

## PNEUMATIC PIEZOMETERS

Reliable, frost resistant,  
robust and low cost

No electrical components  
below ground

Long life for permanent  
installation

Unaffected by lightning

Responds to rapid  
change in pore pressure

Digital readout convenient  
and easy to use

Rugged, reliable and unaffected by frost, the pneumatic piezometer permits water pressure monitoring in permeable soil.

The piezometer transducer consists of a stainless steel body equipped with porous stone and rubber diaphragm connected to a pair of flexible tubes in a common PE jacket.

Piezometer operation requires a supply of pressurized inert gas (dry nitrogen). Water pressure is balanced with pneumatic pressure supplied from the gas cylinder, adjusted through the readout unit.

Water pressure measurement is displayed directly in KPa on the LCD of Sisgeo pneumatic indicator.

# PNEUMATIC PIEZOMETERS

## ACCESSORIES AND SPARE PARTS

- OECAVP02F00** Pneumatic readout jumper cable for connecting the readout to terminal box or to transducer tubing. 2 m jumper tubing with female quick-connect fittings at each end
- OEPCP000000** Multiple terminal box for taking measurements from several pneumatic piezometers. The piezometer tubes are connected directly to a multiple measuring box. The terminal box consists of a plastic enclosure with a quick male connector for each transducer fitted on its front panel. Terminal box provides a quick and easy method of switching connections between piezometers
- OEPCP000800** Plastic enclosure for up to 8 transducers, size 210 x 165 x 90 mm
- OEPCP001600** Plastic enclosure for up to 16 transducers, size 270 x 245 x 120 mm
- OEPCP002400** Plastic enclosure for up to 24 transducers, size 270 x 245 x 120 mm
- OEPCP00ST00** Male quick connector for each channel (transducer)

## TECHNICAL SPECIFICATIONS

### PIEZOMETER TRANSDUCER MODEL OP211020000

The transducer consists of a stainless steel body equipped with a rubber diaphragm, connected to a pair of flexible tubes. The piezometer has compression fitting for convenient field-attachment of tubing and sinterized steel or vjon filter, as required.

Diaphragm displacement	0.1 cc
Sensitivity	± 0.01% FS
Accuracy	equal to readout
Diameter	25 mm
Length	145 mm
Diaphragm	silicon rubber
Maximum pressure	2 MPa (200 meter water column) 1 MPa = approximately 10 Bar
Weight	0.15 Kg

### SISGEO PNEUMATIC INDICATOR

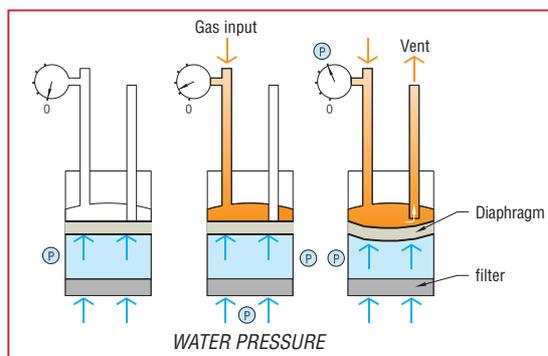
The unit incorporates a pressure transducer with digital readout. The readout unit provides suitable connection ports for tubes to the transducer and inert gas cylinder (gas cylinder is supplied with the readout unit). Coarse and fine adjustment pressure regulators and a balance pressure indicator are included. It is powered by a rechargeable battery.

Model	OC221DP2000
Measuring range	2 MPa (200 m water column)
Digital display	3.5 digit LCD
Readout resolution	0.01% FS (10 cm water column)
Reading accuracy	± 0.1% FS
Battery life (fully charged)	Approximately 8 hours
Operating temperature	-20°C +60°C
Gas tank	External cylinder 5 litre capacity
Recommended gas	Dry nitrogen
Size	400 x 320 x 175 mm
Weight	4.5 Kg (without nitrogen cylinder)

## PNEUMATIC TUBING AND FITTINGS

- OWP502R0200** Pneumatic tubing consisting of two nylon tubes in a common jacket. Tubing size: 2 mm ID with 1 mm wall. Polyurethane jacket: 10 x 5 mm
- OEGP004MV00** Pneumatic quick connector for input tube. The connector includes an in-line filter and quick coupling for insertion into the readout jumper cable
- OECP020400** Pneumatic cable straight coupling consisting of a pair of 2/4 mm brass unions, self-vulcanising mastic pad and sealing tape

### WORKING DIAGRAM



To take measurements the pneumatic tubes from the transducer are connected to the readout unit using the readout jumper cable. The water pressure is balanced with pneumatic pressure from the nitrogen cylinder adjusted through the readout unit. The balance gas pressure/water pressure is displayed on the pneumatic indicator.