

**Room humidity and temperature sensor ($\pm 2.0\%$), on-wall,
for temperature, relative / absolute humidity, dew point, mixture ratio, enthalpy,
calibratable, with Modbus connection**

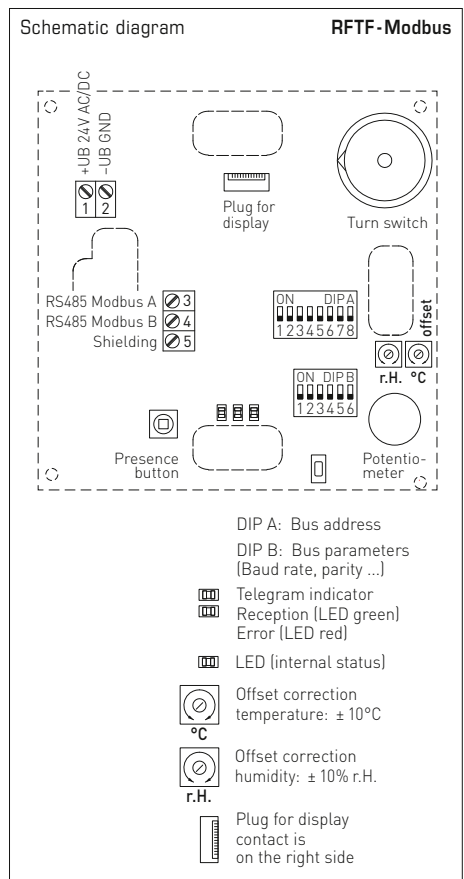
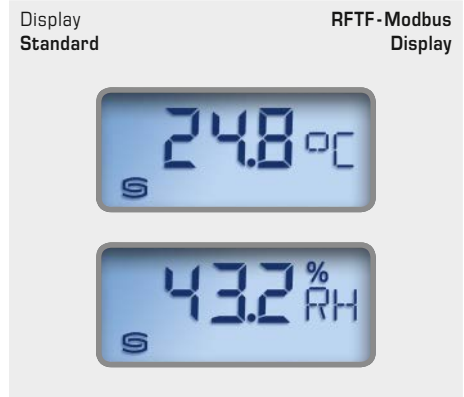
**RFTF-Modbus
Standard**

The calibratable room sensor **HYGRASGARD® RFTF-Modbus** with Modbus connection, with/without optional display in an elegant housing (Baldur 2) measures the relative humidity and temperature of the room air. These measurands are used to internally calculate various parameters. The Modbus can be used to retrieve the following parameters: relative humidity [% r. H.], absolute humidity [g/m³], mixture ratio [g/kg], dew point temperature [°C], enthalpy [kJ/kg] (ignoring atmospheric air pressure) and room temperature [°C].



TECHNICAL DATA

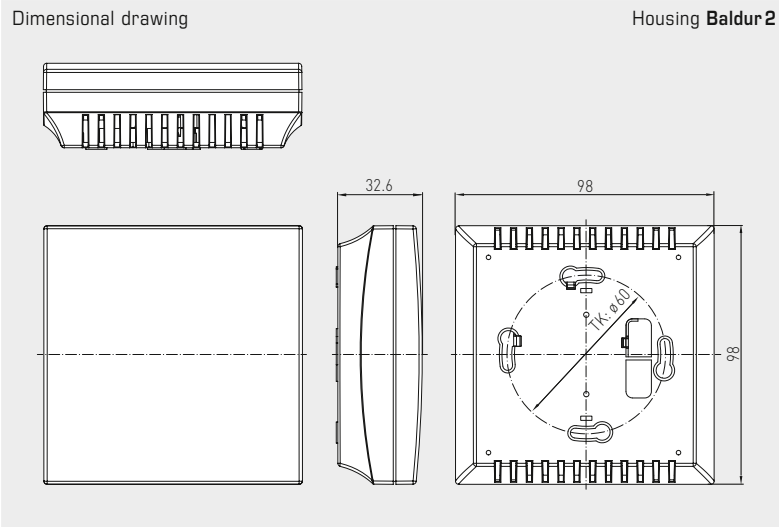
Power supply:	24 V AC ($\pm 20\%$) and 15...36 V DC
Power consumption:	< 1 VA / 24 V DC, < 2.2 VA / 24 V AC
Sensor:	Digital humidity sensor with integrated temperature sensor, low hysteresis, high long-term stability
Data points:	Temperature, relative humidity, absolute humidity, dew point, mixture ratio, enthalpy and setpoint potentiometer, rotary switch and presence button
Measuring range:	0...100% r.H. (humidity) 0...+50 °C (temperature)
Deviation, humidity:	typically $\pm 2.0\%$ (20...80% r. H.) at +25 °C, otherwise $\pm 3.0\%$
Temperature deviation:	typically ± 0.2 K at +25 °C
Zero point offset:	$\pm 10\%$ r.H. (humidity) ± 10 °C (temperature) adjustable using potentiometer
Ambient temperature:	Storage -35...+85 °C; Operation 0...+50 °C
Medium:	clean air and other non-aggressive , non-combustible gases
Bus protocol:	Modbus (RTU mode), address range 0... 247 selectable
Signal filtering:	4 s / 32 s
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010)
Dimensions:	98 x 98 x 33 mm (Baldur 2)
Installation:	wall mounting or on in-wall flush box, \varnothing 55 mm, base with 4 holes, for attachment to vertically or horizontally installed in-wall flush boxes for rear cable entry, with predetermined breaking point for cable entry from top/bottom in case of plain on-wall installation
Long-term stability:	$\pm 1\%$ / year
Permissible air humidity:	< 95% r. H., non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP30 (according to EN 60529)
Standards:	CE conformity according to EMC Directive 2014/30/EU, according to EN 61326
Features:	Display with illumination , two-line, programmable, cutout approx. 36 x 15 mm (W x H), to display actual humidity and temperature or a selectable parameter or an individually programmable display value
ACCESSORIES	see table





S+S REGELTECHNIK

Room humidity and temperature sensor ($\pm 2.0\%$), on-wall,
for temperature, relative / absolute humidity, dew point, mixture ratio, enthalpy,
calibratable, with Modbus connection



RFTF-Modbus
with display



By default, the display alternates between the **actual temperature** and the **actual humidity** (relative humidity). For improved legibility, backlighting is provided.

The Modbus interface allows the display to be **individually** configured both in the 7-segment area and in the dot-matrix area.

The **Modbus configuration** can be used to program an alternative output variable instead of the standard display.

In this case, the first line displays the value and index while the second line displays the corresponding unit.

The index identifies the display type:

- Index 1 = temperature in °C
- Index 2 = setpoint potentiometer in %
- Index 3 = dew point in °C
- Index 4 = relative humidity in % r.H.
- Index 5 = absolute humidity in g/m³
- Index 6 = mixture ratio in g/kg
- Index 7 = enthalpy in kJ/kg

HYGRASGARD® RFTF-Modbus		Room humidity and temperature sensor					
Type / WG01	Measuring Range / Readout	Temperature	Output	Display	Item No.	Price	
RFTF-Modbus							
RFTF-Modbus	0...100 % r. H. (default) 0...80 g / kg (MR) 0...80 g / m ³ (A.H.) 0...85 kJ / kg (ENT.) -20...+80 °C (DP)	0...+50 °C	Modbus		1201-42B6-6000-000	144,81 €	
RFTF-Modbus LCD	0...100 % r. H. (default) 0...80 g / kg (MR) 0...80 g / m ³ (A.H.) 0...85 kJ / kg (ENT.) -20...+80 °C (DP)	0...+50 °C	Modbus	■	1201-42B6-7000-000	178,49 €	
ACCESSORIES							
KA2-Modbus	Communication adapter (with USB and RS485 interface) for system connection (incl. quick-start software)				1906-1200-0000-100	188,70 €	
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination of RS485 networks				1906-1300-0000-100	70,38 €	

Roomoperating humidity and temperature sensor ($\pm 2.0\%$), on-wall,
for temperature, relative / absolute humidity, dew point, mixture ratio, enthalpy,
calibratable, with Modbus connection

The calibratable room sensor **HYGRASGARD® RFTF-Modbus** with Modbus connection, with/without optional display in an elegant housing (BalduR2) measures the relative humidity and temperature of the room air. These measurands are used to internally calculate various parameters. The Modbus can be used to retrieve the following parameters: relative humidity [% r. H.], absolute humidity [g/m³], mixture ratio [g/kg], dew point temperature [°C], enthalpy [kJ/kg] (ignoring atmospheric air pressure) and room temperature [°C].

As operating element you can choose between a potentiometer, a 5-pole rotary switch or a presence button. For the temperature/relative humidity / absolute humidity / dew point / mixture ratio / enthalpy or setpoint output devices with LCD display are optionally available for displaying readings. Operating status can be displayed via a maximum of 5 multi-coloured LEDs. These displays (LCDs), as well as the retrieval of measurement and control values, are controlled via the Modbus interface.

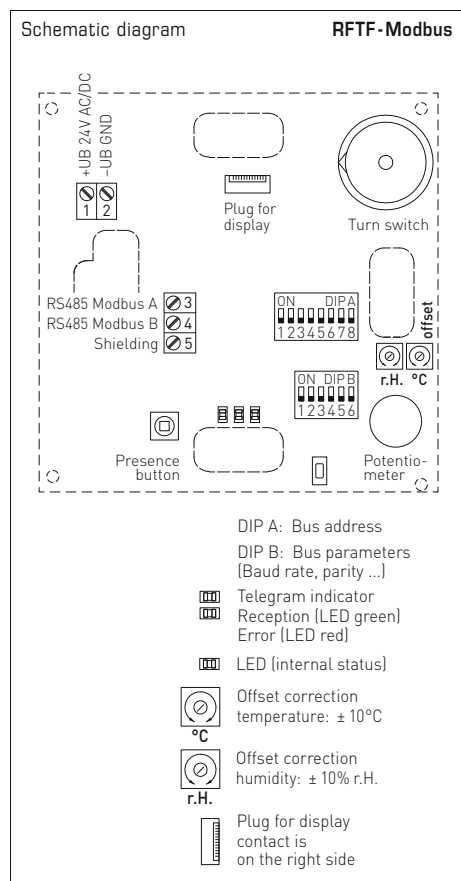
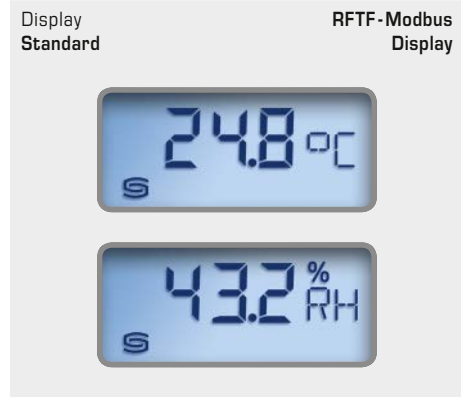
RFTF-Modbus-PTD5 5L

with potentiometer, push-buttons,
rotary switches and LED display



TECHNICAL DATA

Power supply:	24 V AC ($\pm 20\%$) and 15...36 V DC
Power consumption:	< 1 VA / 24 V DC, < 2.2 VA / 24 V AC
Sensor:	Digital humidity sensor with integrated temperature sensor, low hysteresis, high long-term stability
Data points:	Temperature, relative humidity, absolute humidity, dew point, mixture ratio, enthalpy and setpoint potentiometer, rotary switch and presence button
Measuring range:	0...100% r.H. (humidity) 0...+50 °C (temperature)
Deviation, humidity:	typically $\pm 2.0\%$ (20...80% r. H.) at +25 °C, otherwise $\pm 3.0\%$
Temperature deviation:	typically ± 0.2 K at +25 °C
Zero point offset:	$\pm 10\%$ r.H. (humidity) ± 10 °C (temperature) adjustable using potentiometer
Ambient temperature:	Storage -35...+85 °C; Operation 0...+50 °C
Medium:	clean air and other non-aggressive , non-combustible gases
Bus protocol:	Modbus (RTU mode), address range 0...247 selectable, LEDs colour-programmable
Signal filtering:	4 s / 32 s
Housing:	plastic, material ABS, colour pure white (similar to RAL 9010)
Dimensions:	98 x 98 x 33 mm (BalduR2)
Installation:	wall mounting or on in-wall flush box, \varnothing 55 mm, base with 4 holes, for attachment to vertically or horizontally installed in-wall flush boxes for rear cable entry, with predetermined breaking point for cable entry from top/bottom in case of plain on-wall installation
Long-term stability:	$\pm 1\%$ / year
Permissible air humidity:	< 95% r. H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP30 (according to EN 60 529)
Standards:	CE conformity according to EMC Directive 2014/30/EU, according to EN 61 326
Features:	Display with illumination , two-line, programmable, cutout approx. 36 x 15 mm (W x H), to display actual humidity and temperature or a selectable parameter or an individually programmable display value
ACCESSORIES	see table



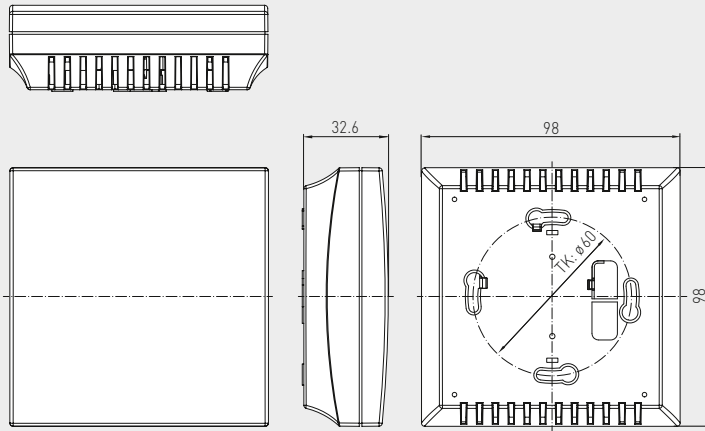


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Dimensional drawing

Housing Baldur 2



RFTF-Modbus-PT 5L
with display, potentiometer,
push-buttons and LED display



Display
alternative output variables

RFTF-Modbus
Display



By default, the display alternates between the **actual temperature** and the **actual humidity** (relative humidity). For improved legibility, backlighting is provided.

The Modbus interface allows the display to be **individually** configured both in the 7-segment area and in the dot-matrix area.

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- Index 5 = absolute humidity in g/m³
- Index 6 = mixture ratio in g/kg
- Index 7 = enthalpy in kJ/kg

HYGRASGARD® RFTF-Modbus Roomoperating humidity and temperature sensor						
Type / WG01	Measuring Range / Readout Humidity (switchable)	Temperature	Output	Display	Item No.	Price
RFTF-Modbus-xx						
RFTF-Modbus P	0...100% r. H. (default) 0...80 g/kg (MR) 0...80 g/m ³ (A.H.) 0...85 kJ/kg (ENT.) -20...+80 °C (DP)	0...+50 °C	Modbus		1201-42B6-6001-005	176,81 €
RFTF-Modbus P LCD	(5x as above)	(1x as above)	Modbus	■	1201-42B6-7001-005	210,48 €
RFTF-Modbus P 5L	(5x as above)	(1x as above)	Modbus		1201-42B6-6119-005	227,99 €
RFTF-Modbus P 5L LCD	(5x as above)	(1x as above)	Modbus	■	1201-42B6-7119-005	261,67 €
RFTF-Modbus P D5	(5x as above)	(1x as above)	Modbus		1201-42B6-6012-841	203,47 €
RFTF-Modbus P D5 5L	(5x as above)	(1x as above)	Modbus		1201-42B6-6120-841	256,79 €
RFTF-Modbus P T D5 5L	(5x as above)	(1x as above)	Modbus		1201-42B6-6121-841	269,59 €
RFTF-Modbus P T	(5x as above)	(1x as above)	Modbus		1201-42B6-6047-005	187,47 €
RFTF-Modbus P T LCD	(5x as above)	(1x as above)	Modbus	■	1201-42B6-7047-005	221,15 €
RFTF-Modbus P T 5L	(5x as above)	(1x as above)	Modbus		1201-42B6-6051-005	240,79 €
RFTF-Modbus P T 5L LCD	(5x as above)	(1x as above)	Modbus	■	1201-42B6-7051-005	274,46 €
Equipment:	P = Potentiometer (setpoint setter) T = Presence push-buttons		D5 = Rotary switch, 5-step 5L = LED display, multi-colour (5x)			
ACCESSORIES						
KA2-Modbus	Communication adapter (USB/RS485)				1906-1200-0000-100	188,70 €