

## DIP200

## Communicative room motion and light sensor



### Summary

A communicative motion and light sensor DIP200 detects motions and light intensity. Applicable for control of lighting, heating and ventilation on an as-needed basis.

### Application

- HVAC and lighting systems - facility automation, in corridors, at workplaces, in industrial halls and in offices and business rooms

### Function

DIP200 is equipped with an infrared motion sensor and a light sensor. Measured values are read via bus over communication protocol Modbus RTU from respective registers (see Modbus table DIP200).

The sensor versions DIP200-F with protection lens are intended for operating in a normal and chemically non-aggressive environment (standard delivery). They do not need any servicing or maintenance and can be mounted in any position. The sensor versions type DIP200-W with lens are resistant against air humidity and water spray from the lens side. (See datasheet **domat\_STELIX\_DIP200\_installation**.)

The sensors are mounted with different types of supplement. Standard type included in delivery is **R**. Other type must be specified in order. (See datasheet **domat\_STELIX\_DIP200\_installation** to select the suitable fixture.)

The cover lenses are specific for different montage heights and detection angles. Standard type included in delivery is **D**. Other type must be specified in order. (See datasheet **domat\_STELIX\_DIP200\_lens** to select the suitable lens type.)

**Note!**

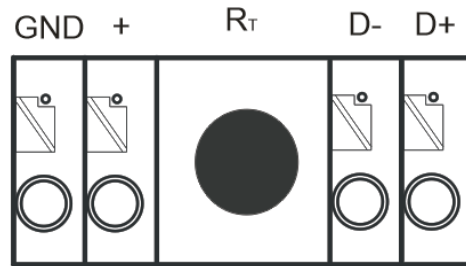
Please note that **the sensor may not be suitable for real-time light control** in case that there are more addresses on the bus, and / or the lights are controlled by the PLC over another bus (e.g. DALI). The response time may be up to several seconds. Note that the communication principles (master – slave periodical requests and limited communication speed at the serial bus) may affect the expected system response time.

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**Technical data**

Power supply	12 - 24 V DC
Power consumption	< 12 mA at 24 V DC; standby mode
Termination resistor	180 Ω (pushdown button R <sub>T</sub> )
Communication	Modbus RTU, 1200...115200 bps, parity none / even / odd
<b>Motion sensor</b>	
Infrared sensor	omni-directional, quad element, pyroelectric
Detection angle	according to lens and installation height
Switch-off time delay	adjustable from 5 s to 1 h; default 300 s
Detectable motion speed	0.3 ... 3.0 m/s
<b>Light sensor</b>	
Measuring range of the light sensor	2...3000 lx
Optional sampling period	1 ... 60 s; default 15 s
Warm-up time	approx. 90 s
Terminals	screw terminals for wires 0,14 – 1,5 mm <sup>2</sup>
Protection type	type DIP200-F IP50 type DIP200-W IP53
Ambient temperature	-40 °C ...+55 °C
Humidity	max 95 % rH
Montage height	according to the lens type
Dimensions	48 x 48 x 40 mm
Standard	CE

## Terminals



- GND power supply, ground
- + power supply, 12 - 24 V DC
- R<sub>T</sub> bus terminator switch (bus terminated when button pressed)
- D- communication RS485-
- D+ communication RS485+

The communication part of the sensor is not galvanically separated, the GND terminal represents both the communication bus ground and power supply ground.

## LED diode

The LED diode function is permitted in default settings. The LED blinks in case of “occupancy” state. Consider that the sensor can be in this state although it does not sense any movement; there may be countdown of the switch-off delay time.

## Initialization

Remove the lens to access the INIT switch. The sensor can be set into default state (bus address 1, baud rate 9600 bps).

Factory-delivered sensors are set to default communication parameters. This function is to return the sensor to these default settings.

To init, proceed as follows:

- connect the device over RS485 to a PC with the ModComTool config tool
- remove power and set INIT switch to ON (1)
- apply power (terminals +, GND)
- find the controller in the tool (Scan)
- set DIP switch to position OFF (0)
- in the ModComTool config tool, open the controller window
- click the Init button in the tool
- remove and apply power.

**Changes in versions**

Version 02/2015 – Changes in light intensity measuring range. Beware, new version **FMW 00901 is not compatible with previous version FMW 00801.**

Version 07/2015 – Changed standard type of housing.

Version 04/2016 – Corrected information - polarity of terminals RS485.