SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Level Measurement | Prozessi PX 30

Category: Process Engineering Technology · **Order Code:** PX 30 · **Country of Origin:** India

Product Overview

The Level Measurement trainer Prozessi PX 30 demonstrates differential pressure and air purge liquid-level measurement methods. Features a capacitance DP transmitter with smart digital indicator, U-tube manometer, air pump and transparent acrylic process tank with graduated scale. Six experiments cover DPT calibration, air purge principles and density measurement. Includes 5000 LPH water pump and loop current measurement provision. Tabletop assembly 650W x 475D x 540H mm.

View this product online: https://scienticoindia.com/product/level-measurement-prozessi-px-30/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Level Measurement Trainer Prozessi PX 30 — Technical Specifications

Specification	Value
Product Code	Prozessi PX 30
Air Pump Capacity	2.5 LPM
Manometer Range	100-0-100 mm, Box type
DP Transmitter Type	Capacitance, Smart series with digital local indicator
DP Transmitter Range	0-200 mm, 4-20 mA output, Two wire
Process Tank	Transparent acrylic, 200 mm graduated scale
Level Indicator	Digital, Range 0-200 mm, Supply 230 VAC
Water Pump Capacity	5000 LPH
Supply Tank	Capacity 7 liter, SS304 stainless steel
Overall Dimensions	650W x 475D x 540H mm

Technical Data

Level Measurement Components

Component	Specification
DP Transmitter	Capacitance type, Smart series

Component	Specification
Transmitter Range	0-200 mm liquid column
Transmitter Output	4-20 mA, Two wire
Local Digital Indicator	Built into transmitter, 0-200 mm display
Transmitter Power	24VDC via digital level indicator
Manometer Type	U-tube box type
Manometer Range	100-0-100 mm for direct pressure observation

Air Purge System

Component	Specification
Air Pump	Capacity 2.5 LPM
Air Supply Pressure	Adjustable via regulator
Air Purge Tube	Submerged in process tank
Principle	Back pressure method, pressure equals liquid column height

Water Circulation System

Component	Specification
Pump Capacity	5000 LPH
Pump Type	Centrifugal
Supply Tank	SS304 stainless steel, 7 liter capacity
Process Tank	Transparent acrylic, 200 mm graduated scale
Flow Control	Manual ball valve

Electrical and Measurement

Component	Specification
Level Indicator Display	Digital, 0-200 mm range
Indicator Supply	230 VAC, 50 Hz, 1 phase
Loop Current Measurement	Provision to tap and measure 4-20 mA signal
Transmitter Calibration	Adjustable via transmitter front panel

Key Features

Key Features

- Level Measurement trainer: dual method demonstration on single system
- Differential pressure transmitter with smart digital indicator
- Air purge method for direct level measurement principle
- U-tube manometer for visual pressure observation
- Transparent process tank with graduated scale for verification
- High capacity water pump (5000 LPH) for rapid level changes
- Loop current measurement provision for transmitter troubleshooting
- Compact tabletop assembly, 650W x 475D x 540H mm
- Non-corrosive SS304 supply tank

Experiments

- Study of level measurement by differential pressure transmitter (DPT)
- Study of DPT calibration and adjustment
- Level measurement by air purge method
- Liquid density measurement using pressure and height relationship
- DP transmitter troubleshooting via loop current measurement
- Comparison of DPT and air purge methods

Construction and Design

The Level Measurement trainer Prozessi PX 30 is assembled on a tabletop frame (650W x 475D x 540H mm) with two independent but interconnected measurement systems. A transparent acrylic process tank with 200 mm graduated scale sits at the center. A capacitance differential pressure transmitter connects to the bottom of the tank, measuring liquid pressure. The transmitter's smart digital indicator displays level directly (0-200 mm range) powered by 230 VAC. A U-tube manometer (100-0-100 mm range) provides independent visual confirmation of differential pressure. An air pump (2.5 LPM) supplies pressurized air to a purge tube submerged near the tank bottom. As air bubbles rise, back pressure equals the liquid column height, demonstrating the air purge principle. A 5000 LPH centrifugal pump circulates water from a 7-liter SS304 supply tank into the process tank. A manual ball valve controls flow rate, enabling rapid or gradual level changes for response testing. Provision exists to connect a multimeter and measure the 4-20 mA loop current from the DP transmitter for calibration verification and troubleshooting.

Software and Calibration

The Level Measurement trainer allows hands-on calibration of the DP transmitter using the graduated scale as a reference. Students adjust transmitter zero and span using front panel controls until 4-20 mA output matches liquid level accurately. Loop current measurement enables verification of transmitter function and signal conditioning.

Scope of Delivery

- Level Measurement trainer Prozessi PX 30 complete assembly
- Differential pressure transmitter, capacitance type, with smart digital indicator
- U-tube manometer, box type, 100-0-100 mm range
- Air pump, 2.5 LPM capacity with regulator
- Air purge tube and fittings
- Transparent acrylic process tank with 200 mm graduated scale
- SS304 supply tank, 7 liter capacity
- Centrifugal water pump, 5000 LPH capacity
- Digital level indicator display, 0-200 mm, 230 VAC powered
- Manual ball valve for flow control
- Interconnecting tubing and fittings
- Frame assembly, 650W x 475D x 540H mm
- User documentation and experimental procedures
- Power cord

Optional Accessories

- Extended air tubing for remote operation
- Additional U-tube manometers
- Replacement DP transmitter units
- Data acquisition interface kit

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1: What are the two level measurement methods on the Level Measurement trainer?
A: The trainer demonstrates differential pressure transmitter measurement and air purge method, allowing direct comparison of both industrial level sensing techniques.

Q2: How accurate is the Level Measurement trainer?
A: The transparent process tank graduated scale provides visual reference to 1-2 mm accuracy, while the DP transmitter 4-20 mA output can be calibrated to match within 0.5% of the displayed range.

Q3: Can the DP transmitter be recalibrated?
A: Yes, the smart transmitter has adjustable zero and span on the front panel. Students calibrate using the graduated scale as reference and verify using loop current measurement.

Q4: What is the air purge method on the Level Measurement trainer?
A: Compressed air bubbles rise through a tube submerged in the tank. Back pressure required to push air out equals the liquid column height above the tube outlet, directly indicating level.

Q5: How quickly can liquid level change on the Level Measurement trainer?
A: The 5000 LPH pump allows level to change rapidly (seconds) for dynamic response study, or manually throttled to change slowly for steady-state calibration work.

SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India
#71, Industrial Area, Ambala Cantt, Haryana, India

+91 7015865225 · info@scienticoindia.com
scienticoindia.com