

Humidity Sensor Units

Unit type

CHS series

Type: **CHS-U (For industrial use and measuring equipment)**
 CHS-SS(For consumer and office equipment)
 CHS-C(For consumer and office equipment)

Issue date: **January 2010**

- All specifications are subject to change without notice.
 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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CHS-U TYPE

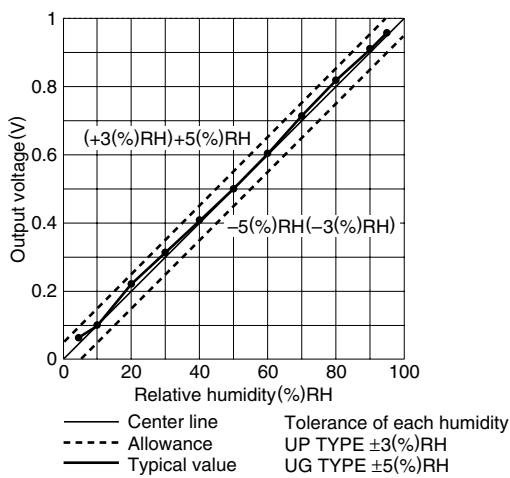
ELECTRICAL CHARACTERISTICS

Item	Specifications			Conditions
	Minimum	Standard	Maximum	
Operating voltage Edc (V)	4.75	5	5.25	
Operating current(mA)			0.6	Edc=5V, 25°C
Output voltage(mV)/(%)RH		10		Edc=5V, 25°C, 5 to 95(%)RH
Output impedance(k Ω)		(200)*		at DC
Accuracy(%)RH	CHS-UPS, -UPR CHS-UGS, -UGR	-3 -5	+3 +5	Edc=5V, 25°C, 5 to 95(%)RH (For details, please refer to typical characteristics)
Hysteresis(%)RH		≈ 0		Stable time: 20min
Temperature dependency(%)RH	-5		+5	Edc=5V, 25°C standard, +5 to +45°C, 5 to 95(%)RH
Response time(min)		1		Response time to reach 90% of actual humidity as for from 30 to 85(%)RH
Recommended operating temperature(°C)	+5		+45	Edc=5V

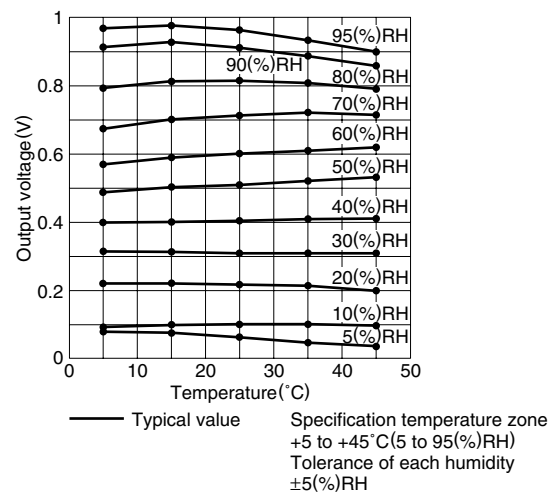
*(): Reference value

TYPICAL CHARACTERISTICS

SENSOR LINEARITY CHARACTERISTICS (Ta=25°C Edc=5V)



TEMPERATURE DEPENDENCY CHARACTERISTICS



CHS-SS TYPE

For consumer and office equipment

FEATURES

- Humidity sensing characteristics exhibit virtually no hysteresis.
- Compact size.
- Low current consumption.
- Outputs DC.1V at 100(%)RH; relative humidity can be read directly with a voltmeter.
- All-in-one construction integrates sensor with support circuitry. The entire module operates off a 5V power supply.
- Generated ripple at low humidity levels will not exceed 2.5mV.

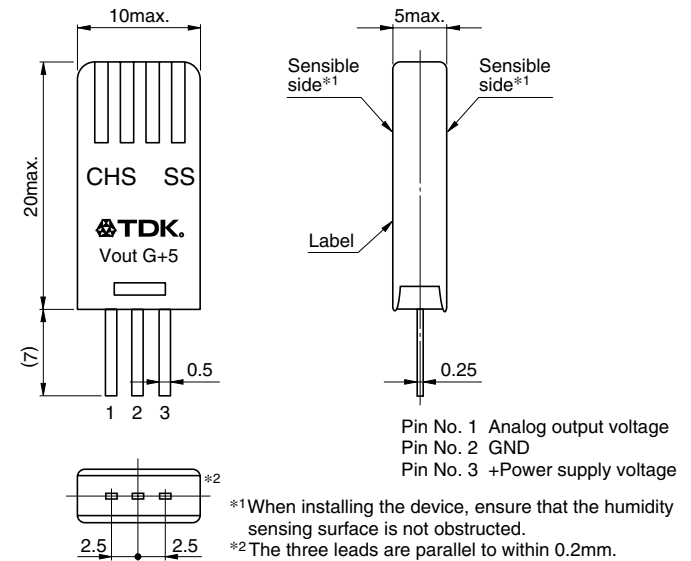
Type	CHS-MSS
Nominal accuracy(%)RH	±5
Measuring range(%)RH	20 to 85

MAXIMUM RATINGS (Ta=25°C)

Power supply voltage E _{dc}	7V max.
Operating conditions	0 to +50°C, power supply voltage 5V, without dewing
Storage conditions	-20 to +60°C, without dewing

SHAPES AND DIMENSIONS

SQUARE TYPE



Weight: 1.1g typ.

Dimensions in mm
Tolerance: ±0.2

ELECTRICAL CHARACTERISTICS

Item	Specifications			Conditions
	Minimum	Standard	Maximum	
Operating voltage E _{dc} (V)	4.75	5	5.25	
Operating current(mA)			0.6	E _{dc} =5V, 25°C
Output voltage(mV)/(%)RH		10		E _{dc} =5V, 25°C
Output impedance(kΩ)		(200)*		at DC
Accuracy(%)RH	-5		+5	E _{dc} =5V, 25°C, 20 to 85(%)RH(For details, please refer to typical characteristics)
Hysteresis(%)RH		≈0		Stable time: 20min
Temperature dependency(%)RH	-5		+5	E _{dc} =5V, 25°C standard
Response time(min)		1		Response time to reach 90% of actual humidity as for from 30 to 85(%)RH
Recommended operating temperature(°C)	+15		+35	E _{dc} =5V, without dewing(For details, please refer to typical characteristics)

*(): Reference value

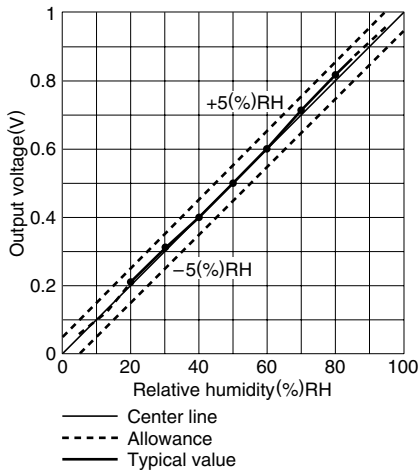


CHS-SS TYPE

TYPICAL CHARACTERISTICS

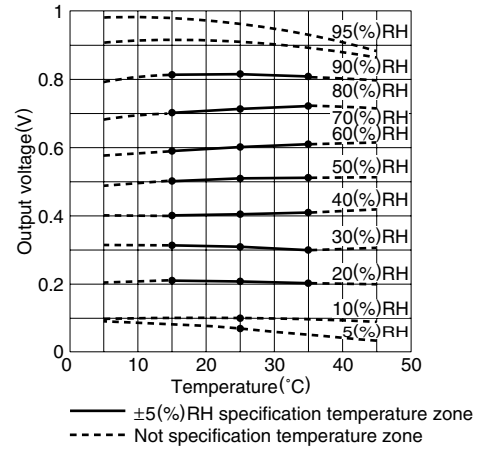
SENSOR LINEARITY CHARACTERISTICS (Ta=25°C Edc=5V)

CHS-MSS TYPE



TEMPERATURE DEPENDENCY CHARACTERISTICS

CHS-MSS TYPE



CHS-C TYPE

For consumer and office equipment

FEATURES

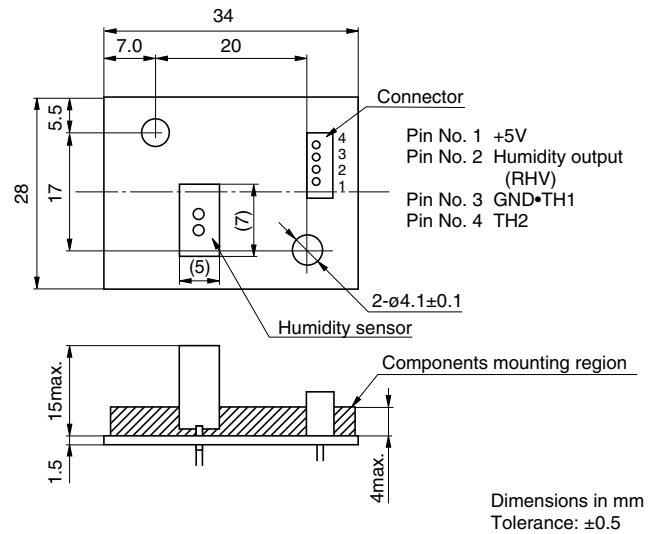
- Temperature detection thermistor can be added.
- Humidity sensing characteristics exhibit virtually no hysteresis.
- Low current consumption.
- Absolute humidity can be read directly with DC. 1V voltmeter.
- All-in-one construction incorporates circuits and 5V power supply operation.
- Generated ripple at low humidity levels will not exceed 2.5mV.

Type	CHS-CMC-__
Nominal accuracy(%)RH	±5
Measuring range(%)RH	30, 50, 80

MAXIMUM RATINGS (Ta=25°C)

Power supply voltage Edc	7V max.
Operating conditions	0 to +50°C, power supply voltage 5V, without dewing
Storage conditions	-20 to +60°C, without dewing

SHAPES AND DIMENSIONS



ELECTRICAL CHARACTERISTICS

Item	Specifications			Conditions
	Minimum	Standard	Maximum	
Operating voltage Edc (V)	4.75	5	5.25	
Operating current(mA)			0.6	E _{dc} =5V, 25°C
Output impedance(kΩ)		(200)		at DC
Accuracy(%)RH	30(%)RH	-5 (0.5V)	+5 (0.7V)	E _{dc} =5V, 25°C (For details, please refer to typical characteristics)
	50(%)RH	-5 (0.86V)	+5 (1.06V)	
	80(%)RH	-5 (1.5V)	+5 (1.7V)	
Hysteresis(%)RH		≈0		Stable time: 20 min
Temperature dependency(%)RH	-5		+5	E _{dc} =5V, 25°C standard (For details, please refer to typical characteristics)
Response time(min)		1		Response time to reach 90% of actual humidity as for from 30 to 85(%)RH
Recommended operating temperature(°C)	+15		+35	E _{dc} =5V

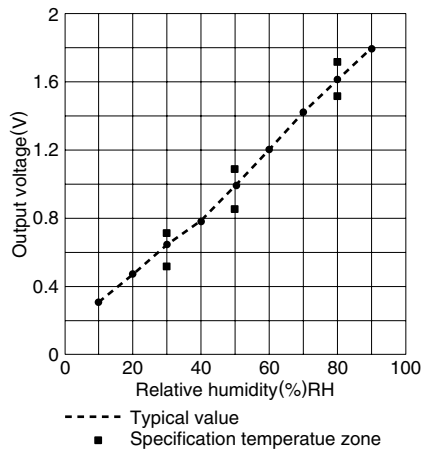
RECOMMENDED CHARACTERISTICS OF TEMPERATURE DETECTION THERMISTOR

Part No.	NTCCM16084BH103JC
Resistance value(Between TH1 and TH2)	10kΩ±5%
Constant B	4100K±3%
Maximum rated power	230mW

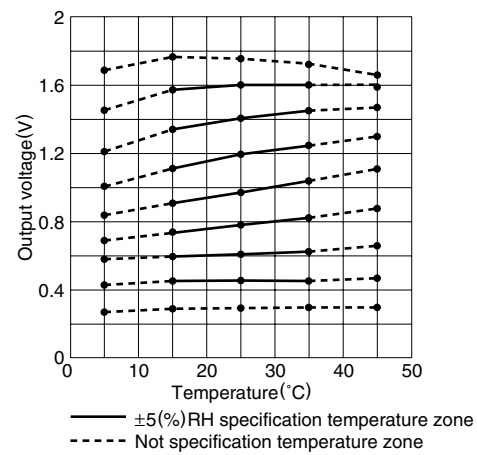
CHS-C TYPE

TYPICAL CHARACTERISTICS

SENSOR LINEARITY CHARACTERISTICS($T_a=25^{\circ}\text{C}$, $E_{dc}=5\text{V}$)

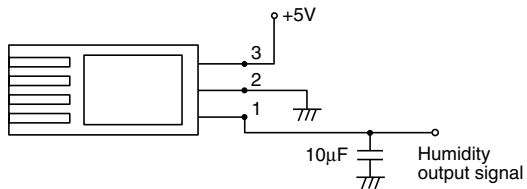


TEMPERATURE DEPENDENCY CHARACTERISTICS

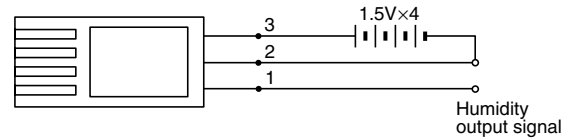


TYPICAL APPLICATIONS

HUMIDITY MONITOR



BATTERY POWERED SYSTEM





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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