PHL 960

- For measuring hardness values of various materials. LCD display with indication of values and battery status. Hardness conversion in HV, HB, HRC, HRB, HRA, HS scales.
- Equipped with USB interface. Suitable for hardness measurements on cast iron and steel rollers.

Standard Equipment

- Rebound probe (D type), calibration wedge, probe cable, software, carrying case and user manual.

	PHL 960
Testable materials	Steel, tool steel, stainless steel, cast iron, nodular cast iron, aluminium, brass, bronze
Measuring range	HLD(170-960), (19-651)HB, (13-100)HRB, (17-68.5)HRC, (59-85)HRA, (80-976)HV, (30-110)HS
Measurement scales	HL, HB, HRB, HRC, HRA, HV, HS
Impact direction	360°
Display	128x64 LCD digital display
Memory	Max. 600 groups (32 for each group)
Interface	USB 2.0
Electrical supply	2 x 1.5V AA Battery
Dimensions	130x85x35 mm
Weight	600 g

PHL 960P

- For measuring hardness values of various materials. LCD display with indication of values and battery status. Equipped with USB interface and integrated printed.

Standard Equipment

- Rebound probe (D type), calibration wedge, probe cable, software, carrying case and user manual.

	PHL 960P
Testable materials	Steel, tool steel, stainless steel, cast iron, nodular cast iron, aluminium, brass, bronze
Measuring range	HLD (170-960), HRC (17.9-69.5), HB (19-683), HV (80-1042), HS (30.6-102.6), HRA (59.1-88), HRB (13.5-101.7)
Measurement scales	HL, HB, HRB, HRC, HRA, HV, HS
Impact direction	360°
Display	320x240 TFT digital display
Memory	Max. 500 groups (32 for each group)
Print roll dimensions	Width (57.5±0.5)mm, diameter 30mm
Battery autonomy	150 hours (print and backlight off)
Interface	USB 2.0
Electrical supply	1 x 7,5V rechargeable
Dimensions	210x85x45
Weight	600g

Rebound probes

Model		RP 86D	PP 147DC	RP 75DL
Type		D	DC	DL
Impact energy	mJ	11	11	11
Impact body mass	g	5.5	5.5	7.2
Impact body hardness	HV	1600	1600	1600
Impact body diameter	mm	3	3	3
Impact body material		Tungsten carbide	Tungsten carbide	Tungsten carbide
Probe diameter	mm	20	20	20
Probe length	mm	86	147	75
Probe weight	g	50	50	50
Max. block hardness	HV	940	940	940
Block surface roughness	µm	1.6	1.6	1.6
Minimum block weight	kg	>5	>5	>5
Minimum block weight on solid body	kg	2 ÷ 5	2 ÷ 5	2 ÷ 5
Minimum coupled block weight on plate	kg	0.05 ÷ 2	0.05 ÷ 2	0.05 ÷ 2
Minimum coupled block thickness	mm	5	5	5
Block surface layer thickness	mm	≥0.8	≥0.8	≥0.8
Indenting dimensions with 300HV	Ø mm	0.54	0.54	0.54
Indenting dimensions with 300HV - Depth	µm	24	24	24
Indenting dimensions with 600HV	Ø mm	0.54	0.54	0.54
Indenting dimensions with 600HV - Depth	µm	17	17	17
Indenting dimensions with 800HV	Ø mm	0.35	0.35	0.35
Indenting dimensions with 800HV - Depth	µm	10	10	10
Application		Used for routine measurements	Used for holes and cylinder interior	Used for long and narrow holes

Rebound probes

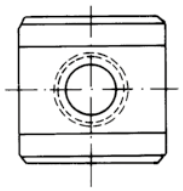
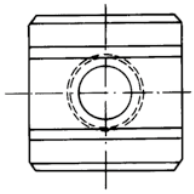
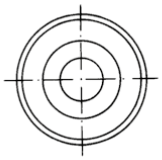
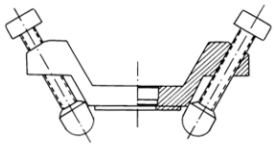
Model		RP 141C	RP 162D	RP 254G
Type		C	D+15	G
Impact energy	mJ	2.7	11	90
Impact body mass	g	3	7.8	20
Impact body hardness	HV	1600	1600	1600
Impact body diameter	mm	3	3	5
Impact body material		Tungsten carbide	Tungsten carbide	Tungsten carbide
Probe diameter	mm	20	20	30
Probe length	mm	141	162	254
Probe weight	g	75	80	250
Max. block hardness	HV	1000	940	650
Block surface roughness	µm	0.4	1.6	6.3
Minimum block weight	kg	>1.5	>5	>15
Minimum block weight on solid body	kg	0.5 ÷ 1.5	2 ÷ 5	5 ÷ 15
Minimum coupled block weight on plate	kg	0.02 ÷ 0.5	0.05 ÷ 2	0.5 ÷ 5
Minimum coupled block thickness	mm	1	5	10
Block surface layer thickness	mm	≥0.2	≥0.8	≥1.2
Indenting dimensions with 300HV	Ø mm	0.38	0.54	1.03
Indenting dimensions with 300HV - Depth	µm	12	24	53
Indenting dimensions with 600HV	Ø mm	0.32	0.54	0.9
Indenting dimensions with 600HV - Depth	µm	8	17	41
Indenting dimensions with 800HV	Ø mm	0.35	0.35	-
Indenting dimensions with 800HV - Depth	µm	7	10	-
Application		Used for thin or hard surfaces	Used for measuring hollow surfaces	Used for heavy or rough and forged materials

PHL RBC

Cable for portable hardness tester probes

PHL-SP

Supports for portable Hardness Testers

Quantity	Type	Description
1		For measurements on cylindrical surfaces - external R 10 ÷ R15
1		For measurements on cylindrical surfaces - external R 14.5 ÷ R30
1		For measurements on cylindrical surfaces - external R 25 ÷ R50
1		For measurements on cylindrical surfaces - internal R 11 ÷ R13
1		For measurements on cylindrical surfaces - internal R 12.5 ÷ R17
1		For measurements on cylindrical surfaces - internal R 16.5 ÷ R30
1		For measurements on spherical surfaces - external SR 10 ÷ SR15
1		For measurements on spherical surfaces - external SR 14.5 ÷ SR30
1		For measurements on spherical surfaces - internal SR 11 ÷ SR13
1		For measurements on spherical surfaces - internal SR 12.5 ÷ SR17
1		For measurements on spherical surfaces - internal SR 16.5 ÷ SR30
1		For measurements on cylindrical surfaces - external R variable from min. R10