

Water Leakage Detector

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Features

- Up to 3 independent detector cable inputs
- Extra alarm input
- Operating voltages AC 24 V or DC 15...35 V
- Simple and fast mounting
- Modbus/RS485 option
- Relay option
- Buzzer option

Applications

- Early detection of water damages
- Sensing water leakage or high levels of condensation with the detector cable
- Protect your important fields against water leakage and moisture: warehouses, stock areas, operating rooms, computer rooms, data centers, heating/cooling pipes etc.

Ordering

<i>model</i>	<i>inputs</i>	<i>options</i>
SWL	10 1x cable in. 31 3x cable in. + external in.	P Probe R Relay B Buzzer M Modbus

sample ordering code:

SWL.10.RBM
| | | options: Relay, Buzzer, Modbus
| | | 1x Detector Cable input, no external input
| | Sense Water Leakage Detector

SWL.DC
| | Detector Cable

Ordering Notes

1. Use only advised detector cables
2. External input should be dry contact and can be normally open or closed
3. All combinations are possible but some may need minimum order quantity
4. For your special needs, please request from info@senseandcontrol.com

Water Detection Cable

1. Detector Cable (SWL.DC) is specially manufactured for moisture and water leakage detection
2. Please do not use SWL.DC as for power or signal cable
3. Can detect only conductive liquids
4. Can be supplied as a roll of 25mt or 50mt, other lengths on request



General Notes

1. Observe maximum permissible cable lengths.
2. If the signal cables runs parallel to the mains cable: Use shielded cables.
3. Relay contact rating is max. 1A at 230VAC
4. We kindly advise using 24V on relay contacts and using external power relay for bigger loads to avoid high voltage harmonics
5. Please use shielded and twisted paired cables for Modbus connections
6. Do not use on grounded or conductive floors (with sensing probes touching to floor)
7. Prevent probes from touching to any chemical



DIP Switch

1. SW1, Sensitivity, High or Low for detector cable inputs 1,2,3
2. SW2, Alarm Mode, Continuous or Temporary
3. SW3, Buzzer Mode, Continuous or Intermittent
4. SW4, Relay, normally open or closed, reversing the contact



SW1 - Sensitivity

	ON	HIGH, responds to lower level of moisture
	OFF	LOW, responds to higher level of moisture



SW2 - Alarm Mode

	ON	PERMANENT Alarm, until a manual reset
	OFF	TEMPORARY Alarm, resets automatically whenever alarm is off

SW3 - Buzzer Mode

	ON	Intermittent (pulsed) Signal
	OFF	Continuous Signal

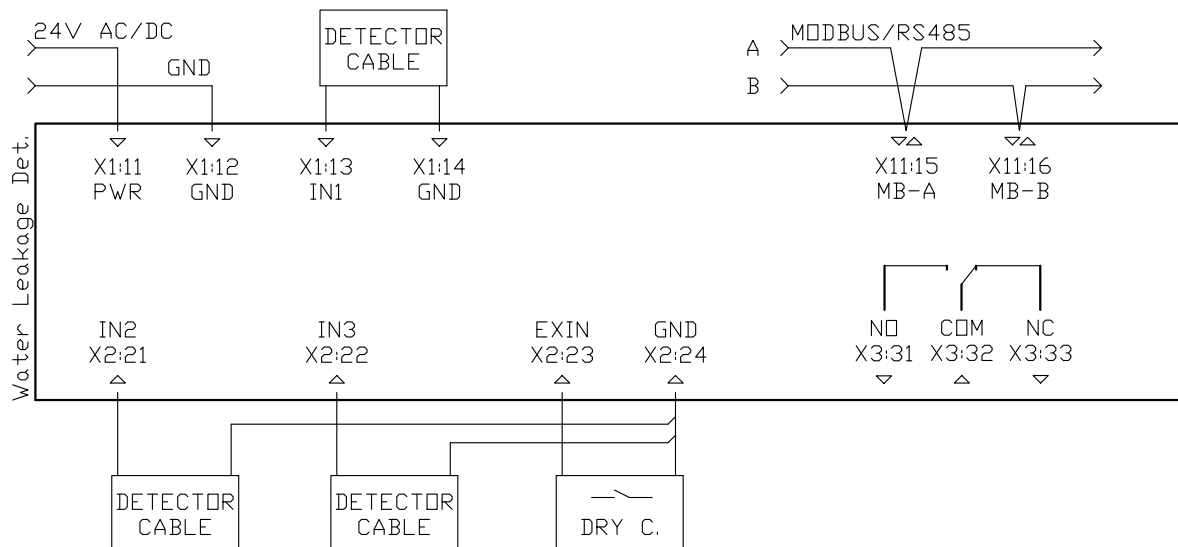
SW4 - Relay Reverse

	ON	Reversed, relay is normally closed and de-activates with alarm
	OFF	Normal, relay is normally open and activates with alarm

Technical Data

Electrical	Power Supply	AC 24V (\pm 5%), 50-60 Hz DC 15...35 V
	Power Consumption	< 2 W
Inputs	Detector Cable	3 independent channels
Outputs	Relay Output Buzzer	Changeover Contact, max. 1A @ 220 Vac > 90 db
Sensitivity	all models	adjusted by DIP Switch as HIGH and LOW
Response	all models	5-10 sec, depending on moisture level
Connections	Terminals Cable Cable Gland	Screw terminal maximum 1.5mm ² M16
Protection	all models	IP54 or NEMA 3S
Standards	EMC Directive CE Conformity	EN 61326-1 CE 2020-3
Dimensions	nett packed	109.5 x 70.0 x 42.0 mm 150.0 x 85.0 x 50.0 mm
Weight	nett packed	125 gr 150 gr

Electrical Connections

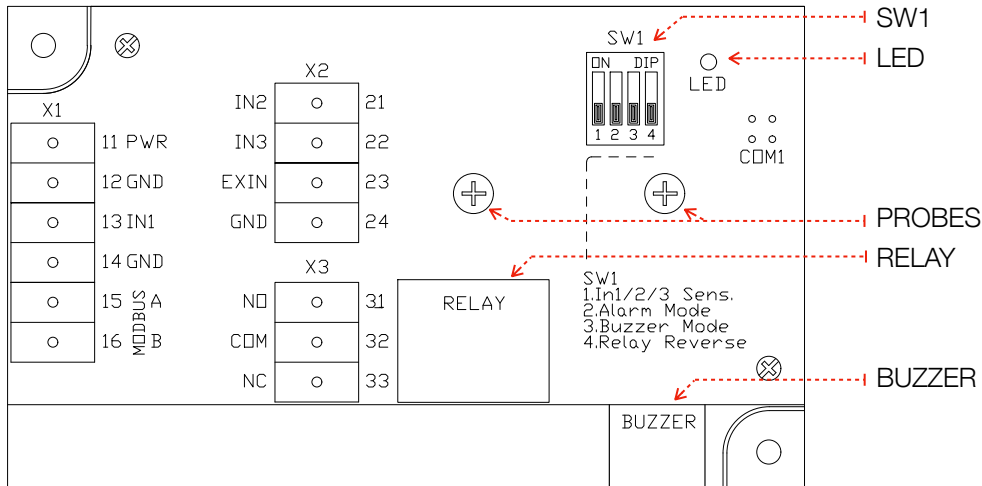


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Please use shielded and twisted paired cables for Modbus connections

Transmitter Hardware



SW1	config	see page 3
LED	working modbus alarm	blinks periodically blinks for each Modbus transmitting on when buzzer signals
PROBES		adjustable probes
RELAY		max. rating 1A @ 220 Vac
BUZZER	silent alarm	normal working sounds continuous or intermittent
X1	11 PWR 12 GND 13 IN1 14 GND 15 modbus-A 16 modbus-B	14...35 Vdc or 24 Vac (\pm %5, 50-60 Hz) ground for power and reference for outputs detector cable input 1 reference for IN1 modbus communication positive pair modbus communication negative pair
X2	21 IN2 22 IN3 23 EXIN 24 GND	detector cable input 2 detector cable input 3 external input, only dry contact reference for IN2, IN3 and EXIN
X3	31 32 33	normally open common normally closed

Modbus Protocol

Default Settings: Modbus ID:1, 9600, 8bit, None, 1. Register Table starts from Base 1.

Use Function 3 for Reading and Function 6 for Writing Holding Registers. Whenever changing any Modbus Parameter, the new parameter is activated instantly and you should have to configure the master device according to the new parameters.

ID:254 is the common address for all units.

Register	R/W	Default	Range	Description
1	R & W	1	1-253	Modbus Address
2	R & W	0	0-1	Baudrate, 0: 9.600, 1: 19.200
3	R & W	0	0-3	Bit_Parity_Stop, 0: 8bit_None_1, 1: 8bit_None_2, 2: 8bit_Even_1, 3: 8bit_Odd_1
4	R & W	500	1-1023	Threshold for HIGH sensitivity, lower values for higher sensitivity
5	R & W	1000	1-1023	Threshold for LOW sensitivity, higher values for lower sensitivity
6	R	0	0-1023	IN1, Analog value
7	R	0	0-1023	IN2, Analog value
8	R	0	0-1023	IN3, Analog value
9	R	0	0-1	IN1, Alarm situation, 0: normal, 1: alarm
10	R	0	0-1	IN2, Alarm situation, 0: normal, 1: alarm
11	R	0	0-1	IN3, Alarm situation, 0: normal, 1: alarm
12	R	0	0-1	EXIN, Alarm situation, 0: normal, 1: alarm
13	R	0	0-1	TOTAL ALARM, any alarm will be enough for total alarm, 0: normal, 1: alarm
14	R	0	0	Empty, for future use
15	R	0	0	Empty, for future use

Drawings

