Quick Start Guide Dräger PX4500

PC measurement data management
via Internet download!

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General Hints

Every use of a Dräger PX4500 requires the exact knowledge and compliance of the instruction manual 5695102, the corresponding norms and standards, the applicable legal provisions, and the regula-tions and rules for health and safety at work.
Provisional sealing plugs (rubber plugs) of pressurised pipings, that are used over an operating pressure of 0.5 bar, represent an increased safety risk.

The instrument is only destinated for the applications, as described in the instruction manual. In order to in-sure the proper function and measurement accuracy, an annual maintenance and re-adjustment has to be carried out by an authorized service partner.

Before each measurement make sure that the instrument and the accessories are in a perfect condi-tion.
Charge the Dräger PX4500 only with an USB power supply with 5V DC / 1,5 A.

Instruction manual and PC measurement data

You can download the instruction manual from our website www.draeger-msi.de under the menu **Online-Services → Download → PX4500.**
To download the PC measurement data management go to www.draeger-msi.de -> Online-Services -> Download -> PX4500 -> PC200P. The required USB drivers are installed automatically.

Since 2005 across the EU the Waste Electrical and Electronic Equipment Directive (WEEE 2002/96/EC) have been in force that governs that for private households garbage collecting and recycling points are arranged. Because the Dräger PX4500 isn't registered for the use in private households, it isn't allowed to dispose it that way. The instruments can be returned to your na-tional Dräger Safety Organisation for disposal. If you have any questions about the disposal, contact Dräger MSI GmbH, please.

Switch ON

Press the On-/Off Button for 1 second till it gets illuminated.

Switch OFF

Choose in the main menu 'OFF', or hold the pess On-/Off Button for at least 5 seconds from any menu op-tion.

Functions

Via the main menu individual tests and measurements can be called up.

Pressure measurements

1. **Fine pressure up to 150 mbar (air and gas)**
2. **Pressure up to 3.5 bar (option external sensor; air and gas)**
3. **High pressure up to 25 bar (option external sensor; air, gas and water)**

Follow the instructions of the Dräger PX4500 when testing gas pipes!

The test pressure for performing tightness tests can be pressurized by every standard bike pump or com-pressor equipped with hose and Schrader valve.

General tightness test

Via this function it is possible to perform tightness tests with freely selectable nominal pressure, stabilisation time and measuring time.
Select test pressure: 20 mbar – 25,000 mbar
Select stabilisation time: 5 minutes – 6 hours
Select measuring time: 5 minutes – 6 hours

Gas pipe tests

For the installation and maintainance of gas pipes, a stress test and a tightness test according to DVGW TRGI 2008 worksheet G600, has to be performed. For tightness and stress tests, pipings have to be disconnected from gas-carrying lines and have to be metal-to-metal seated.

1. **Tightness test (TRGI G 600) 150 mbar**

Stabilisation time and measuring time at tightness tests according to TRGI G 600

Pressure	Volume	Stabil. time	Meas. time
150 mbar	< 100 l	10 min	10 min
150 mbar	≥ 100 l < 200 l	30 min	20 min
150 mbar	≥ 200 l	60 min	30 min

2. **Stress test (TRGI G 600) 1 bar (3 bar at middle-pressure systems)**

Connect external pressure sensor via adapter to the gas pipe.
Stabilisation time: 2 – 10 minutes
Measuring time: 10 minutes
Middle-pressure systems: Stabilisation time 180 minutes
Measuring time: 120 minutes
For a pipe volume at middle-pressure systems over 2,000 liters, the test time has to be increased for 15 minutes each additional 100 liters pipe volume.

Liquid gas pipe tests

1. **Tightness test (TRF) 150 mbar**

Stabilisation time: 10 minutes
Measuring time: 10 minutes

2. **Strength test (TRF) 1 bar 10 minutes at exposed liquid gas pipes**

Connect external pressure sensor via adapter to the gas pipe.
Stabilisation time: 10 minutes
Measuring time: 10 minutes

3. **Festigkeitsprüfung (TRF) 1 bar 30 minutes at partially earth-covered liquid gas pipes**

Connect external pressure sensor via adapter to the gas pipe.
Stabilisation time: 30 minutes
Measuring time: 10 minutes

Water pipe tests

1. **Tightness test with air (DIN EN 806) 150 mbar**

Enter pipe volume
Stabilisation time: 2 – 10 minutes
Measuring time: 120 minutes at a volume up to 100 l
For each additional 100 l pipe volume the
test time has to be increased for 20 minutes.

2. **Stress test with air up to DN50 max. 3 bar or up to DN100 1 bar (DIN EN 806)**

Connect external pressure sensor via adapter to the pipe.
Stabilisation time: 2 – 10 minutes
Measuring time: 10 minutes

3. **Tightness test crimped connections (untight if not crimped) with water 6 bar (DIN EN 806)**

Connect external pressure sensor via adapter to the pipe.
Stabilisation time: 10 minutes
Measuring time: 15 minutes

4. **Tightness test with water 11 bar (DIN EN 806)**

Connect external pressure sensor via adapter to the pipe.
Stabilisation time and measuring time: Material-dependent

Documentation
All measurements that has finished can be printed out on the MSI BTIR Bluetooth printer or be stored in the memory of the Dräger PX4500. Via an alpha-numeric keypad it is possible to enter or change customer and installation data. Stored data and measurements can be edited and printed out via the PC software with pre-fabricated measurement protocols, including a company logo.

Checklists
Via the PC software it is possible to configure checklists. Up to 4 checklists with each up to 20 checkpoints can be stored, edited and via alpha-numeric keypad commented in the device.

Data memory
In the data memory information the number of stored customers,
stored measurements and the total number of used storage spaces
is displayed. Stored measurements can be displayed and printed out from here, the inspector table can be edited. Measuremnts can be deleted.

Info
Information of the instrument – e.g.. Type, Manufacturer, Software version, Serial number

Settings
Adjustment and setting of user defined functions – e.g. time, display lighting, overlaying of the integrated help function, entering the company data for print outs via Bluetooth printer MSI BTIR.

General technical data

Display:	Colour display with touchscreen
Interfaces:	USB, BTLE
Power supply :	Li-ion Battery, 3.6 V, 2700 mAh, Charge level indicator USB power supply primary 100 - 240 V AC; secondary 5 V DC; 1,5 A
PC connection/ Charging cable:	USB cable max. 1 m
Dimensions:	90 x 200 x 35 mm (W x H x D)
Weight:	ca. 345 g
Operating temperature:	+ 5 °C ... + 40 °C
Storage temperature:	- 20 °C ... + 50 °C
Humidity:	10 - 90 % RH, non-condensing
Atmospheric pressure:	800 to 1100 hPa

Technical data pressure measurements

Display	Measuring range	Resolution	Accuracy	Max. over pressure
Medium pressure I	- 10 … + 100 mbar	0.01 mbar	< ± 0.5 mbar oder < ± 1 % f. MV*	750 mbar
Medium pressure II	- 10 … + 160 mbar	0.1 mbar	< ± 0.5 mbar or ± 5 % f. MV*	< 750 mbar
Pressure (ext. sensor, option)	- 100 … + 3,500 mbar	1 mbar	< 1 % f. MR**	4,000 mbar
High pressure (ext.Sensor, Option)	0.1 … + 25.00 bar	0.01 bar	< 1 % f. MR**	35 bar

*MV = Measurement value
**MR = Measuring range