

# 4-20mA Current Loop Sensor

*Electrically isolated current sensor, current-sourcing, 1Wire-UNI output*

Signal converter for 4-20mA current loop output of external probes. Contains a current source for powering the external probe. The converter is electrically isolated from the 1Wire-UNI bus.

Connect an external industrial probe with a 4-20mA current loop output ("sink" type). For example a CO<sub>2</sub> sensor or a tank level probe.

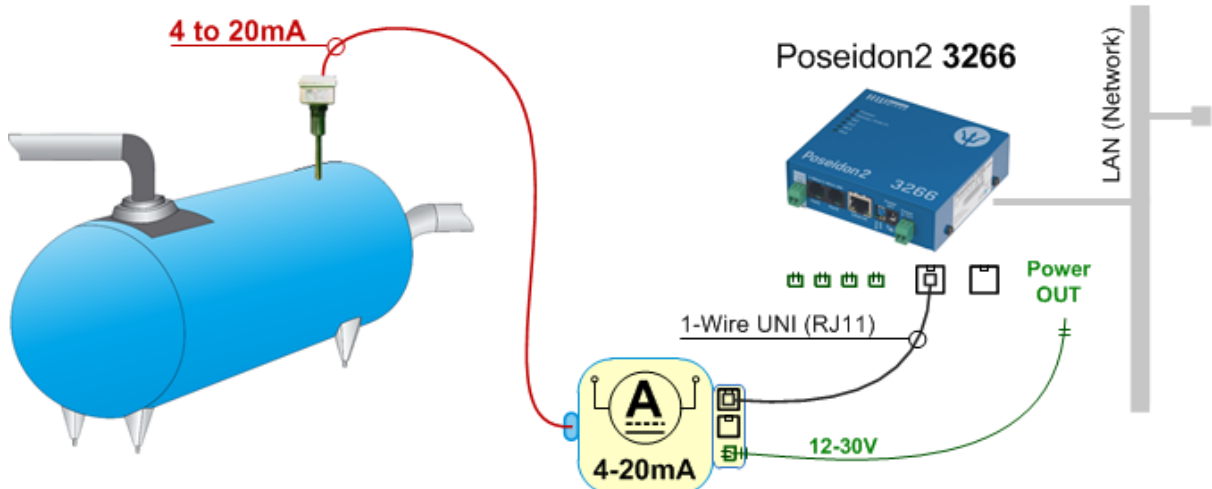
Almost any industrial sensor can be connected to Poseidon2 or Ares units in this way. The values can be shared over LAN or GSM.



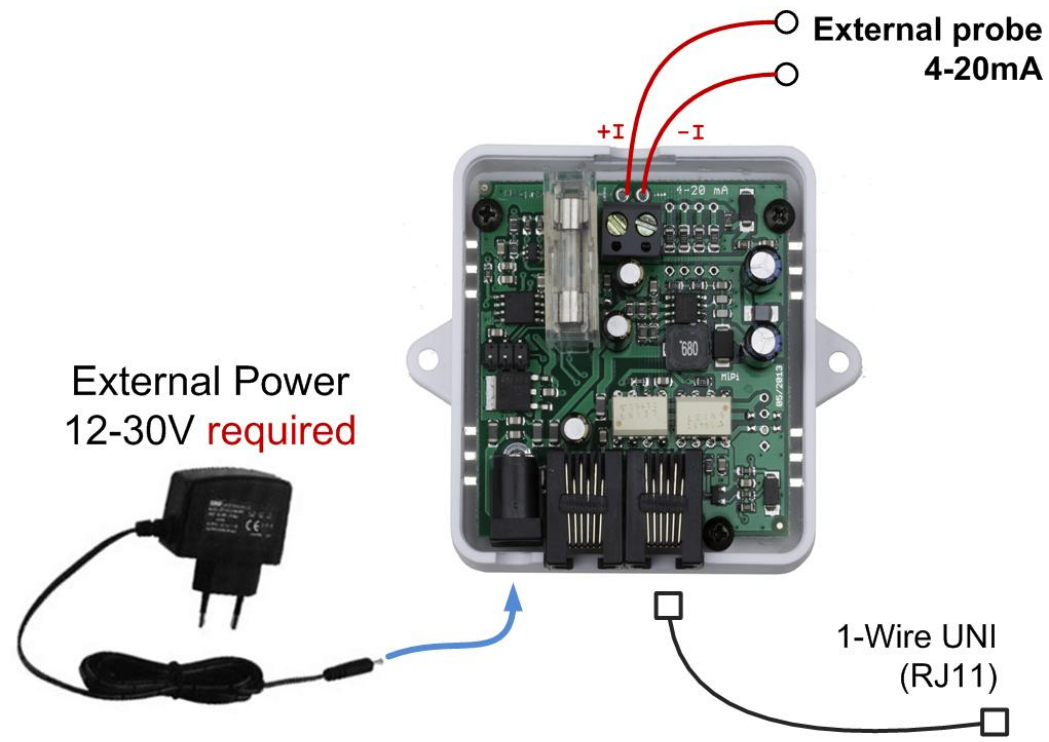
- Includes a current source for the external probes.
- 4-20mA current loop is electrically isolated from the 1-Wire UNI bus.
- The sensor can be used in industrial environments. The current loop can be several tens or hundreds of meters long.

## Applications

- Measuring fuel level in a tank
- Measuring the concentration of CO<sub>2</sub> or other gases
- Connecting pressure transducers, pH sensors, or other industrial sensors



Basic features

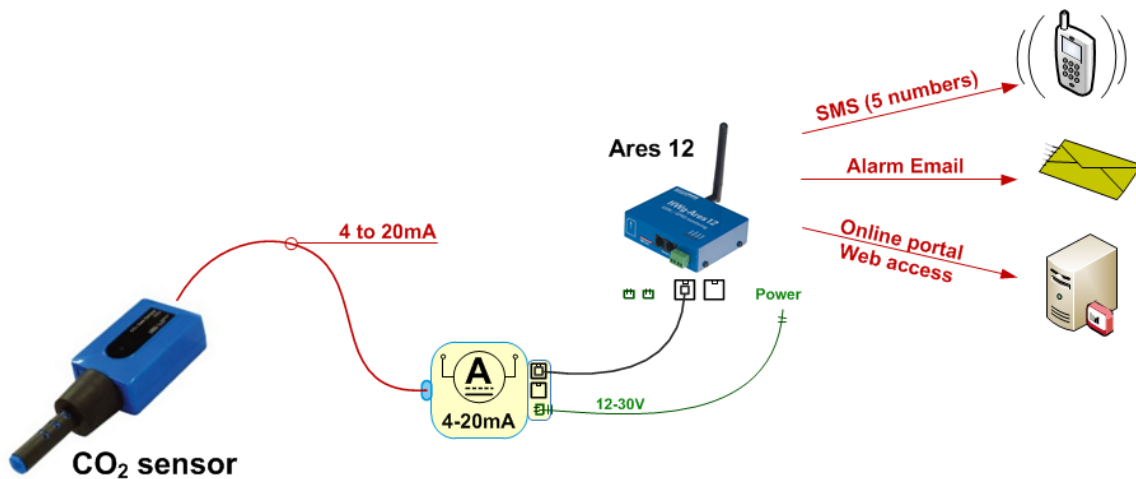


Bus	
Type	1Wire-UNI (RJ11)
Connects to	Poseidon2 xxxx, Ares xx, Poseidon 2250, Poseidon 4002, SiteMon5
Connector	2x RJ11 (sensors can be daisy-chained)
Maximum distance	60m (total line length from the active port)
Electrical isolation	1Wire-UNI bus is electrically isolated from the 4-20mA input and the external power
Power	
Power supply	Requires an external 12-30VDC power supply
Connector	Jack (inner ø 2.5 mm, outer ø 6.3 mm), GND at the outer pin + o) -
Electrical isolation	External power supply is electrically connected to the 4-20mA input
Sensor input	
Connector	2-pin terminal block ( I+ , I- )
Supported sensors	External sensor powered from the 4-20mA DC current loop (sink)
Input range	4-20 mA (max. 30V external power)
Input protection	Protective fuse (fast) - 63 mA
Accuracy	2% of the full 4-20mA range / 25°C
Sensor output	
Resolution	1 decimal place
Displayed units	Default: [mA] If you need a conversion (e.g. to [m], [mm], [hPa], [ppm]), contact your distributor.
Measuring period	Once per second
Miscellaneous	
Operating conditions	-40 to +85 °C (-40 to +185 °F) / 5 to 70% RH
Dimensions / mass	65 x 80 x 30 [mm] / 200 g

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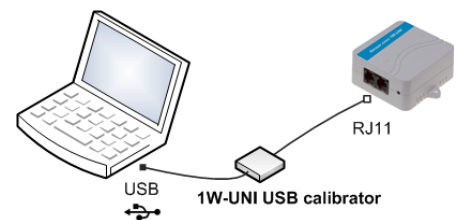
## Remote sensor monitoring over GSM/GPRS – Ares 12



- Sensor can be connected to Ares 12 / 14.
- Caution: Internal Ares battery does NOT provide 12VDC.

## Conversion and calibration settings

- Calibration tool for MS Windows
- Sensor can be calibrated on a curve at 8 different points.
- The program can set a conversion from the input voltage [V] to an output unit, e.g. [mm], [hPa], [m] or [ppm].
- Conversion directly in the sensor gives the advantage of displaying the correct value in e-mails, text messages or the WEB interface.



*Please contact your distributor for more information.*

Related products	
<b>4-20mA 1W-UNI sensor</b>	4-20mA current loop sensor, powers an external "4-20mA sink" sensor.
<b>0-20mA 1W-UNI sensor</b>	0-20mA sensor for the 1Wire UNI bus.
<b>60V 1W-UNI v2 sensor</b>	0-60VDC (–48V) voltage sensor, 1Wire UNI bus.
<b>2xPt100 1W-UNI converter</b>	Converter to connect one or two external Pt-100/1000 probes to the 1-Wire UNI bus.
<b>30A Current probe 1W-UNI</b>	0-30AAC sensor, 1Wire UNI bus, with a clamp-on transformer.
<b>1W-UNI USB calibrator</b>	USB–RJ11 cable + software to calibrate and configure 1-Wire UNI sensors.