

Penetration - PNR 12 (automatic), coming soon!

Standards depends on the selected accessories

ASTM D 5, ASTM D 937, ASTM D 1321, ASTM D 5329, ISO 2137, ISO 6873, DIN 10331, DIN 51580, DIN 52010 (obs.), EN 1426, EN 13880-2, EN 13880-3, IP 49, IP 50, IP 179, IP 310, JIS K2207, AASHTO T49, AOSC Cc16-60, SMS 658

Product group(s): Penetration, Various

User group(s): Adhesives, Airports & Aviation, Asphalt, Automotive, Beverages, Bitumen, Chemicals, Confectionery, Constituent, Cosmetics, Fats, Food, Lubricant, Mastics, Motor Vehicles, Paraffin, Penetration, Pharmaceuticals, Plastics, Polishes, Regulatory Authorities, Road Research, Rubber, Tar, Various, Wax

Scope: The Penetrometer PNR 12 is widely used in the field of research, engineering and production control of various sectors of industry.

- Fully "Automatic Surface-Detection" on bitumen beneath a standardized layer of water
- Jog-Shuttle driven menu (turn & push)
- Movement by stepper motor
- LED illumination



PNR 12 - Automatic Penetrometer

Depending on accessories suitable for:

- Needle-Penetration
- Rod-Penetration
- Cone-Penetration
- Ball-Penetration
- and further applications

Accessories (plungers, needles etc.) are required, but not included.

All test kits that fit the PNR 10 & 21 models are suitable for the PNR 12, too.

More details are mentioned in the "Order Number" section

Technical Data

Measuring Range:	0 to 55 mm
Max. Test Load:	2 kg
Resolution:	0.01 mm
Test Duration:	0.1 to 9999.9 seconds (preset standard duration: 5 seconds)
Start Delay:	adjustable up to to max. of 9999.9 sec. (2.78 hours)
Data Output:	USB interface to connect printer or USB-stick
0-Point Detector:	for electrically conductive samples
Dimensions (WxHxD):	300 x 310 x 580 mm
Weight:	10 kg

Main Unit

18-1120

PNR 12 - Automatic Penetrometer, coming soon!

Accessories have to be selected according to the standard.
(Suitable for: Needle-, Cone-, Rod-Penetration and further methods)

Features:

- manual positioning by Jog-Wheel operation
- electronic positioning to a preset depth with Memory-function
- surface detection by conductivity sensor
- 10 user programs possible
- data transfer to USB-Stick possible
- extra bright LED-sample illumination

Consisting of:

Microcomputer, electronic distance measuring device, stepper motor for exact positioning, 24 V safety voltage supply, stable base plate and housing.

Microcomputer:

Large graphical monochrome display, intuitive graphical menu, status feedback to operator, Jog-Wheel driven menu (turn & push), storage of last 200 measurements.

Electronic Elements:

Distance measuring device (1/100 mm), stepper motor, ultra bright LED-sample illumination on fl exible arm, electronic detector for conductive samples, USB-interface for printer & memorstick..

Mechanical Elements:

Penetrometer base plate with leveling feet and removable aluminum test table, instrument housing two colored powder coated, splash water protected membrane keyboard, plunger holder with solenoid release mechanism.

Note:

Accessories in compliance with the different test standards, e.g. needles, cones, plunger etc. are to be ordered separately.

Power supply: 100/240 V, 50/60 Hz

Options & Accessories

18-1130 Extension Module "Surface-Detection 47.5 g"
Suitable for Bitumen-Samples (approx. B 10 to B 60)

Features:

This optional kit automatically detects the surface of bitumen-samples underneath a layer of water and the standardized test sequence can then be started automatically as well. Also the result is reported automatically. Only cleaning, changing of needle and sample as well as lifting the plunger to the starting position for the next test is left to be done manually.

Supplied with:

1 Sensor-Plunger (47.5 g) with extremely sensitive but robust force-sensor,
1 hardware and software extensions in basic instrument

18-1131 Extension Module "Surface-Detection 97.5 g"
like 18-1130 but:
with 1 Sensor-Plunger (97.5 g)

25-0282 Serial Printer
with tractor for continuous paper to record data like test results, duration of test, etc.



Supplied with: 1 data transmission cable

Technical Data:

Line spacing: 80 characters per line on 24 cm wide paper
Dimensions: 34 x 29 x 15 cm (WxDxH)
Weight: 4.5 kg
Power supply: 220/240 V, 50/60 Hz

21-0697 Digital Stop Watch



Features:

- quartz-controlled
- water resistant
- memory function
- calendar

Consisting of:

7-digit LC display, max. 10 hours countdown with 1/100 sec. precision

Note: battery lifetime 1 year, Lithium battery operated

18-0712 Halogen Lamp



extra bright, to be placed beside the penetrometer; especially useful when testing bituminous materials under water surface

Power supply: 230 V, 50 Hz

Spare Parts

18-0705 Connection Wire
for electronic surface-contact detector with contact hook

Order Guideline

Minimum equipment: 1 x 18-1120 & Test Kit (needle, cone etc.),
Accessories
Spares (approx. 1 year): Needle, ect.
Additional requirements: