SONATEST MASTERSCAN D70

Ultrazvukový digitální přístroj, konvence

UT

POPIS ZAŘÍZENÍ

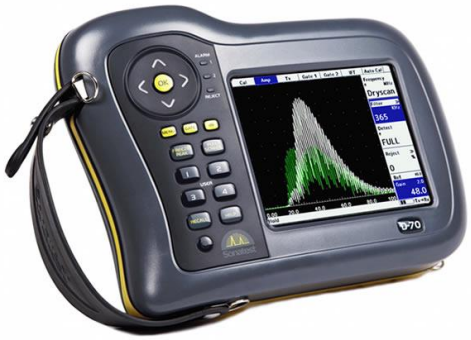
Název Masterscan byl vždy spojován s přístrojem robustní konstrukce v kombinaci s výjimečným výkonem. Všechny funkce jsou již předinstalovány v přístroji **MasterScan D70**, odblokovávate si je pouhým zadáním číselného kodu, příp. provádíte aktualizace stejně jako u telefonu. Vysoká úroveň rozlišení blízkého povrchu, silný výkon (napětí až 450 V pulsér) a vynikající poměr signálu k šumu jsou klíčovými funkcemi řady **MasterScan D70**.

Tento přístroj nabízí obsluze plně schopný a funkční sadu nástrojů a softwaru pro kontrolu napříč všemi aplikacemi.

Typickými aplikacemi jsou kontrola svarů, detekce koroze, kontrola kompozitů, testování spojů, výkovků a odlitků, použití v elektrárenství, letectví, automotive (včetně EMATS a obecné kontroly UT), atd.

Bezplatný software UT-Lity poskytuje vše, co potřebujete pro správu inspekčních dat. Standardní verze umožňuje Vám prohlížet, přesouvat a spravovat kalibrace, A-skeny, B-skeny a vytvářet protokoly jak na přístroji, tak na vašem PC.

MasterScan D70 je určen pro ovládání jen jednou rukou, druhou rukou ovládáte sondu.



KLÍČOVÉ VLASTNOSTI

- ✓ **Digitalní přenosný přístroj s jednoduchým a intuitivním ovládáním**
- ✓ **Bezplatný software UT- Lity ke každému přístroji**
- ✓ **Konfigurovatelný on-board software**
- ✓ **Angle Measurement Mode**
- ✓ **Enkodovaný B-Scan**
- ✓ **Křivka DAC & DGS/AVG, DAC, TCG, BEA, AWS, API, IFT, Dryscan, Corrosion software**
- ✓ **Výdrž baterie cca 16 hodin**
- ✓ **Záruka 24 měsíců, možnost zakoupení prodloužení záruky až na 5 let**

SPECIFIKACE

Test Range 0-1mm(0.05in) up to 0-20,000 mm(800 in.) in steel at 5930m/s (19455f/s)

Velocity 256 - 16000 m/s continuously variable.

Probe Zero 0 to 999.999 µs.

Delay 0-20,000m (800in) in steel at 5930m/s.

Gain 0 to 110dB adjustable in 0.1, 0.5, 1, 2, 6,14 and 20dB steps.

Test Modes Pulse echo and transmit/receive.
Single Crystal, Double Crystal and Pitch-Catch.

Damping 50 and 400 Ohm damping selectable.

Pulser 100-450V -ve spike and square wave. Pulse Width from 35nS to 2500nS.
Rise/Fall times <15nS into 50R load.

Active Edge ™ Unique Active Edge Mode for improved near-surface resolution.

P.R.F Adjustable 5Hz to 5kHz. External sync also available.

Screen Update Rate 60Hz

Rectification RF, Full wave, +ve half-wave and -ve half-wave.

Frequency Range 8 selectable filter bands.

i)	100kHz - 500kHz	ii)	200kHz - 800kHz
iii)	0.4MHz - 1.6MHz	iv)	1.4MHz - 3MHz
v)	3MHz - 8MHz	vi)	7MHz - 15MHz
vii)	9MHz - 21MHz	viii)	16 MHz - 22 MHz (Wideband)

Additional tuned low frequency pre-amp with Dryscan option.

System Linearity Vertical = 0.5% Full Screen Height (FSH).
Horizontal +-0.2% Trace Full Screen Width (FSW).

Reject (Selectable) Up to 80% Linear reject
(removes baseline noise without affecting indication amplitude)
Or Up to 50% Suppressive reject
(increase zero offset and reduces amplitude of all echoes)
LED Warning when active.

Units Metric (mm), inch (in) or microseconds.

Display Colour Transflective VGA (640 x 480) TFT
Display area: 116.16 x 87.2 mm (4.57 x 3.43 in).
A-Scan Area: 400 x 510 pixels (normal), 460 x 620 (FS).
Colours: 9 colour options with variable brightness.

Gate Monitor Two independent gates for measurement and monitoring. Start and width fully adjustable over the entire range of the instrument. Levels adjustable from 0% to 100%, positive or negative triggering on each gate with audible & visual alarms. Gate resolution is 5nS.

Zoom Expands range and delay to cover the area set by Gate 1 start & width controls.

AGC Automatic Gain Control automatically sets the signal in Gate 1 to a level between 10% and 90% FSH, tolerance between 5% and 20%.

Measurement Modes

Mode 1 Signal monitor, Gate alarms can be active but no measurements are displayed.
Mode 2 Depth and amplitude of first signal in gate.
Mode 3 Echo-Echo distance measurements.
Mode 4 Trigonometric display of beam-path, surface distance (including X-offset) and depth of indication from the inspection suface together with echo amplitude. Curved surface correction can be applied for convex and concave surfaces. Half-skip can be indicated on screen.
Mode 5 Gate to Gate distance measurement
Mode 6 Flank to Flank
Mode 7 Beam Angle, calculated from beampath, hole radius and hole centre depth.

Measurement Display Live display and updates on screen at 3 times per second.

Contour Trailing-Edge slew-rate control to reduce half cycles in rectified modes. Selectable from one of 6 levels.

Waveform Smoothing Select from:
i) None (both min and max values are displayed in the A-Scan)
ii) Fill (Min values set to baseline value, produces a solid A-Scan)
iii) Smooth (min values ignored, produces a clear outline A-Scan)

Persistence Causes previous A-scans to "fade out" at a user-determined rate

Auto-Cal Provides automatic calculation of velocity and probe zero from 2 reference echoes.

Reference Waveform Displays a previously stored A-log in a colour different from the active display: enabling a quick visual check of the differences.

Clock Built in, battery-backed RTC keeps time and date. Visible on the status line, always stored with Panels, A-logs etc.

Internal Memory 4GByte storage available for A-scans, panels, T-logs, B-logs etc.450,000 Panels, 200,000 A-Logs, 300,000 B-Charts, 440,000 T-Logs

Active Peak Memory Retains all A-scans on screen for echo-dynamic pattern analysis, with the active A-scan displayed in a separate colour.

Notes Alphanumeric labelling for panel stores, A-logs, B-logs etc.

Display Freeze Hold the current waveform on screen for off-line processing

Help Key Shows software and hardware information.

Language Support Multiple languages are selectable from a list including: English, French, Spanish, Russian, Chinese (Modern). Others are available on request.

Encoder Connection Lemo min 4-pin connector (D70)
D-Sub 15 connector (700M)

Video Output Standard on 700M. Factory Option on D-70.

Proportional Outputs Available on 700M.

External Sync Available on 700M.

USB Connection Internal storage shown as Memory Device.

Transducer Sockets BNC or LEMO (factory option).

Power Lithium Ion 14.4V battery pack. Typically 16 hours, max. 18 hrs. Indication of battery charge status. Recharge ime 3-4 hrs. Battery can be charged separately.
Mains pack optional.

Charger 100-240 VAC, 50-60 Hz.

Environmental Designed to meet IP67

Temperature Operating -10°C to 55°C (14°F - 131°F).
Storage -40°C to 75°C (-40°F - 167°F).

Size D-70: H172mm x W238mm x D70mm (6.77in x 9.37in x 2.75in).
700M: H145mm x W255mm x D145mm (5.7in x 10 in x 5.7in).

Weight Masterscan D-70: 1.7 kg (3.7lbs) with battery.
Masterscan 700M: 2.5kg (5.5lbs) with battery.

Warranty 2 year

Extended Warranty Sonacover - extended 5 year warranty, including 4 calibrations.

Calibration Standard EN12668-1:2010 (Detailed Specification available on request).

Standards Vibration to 514.5-5 Proc 1 Annex C Fig 6
Shock 516.5 Proc 1 15g/6ms
Explosive atmospheres - MIL-STD 810G
Method 511.5 Procedure I

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