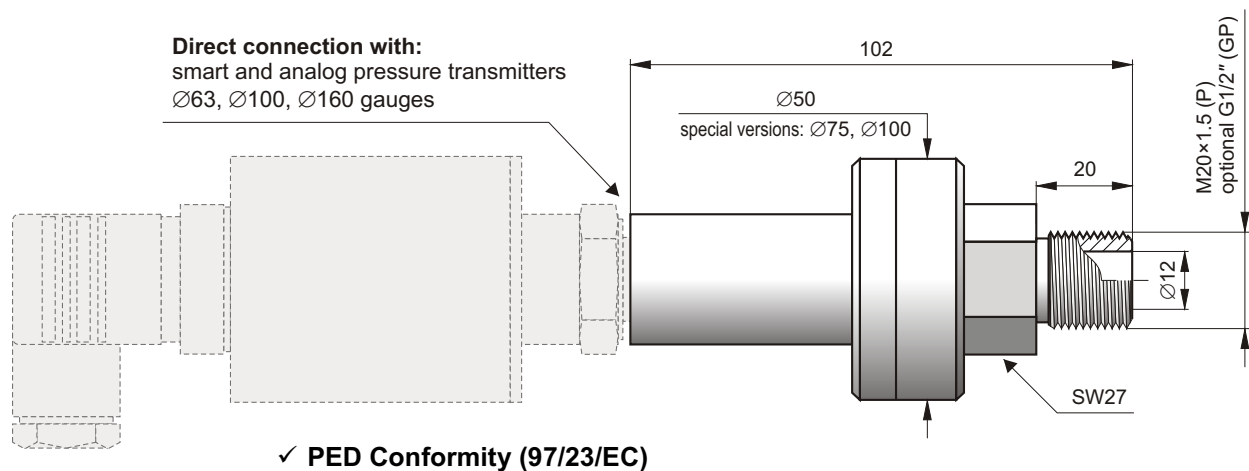


Threaded seals with large diaphragm S-Mazut



Application

The S-Mazut diaphragm seal is applicable to measurement of viscous liquids, at temperatures up to 150°C (300°C when remote diaphragm seal is used). A typical

application is to measure the pressure of heavy fuel oil (petroleum atmospheric residue) in burners and in heat centres of power boilers.

Recommended minimum measuring range (bar), depending on the type of the set: pressure measuring device - diaphragm seal

Diaphragm seal type	Pressure transmitter	Ø100 gauge
direct	2.5 bar; special version 0.1 bar	6 bar; special version 1 bar
remote	6 bar; special version 0.4 bar	special version 1 bar

Special versions: for measurements in low ranges we recommend the special Ø75 and Ø100 versions of the diaphragm seal

Additional absolute zero error resulting from ambient temperature fluctuations for a standard Ø50 diaphragm seal with a pressure transmitter:

direct diaphragm seal: 7 mbar / 10°C

remote diaphragm seal (2 m capillary): 20 mbar / 10°C

For a set: pressure transmitter - special diaphragm seal (special diaphragm seal means the larger diaphragm diameter), there is the following relation: the quantity of thermal errors decreases proportionally to the cubed value of the active diameter of the separating diaphragm (i.e. to the diameter value raised to the third power).

An additional zero error, resulting from temperature fluctuations in a medium, depends on the temperature gradient in the oil-based diaphragm sealing system. The error value is, in any case, significantly smaller than the error value shown above.

Maximum measuring range 0...70 bar

Overpressure limit 100 bar

Medium temperature range

-30...300°C for remote seal

-30...150°C for direct seal

version with PED, temp.: -30...150°C

Material of diaphragm and seal 316Lss

Special versions

Ø75 and Ø100 versions for low ranges
PED – European Pressure Equipment
Directive (97/23/EC)

Others

Ordering procedure

direct diaphragm seal:
pressure measuring device / S-Mazut / type of process connection P, GP / special version (description)

remote diaphragm seal:
pressure measuring device / S-MazutK / K = ... m / type of process connection P, GP / special version (description)

Transmitter or gauge
– see the code in the
appropriate catalogue sheet

Capillary
length

Example: APCE-2000PD pressure transmitter, nominal measuring range 0 ÷ 70 bar, direct threaded seal with large diaphragm, process connection G1/2"

APCE-2000PD / 0 ÷ 70 bar / S-Mazut / GP

