

OEM

Original Equipment Manufacturers (OEM's) require individual solutions to suit the needs of their customers. ROTRONIC have been producing customised humidity measurement products to suit the OEM for many years, and have a wide breadth of experience in satisfying this specialist need.



Today, our OEM capability is greater than ever, from the simplest sensor supply, right through to complex transmitters for the industrial process market. One thing is clear, the demands of the customer and the end use are rarely the same, so the need for a professional and flexible supplier is key.

As each project is different, our experienced sales team will discuss project objectives, technical requirements and target costs at a preliminary meeting. We will then formulate an initial proposal based on this discussion and submit this to the customer.

After agreeing a final specification, samples can then be submitted for technical approval and testing. During this phase, ROTRONIC are able to participate in the customer assessment of product suitability, and if required, provide secondary testing of the completed assembly in our own accredited test facilities. We are also able to advise on the final assembly and calibration process.

Wherever possible, we will utilise existing products or sub assemblies in the creation of an OEM solution. This can provide significant advantages in design and development costs, as well as reducing the start up times.

ROTRONIC OEM Product Capability

- %rh sensors
- Calibrated sensor modules
- Transmitter or probe sub assemblies
- Standard ROTRONIC products with customers own branding



ROTRONIC OEM Support Capability

- Custom design
- Custom packaging
- Labelling and barcodes
- Documentation, including manuals
- CAD drawings for manufacturing records
- Calibration materials and systems
- Training of customers technical and sales staff



%rh Sensors

In many high volume applications, the supply of only the %rh sensor is a cost effective option. In these circumstances the OEM should carefully consider the process of calibrating the final measurement circuit to obtain the required performance. When calculating the actual cost of the implementation of humidity measurement, the sensor cost must include provision of the calibration process, circuit design and final assembly. In many cases, the specification of a pre-calibrated measurement module can be equally cost effective, and can reduce the ongoing costs of production.

ROTRONIC can supply a range of %rh sensors based on capacitive or resistive technologies. Various standard products are available with pre-defined specifications, dimensions and characteristics. We are also able to offer customised sensor production to suit specific project requirements.

Calibrated %rh Sensor modules

The advantage of implementing a pre-calibrated sensor module is that the OEM does not have to develop a measurement circuit or an in-house calibration system.

The appropriate product can be specified to be compatible with existing interface and power supply requirements, and with simple connection to the final application prior to delivery. The whole specification, design and supply of the humidity measurement element of the OEM need can be handled by ROTRONIC, leaving the customer to focus on their core product development and support.

ROTRONIC in house calibration procedures have been developed over many years, and proven in many thousands of instances. The end result for the OEM customer is a well developed production process that assures best possible measurement performance with zero investment.

%rh Transmitter or Probe Sub Assemblies

For OEM customers who offer their own branded range of %rh sensors, for end uses such as HVAC/BMS, process control or data-acquisition, ROTRONIC can supply a completed and calibrated product to fit the customers own housings.

In these circumstances, the customer has two main advantages. The responsibility for product design, assembly and calibration is handled by ROTRONIC, which minimises production costs and component stock risk. The customer also benefits from an 'own brand' product which has the very best performance capability, and has access to ongoing development to keep the product at the leading edge of the humidity market.

Standard products with customers own branding

Throughout the pages of this catalogue you will find a range of humidity measurement products that are market leading in terms of performance, features and price. ROTRONIC are happy to effect a simple 're-brand' of the standard product range so that the OEM can offer a class leading product with no development cost and minimal stock risk.

Ancillary products such as calibration materials, replacement filter elements and software are of course already available. Support documentation such as manuals, software validation, type approvals and drawings can be easily re-branded on behalf of the OEM customer.



Example OEM Products

The products described are standard OEM products which are mass produced for many existing customers. They are available on very short delivery times, often from stock, and require no further development or documentation. Full technical datasheets are available in standard formats and show full technical and mechanical specifications. The range of products shown is by no means definitive, we could fill the whole of this catalogue with the OEM products in current production at ROTRONIC, so please contact us if the product you need is not shown.



CS %rh sensor

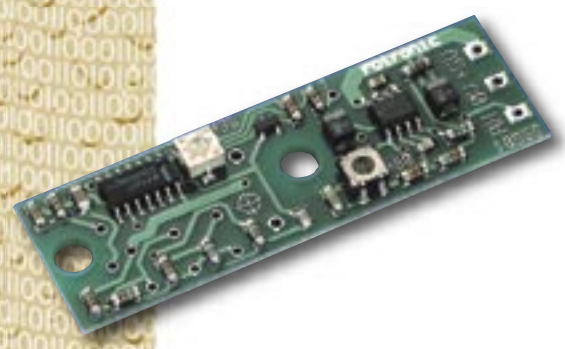
The CS %rh sensor is a substrate based capacitive %rh sensor. It is designed specifically for applications where high quality is as important as cost. Three standard versions are available to suit most applications.

Features overview:

- Wide range of operating temperatures
- Chemically resistant
- Long term stable
- Fast response times
- Low hysteresis
- Heated version for high humidity applications (CS70)
- Compact dimension and high sensitivity(CS10)
- Fast response & solvent resistant (CS30)

Technical Data:

	CS10	CS30	CS70
Humidity measuring range	0...100 %rh	0...100 %rh	0...100 %rh
Temperature operating range	-30...150 °C	-40...190 °C	-10...50 °C
Typical capacitance at 30 %rh and 23°C	140 pF ±40 pF	300 pF ±40 pF	250 pF ±50 pF
Typical sensitivity (15 ... 95 %rh)	0.4 pF / %rh	0.45 pF / %rh	0.45 pF / %rh
Linearity at 23°C (20...90 %rh)	± 1.5 %rh (20...90 %rh)	±2.0 %rh (20...95 %rh)	±2.0 %rh
Hysteresis	< 1.5 %rh	< 2.0 %rh	< 2.0 %rh
Response Time t90	<12 sec	<10 sec	< 10 sec
Frequency range	1...70kHz	1...100kHz	1...70 kHz
Electrical range, signal form	AC ±12V, no DC quota		
Connectors	SIL		3 x SIL



Spez Thermo-Eng

An example of a pre-calibrated %rh sub assembly. Thermo-Eng is a standard device providing a millivolt output signal for relative humidity operating from a regulated 5VDC supply.

Technical Data

Measuring range:	0...100 %rh (non condensing)
Accuracy:	±3 %rh
Power/output:	5 VDC regulated, 65...750 mV = 0...80 %rh
Dimensions:	60 x 19 mm

For full technical specifications, dimensions, and specific sensor features, please request the individual datasheets.

HygroClip

The HygroClip-S is a standard humidity and temperature sensor module which is widely used throughout the ROTRONIC product range on end-user products such as handheld instruments, dataloggers and transmitters. It is already in widespread use by third party OEM instrument manufacturers thanks to its excellent performance and price.

HygroClip is available as standard in a wide range of configurations to suit almost any end use, and in addition, can be customised to suit specific OEM needs. Variations in mechanical packaging, colour, connectors and cable lengths can all be incorporated into a unique design.

Further information and full technical specifications can be found on page 62 to 67.

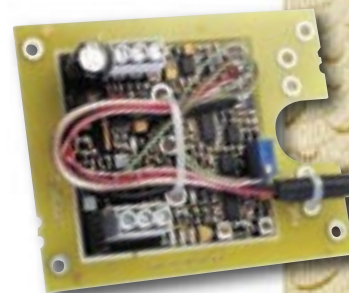


Transmitter sub assembly

H290 is an OEM humidity and temperature product with an impressive specification. It is particularly well suited to applications such as climatic chambers and drying systems. It is available either as a pcb and probe combination for fitting into the customers own enclosures or housings, and can also be supplied in an industry standard IP65 case.

H290 provides a liners analogue output of 4...20 mA or 0...10 V from a power supply of 10...35 VDC or 12...24 VAC. Temperature measurement is by direct connection to a Pt100 or Thermistor, depending on the customers requirements.

Also featured on the H290 is a compensation system for operation over a wide -50...200°C range, with integrated cable length compensation. This means that whatever the measurement temperature, or the differential in temperature between sensors and electronics, optimum results will be obtained.



THT Series

A range of humidity transmitters with excellent stability and very cost effective pricing. The THT series offers a range of analogue outputs such as 4...20 mA and 0...10 Volt, for both humidity and temperature. There is also as the option to connect directly to a temperature sensor such Pt100 or Thermistor.

THT is highly suitable for close control applications such as air conditioning or building monitoring where steady state conditions are usual.



Roline L

Our standard low cost transmitter is particularly well suited to OEM application thanks to its excellent combination of performance and price. It has a wide choice of measurement ranges and output signals, and its compact printed circuit board dimensions means that it can be easily integrated or reconfigured into existing housings.

See pages 53 to 55 for further details.



For full technical specifications, dimensions, and specific product features, please request the individual datasheets.