

Technische Daten / Technisches Merkblatt

RMG 4015 (Best.-Nr. 4015.002)

ab Seriennr. Software-Version

Display

Display method 8 characters LCD DOT matrix display
Visible area approx. 60 x 15 mm²
Character resolution 5 x 7 pixels

Acquisition of measuring data

Measuring rate (continuous mode) approx. 1 reading per second
Measuring range 0 - 99.9 mm
Measuring resolution 0.1 mm

Measurement uncertainty

On control block 4720.003 after two point calibration 0 - 10 mm: $\pm 1\%$ - $\pm 3\%$

After zero point material correction (w/o use of a reference crack) on ferro-magnetic material with material properties similar to CK45
0 - 10 mm: $\pm 1\%$ - $\pm 23\%$
10 - 100 mm: $\pm 1\%$ - $\pm 25\%$

After zero point material correction (w/o use of a reference crack) on austenite material with material properties similar to material no. 1.4301
0 - 100 mm: $\pm 1\%$ - $\pm 25\%$

After two point material correction (w/ use of a reference crack) on ferro-magnetic material
0 - 10 mm: $\pm 1\%$ - $\pm 13\%$
10 - 100 mm: $\pm 1\%$ - $\pm 15\%$

After two point material correction (w/ use of a reference crack) on austenite material
0 - 10 mm: $\pm 1\%$ - $\pm 20\%$
10 - 100 mm: $\pm 1\%$ - $\pm 25\%$

Measurement uncertainty when determining the inclined position of crack (angle α , only with ferritic material) $\pm 10\%$ $\pm 5^\circ$ at $\alpha > 30^\circ$

INPUTS and OUTPUTS

Serial PC/printer interface 4 pin LEMO1 connector for data cables 1657.307 (PC) and 1657.306 (printer)
Data format: 4800 bauds, 8 data bits, 1 stop bit, no parity
Probe 7 pin LEMO2 socket to connect all RMG probes
Charger socket 1.3 mm low voltage connector for charger 2806.001

MISCELLANEOUS

Measure system selectable mm and inch
Date and time Real time clock included

MEMORY

Readings up to 3850 readings
Number of batches max. 300

VOLTAGE SUPPLY

Rechargeable battery mode 2 ea. NiMH rechargeable batteries (size AA)
operating time (with max. current consumption) approx. 4 h (new batteries)
Battery operation 2 ea. alkali manganese primary cells (size AA),
operating time up to 8 hrs
Indication of battery capacity indication "LOW BAT" is shown on the display

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PERMISSIBLE AMBIENT CONDITIONS

Operating temperature	0 °C to +45 °C
Storage temperature	-20 °C to +60 °C w/ removed batteries 0 °C to +45 °C w/ inserted batteries
Dust and humidity	protection class IP 40

OUTER APPEARANCE

Dimension (h x w x d)	83 x 151 x 35 mm ³
Weight	225 g w/o batteries

Case

Material	ABS, black
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Probes

Measuring method	Potential probe, 2 current poles, 2 voltage poles
Measuring tips	spring-loaded gilded pins, separately exchangeable acc. to wear
Pin types	Needle contact pins: for the penetration of very thin non-conducting surface layers surface layers
Integrated electronics	GG20

Arrangement of the measuring tips

Square	Current tips in parallel to the voltage tips greater resolution than linear pin arrangement especially suitable for austenite material determination of crack angles not possible
Linear	Current tips outward, voltage tips inward squared arrangement of pins determination of crack angles possible

Probe types

RMSQ 0° art. no. 4418.001	straight probe squared pin arrangement
RMSL 0° art. no. 4416.001	straight probe linear pin arrangement
RMSL 90° art. no. 4417.001	angled probe linear pin arrangement
RMSL-S0° art. no. 4421.001	straight probe linear pin arrangement for determination of inclined cracks
RMSL-S90° art. no. 4420.001	angled probe linear pin arrangement for determination of inclined cracks