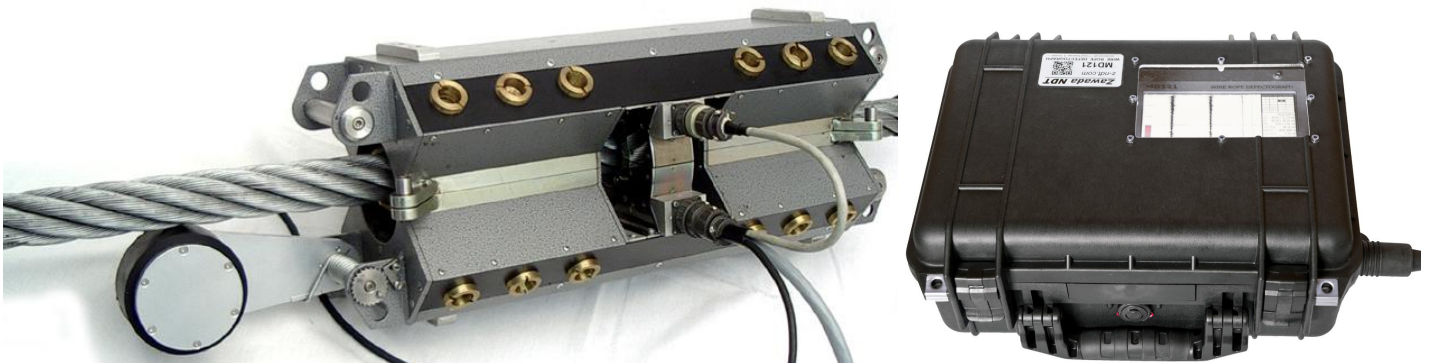




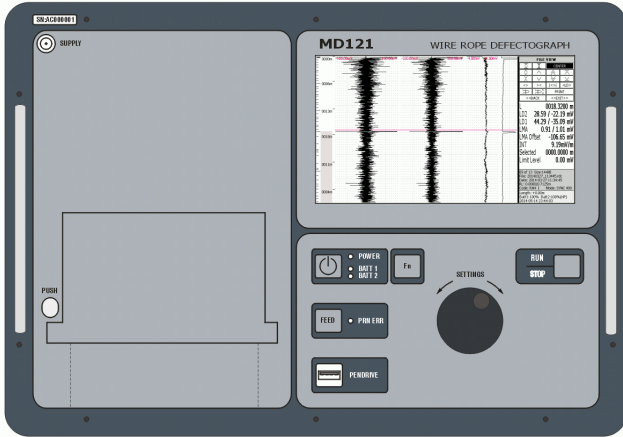
MD121 WIRE ROPE DEFECTOGRAPH

*Instrument Set for Non-destructive
Magnetic Testing of Wire Ropes*



[Zawada](#) NDT

Wire Rope Inspection Equipment



The operation of our NDT instruments is based on permanent magnet method, which was developed in Poland and is used throughout the world. Standard range of sensing test heads can be used for ropes ranging from 8 to 105 mm diameter. Custom designed heads are also available. For smaller ropes our MD-20/25 hand-held head-tester can be used.

The **GP-series** test/measuring heads are sources of signals at magnetic inspection of the steel wire ropes of various sizes. Recorded head signals indicate **LD/LF** rope defects of stepwise changes of the cross-section nature (wire breaks, pitting corrosion, etc.) and also **LMA** distributed rope steel cross-section reduction (corrosion, wear).

Analysis of the head generated signals makes possible determining the rope cross-section reduction rate as well as the length and depth of the defected section of the rope.

The **MD121 recording system** includes a specially designed **MD121 Wire Rope Defectograph**, a **portable data recorder with chart recorder**. This is new instrument based on embedded industrial computer system which allows real time watching signal traces on 7" **display**, **printing** traces on strip chart simultaneously and **viewing recorded data** after rope test, with many features as zooming traces, searching for pulses crossing set limit, etc. Recorded data can be transferred to PC with USB pen drive memory and can be viewed and analysed with PC version of MD121' software. This unique instrument has been designed as a helpful and comfortable tool, to meet the special needs of rope experts in heavy industrial environments

transparent window IP65 version

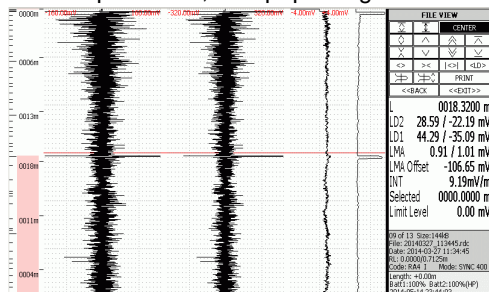
MD121 Wire Rope Defectograph | Signal Recorder

and IP67 version



Specifications

MD121 /GP System meets requirements of	European standard EN 12927-8 and other standards
Number of direct sensor channels:	3 total, two LF/LD and one LMA
Number of additional channels:	1, INTEGRAL created on base of main LF/LD signal
Defect positioning on rope length:	strip chart feed and/or screen view is synchronised with rope/test head feed at 1, 2, 5, 10 div/m of rope or constant feed 1, 2, 5, 10 div/s, when recorded; length measurement indications shown on screen and printed on strip chart margin
"Zoom replay" ratio:	20 div/m of rope or div/s in immediate zoom mode, after interruption of recording and next any zooming ratios are available in both axis, in file view mode (zooming-in is signal resolution limited only); Zoom-Out is not limited by user settings set during recording (whole signal is stored, no signal over-range)
Strip chart paper:	thermal sensitive 110 mm wide, length 20 to 30 m (roll)
Longitudinal data (sampling) resolution	1 or 2.5 mm at synchro mode or up to 5000 samples/s at time base mode
Data Memory Capacity	up to 10 km long non-interrupted rope test (one file) and up to 400 km long rope tests total at synchro mode
Rope speed range at compensation of speed influence to inductive sensor signals:	0.02 to 10 m/s
Operating conditions except printing:	Temperature -20° to + 50° C, Relative humidity up to 95%
Operating conditions with chart printing:	Temperature 0° to + 40° C, Relative humidity up to 85%
Power:	100-240V ac; internal rechargeable Li Ion battery for 14.5 hours operation without printing or 10 hours operation with printing strip chart (at 20° C)
Dimensions and Gross Weight with standard equipment:	41*33*17 cm 8 kg
Wet and dust protection, except printing:	IP65 for transparent window version or IP67 if housing without window



File browsing mode screen view

Strip chart recording method
Thermal array line printing head, printing on thermal paper
resolution 8 dots/mm
channel format - overall width 103 mm

- two LF/LD Coil channels ± 18 mm each
- LMA Hall channel ± 9 mm
- Main LF/LD Integral channel 9 mm
- grid every 1 mm and 10 mm in separate channels

Zawada NDT

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