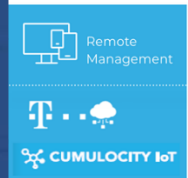


## SMARTsens INode

### Wireless Energy Data Acquisition

The SMARTsens INode is an intelligent, mesh-enabled sensor and an extension module for the IoT EnergyMonitor base package. It wirelessly captures consumption data from water, gas, heat, and cooling meters. Additionally, an alarm contact and a 4–20 mA process sensor can be connected. Sensors can be directly connected via the internal terminal block.

A wide range of non-invasive sensors allows integration with almost all common energy meters—without any interference with the existing infrastructure. The mesh technology enables reliable operation even in locations with poor radio conditions, such as heavily reinforced basements or outdoor areas.



### Keyfeatures

- Wireless solution with low power consumption
- Lifespan of at least 4 years, replaceable AA batteries
- Pulse counters for gas, water, heat, and cooling
- IP65 protection rating
- Additional alarm input
- Additional connection for 4–20mA sensor
- 868 MHz mesh technology
- Management via the cloud

### Electricity



### Gas



### Water



### Heat + Temperature

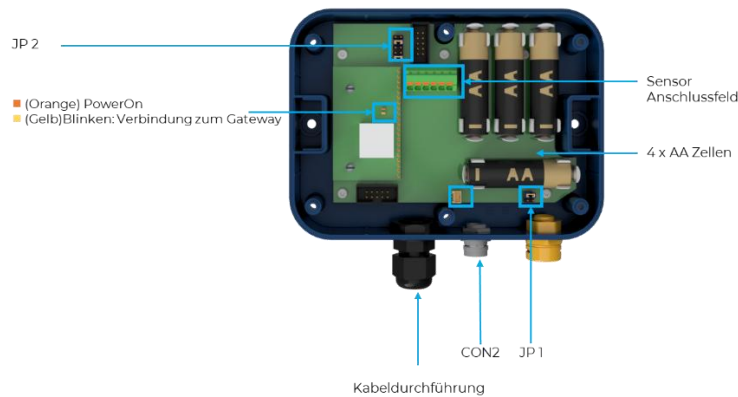


Specification



|                         |                                                                                     |                                   |
|-------------------------|-------------------------------------------------------------------------------------|-----------------------------------|
| Radio                   | Frequency                                                                           | 868MHz – 870Mhz                   |
|                         | Range                                                                               | Max. 1400m (LOS) Indoor: max. 50m |
|                         | Output power                                                                        | Max. 11 dbm                       |
| Power Supply:           | Fixed power supply / 4 x AA battery (replaceable), minimum 4 years with pulse input |                                   |
| Operation T / H         | -25°C/60°C                                                                          |                                   |
| Storage Temperature T/H | 10/30°C                                                                             |                                   |
| Protection Rating       | IP44                                                                                |                                   |
| Weight                  | Approx. 170 g (without batteries)                                                   |                                   |
| Dimensions              | 112 x 80 x 40 mm (LxWxH)                                                            |                                   |

Layout



|        |             |                                                                                                                              |  |
|--------|-------------|------------------------------------------------------------------------------------------------------------------------------|--|
| Supply | Battery     | 4 AA cells                                                                                                                   |  |
|        | Fixed Power | Connected via CON2 with external power supply 3V/1A. Article No. 70401                                                       |  |
|        | JP1         | Jumper 2-3 (default): insert 4 x AA cells<br>Jumper 1-2: External power supply 3VDC/200mA via CON2                           |  |
|        | DI1         | Alarm input for n.c. and n.o. relay types (see “Jumper”)                                                                     |  |
|        | DI2         | Pulse counter input, min. pulse duration 30ms.                                                                               |  |
| IO's   |             | +4 ... 20mA sensor input. Min. operating voltage: 12VNote: Activating this option reduces the lifespan to approx. 1.5 years. |  |
|        | AI1         |                                                                                                                              |  |
|        |             | For activating inputs, the jumpers must be set as follows:                                                                   |  |
|        |             |                                                                                                                              |  |
|        | JP2         | Default: Enable Alarm N.O.                                                                                                   |  |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Wiring diagram | <div><div>SV1 - Connections</div><div><div><div>DI1</div><div>G</div><div>DI2</div><div>G</div><div>+15V</div><div>AI1</div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div>Alarm</div><div>Counter1</div><div>4...20mA</div></div><div><div></div><div></div><div></div></div></div></div></div> |                                              |
|                | Wall mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Opening the device for electrical connection |
| Installation   | <div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                                                      |                                              |
|                | <div>Attention: For connecting a gas or water meter, you will also need the manufacturer-specific pulse transducer, which is connected to the counter input. (See DS Assignment List Sensor Type - Meter Type)</div>                                                                                                                                                                                                                                                                                                                                                                                   |                                              |
| Approval       | <div>CE</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                              |
| Conformity     | <div>EU Directives</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |
|                | <div>2014/53/EU<br/>2011/65/EU<br/>Radio<br/>EN 300 220-2 V3.2.1<br/>EMC<br/>EN 301 489-1 V2.2.3<br/>EN 301 489-3 V2.1.1<br/>Safety &amp; Health<br/>EN 62368-1:2020<br/>EN 62479:2010</div>                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |
| Warranty       | <div>1 year</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |

The information and instructions contained in this datasheet have been compiled with the greatest possible care. However, we accept no liability for any errors, inaccuracies, or omissions in this datasheet. The use of the datasheet is at your own risk.