Specifications

Series 784, 786 and 914		Series 785, 787 and 925	
3/4-Wire Relative Humidity Transmitter		***2-Wire Relative Humidity Transmitter***	
Measuring range	0-100 %RH	Measuring range	0-100 %RH
Operating range	10-90 %RH	Operating range	10-90 %RH
Output	0-1 V, 0-2.5 V, 0-5 V or 0-10 V standard set at 0-10 V (output current max 1mA)	Output	4-20 mA
Accuracy @ 23ºC	± 3 %RH (30-80 %RH)	Accuracy @ 23ºC	± 3 %RH (30-80 %RH)
Stability	± 1 %RH, 1 year typ. (depending on environmental conditions)	Stability	± 1 %RH, 1 year typ. (depending on environmental conditions)
Temperature drift	± 0.05 %RH/ºC typical	Temperature drift	± 0.05 %RH/ºC typical
Response time	10 sec. typ. (90 % of the change)	Response time	10 sec. typ. (90 % of the change)
Power supply	14-30 Vdc for 0-10 V output supply voltage must be > 4 Volt above max. output voltage supply current typical 2 mA	Power supply	5-30 Vdc
Supply influence	± 0.005 %RH/V typical	Supply influence	± 0.005 %RH/V typical
Operating temperature	-20..60 ºC	Operating temperature	-20..60 ºC
3/4-Wire Temperature Transmitter		***2-Wire Temperature Transmitter***	
Range	0..100 ºC or -20..+80 ºC	Range	0..100 ºC or -20..+80 ºC
Output	0-1 V, 0-2.5 V, 0-5 V or 0-10 V standard set at 0-10 V (output current max 1 mA)	Output	4-20 mA 1-5 mA
Accuracy	± 0.3 ºC (5-40 ºC)	Accuracy	± 0.3 ºC (5-40 ºC)
Power supply	14-30 Vdc for 0-5/0-10 V output 5-30 Vdc for 0-1V output	Power supply	5-30 Vdc
Supply influence	± 0.005 ºC/V typical	Supply influence	± 0.005 ºC/V typical

Protection grade electronics: IP65, Protection grade for sensor IP20, with dust filter IP50

For high accuracy applications see our series 912/913/914/922/923 and 925

All specifications are subject to change without prior notice

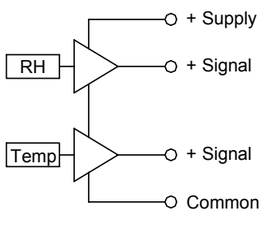


Diagram Series 784-786-914

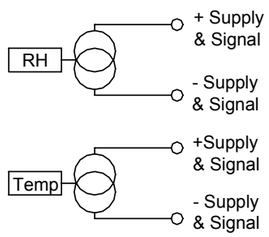


Diagram Series 785-787-925

Rense Instruments BV
Burg. v. Campenhoutstraat 61
NL-4921 KR MADE
THE NETHERLANDS

Phone +31 162 470580
Fax +31 162 437566

E-mail sales@rense.nl
Internet www.rense.nl

BrochureHT784GB050923

RENSE INSTRUMENTS

DEVELOPMENT AND MANUFACTURING OF ELECTRONIC INSTRUMENTS

Relative Humidity & Temperature Transmitters

CE

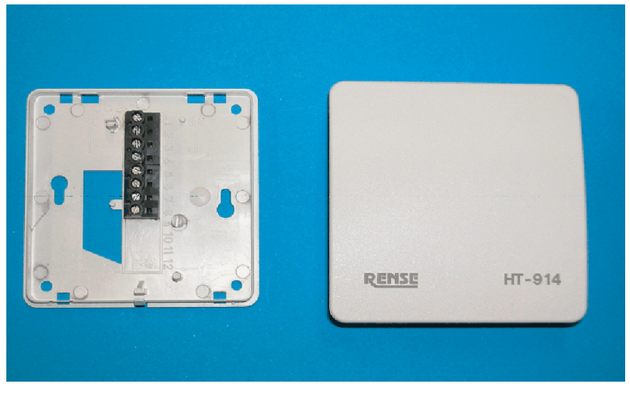
Series 784,785,786, 787, 914 and 925

- ***low cost HVAC series***
- ***Current loop: 4-20 mA or 1-5 mA***
- ***Voltage Output: 0-1V, 0-2.5 V, 0-5 V and 0-10 V***
- ***Accuracy ± 3 %RH***
- ***Working already from very low supply voltages***
- ***CE-approval***

TYPICAL APPLICATIONS

Energy management	Food Processing
Bakery Products	Climate control
Greenhouses	Paper
HVAC	Textiles
Warehouses	Fruit Storage
Clean Rooms	Museums
Grain Storage	Meat Storage

The relative humidity transmitter continuously measures the ambient humidity and provides an analog output directly proportional to the Relative Humidity. The output signal is given from 0-100 %RH. The 2-wire models provides a passive 4-20 mA or 1-5 mA output requiring a current loop supply of 5-35 Vdc. We offer also 1-5 mA current loop signals for this has many advantages against 4-20 mA. First of all it gives less self-heating from the housing, specially for small transmitters. This results in better accuracy and stability. Also the power supply can be smaller. We advice to work from lower supply voltages like 12 or 15 V instead of 24 V. The output of the 3/4 -wire model has to be specified: 0-1 V, 0-2.5 V, 0-5 V or 0-10 V. The unit is factory set at 0-10 V Relative Humidity Transmitters can be combined with a temperature transmitter or a single Pt100 or Pt1000 element. Customized versions on request. Options include a PVDF, a wire-mesh and a stainless steel filter to protect the sensors in dusty environments, a weather protection cap for Meteo applications and a mounting flange.



Rense Instruments BV
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THE NETHERLANDS

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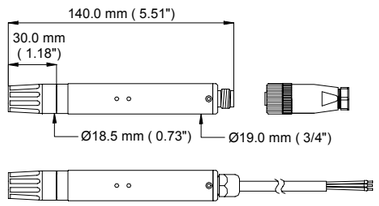
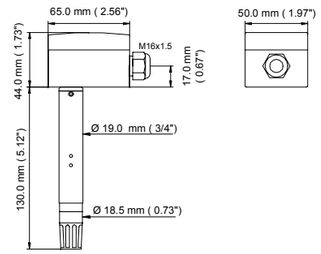
Dimensions Rel. Humidity & Temperature Transmitters



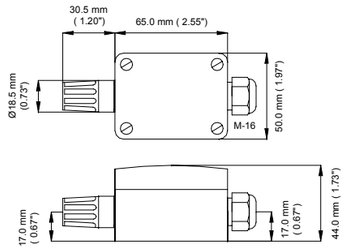
Multi-Purpose 784/785

Multi-functional probe for use up to 60 ºC.
Available as a 2-wire (4-20 mA) transmitter or as 3/4-wire transmitter.
Optional PVDF or wire-mesh filter for use in dusty environments. Immune to most reagent vapours.
Models combined with temperature transmitter or Pt100 or Pt1000 element.



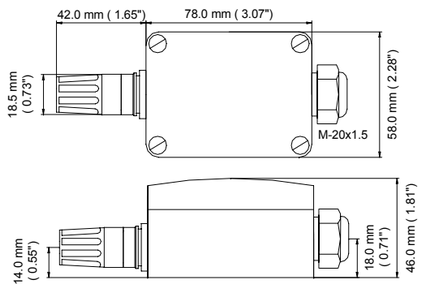
Duct-Mount 784/785

Miniature Humidity- and/or Temperature Transmitter for Duct-Mount. Available as a 2-wire (4-20 mA) transmitter or as 3/4-wire transmitter.
Optional PVDF or wire-mesh filter for use in dusty environments. Immune to most reagent vapours.
Models combined with temperature transmitter or Pt100 or Pt1000 element.



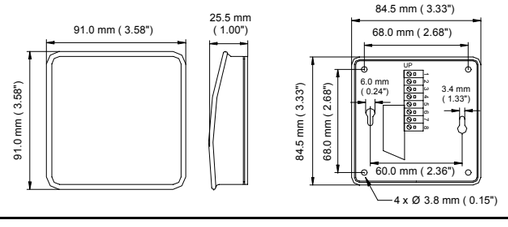
Mini-Wall Mount 786/787

Miniature Humidity- and/or Temperature Transmitter for Wall-Mount. Available as a 2-wire (4-20 mA or 1-5 mA) transmitter or as 3/4-wire transmitter.
Optional PVDF or wire-mesh filter for use in dusty environments. Immune to most reagent vapours.
We recommend for supply voltages higher than 15 V in combination with 4-20 mA, to use our model HT-925 due to less accuracy by self-heating from this small housing.



Wall Mount 925

Humidity- and/or Temperature Transmitter for Wall-Mount. Available as a 2-wire (4-20 mA) transmitter.



Room 914

Miniature Humidity- and/or Temperature Transmitter for Wall-Mount. Available as a 2-wire (4-20 mA / 1-5 mA) transmitter or as 3/4-wire transmitter.

Selection guide Rel. Humidity & Temperature Transmitters

Description	*3/4-Wire (0-1 V, 0-2.5 V, 0-5 V or 0-10 V)*	*2-Wire (4-20 mA)*
Male connector	HX-784-I-L1	HX-785-I-L1
Male connector & Temperature Transmitter	HT-784-I-L1	HT-785-I-L1
1.5m PVC fixed cable + Pt100 1/3 DIN B sensor	HT-784-I-L3	HT-785-I-L3
1.5m PVC fixed cable + Pt1000 1/3 DIN B sensor	HT-784-I-L4	HT-785-I-L4

Description	*3/4-Wire (0-1 V, 0-2.5 V, 0-5 V or 0-10 V)*	*2-Wire (4-20 mA)*
Duct-Mount Humidity Transmitter	HX-784-I-L2	HX-785-I-L2
Duct-Mount Humidity & Temperature Transmitter	HT-784-I-L2	HT-785-I-L2
Duct-Mount Humidity Transmitter & Pt100 1/3 DIN B	HT-784-I-L5	HT-785-I-L5
Duct-Mount Humidity Transmitter & Pt1000 1/3 DIN B	HT-784-I-L6	HT-785-I-L6

Description	*3/4-Wire (0-1 V, 0-2.5 V, 0-5 V or 0-10 V)*	*2-Wire (4-20 mA)*
Mini-Wall Mount Humidity Transmitter	HX-786-I-L6	HX-787-I-L6
Mini-Wall Mount Humidity & Temperature Transmitter	HT-786-I-L6	HT-787-I-L6

Description		*2-Wire (4-20 mA)*
Wall Mount Humidity Transmitter		HX-925-I-L0
Wall Mount Humidity & Temperature Transmitter		HT-925-I-L0

Description	*3/4-Wire (0-1 V, 0-2.5 V, 0-5 V or 0-10 V)*	*2-Wire (4-20 mA)*
Room Humidity Transmitter	HX-914-M-L0	HX-914-M-L1
Room Humidity & Temperature Transmitter	HT-914-M-L0	

Rense Instruments BV The NETHERLANDS Phone +31 162 470580 Internet www.rense.nl
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