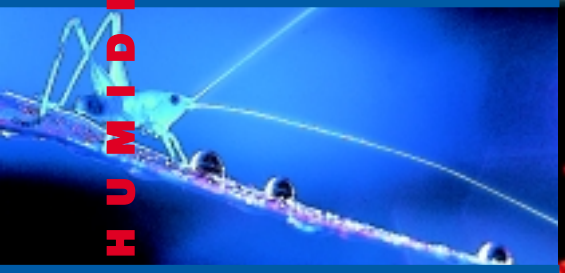
ROTRONIC® MEASURES HUMIDITY



SUITABLE FOR

Applications:

Transmitters

Handheld units

Dataloggers

Portable probes

Integrated in:

Electronic enclosures

Computer rooms

Incubators

Provers

Cold stores

Sensor module for humidity and temperature

HygroClip®

HYGROCLIP®

CERTIFIED ISO 9001 rotronic ag QUALITY

SWISS CALIBRATION

MAIN FEATURES

- 100% interchangeable
- Digital and analogue interface
- ROTRONIC Humidity Sensor HYGROMER® (0...100% rh)
- Accuracy ±1.5% rh
- Long-term stability < 1% rh/year
- Temperature sensor Pt100 ⅓ DIN
- Optimum price and performance thanks to state of the art ASIC technology
- SWISS-MADE

Why HygroClip?

The high-quality sensor module for measuring humidity and temperature is 100% exchangeable without readjustment and offers many advantages:

- Negligible down times
- Reduced service costs
- World-wide availability ex stock
- Cost-saving problem solution

Compatible equipment

ROTRONIC offers a wide range of ancillary products which make use of the HygroClip.

Maintenance and adjustment of this equipment is not required as the HygroClip can be installed pre-calibrated.

Technical data:

Our HygroClip-Philosophy

Don't lose any time calibrating and readjusting your HygroClip S. With the exchange procedure you receive at an extremely favourable price on a replacement HygroClip (HygroClip R).

The HygroClip R always contains a new humidity sensor and a new filter and it is perfectly adjusted.

To guarantee practically uninterrupted measurement, we recommend that you keep a HygroClip S in reserve.

Our range includes:

- HygroLog data-logger
- HygroLog-D data-logger with display
- A1H integrated hand-held unit
- Hand held probes
- Transmitters with alternative output signals
- Meteorological probes with direct Pt100 output

	HygroClip S (anthracite)	HygroClip S3 (white)
Power Supply:	3,5…50 VDC	
Current consumption	< 4 mA	
Measuring range:		
Humidity	0…100 %rh	
Temperature	−40…+85 °C	
Operating range:	−40…+85 °C	
Accuracy at 23°C:		
Humidity	±1,5 %rh	
Temperature	±0,3 K	
Output signal:		
Analogue	0…100 %rh = 0…1 V	
	ROV: −40…+85 °C = −0,4…+0,85 V	−40…+60 °C = 0…+1 V
Digital (DIO)	One Wire	
Measuring time	< 0,7s (Start-up 3s)	
Resolution:		
Humidity	100 %rh / 12 bit analogue / 16 bit digital	
Temperature	250°C / 12 bit analogue / 16 bit digital	
Adjustment:	via PC (EE-Prom)	
Sensor:		
Humidity	HYGROMER®-C94	
Temperature	Pt100 ⅓ DIN	
Output load:	>10 kOhm	
Cable length:	max. 5 m (with booster up to 100 m)	
Sensor protection:	Wire filter (20m/s)	
Dimensions:	Total length 100mm, D=15mm	
Installation type:	Bayonet cap on mounting connector	
Protection category:	IP65	
Material, Colour:	Polycarbonate, anthracite Ral 7016	white
EMC compatibility (CE):	EN 50081-2, EN 50082-2	

Ordering data	Description
HygroClip C	HygroClip S with Mounting part MOC
HygroClip S	Sensor module for % rh and °C suitable for MOC and MOK Series
MOC	Mounting connector anthracite for HygroClip S with 30 cm wires
HygroClip C3	HygroClip S3 with Mounting part MOC 3
HygroClip S3	Sensor module for % rh and °C suitable for MOC 3 and MOK Series
MOC 3	Mounting connector white for HygroClip S3 with 30 cm wires

MOK / HPH (only for HygroClip S)

The extensive connection range for the HygroClip

Convincing features:

- Bridging large distances
- Signal level matching
- Shielded cables of highest quality
- Flexible connection technology
- Several temperature ranges

The MOK

The MOK is a connection adapter for the HygroClip and produces a cable connection to the HygroClip.

The MOK is also available as converter for the HygroClip output signals. We also offer a version for connecting the HygroClip to a PC port.

Who needs the MOK ?

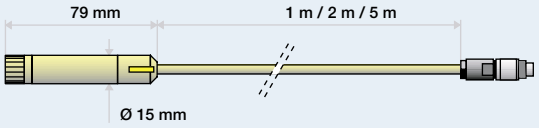
Our HygroClip provides the output signals for relative humidity and temperature as follows: 0…100 % rh = 0…1 VDC; −40…+85 °C = −0.4…+0.85 VDC.

If another signal level is desired, we can offer different ranges (refer to code table).

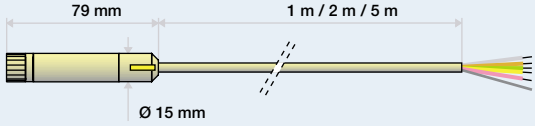
Several ranges can also be selected for the temperature range.

Our selection of MOKs facilitates adaptation to a large number of controllers, displays, central control units, etc. With some versions connection cables up to 20 m long can be realized.

All MOK at a glance

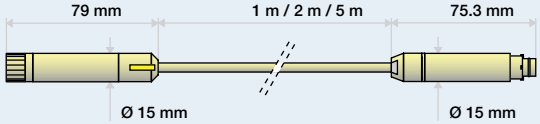


MOK-__-B5: Connection adapter with 1, 2, or 5 m cable and 5-pin Binder connector, suitable for A2 / AM3, BT-RS1.

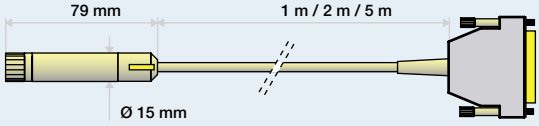


MOK-__-XX: Connection adapter with 1, 2, or 5 m cable with open ends.

MOK-__-XX-___V-_: Signal voltage converter with cable, without connector. Refer to table on the reverse for voltage ranges and max. cable lengths.



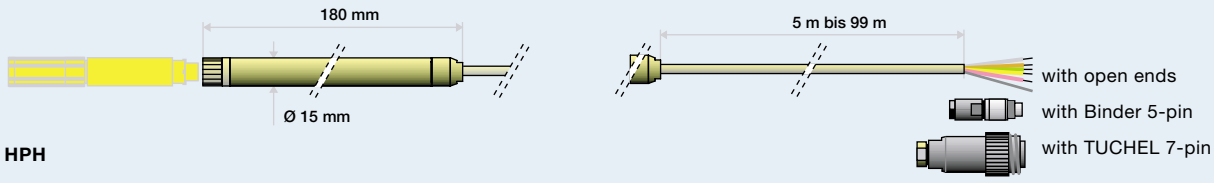
MOK-__-DAT05: Extension 1, 2, or 5 m for A1H, Hygrolog and FH65.



MOK-__-WIN: RS232-converter with 1, 2, or 5 m cable and 25-pin SUB D connector for PC connection.

Amplifier HPH (only for HygroClip S)

The HPH amplifier reveals its full strength whenever the HygroClip is at a large distance from the evaluation or control unit. The analog measuring signals can be transmitted without loss of accuracy over a distance of up to 100 m thanks to the cable length compensation.



HPH

HPH technical data

	Humidity	Temperature
Electronic operating range	0…100 %	−20…+85 °C
Electronic operating range (HygroClip S)	0…100 %	−40…+85 °C
Input signals (HygroClip)	0…100 %rh = 0…1 V	−40…+85 °C = −0,4…+0,85 V
Outputs:	10 mV/%rh	10 mV/°C
	0…100 %rh = 0…1 V	−40…+85 °C = −0,4…+0,85 V
Supply voltage:	3,6…35 VDC	
Dimensions:	180 x 15 mm	
Connections:	Cable Binder 5-pin Tuchel 7-pin	

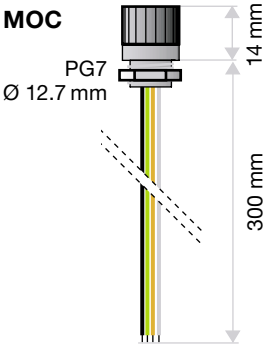
Ordering data	Description
HPH-CG05B5	Amplifier, 5 m cable with Binder connector 5-pin
HPH-CG05XX	Amplifier, 5 m cable with open ends
HPH-CG99XX	Amplifier, 99 m cable with open ends

MOK signal converter technical data

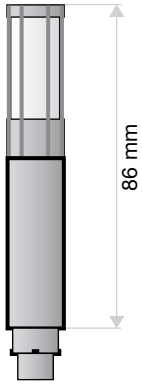
	Order code for the signal converter MOK
Example	M O K - 0 1 - X X - 0 0 1 V - 1
Basic type	M O K
Cable lengths	-
1 m	0 1
2 m	0 2
5 m	0 5
10 m	1 0
20 m	2 0
Cable configuration	-
- with open ends	X X
Output signal	-
0...1 VDC	0 0 1 V
0...2.5 VDC	0 2 5 V
0...5 VDC	0 0 5 V
0...10 VDC	0 1 0 V
Temperature range, °C	-
0... 100	1
-30... +70	2
-40... +60	3

Dimensional diagrams

MOC



HYGROCLIP



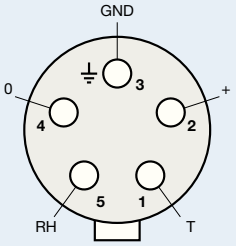
Pin	Colour	Signal
1	brown	Temperature
2	green	+VDC
3	black	GND
4	yellow	DIO
5	white	Humidity

Note on the output	Required supply in VDC*	Max. cable length in m
0...1 VDC	min. 5.5	2
0...2.5 VDC	min. 5.5	5
0...5 VDC	min. 10.0	10
0...10 VDC	min. 15.0	20
Load: 1 kOhm / Volt		
Temperature operating range: −40...+85 °C		
* The maximum supply voltage is 26.5 Volt !		

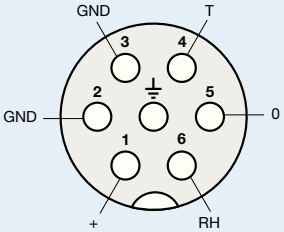
Order numbers	Description	Suitable for:
MOK-01-XX	Connection cable 1 m, open ends	
MOK-02-XX	Connection cable 2 m, open ends	
MOK-05-XX	Connection cable 5 m, open ends	
MOK-01-B5	Connection cable 1 m, 5-pin Binder connector	A2, AM3, BT-RS1
MOK-02-B5	Connection cable 2 m, 5-pin Binder connector	A2, AM3, BT-RS1
MOK-05-B5	Connection cable 5 m, 5-pin Binder connector	A2, AM3, BT-RS1
MOK-01-AM	Connection cable 1 m, ALMEMO connector	PA 20, LA 8
MOK-02-AM	Connection cable 2 m, ALMEMO connector	PA 20, LA 8
MOK-05-AM	Connection cable 5 m, ALMEMO connector	PA 20, LA 8
MOK-_ _-_ _-_ _ _V-_	Signal voltage converter, See above table for coding	
MOK-01-WIN	RS232 adapter, 1 m cable, 25-pin SUB D-connector	PC, RS232 interface
MOK-02-WIN	RS232 adapter, 2 m cable, 25-pin SUB D-connector	PC, RS232 interface
MOK-05-WIN	RS232 adapter, 5 m cable, 25-pin SUB D-connector	PC, RS232 interface
MOK-01-DAT05	Extension cable 1 m, with HygroClip connectors	A1H, Hygrolog, FH65
MOK-02-DAT05	Extension cable 2 m, with HygroClip connectors	A1H, Hygrolog, FH65
MOK-05-DAT05	Extension cable 5 m, with HygroClip connectors	A1H, Hygrolog, FH65

Drawings

Cable connections Binder 5-pin



Cable connections Tuchel 7-pin



Cable/signal colours

Signal	B5	T7	Cable colour
+VDC	2	1	green
GND	3	2,3	shield
Comp.	3	5	yellow
Temperature	1	4	brown
Humidity	5	6	white
DIO	4	E	red

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