Product description
Q-loud EnergyCam 2.0 cSP

Q-loud EnergyCam 2.0 cSP

The EnergyCam 2.0 is a sensor for reading mechanical meters and is especially designed for energy suppliers and measuring point operators, as well as the industry and trade and property management companies.

Taking readings

The camera on the optical sensor unit takes a photo of the meter. LEDs provide sufficient light even in a dark meter cabinet. The OCR recognition algorithm converts the graphical image into a numerical meter reading. The EnergyCam 2.0 recognises up to 8 digits, of which three can be decimal places. The reading interval is preconfigured to 15 minutes. For more information on the sensor, please visit:
https://q-loud.de/solucon/q-loud_energycam/

Transferring the meter readings

The meter reading is sent over the Q-loud gateway to the IoT platform where it is then available for enhancement.

Specifications Q-loud EnergyCam 2.0 cSP	
Specialisation gas	Reading and recording meter readings on diaphragm gas meters Standard send interval 15 minutes *Specialisation and interval can be configured with the ECWin software.
Network connectivity to the Q-loud IoT-Platform	cSP (cospace Sensor Protocol)
Interfaces for communication with Q-loud assemblies	868 MHz Rx /Tx Proprietary transmission protocol AES 128 encoding 50 kbit/s data transmission speed
Transmitting power	Up to 10 dBm
Radio range (Line-of-sight)	Internal antenna up to 1000 m
Power supply	Internal 3.6 V, 1600 mAh, 2/3 AA lithium thionyl battery, up to 15 years' lifetime (included)
Current consumption	15-100 mA or 3 µA standby current within Power-Down Mode
Supply voltage	3.0 to 3.6 V DC
Optical sensor unit	Camera module, mirror optics, LED lighting for reading meters of up to a 60-mm width, min. digit height 5 mm

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Product description
Q-loud EnergyCam 2.0 cSP

Display	8 digits, of which 3 are decimal places, shows current meter reading at the press of a button
Scope of delivery	1 x Q-loud EnergyCam 2.0 cSP 1 x 3M cleaning cloth 1 x 3M replacement adhesive tape 1 x Quick Start Guide 1 x Internal 3.6 V, 1600 mAh, 2/3 AA lithium thionyl battery
Software	ECWin software for EnergyCam configuration, data readout and firmware. Update per download available over Windows PC, languages: German/English https://q-loud.de/solucon/q-loud_energycam/ in the "Download and Software" section
EC2 USB interface	Optional interface for EnergyCam to the Windows PC for configuration over the ECWin software.
Positioning function	High-performance adhesive tape (residue-free)
Metrology	Non-reactive to the metrological characteristics of the meter
Operating conditions	-10 to +50°C ambient temperature
Dimensions L/W/H	27.5 mm / 70mm / 91mm
Protection class	IP 64
ATEX certificate	Zone 2

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Product description
Q-loud EnergyCam2 M-Bus

Q-loud EnergyCam 2.0 M-Bus

The EnergyCam 2.0 is a sensor for reading mechanical meters and is especially designed for energy suppliers and measuring point operators, as well as the industry and trade and municipal property management companies.

Taking the readings

The camera on the optical sensor unit takes a photo of the meter. LEDs provide sufficient light even in a dark meter cabinet. The OCR recognition algorithm converts the graphical image into a numerical meter reading. The EnergyCam 2.0 recognises up to 8 digits, of which three can be decimal places. The reading interval is preconfigured to 15 minutes. For more information on the sensor, please visit:
https://q-loud.de/solucon/q-loud_energycam/

Transferring the meter readings

The meter reading is sent via the M-Bus protocol to the central M-Bus network where it is then available for enhancement.

Specifications Q-loud EnergyCam 2.0 M-Bus	
Specialisation gas	Reading and recording meter readings on diaphragm gas meters Standard send interval 15 minutes *Specialisation and interval can be configured with the ECWin software.
Communications interfaces	M-Bus
Power supply	Via M-Bus (2 loads)
Current consumption	15-100 mA or 3µA standby current within Power-Down Mode
Operating voltage	3.3 to 3.6 V DC
Optical sensor unit	Camera module, mirror optics, LED lighting for reading meters of up to a 60-mm width, min. digit height 5 mm
Display	8 digits, of which 3 are decimal places, shows current meter reading at the press of a button
Scope of delivery	1 x Q-loud EnergyCam 2.0 M-Bus 1 x 3M cleaning cloth 1 x 3M replacement adhesive tape 1 x Quick Start Guide

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Product description
Q-loud EnergyCam2 M-Bus

Software	ECWin software for EnergyCam configuration, data readout and firmware. Update per download available over Windows PC, languages: German/English https://q-loud.de/solucon/q-loud_energycam/ in the "Download and Software" section
EC2 USB interface	Optional interface for EnergyCam to the Windows PC for configuration over the ECWin software.
Positioning function	High-performance adhesive tape (residue-free)
Metrology	Non-reactive to the metrological characteristics of the meter
Operating conditions	-10 to +50°C ambient temperature
Dimension L/W/H	27.5 mm / 70mm / 91mm
Protection class	IP 64

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Product description
Q-loud EnergyCam 2.0 Wireless M-Bus

Q-loud EnergyCam 2.0 Wireless M-Bus

The EnergyCam 2.0 is a sensor for reading mechanical meters and is especially designed for energy suppliers and measuring point operators, as well as the industry and trade and municipal property management companies.

Taking the readings

The camera on the optical sensor unit takes a photo of the meter. LEDs provide sufficient light even in a dark meter cabinet. The OCR recognition algorithm converts the graphical image into a numerical meter reading. The EnergyCam 2.0 recognises up to 8 digits, of which three can be decimal places. The reading interval is preconfigured to 15 minutes. For more information on the sensor, please visit:
https://q-loud.de/solucon/q-loud_energycam/

Transferring the meter readings

The meter reading is sent via the Wireless M-Bus protocol to the central M-Bus Network where it is then available for enhancement.

Specifications Q-loud EnergyCam 2.0 Wireless M-Bus	
Specialisation gas	Reading and recording meter readings on diaphragm gas meters Standard send interval 15 minutes *Specialisation and interval can be configured with the ECWin software.
Data transfer	Wireless M-Bus
Transmitting power	Up to 10 dBm
Radio range (Line-of-sight)	Internal antenna up to 1000 m
Power supply	Internal 3.6 V, 1600 mAh, 2/3 AA lithium thionyl battery, up to 15 years' lifetime (included)
Current consumption	15-100 mA bzw. 3 µA Ruhestrom im Power-Down Modus
Voltage supply	3.3 to 3.6 V DC
Optical sensor unit	Camera module, mirror optics, LED lighting for reading meters of up to a 60-mm width, min. digit height 5 mm
Display	8 digits, of which 3 are decimal places, shows current meter reading at the press of a button

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Product description
Q-loud EnergyCam 2.0 Wireless M-Bus

Scope of delivery	1 x Q-loud EnergyCam 2.0 Wireless M-Bus 1 x 3M cleaning cloth 1 x 3M replacement adhesive tape 1 x Quick Start Guide 1 x Internal 3.6 V 1600 mAh, 2/3 AA Lithium thionyl battery
Software	ECWin software for EnergyCam configuration, data readout and firmware. Update per download available over Windows PC, languages: German/English https://q-loud.de/solucon/q-loud_energycam/ in the "Download and Software" section
EC2 USB interface	Optional interface for EnergyCam to the Windows PC for configuration over the ECWin software.
Positioning function	High-performance adhesive tape (residue-free)
Metrology	Non-reactive to the metrological characteristics of the meter
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Dimensions L/W/H	27.5 mm / 70 mm / 91 mm
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