



#### 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
- 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
- 4- channel digital monitor DU4D
- USB connection for tie bar adjustment software (optional)
- Very compact and easy to use system

The DU-4D Monitor is an industrial signal amplifier and monitor for strain gauges and strain sensors. It has integrated functions for external and internal (automatic) reset. Force measurement on tie bars displays in kN or tons and diameter input. Strain measurement displays in  $\mu\epsilon$  (micro strain). Direct switch units and change parameters. The handling is very user-friendly, the robust aluminium housing ideal for harsh environments.

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 Gefran Schweiz 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.

#### TECHNICAL DATA\*

Strain gauge type	Foil (GF = 2.0)
Measuring range	$\pm 800 \mu\epsilon$
Accuracy	$< \pm 0,5\% \text{ FS}$
Linearity	$< \pm 0,5\% \text{ FS}$
Hysteresis	$< \pm 0,5\% \text{ FS}$
Repeatability	$< 0,2\% \text{ FS}$
Supply voltage (DU-4D)	85...260VAC / 50-60Hz, 0,5A
Operating temperatur range	5 bis $+50^\circ\text{C}$
Storage temperatur range	0 bis $+50^\circ\text{C}$

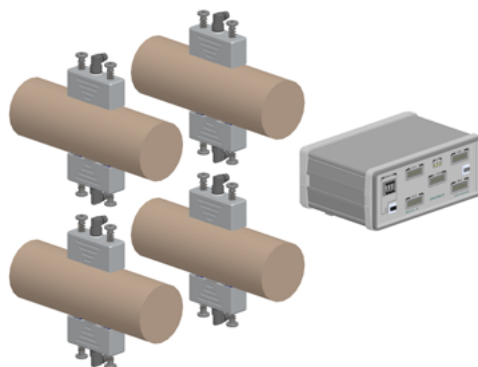
\* Further specifications takes from data sheets „QE1008“ and „DU-4D“.

#### APPLICATION

##### System containing

- 4- Channel digital monitor DU-4D
- 8...10 Magnetic-mount strain sensors QE1008 incl. Y-cable
- Power cord Typ L
- Carrying case with inserts
- Repair-Kit Foils

External dimensions of carrying case	500 x 330 x 210 mm
Weight	approx. 13 kg



## ORDER CODE

4- Channel system for tie bar strain measurement with digital Monitor

QE1008 -   -   -   -

Number of QE1008 sensors	
8 pieces	<b>08</b>
9 pieces	<b>09</b>
10 pieces	<b>10</b>

Monitor type	
DU-4D	<b>4D</b>






Cable lenght	
3 m	<b>03</b>
5 m	<b>05</b>
10 m	<b>10</b>

Features	
USB-Output for tie bar adjustment-software	<b>USB</b>
US-tons instead tons	<b>UST</b>
Analog output: 0...10 VDC (only without USB-Output)	<b>ANO</b>
No features	<b>000</b>

Example: QE1008 - 08 - 4D - 05 - ANO

Magnetic-mount strain sensor QE1008 (8 pieces), 4- Channel digital monitor DU-4D, Y-cable with lenght of 5m (4 pieces), analog output

## ACCESSORIES

Description		Order code	Code
Y-Cable	3 m	C - 678 - 030 - 680 - Y	F061939
	5 m	C - 678 - 050 - 680 - Y	F060629
	10 m	C - 678 - 100 - 680 - Y	F060630
Magnetic-mount strain sensor QE1008		QE1008 - C	F061230
Power cord Typ A		Power cord Typ A	F069672
Power cord Typ C		Power cord Typ C	F069671
Power cord Typ D		Power cord Typ D	F069673
Power cord Typ K		Power cord Typ K	F069674
Power cord Typ L		Power cord Typ L	F069670

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

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DTS\_QE1008-DU-4D\_06-2025\_ENG