



### Main features:

- Complete system for the simultaneous strain-measurement on up to four tie bars
- Direct display of strain values in  $\mu\epsilon$ , kN or t (via our Inspectmate software)
- Wireless transmission (2.4GHz), no cables
- Quick and non-destructive assembly with magnetic press-on technology
- High accuracy and linearity in tension and pressure (like bonded strain gauges)
- Ideal for use on presses, injection-moulding and die-casting machines
- Application on tie bars with a diameter of 45mm or higher and flat surfaces
- Dynamic applications
- Each magnetic-mount strain sensor has an integrated signal amplifier
- Integrated rechargeable battery with up to 8h operating time
- Receiver with USB port
- Very compact and easy to use system

The magnetic strain gauge sensor QE1008-W measure the surface-strain directly at the mounting location in the same quality as bonded strain gages. The magnetic press-on technology, developed by Sensormate AG, presses the strain gauges under the stainless protective film so strongly against the surface to be measured that frictional contact occurs.

The mounting of the sensor is non-destructive, very fast and simple. The integrated signal amplifier with wireless transmission module makes the QE1008-W a state-of-the-art sensor with unsurpassed features and user-friendliness.

### TECHNICAL DATA

Strain gauge type	Foil (GF = 2.0)
Bridge resistance	350 $\Omega$
Measuring range	$\pm 800\mu\epsilon$
Output signal for radio transmission	IEEE 802.15.4TM
Signal range	Up to 100m (depending to operating area)
Sensitivity tolerance	$\pm 0.2\%$
Transverse sensitivity	0.9 $\pm$ 0.2 %
Accuracy	< $\pm 0.5\%$ FS
Linearity	< $\pm 0.5\%$ FS
Hysteresis	< $\pm 0.5\%$ FS
Repeatability	< 0.2% FS
Operating power consumption	2x 1.2VDC (2x AAA rechargeable battery)
Charger power consumption	100...230VAC
Ambient temperature	5...65°C
Storage temperature	0...65°C
Overload capability	unlimited
Type of protection	IP40
Material: Housing	Aluminium
Material: Cover	Plastic
Weight	530g

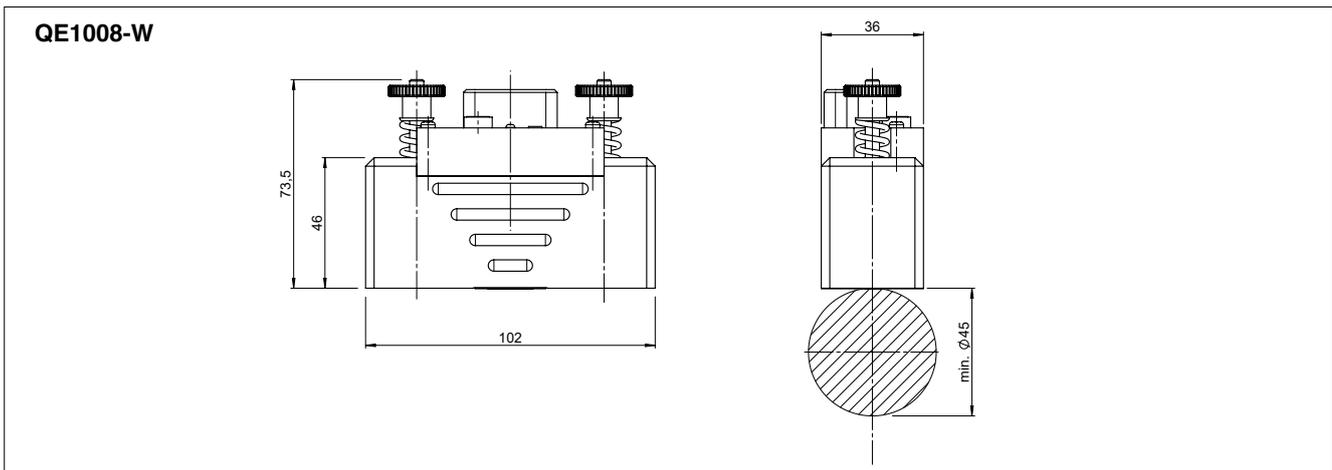
## TECHNICAL DATA TRANSCEIVER-MODULE

Number of channels for sensors	8
Power supply	USB (5.0VDC)
Operating temperatur range	5...70°C
Storage temperatur range	0...70°C
Protection class	IP40
Case material	Plastic
Weight	100g

## TECHNICAL DATA TRANSMISSION

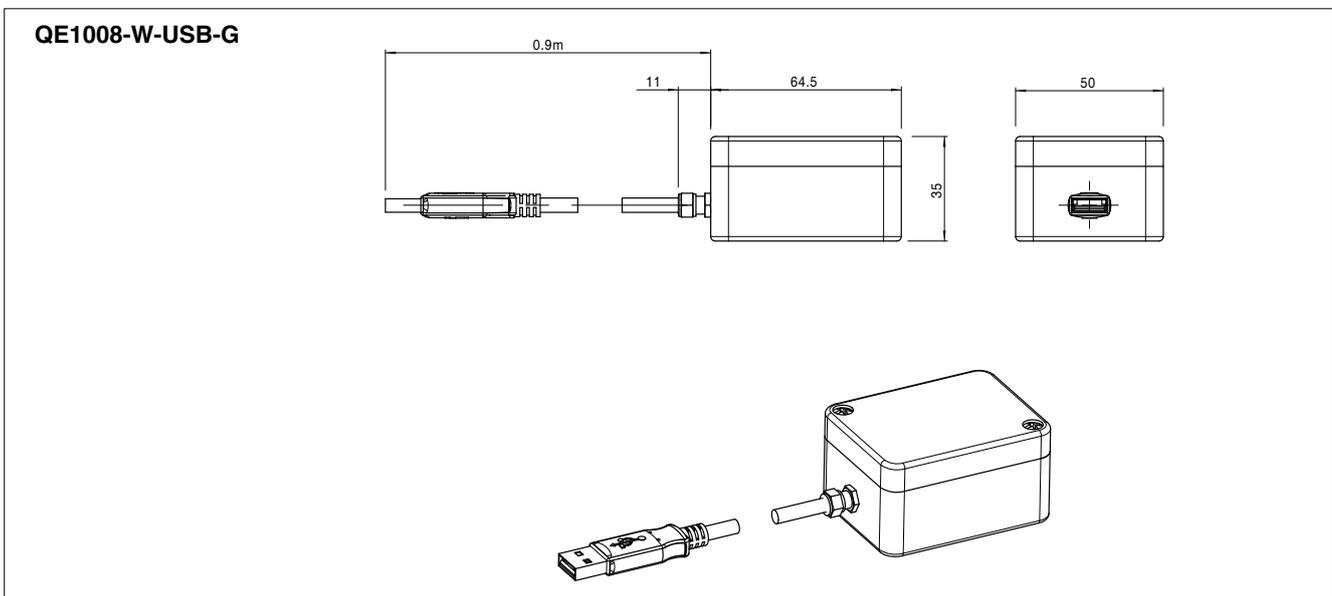
Frequency	2.405-2.480 GHz (ISM-Band)
Security protocol standard	IEEE 802.15.4TM
TX-power	0dBm / 1 mW (max.)
Range	Up to 100m (depending to operating area)
Main features:	<ul style="list-style-type: none"> <li>- Hardware CSMA-CA</li> <li>- Hardware safety-related (AES-128)</li> </ul>
<p>The transmission module is FCC (USA), IC (Canada), ETSI (Europe) and TELEC (Japan) certified.                      The MAC address is always unique and burnt into the hardware.</p>	

## DIMENSIONS SENSOR



Dimensions in mm

## DIMENSIONS TRANSCEIVER-MODULE



Dimensions in mm

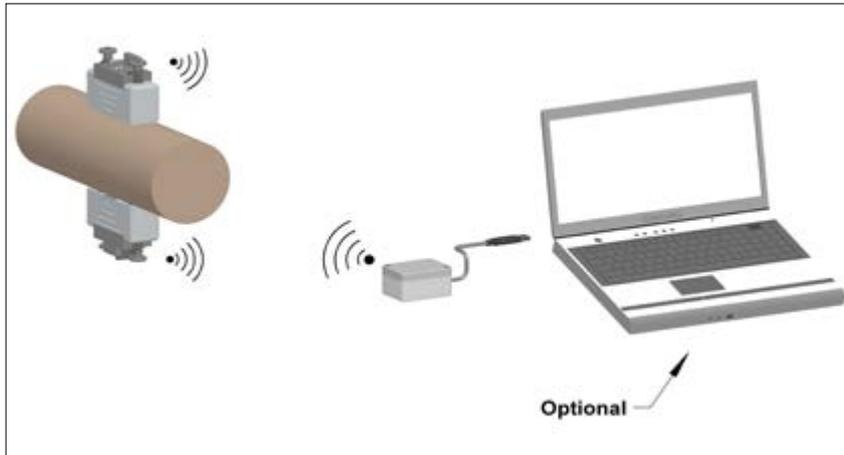
## APPLICATION

### QE1008-W-SET

- Very flexible system for measuring tie bars and also flat surfaces.
- Detecting cracks on tie bars.
- No steel bands or other mounting aids are required.

#### System containing with two sensors:

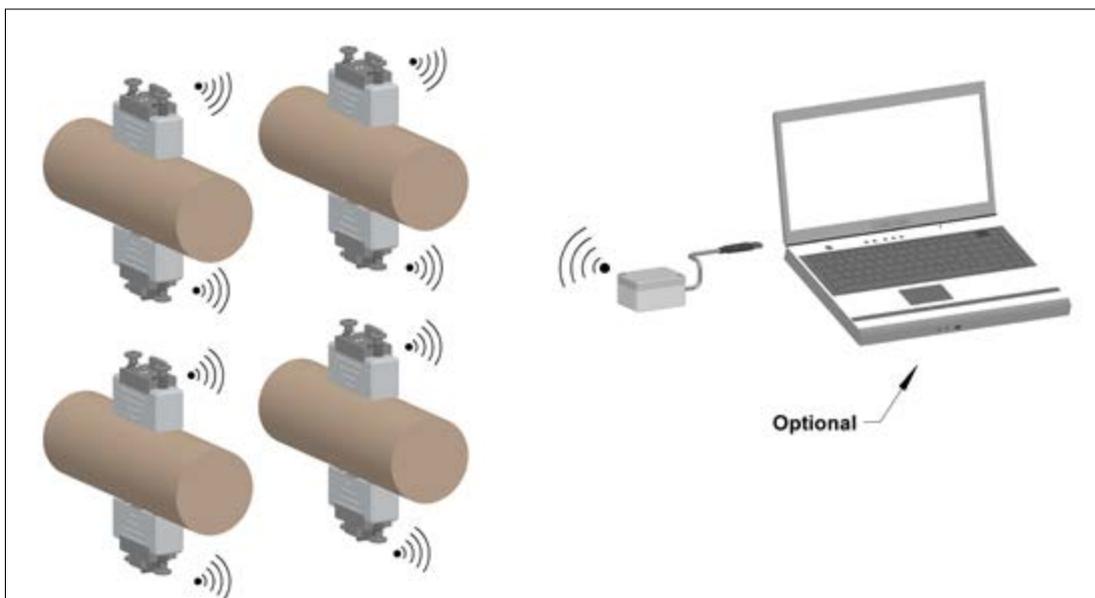
- USB Wireless receiver (for up to 8 sensors)
- 2 magnet-mount strain sensors QE1008-W incl. rechargeable batteries
- Carrying case with inserts, manual
- Alignment software, Inspectmate



External dimensions of carrying case	400 x 320 x 130 mm
Weight approx.	ca. 3 kg

#### System containing

- USB wireless-receiver (for up to 8 sensors)
- 4...10 magnet-mount strain sensors QE1008-W incl. rechargeable batteries
- Carrying case with inserts, manual
- Alignment software, Inspectmate



External dimensions of carrying case	400 x 320 x 130 mm
Weight approx.	ca. 6 kg

## ORDER CODE

Magnet mount strain sensor  
complete system

QE1008



Connection	
Wireless	W

Number of sensors	
2 pieces	02
4 pieces	04
8 pieces	08
9 pieces	09
10 pieces	10

Example: QE1008-W-08

Magnet-mount strain sensor QE1008, wireless, number of sensors = 8 pieces

## ACCESSORIES

Description	Order code	Code
Magnet-mount strain sensor	QE1008-W	F065869
Wireless receiver	QE1008-W-USB-G	F061962
Charge bar	CB-4-QE1008-W	F062885
Charger for charge bar	POWER SUPPLY	F069657
Repair-Kit foil	REPAIR-KIT FOIL	F060472

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice.



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