

Technical data sheet

Item number: 1.00133
MatchCode/Type: PLS10
Designation: Electropneumatic compression device
(oedometer) 10 kN

<https://www.geomation.de/en/PLSx>



Intrastat code: 90248019 **Country of origin:** DE **Net weight (kg):** 33,447
Drawing number:
Electrical data: 90..230 V AC, 50/60 Hz
Dimensions: 350 x 350 x 550 mm (BxTxH)
Standards: DIN EN ISO 17892-5; ASTM D2435 / D2435M
Catchwords: Oedometer, Kompressionsgerät, elektropneumatisch

The Oedometer PLS10 is a compact laboratory device for unidimensional compression testing and swelling tests according to DIN 18135, DIN EN ISO 17892-5 and ASTM D2435 / D2435M. It can be easily installed on a bench.

Characteristics:

- device for PC-controlled unidimensional compression testing and swelling tests
- very compact design and a functional construction
- high-precision settlement measuring with digital dial gauge (resolution 1µm)
- settlement measurements from sample contact or beginning from start (for detection of the initial settlement)
- automatic detection of the sample contact
- serial interface for PC-controlled testing with data logging; cyclic measurement data logging, displaying and transferring to Microsoft EXCEL for advanced evaluation purposes
- electronic load and pressure limitation to prevent sensor damages
- manual adjustment of the upper thrust plate
- expandable to a direct shear device (ESD5.2) with Single-Shearbox SSD2 (new Firmware required!)

Recommended accessories (not included):

- Consolidation Cell
- Compressor
- Filter pressure regulator
- Software package EXL.OEDO
- PC system

Specifications:

maximum load: 10 kN
sample area: dependig on the chosen consolidation cell
stress: 2500 kN/m² (resolution 0,5 kN/m²) with 40 cm² sample area
settlement meas.: 12,5 mm, resolution 1 µm
max. traverse: 50 mm
usable sample space: 220 x 85 mm (B x H)
interface: COM-Port (serial, RS232)
system pressure: 4,5 bar
power supply: 90..230 V AC, 50/60 Hz
dimensions: 350 x 350 x 550 mm (WxDxH)
weight: approx. 33,5 kg

Scope of delivery (for 1 pcs.):

Quantity	Article-No.	Discription
1 pcs.	1.00047 PLSxa	Pneumatic Consolidation Machine 5kN / 10kN
1 pcs.	1.00048 PLSX.OEDO	mounting accessories for compression testing

Scope of delivery (for 1 pcs.):

Quantity	Article-No.	Discription
1 pcs.	2.00008	KAS-E10/0,2 strain gauge load cell 10 kN - normal force -
1 pcs.	2.00003	DMU12,5/1000 digital gauge 12,5 mm 1/1000, with battery
1 pcs.	2.00024	DMU-EXTPOW Option: external power supply for DMU's
1 pcs.	9.00001	GEO-LIZ Licence for GeoDESC / EXCEL
5 m	8.00137	PA6X4.NATUR Polyamide tube 6x4 mm, natural, semi-rigid, kink-resistant
1 pcs.	8.00038	KDK4NW5MSV Coupling socket NW5, hose 6x4, Nickel-plated brass
1 pcs.	8.00195	FCK4MSV T-piece / T-screw connection, hose 6x4, brass nickel.

Recommended accessories (not included):

Quantity	Article-No.	Discription
1 pcs.	1.00039	OCX40.20 Consolidation Cell 40cm ² / Ø 71,4 mm, Sample height 20mm
1 pcs.	1.00040	OCF40.20 Consolidation Cell 40cm ² , Sample height 20mm Stainless Steel
1 pcs.	1.00041	OCX100.30 Consolidation Cell 78,5cm ² / Ø 100 mm, Sample height 30mm
1 pcs.	9.00040	GeoDESC.OEDO Software package GeoDESC / EXCEL "Unidimensional compression testing"
1 pcs.	4.00020	KOMPR8.15 laboratory compressor 8 bar
1 pcs.	4.00021	FDR6 pressure regulation with filter