DKM-042

TEMPERATURE & HUMIDITY SENSOR

DESCRIPTION

DK-042 is a temperature and relative humidity sensor designed to provide data for automation, remote monitoring and control systems.

The unit connects to the host system via its RS-485 serial port. Data is transferred under Modbus-RTU protocol. The unit is powered up from the host system.

The programming of the unit is done through 5 jumpers. These jumpers determine the Modbus data rate and the Modbus node address.

The unit incorporates a ST-HTS221 sensor. Sensor specifications are given in below chapter.

TECHNICAL SPECIFICATIONS

Temp. measurement range: -40°C to +70°C
Temp. accuracy: ±1°C (0 to 60°C)
Humidity measurement range: 0% to 100%
Humidity accuracy: ±3.5% (20% to 80%)
Response time: 15 seconds
Supply voltage: 5V-DC (± 0.25V-DC)
Supply current: < 30mA
Data port: RS-485
Data rate: 9600-19200 baud
Data structure: 8 bit, no parity, 1 bit stop
Dimensions: 88x45x24mm (GxYxD)
Weight: 50gr (approximative)

MODBUS REGISTERS

Data is read with meesage_3 (read multiple registers).

ADDRESS (d)	Description	Coeff.
20482	Temperature (°C)	x100
20483	Humidity (%)	x100

JUMPER SETUP

The unit 5 jumpers on the bottom panel.

Jumper_1: Baud Rate Adjustment:

ON	9600 baud
OFF	19200 baud

Jumper_2-3-4-5. Modbus Address Adjustment:

JP_5	JP_4	JP_3	JP_2	Modbus Address
ON	ON	ON	ON	**1**
ON	ON	ON	OFF	**2**
ON	ON	OFF	ON	**3**
ON	ON	OFF	OFF	**4**
ON	OFF	ON	ON	**5**
ON	OFF	ON	OFF	**6**
ON	OFF	OFF	ON	**7**
ON	OFF	OFF	OFF	**8**
OFF	ON	ON	ON	**9**
OFF	ON	ON	OFF	**10**
OFF	ON	OFF	ON	**11**
OFF	ON	OFF	OFF	**12**
OFF	OFF	ON	ON	**13**
OFF	OFF	ON	OFF	**14**
OFF	OFF	OFF	ON	**15**
OFF	OFF	OFF	OFF	**16**

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