

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 mm ²
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 operating time (with max. current consumption)	2 ea. NiMH rechargeable batteries (size AA) approx. 4 h (new batteries)
Battery operation operating time	2 ea. alkali manganese primary cells (size AA), 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