BoltSafe

Load Measuring Systems

Product sheet | SM-200 Handheld Reader

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How does the SM-200 Handheld Reader work?

The SM-200 handheld reader is a handheld instrument that reads and stores data from both the CMS (Continuous Monitoring System) and PMS (Periodic Monitoring System) BoltSafe load cells. The CMS load sensor has a connector cable which connects directly to the SM-200. The handheld reader then shows the value of the connected sensor on the LCD display. If you want to use the SM-200 to read data from the PMS load cell, a probe is needed. This probe energizes the BoltSafe Sensor and reads all data through a non-contacting interface. The probe on the other hand is connected to the SM-200 with a connector.

When using the handheld reader, the user can monitor the residual bolt load directly on the reader. If you connect the SM-200 to a PC with a USB cable, you can send the measured bolt load data to a Windows PC afterwards. The acquired data can be analyzed by special software called “BS Report Generator”. The cables and software are available separately. Ask our sales team to advise you about everything you need for your specific project.

How is the SM-200 Handheld Reader used?

The handheld reader can be used for direct readout during the initial setting of the residual bolt load in the bolted joint, but also for subsequent checks while the bolt has already been mounted. The SM-200 will read and display the bolt load data from the load cell on its LCD display. This data can be displayed either in kN (Kilonewton) or in lbf (Pound-force). When there is no sensor connected, the unit will switch off automatically after one minute.

The bolt load data can be stored on the handheld reader with the push of a button. The handheld reader can store data from up to 256 different load cells. If the same load sensor is scanned multiple times, the SM-200 will store only the most recent value. This data can be transferred from the handheld reader to a computer. Reports can be printed as well for future reference.

Technical data SM-200 Handheld Reader

Choice of units	kN or lbf x 100
Storage capability	254 Sensors, one value per sensor
Communication	RS-232
Battery	9V Alkaline (6LR61) To change battery, open the rear lid using a screwdriver. Make sure the insulation is replaced.
Battery lifetime at ambient temperature continuously monitoring CMS washer	> 24 hours The battery lifetime is reduced when the unit is below freezing point
Battery lifetime at ambient temperature continuously monitoring PMS washer	> 2,5 hours The battery lifetime is reduced when the unit is below freezing point
Battery lifetime at ambient temperature continuously serial up-load RS-232	> 15 hours The battery lifetime is reduced when the unit is below freezing point
Operating temperature range	-20°C to 50°C
Sealing	IP54
Material	Aluminium casing, Stainless steel front and rear panel (1mm), Polyurethane cover
CE-approval	Tested to comply with: Emission requirements EN 50081-1, EN 55011B Immunity requirements EN 61000-6-2 EN 61000-4-2, EN 61000-4-3, ENV 50204

Technical data Probe-110

Operating temperature range	-10 to + 50 °C
Sealing	IP 54
Casing	Aluminium casing
CE-approval	Tested to comply with: Emission requirements EN 50081-1, EN 55011B Immunity requirements EN 61000-6-2 EN 61000-4-2, EN 61000-4-3, ENV 50204