



Main features

- Mounts strain gages in seconds on tie bars or cylinders with 2 magnets
- High accuracy and linearity on tension and compression
- Can be used on any diameter and even on flat surfaces
- For dynamic applications
- Used on tie bars and frames of Presses and injection moulding and die-casting machines
- Can not be overloaded (offset may occur)
- Without integrated amplifier (passiv)
- Connects tot he DU-4D or DU-1D monitor

The magnet-press-on strain sensors QE1008 measure the surface-strain directly at the mounting location, similar to bonded strain gages.

The QE1008 is mounted in seconds and presses strain gages under the stainless protective foil that strongly onto the surface to be measured that friction replaces the bonding normally used to fix strain gages.

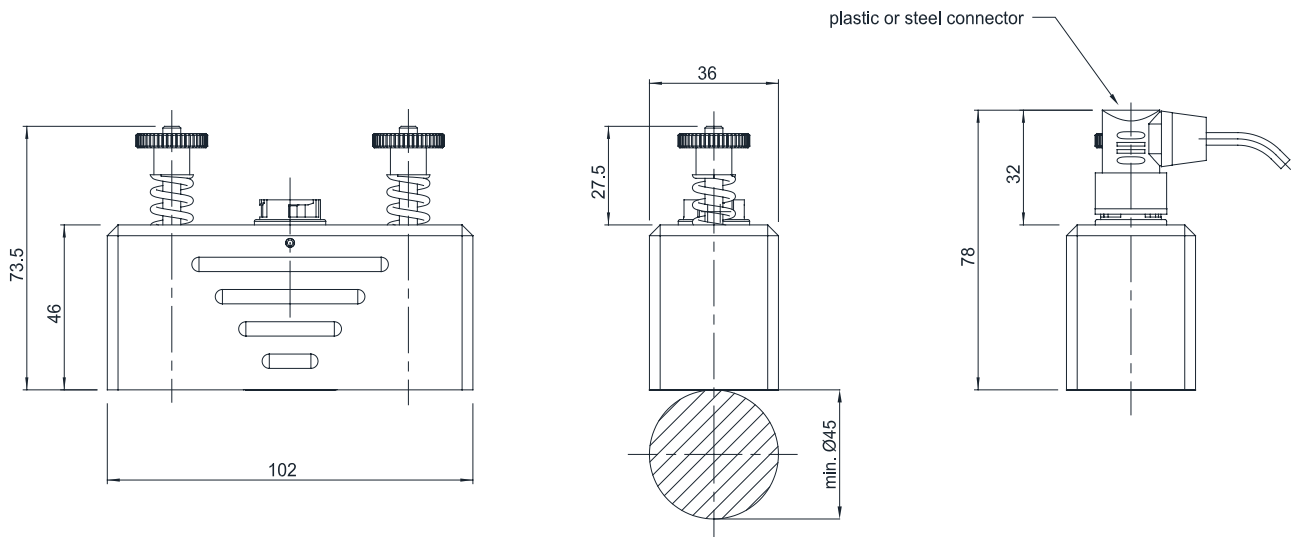
The mounting is very fast, and the strain gage is protected. The sensor can not be overloaded. The sensors do not need to be recalibrated once they have been replaced or remounted. The all have a standard sensitivity of 2.00 (K-factor).

They need a cyclical reset (for cycles >1min.). Our monitors can handle the occuring large offset range.

TECHNICAL DATA

| | |
|-----------------------------|----------------------------|
| Strain gauge type | Foil (GF = 2.0) |
| Bridge resistance | 350Ω |
| Measuring range | ± 800 µε |
| Sensitivity tolerance | ± 0.2% |
| Transverse sensitivity | 0.9 ± 0.2 % |
| Accuracy | < ±0.5% FS |
| Linearity | < ± 0.5% FS |
| Hysteresis | < ± 0.5% FS |
| Repeatability | < 0.2% FS |
| Nominal input resistance | 350Ω |
| Supply voltage | 2.5VDC (5VDC max) |
| Supply current | < 8mA |
| Operating temperature range | 5...50°C |
| Storage temperature range | 5...50°C |
| Overload capability | indefinite (offset occurs) |
| Protection class | IP54 |
| Case material | Aluminium |
| Weight including cable | 530g |

MECHANICAL DIMENSIONS



Mounting

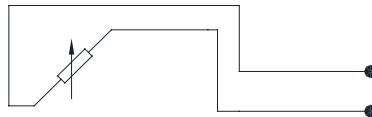
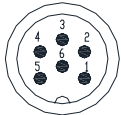
The single magnet extensometer should be placed carefully on the steel surface by pressing the single fixing screws towards the steel surface to be measured.

Please take care that the moveable magnets of the sensor stands absolutely in axial line on the surface.

The pressing force of the sensors can be adjusted by turning on the nuts to reduce or increase the force of the magnets (the highest force is generated just before the lift-off of the magnets).

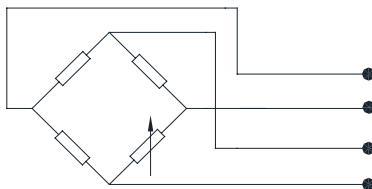
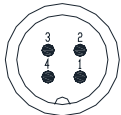
ELECTRICAL CONNECTIONS

Version 1/4 bridge (Option C/S)



| OPTION C/S (CONNECTOR OUTPUT) | FUNCTION |
|-------------------------------------|----------------|
| 1 | Strain gauge 1 |
| 2 | Strain gauge 1 |
| 3 | n.c. |
| 4 | n.c. |
| 5 | n.c. |
| 6 | n.c. |

Version full bridge (Option F)

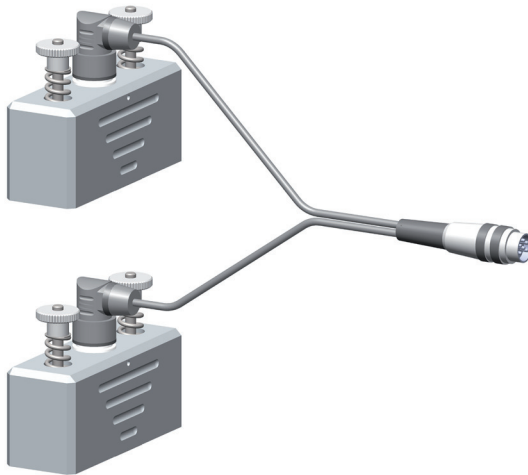


| OPTION F (CONNECTOR OUTPUT) | FUNCTION |
|-----------------------------------|--------------|
| 3 | Signal + |
| 2 | Signal - |
| 1 | Excitation + |
| 4 | Excitation - |

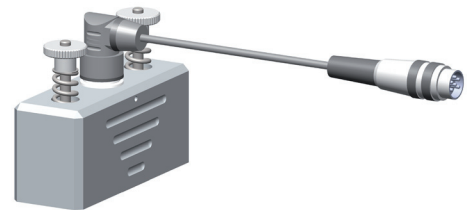
OPTIONAL ACCESSORIES

| Accessories | | |
|--------------------------------|----------|------------------|
| Y - cable (for 2x1/4 bridge) | 3 meter | EM - 03 Y |
| | 5 meter | EM - 05 Y |
| | 10 meter | EM - 10 Y |
| Single cable (for full bridge) | 3 meter | EM - 03 |
| | 5 meter | EM - 05 |
| | 10 meter | EM - 10 |

Y-cable:



Single-cable:



ORDER CODE

The magnet mount strain gage
QE1008 -

| Connection | |
|-----------------------------------|----------|
| Plastic connector (1/4 bridge) | C |
| Steel connector (1/4 bridge) | S |
| Plastic connector (4/4 bridge) | F |



Example: **QE1008 - C**

Single precision extensometer with magnet clamp



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