

PSET-PT

Pitot tube connection set



PSET-PT is a Pitot Tube set made of flame retardant ABS grade PBDE-free plastic with increased thermal stability. It is designed for measuring air flow velocity in HVAC applications in combination with Sentera's DPS-2 and HPS-2 differential pressure transmitters. It can also be used to measure air flow volume in combination with a differential pressure sensor if the duct cross section is known. The product is available in two sizes - 150 mm and 250 mm, each with different size tube fixators.

The set includes:

| Component | Pieces | Material | Details |
|--|--------|----------------------------------|--|
| Pitot tube | 1 | POLYFLAM® RABS 90000 UV5, grey | PSET-PTS: 150 mm PSET-PTL: 250 mm |
| Flexible flange | 1 | PE LUPOLEN 1800S, black RAL 9004 | PSET-PTS: 36 x 52 mm PSET-PTL: 55,6 x 87 mm |
| Screw for fixing tube into the flexible flange | 1 | Plastic, DIN 84, white | Length: 10 mm, slotted cheese head |
| Flexible tubing | 1 | PVC, transparent | Diameter: inside $\varnothing = 5$ mm; outside $\varnothing = 7$ mm Length: 200 cm |
| Screws | 2 | Metal, zinc plated | 4, 2 x 9, 5 cross recessed pan head |

Note: PSET-PTS-200 can be applied for duct diameters of 100–300 mm.
PSET-PTL-200 can be applied for duct diameters of 150–500 mm.



Article codes

| | Flexible tubing length | Pitot tube length |
|---------------------|------------------------|-------------------|
| PSET-PTS-200 | 200 cm | 150 mm |
| PSET-PTL-200 | | 250 mm |

Standards

- WEEE Directive 2012/19/EC

Technical specifications

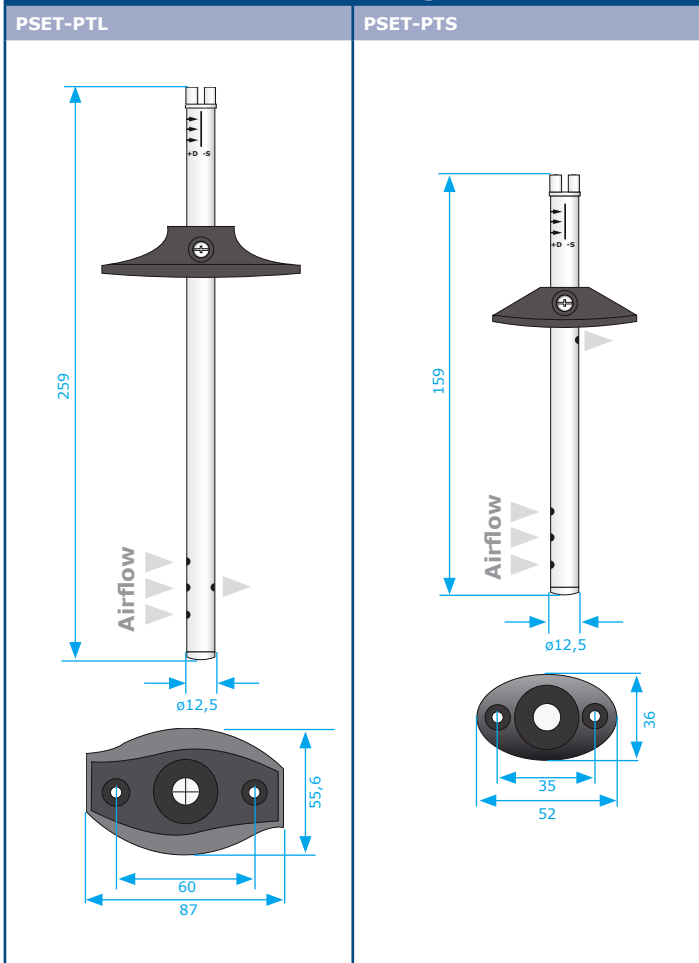
| | | |
|--|-------------|----------------------|
| Impact strength | at 23° C | 80 kJ/m ² |
| | at -30° C | 45 kJ/m ² |
| Temperature of deflection under load (HDT) | 80 ° C | |
| Operating temperature | max. 96 ° C | |

Packaging



| Article | Packaging | Length [mm] | Width [mm] | Net weight | Gross weight |
|----------------------|--------------|-------------|------------|------------|--------------|
| PSET- PTL-200 | Unit (1 pc.) | 230 | 170 | 0,126 kg | 0,127 kg |
| PSET- PTS-200 | Unit (1 pc.) | 230 | 170 | 0,113 kg | 0,114 kg |

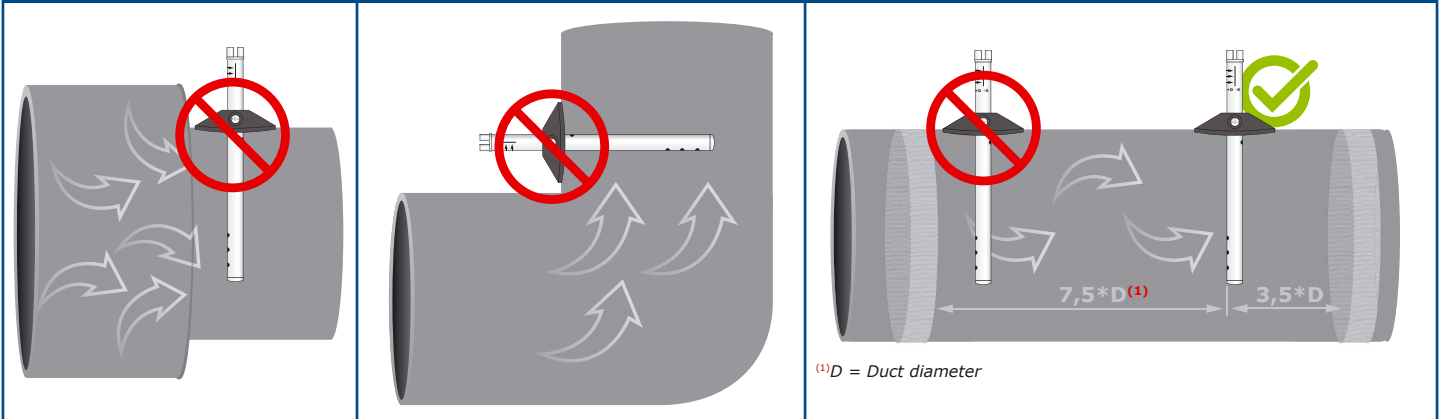
Fixing and dimensions



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Mounting position



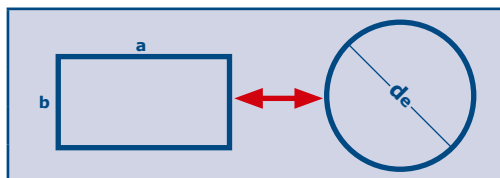
⁽¹⁾D = Duct diameter

Installation requirements: The PSET-PTx-200 must not be installed in a turbulent air zone. Ensure sufficiently long settling zones upstream and downstream of the tapping point. A settling zone consists of a straight section of pipe or duct, with no obstructions. Avoid installation nearby filters, cooling coils, fans, etc. PSET will achieve the optimal result when the measurement is taken at least 7,5 duct diameters downstream and at least 3 duct diameters upstream from any turns or flow obstructions.

Note: When using a rectangular duct or pipe, you can use the following conversion table to calculate the circular equivalent diameter.

Circular equivalent diameter - de (mm)

| | | Duct side - b | | | | | | | | | | | | | | |
|---------------|------|---------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| (mm) | | 100 | 150 | 200 | 250 | 300 | 400 | 500 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |
| Duct side - a | 100 | 109 | 133 | 152 | 168 | 183 | 207 | 227 | | | | | | | | |
| | 150 | 133 | 164 | 189 | 210 | 229 | 261 | 287 | 310 | | | | | | | |
| | 200 | 152 | 189 | 219 | 244 | 266 | 305 | 337 | 365 | | | | | | | |
| | 250 | 168 | 210 | 246 | 273 | 299 | 343 | 381 | 414 | 470 | | | | | | |
| | 300 | 183 | 229 | 266 | 299 | 328 | 378 | 420 | 457 | 520 | 574 | | | | | |
| | 400 | 207 | 260 | 305 | 343 | 378 | 437 | 488 | 531 | 609 | 674 | 731 | | | | |
| | 500 | 227 | 287 | 337 | 381 | 420 | 488 | 547 | 598 | 687 | 762 | 827 | 886 | | | |
| | 600 | | 310 | 365 | 414 | 457 | 531 | 598 | 656 | 755 | 840 | 914 | 980 | 1041 | | |
| | 800 | | | 414 | 470 | 520 | 609 | 687 | 755 | 875 | 976 | 1066 | 1146 | 1219 | 1286 | |
| | 1000 | | | | 517 | 574 | 674 | 762 | 840 | 976 | 1093 | 1196 | 1289 | 1373 | 1451 | 1523 |
| | 1200 | | | | | 620 | 731 | 827 | 914 | 1066 | 1196 | 1312 | 1416 | 1511 | 1598 | 1680 |
| | 1400 | | | | | | 781 | 886 | 980 | 1146 | 1289 | 1416 | 1530 | 1635 | 1732 | 1822 |
| | 1600 | | | | | | | 939 | 1041 | 1219 | 1373 | 1511 | 1635 | 1749 | 1854 | 1952 |
| | 1800 | | | | | | | | 1096 | 1286 | 1451 | 1598 | 1732 | 1854 | 1968 | 2073 |
| 2000 | | | | | | | | | | 1523 | 1680 | 1822 | 1952 | 2073 | 2186 | |



The equivalent diameter of a rectangular tube or duct can be calculated as (Huebscher):
 $de = 1,30 (a b)^{0,625} / (a + b)^{0,25}$

| | |
|----|--|
| de | equivalent diameter (mm, inches) |
| a | length of major or minor side (mm, inches) |
| b | length of minor or major side (mm, inches) |