

Digital Sensors

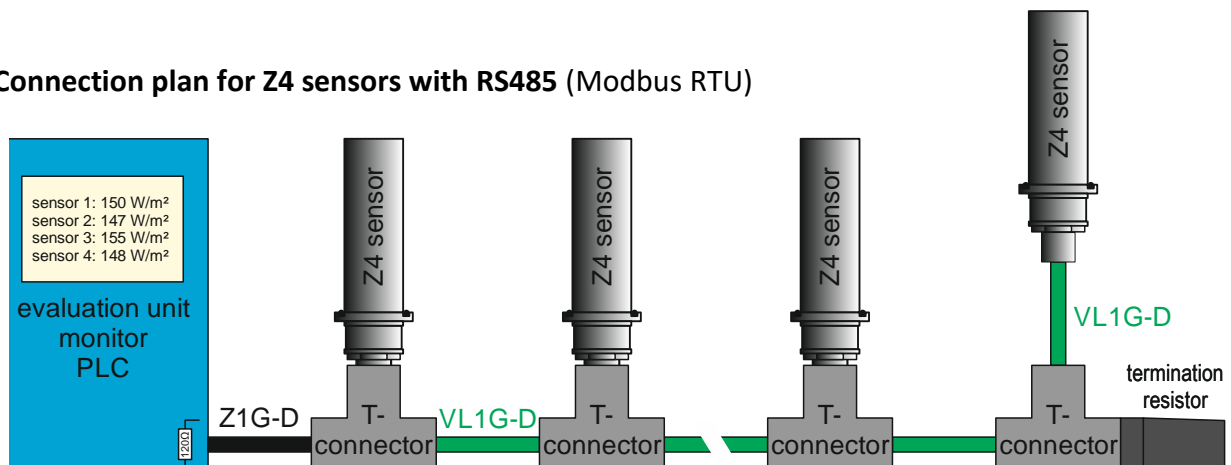
General

Digital sensors with the option identifier Z4 in its name have an RS485 interface. Up to 127 sensors can be operated together with other MODBUS® compatible subscribers on one bus. All well-known sensor types with analogue current or voltage output can be offered also as digital types. The digital sensors are connected with M12 connectors (socket), via which both voltage supply and data exchange is carried out.

Technical data

Available types	Z4: digital RS485 Z4 Y1: digital, voltage output Z4 Y2: digital, current output	
Supply voltage	7-24 V DC	
Current consumption	max. 4 mA (for Z4 sensors with RS485 and Z4 Y1 sensors with voltage output) max. 22 mA (for Z4 Y2 sensors with current output)	
Temperature range	0 - 60°C	
Calibration values	5 - 1000 W/m ²	
Interface type	RS 485 half duplex	
Protocol	Protocol based on Modbus RTU (factory customized versions possible)	
Standard bus address	0x40 (changeable by customer with JUV 2.4 or interface with software)	
Possible sensor types	SUV 13, SUV19, SUV 20, SUV32 (customer specified models possible)	
Functions	Measurement of UV radiation Measurement of sensor temperature Output of measurement range Output of sensor number and series number Changing of bus address Two-point user calibration Password protection of all configuration adjustments Connection test Transmission hedging by CRC	
Connection assignment		Pin 1: RS 485 A (brown) Pin 2: RS 485 B (white) Pin 3: +Ub / ground (blue) Pin 4: -Ub (black) Pin 5: U _{out} (grey) in brackets the cable color if used the recommended connection cable Z1G-D
Accessory	M12 connection cable Z1G-D (5.0 m) M12 connection cable VL1G-D (0.3 / 0.6 / 1.5 / 3.0 m) M12x1 T-connector M12 data bus terminating resistor KUV 2.4 Interface and Software for programming of the sensors address	
Suitable control units	Monitor UVT 18 (software master) UVTouchControl unit other controllers with RS485 bus	

Connection plan for Z4 sensors with RS485 (Modbus RTU)



Terminate the data bus on the evaluation unit with 120 Ohm resistor!