

- ❖ Compatible with MODBUS-RTU RS485
- ❖ 1x Programmable Relay
- ❖ 1x Input for Connection for Sensing Cable / Sensors
- ❖ 1x Output +5VDC / 300mA
- ❖ 1x Supply Input 10-30VAC, 10-60VDC
- ❖ Operating Range -40°C to +70°C
- ❖ Operating Range of Components -40°C to +85°C

### Evaluation Unit



### Detection Sensor



### Sensing Cable (max. 75m)



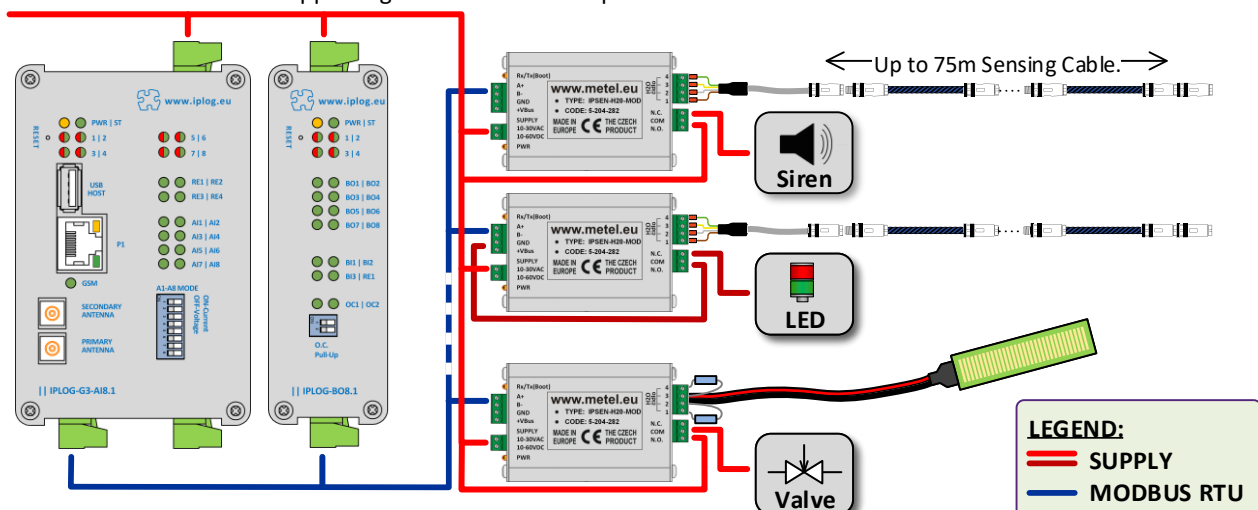
PRODUCT NAME	CODE	NOTE
IPSEN-H2O-MOD	5-204-282	10-60VDC/10-30VAC
Accessories		
MSC-750	5-204-283	Sensing Cable 7,5m
H2O-KIT	5-204-281	Resistor + Connection Cable
H2O-PCB-78H	5-204-284	Detection Sensor
Holder for Mounting to DIN35 and Flat Surface is Included.		

## Technical Parameters

Parameter	Value	Unit	Note	
MODBUS-RTU (RS485)	Count	1	Max. 30x on the Bus	
	Speed	Max. 115.2	kbps	
	Overvoltage Protection	30	A	8/20us
Relay Output	Type of contact	1x Change-over		
	Max. Load	62.5VA (30W) / 1A / 60V	Resistive Load	
Power Supply	Input	10 – 60 / 10 – 30	VDC/VAC	
	Power Consumption	Max. 0.5	W	
	Output	5	VDC	Max. 300mA
Environment	Operational Range	-40...+70	°C	Temperature of Environment
Mechanical	Weight	0.11	kg	
Certification	Standard CE			
The producer retains the right to change any technical parameters without previous written or published notification.				

## Typical Connection with PLC-IPLOG-GAMA and Visualization

H2O detectors are connected to control units via RS485 with MODBUS-RTU protocol. Up to 30 H2O detectors, IO modules and other sensors supporting the MODBUS-RTU protocol can be connected to it.



## Connection with Sensing Cables MSC-750

Connect the RS485 communication bus with the MODBUS-RTU protocol to terminals A+ and B-. +Vbus terminal is 5VDC / 300mA output for powering accessories.

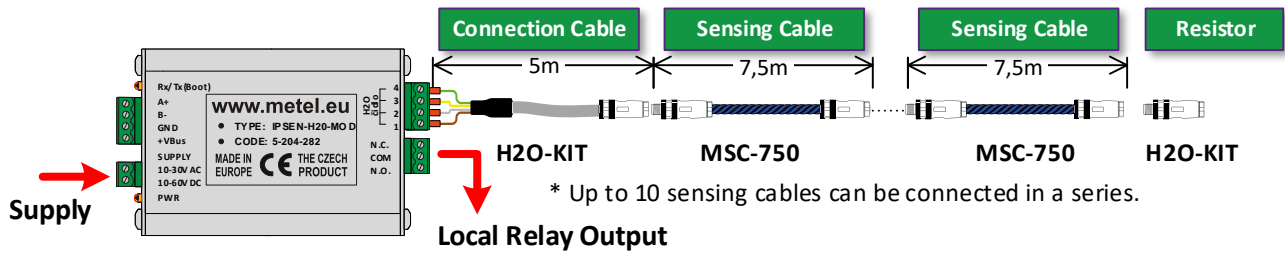
Connect an external 10-30VAC or 10-60VDC power supply to this terminal block.



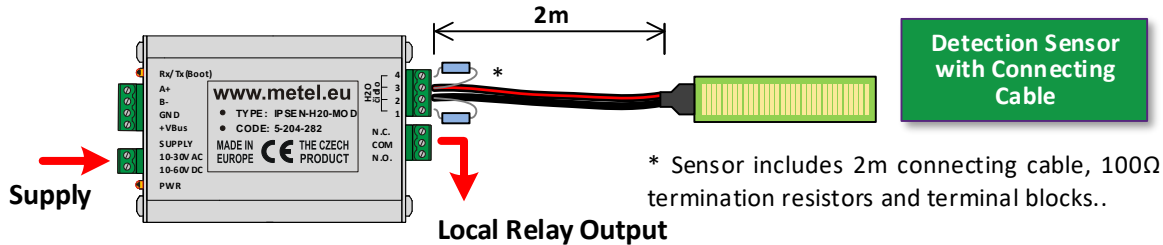
Terminals for connecting of water sensing cable.

- 1 - BROWN 3 - YELLOW
- 2 - WHITE 4 - GREEN

Relay output controlled by MODBUS-RTU protocol from PLC IPLOG-GAMA



## Connection with Detection Sensor H2O-PCB-78H



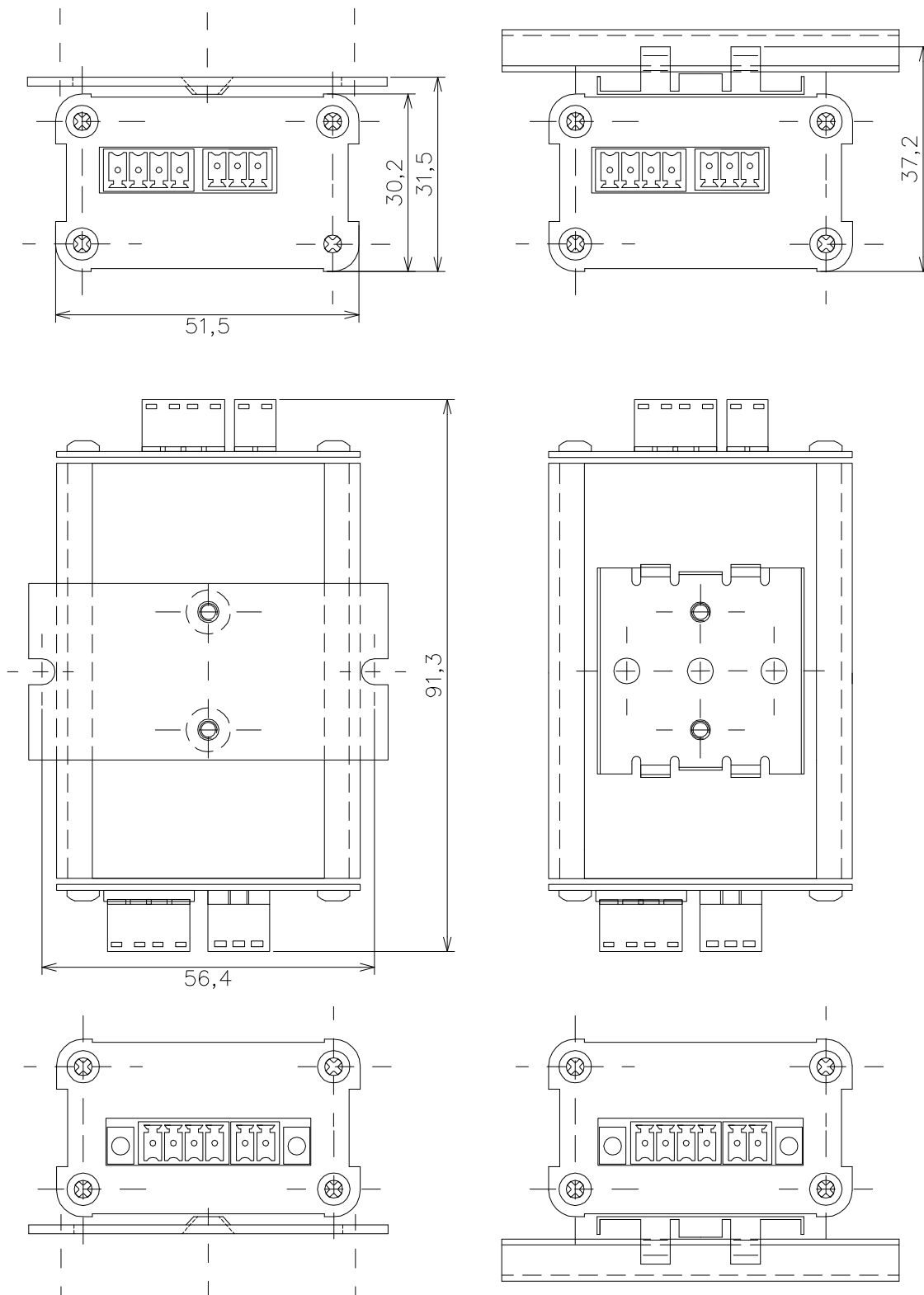
## Default Settings of Communication

Device ID: 1 | Baudrate: 115 200 | Parity: None | Data bits: 8 | Stop bit: 1

## Modbus registry

Subject		Type	R/W	Value	Offset	
Device	FW Version Major	u16	R		1010	
	FW Version Minor	u16	R		1011	
	FW Version - Revision	u32	R		1012-13	
	Restart	u16	RW	55203 = Reboot	1201	
	Board Voltage	u16	R	105 = 10,5V	1311	
Bus Settings	Baudrate	u16	RW	192 = 19.2 kbps 1152 = 115.2 kbps	2110	
	Databits	u16	RW	8 = 8b, 9 = 9b	2111	
	Parity	u16	RW	78 = None 69 = Even 79 = Odd	2112	
	Stopbits	u16	RW	10=1, 20=2, 15=1,5	2113	
	MODBUS Address	u16	RW	1 - 247	2120	
Subject		Channel	Type	R/W	Value	Offset
Measurement and States	Flood Measurement	AI#01	u16	R	0 = 0%, 100 = 100%	5001
	Dry	DI#01	bit	R	1 = Dry	3001
	Moist	DI#02	bit	R	1 = Moist	3002
	Wet	DI#03	bit	R	1 = Wet	3003
	Cable Fault	DI#04	bit	R	1 = Fault Cable	3004
	Change	DI#05	bit	R	1 = Change	3005
	Need Calibration	DI#06	bit	R	1 = Need Calibration	3006
Calibration	DI#07	bit	R	1 = Calibration	3007	
Relay Out	Relay Output 1	DO#01	bit	RW	0 = OFF, 1 = ON	4001

## Dimensions IPSEN-H2O-MOD



REV: 201406 – Start of Production  
 201608 – Added H2O-PCB-78H Detection Sensor  
 201906 – Modbus Modification  
 201912 – Added Technical Parameter of Sensing Cable

## Technical Parameter of Sensing Cable

	Parameter	Value	Unit	Note
Product Features	Diameter	6.0	mm	Nominal
	Continuity and Signal Wires	2*26	AWG	With Insulation of Fluoropolymer
	Sensing Wires	2*30	AWG	With Jacket of Conductive Fluoropolymer
	Carrier	Fluoropolymer		
	Cable Weight 15m length	1	kg	
	Cable Color	High-Visibility Blue		
Durability	Cable Breaking Strength	72/32	kg	Without/with Connectors
	Cut-through Force	>>22kg with 0.13mm in Blade; Cross Head Speed 0.2in/min		
	Abrasion Resistance	>65 Cycles per UL719		
	Max. Contin. Operating Temp.	70	°C	
Performance Data	Leak Size to Alarm(Tap Water)	50mm max. at Any Point along Sensing Cable, up to 75 ft max. System Length		
	Drying Time	Cable Dries and Resets Within 15 Seconds from removal of Standing Water		
	Standard Cleaning Method	Wipe with Clean Damp Cloth		
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