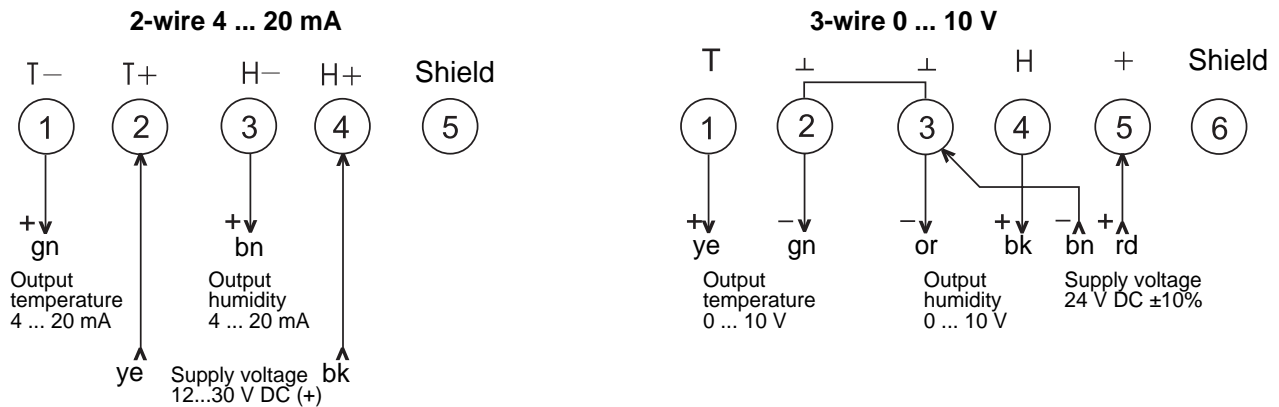
#### Accessories

Attachment plate	B90
Console for wall mounting	W90
Protection filter, sintered	F90 (for dusty ambient)
Protection filter, Gore-Tex	FG90 (for outdoor using)

## RF90-1-X, rod shape



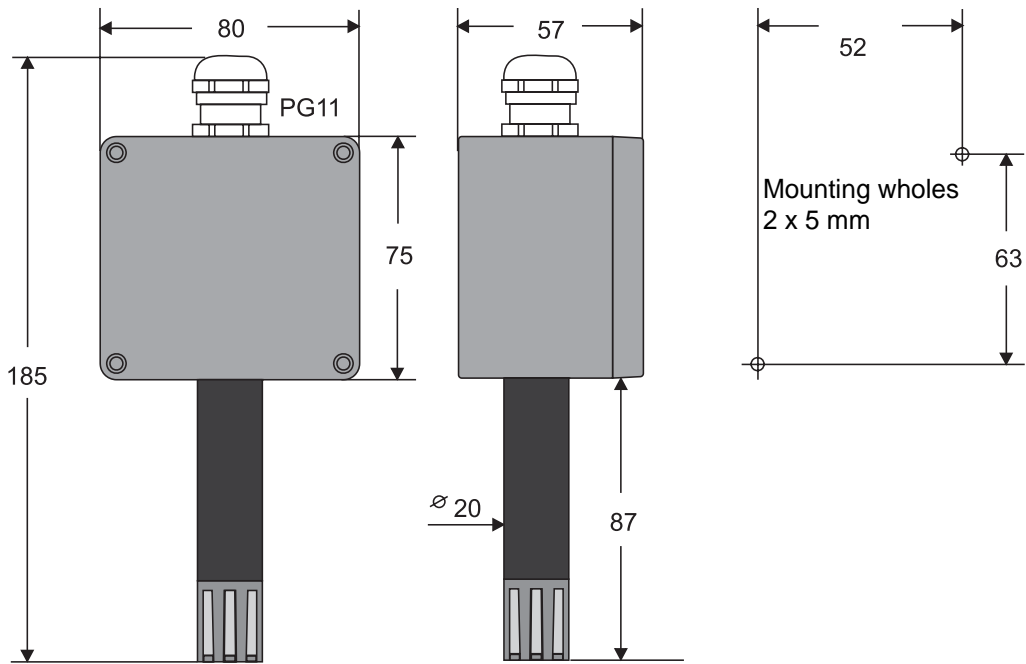
## Connection diagram



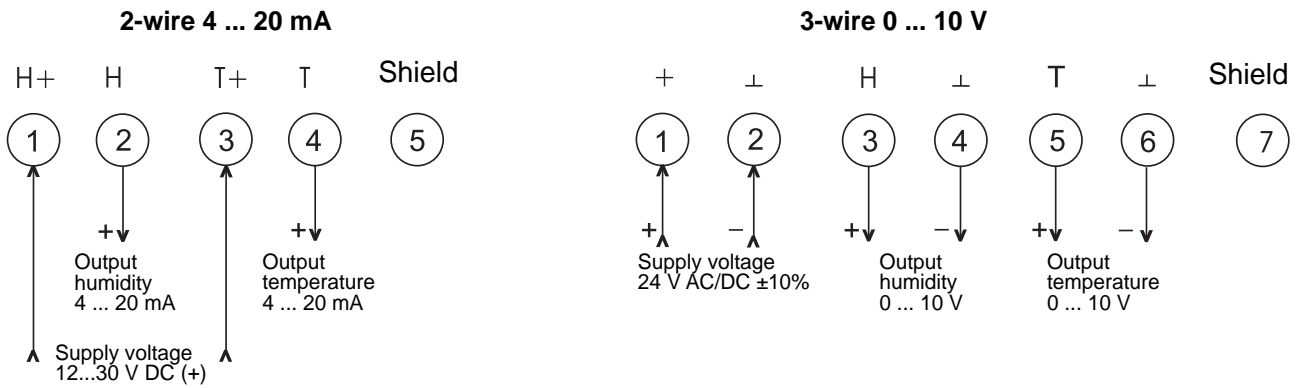
## Cable color

Terminal	2-wire 4 ... 20mA	description	3-wire 0 ... 10 V	description
1	green	output temperature	yellow	output temperature
2	yellow	U <sub>c</sub> 12 ... 30 V	green	GND
3	brown	output humidity	orange+brown	GND, 0 V U <sub>c</sub>
4	black	U <sub>c</sub> 12 ... 30 V	black	output humidity
5	shield		red	+24 V U <sub>c</sub>
6			shield	

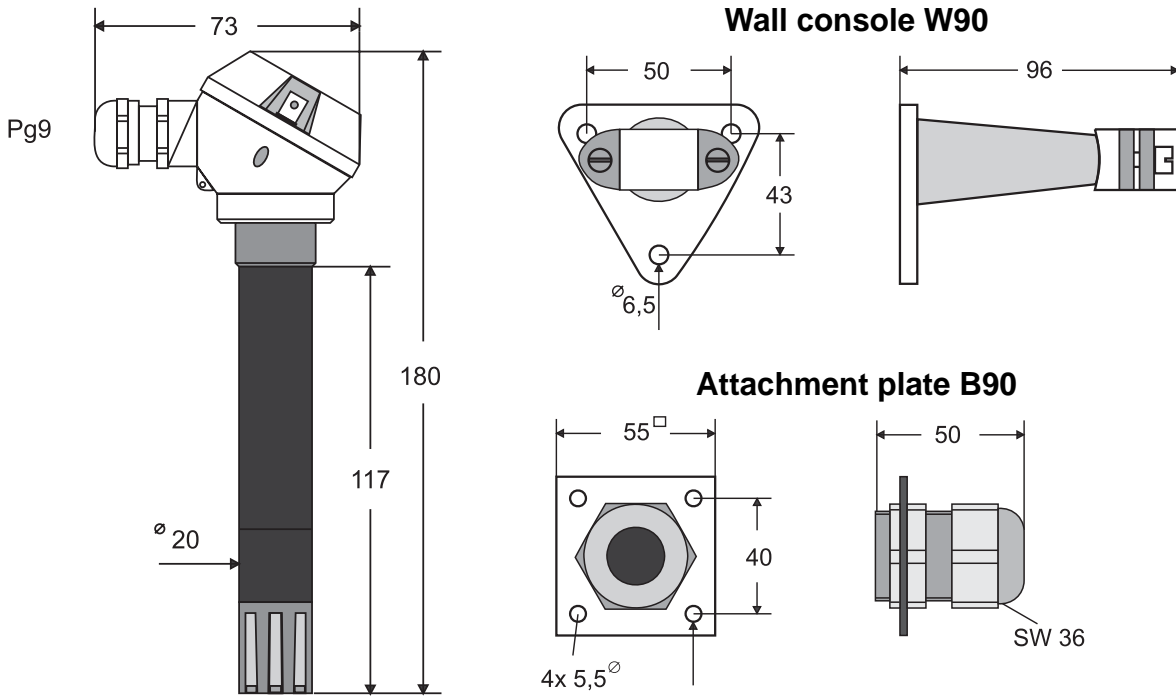
**RF90-2-X, wall mounting**



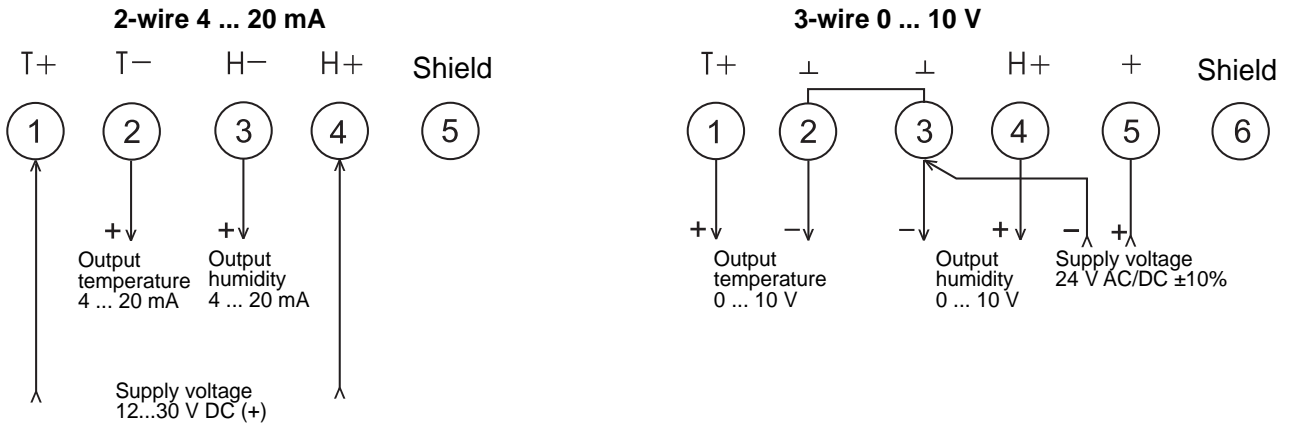
**Connection diagram**



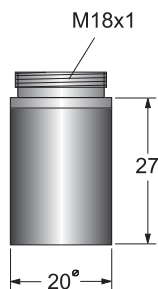
## RF90-3-X, duct mounting



## Connection diagram



Protection filter F90 sintered



Protection filter FG90 GoreTex

