



PTO 500V



DFK 200

DFK 200 = Duct Fixing Kit
includes
2 plastic tubes with integrated mounting plate,
2 metres PVC hose and
4 screws

Features

- PTO-series air differential pressure transmitters are ideal for measuring filter conditions, as well as many other applications in ventilation/air conditioning systems in buildings, laboratory's and clean rooms , non-combustible and non aggressive media.
- Outputs
 - 0-10 Vdc (3-wire)
 - 4-20 mA (2-wire)
 - 4-20 mA (3-wire)
- 10 different pressure ranges
 - 0 to 100 Pa
 - 0 to 250 Pa
 - 0 to 500 Pa
 - 0 to 1 kPa
 - 0 to 2.5 kPa
 - 0 to 10 kPa
 - 0 to 25 kPa
 - 0 to 50 kPa
 - 0 to 100 kPa
- IP54 protection
- Small size
 - diameter 66 mm
 - height 28 mm
- Response time, selectable 0.1 to 1.0 sec.
- Easy offset calibration
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**PTO-series is a low cost version of
Air Differential Pressure Transmitter**

Ordering

Type no.	Pressure range	Output	Connection	Power supply
PTO 100V	0-100 Pa	0-10 Vdc	3-wire	24 Vac/dc
PTO 250V	0-250 Pa	0-10 Vdc	3-wire	24 Vac/dc
PTO 500V	0-500 Pa	0-10 Vdc	3-wire	24 Vac/dc
PTO 1000V	0-1 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 2500V	0-2.5 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 5000V	0-5.0 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 10KV	0-10 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 25KV	0-25 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 50KV	0-50 kPa	0-10 Vdc	3-wire	24 Vac/dc
PTO 100KV	0-100 kPa	0-10 Vdc	3-wire	24 Vac/dc
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PTO 100C 2W	0-100 Pa	4-20 mA	2-wire	24 Vdc
PTO 250C 2W	0-250 Pa	4-20 mA	2-wire	24 Vdc
PTO 500C 2W	0-500 Pa	4-20 mA	2-wire	24 Vdc
PTO 1000C 2W	0-1 kPa	4-20 mA	2-wire	24 Vdc
PTO 2500C 2W	0-2.5 kPa	4-20 mA	2-wire	24 Vdc
PTO 5000C 2W	0-5.0 kPa	4-20 mA	2-wire	24 Vdc
PTO 10KC 2W	0-10 kPa	4-20 mA	2-wire	24 Vdc
PTO 25KC 2W	0-25 kPa	4-20 mA	2-wire	24 Vdc
PTO 50KC 2W	0-50 kPa	4-20 mA	2-wire	24 Vdc
PTO 100KC 2W	0-100 kPa	4-20 mA	2-wire	24 Vdc
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PTO 100C 3W	0-100 Pa	4-20 mA	3-wire	24 Vac/dc
PTO 250C 3W	0-250 Pa	4-20 mA	3-wire	24 Vac/dc
PTO 500C 3W	0-500 Pa	4-20 mA	3-wire	24 Vac/dc
PTO 1000C 3W	0-1 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 2500C 3W	0-2.5 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 5000C 3W	0-5.0 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 10KC 3W	0-10 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 25KC 3W	0-25 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 50KC 3W	0-50 kPa	4-20 mA	3-wire	24 Vac/dc
PTO 100KC 3W	0-100 kPa	4-20 mA	3-wire	24 Vac/dc

PTO 500V is standard product and can be ordered 1 piece.

Other PTO than PTO 500V supplied in minimum 60 pcs.

Duct Fixing Kit DFK 200 to be ordered separately.

Display not available for PTO. When display required use 984M-series or PAT-series.

General description

The differential pressure transmitters of the PTO series are used to measure differential pressure, overpressure and vacuum.

They provide one adjustable pressure range and one output signal.

Applications

Monitoring of gaseous, non-combustible and non-aggressive media.

Possible usage areas are:

Building automation, air conditioning systems and clean room monitoring

- Valve and flap control
- Filter, ventilator and blower monitoring
- Control of air flows

Adjustable pressure range

The end of the pressure range can be reduced to 50% of its factory set full scale value simply by the use of a push-button.

Output signal

0-10 Vdc or 4-20 mA. Other signals on request.

Easy offset calibration

The output signal can be calibrated to zero by pressing the push-button (pressure transmitter must be depressurized).

Configurable response time

The response time of the output signal can be configured using a jumper. If the jumper is in place the response time is slow (factory setting), which is useful for suppressing brief pressure peaks. If the application requires a fast response time the jumper must be removed.

Volume flow measurement (optional)

The shape of the output signal can be switched from linear to square root using a jumper in order to measure the volume flow via a differential pressure.

Reset

The transmitter can be reset to its factory setting, just by pressing the push-button for >10 sec.

Measuring method

Piezoresistive pressure transducer.

Mounting position

Can be mounted in any position.
The zero offset calibration eliminates any possible position error.

Technical data

Supply Voltage

3-wire version 18-30 Vac/dc (PTO xxxV and PTO xxxC 3W)
2-wire version 18 -30 Vdc (PTO xxxC 2W)

Output signal

3-wire version 0-10 Vdc or 4-20 mA (PTO xxxV and PTO xxxC 3W)
2-wire version 4-20 mA (PTO xxxC 2W)

Load for output

4-20 mA 20 to 500 Ohm
0-10 Vdc $\geq 1\text{kOhm}$ ($\leq 10\text{ mA}$)

Max current draw

< 40 mA at 3-wire
< 21 mA at 2-wire

Linearity error incl. Hysteresis and repetition accuracy

$\leq \pm 1\%$ of full scale, min. $\pm 1\text{ Pa}$

Working temperature

0 to 50°C

Storage temperature

10 to 70°C

Typical long-term stability

$\leq \pm 1.0\%$ of fs/year

Position dependence

$\leq \pm 0,2\%$ of FS/g

Humidity

0 to 95 % rel, non-condensing

Response time, selectable

0.1 to 1.0 sec.

Process connection

6 mm hose connection

Electrical connection

Spring terminals for wires and leads
up to 1,5 mm² with cap nut conduit

Mounting

Screw mounting with serrated screws

Housing material

ABS

Housing dimensions

Approx diameter 66 x 28 mm

Weight

approx. 50 g

Protection class EN 60529

IP54 with protective cover

CE Conformnce, EN 61326

EMC Conformance according
2014/30/EU
RoHS Conformance according
2011/65/EEC

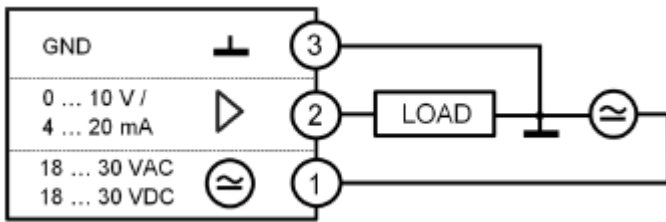
Accuracy specifications according to EN 60770

Pressure Ranges

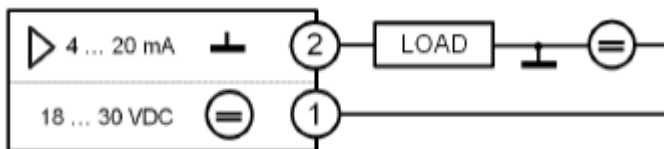
Type	Pressure range	Overload capacity	Bursting pressure	Temperature error
PTO 100	0-100 Pa	60 kPa	100 kPa	≤ ±3.0% v.of full scale
PTO 250	0-250 Pa	60 kPa	100 kPa	≤ ±2.5% v.of full scale
PTO 500	0-500 Pa	75 kPa	125 kPa	≤ ±2.5% v.of full scale
PTO 1000	0-1000 Pa	85 kPa	135 kPa	≤ ±1.5% v.of full scale
PTO 2500	0-2500 Pa	85 kPa	135 kPa	≤ ±1.0% v.of full scale
PTO 5000	0-5000 Pa	85 kPa	135 kPa	≤ ±1.0% v.of full scale
PTO 10K	0-10 kPa	85 kPa	135 kPa	≤ ±1.0% v.of full scale
PTO 25K	0-25 kPa	135 kPa	275 kPa	≤ ±1.0% v.of full scale
PTO 50K	0-50 kPa	200 kPa	400 kPa	≤ ±1.0% v.of full scale
PTO 100K	0-100 kPa	200 kPa	400 kPa	≤ ±1.0% v.of full scale

Electrical connection

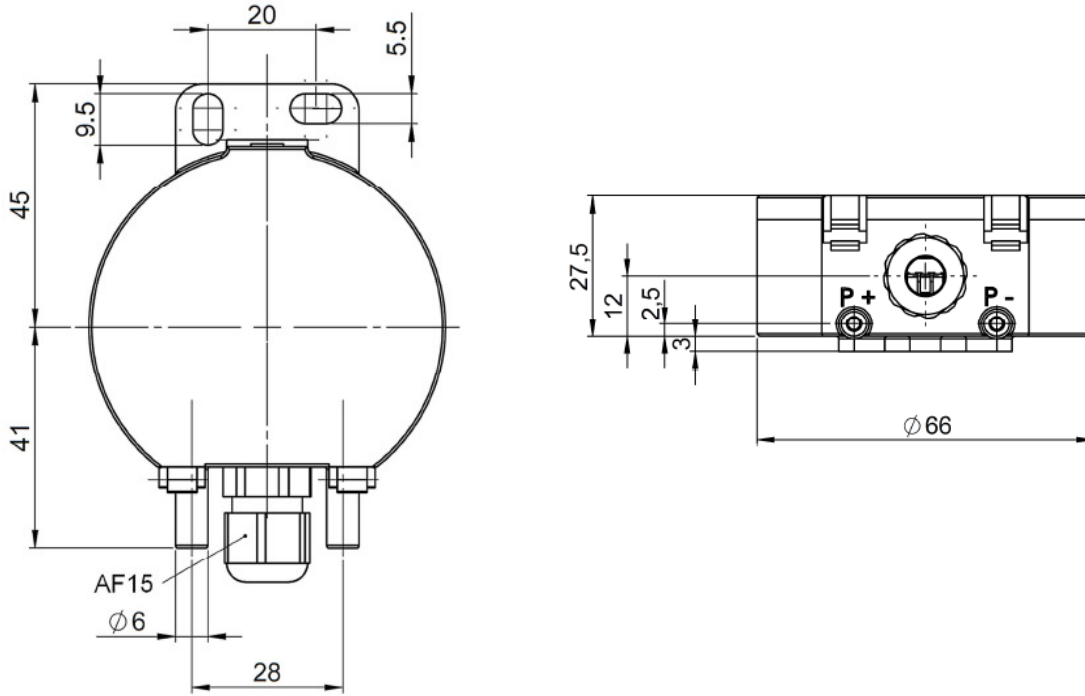
PTO xxxV and PTO xxxC 3W



PTO xxxC 2W



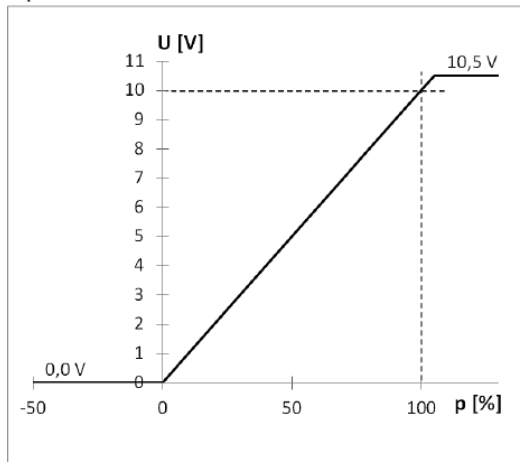
Dimensions



Analog output signal

Linear (Jumper 3 inserted)

0 μ 10 V



4 μ 20 mA

