



## PRESSURE GAUGE WITH DIAPHRAGM SEAL - SERIE MSE

The diaphragm seals are used to protect the pressure gauges from crystallizing, aggressive, toxic, harmful, viscous, adhesive and dangerous fluids for environment and people. They are composed by a welded membrane which is realised with suitable materials according to the fluids to be measured, so they satisfy even the most stringent measurement and safety requirements. Thanks to a very wide choice of transmission fluids that hydraulically transmit the membrane pressure to the measuring instrument, the diaphragm seal has unlimited applications also because of the innumerable types of process connections and construction materials.

Among these applications we can find:

**MSE** It is a diaphragm seal with threaded connection, used as a generic one since it allows to measure almost all pressures thanks to the possibility of using more or less wide flanges depending on the uses. It is mainly used in the process applications.

**MSE/A** It is a diaphragm seal Tri-clamp, mainly used in sterile environments; thanks to the aid of a clamp, it allows the integration into the process in a quick and simple way. These diaphragm seals are suitable for pharmaceutical and chemical applications.

**MSE/S** It is a diaphragm seal threaded DIN11851, particularly suitable for the food industry. The assembly of this diaphragm seal to the process takes place by simply screwing the diaphragm swivel onto the threaded connection of the process. It is mainly used in different steps of the food chain, for example in filling systems, in pasteurization machineries like level meters (e.g. wine tanks) or for simple filtration and separation.

### APPLICATIONS

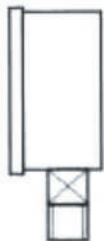

- FOOD INDUSTRY MSE/S (DAIRIES, OENOLOGY, BEER, SOFT DRINKS ETC...)
- PHARMACEUTICAL / CHEMICAL INDUSTRY MSE/A
- SEPTIC APPLICATIONS MSE/A
- CORROSIVE FLUIDS, HIGH TEMPERATURES, VISCOUS MSE
- CHEMICAL / PETROCHEMICAL INDUSTRY MSE

### SPECIFICATIONS

When the instrument is subjected to fluctuations in the ambient or process temperature, variations in the volume of the filling liquid are generated which are absorbed by the elastic parts of the instrument itself. A part of these variations is absorbed by the diaphragm seal while the remaining one is absorbed by the sensitive element of the measuring instrument. This last one gives an error in the indication of the measured pressure.

To contain this error as much as possible it is necessary:

- To reduce the volume of the filling circuit to the minimum
- That the membrane flange is as large as possible

MOUNTING VERSIONS	
	
<b>MSE1</b> RADIAL	<b>MSE3</b> POSTERIOR

	<b>MSE: threaded</b>	<b>MSE/A: CLAMP</b>	<b>MSE/S: Sanitary DIN11851</b>
PROCESS CONNECTION	½"G-M Uni Iso 228/1	Clamp 1½" e 2"	Male or female swivel: DIN 25; 32; 40; 50
MEMBRANE MATERIALS	Stainless steel 316	Stainless steel 316	Stainless steel 316

SCALE RANGES	
<b>MSE: Threaded ½"G-M</b>	<b>Scale in bar</b>
DN 95mm - H 77mm	0÷1 / 0÷1,6
DN 74mm - H 70mm	0÷2,5 / 0÷4 / 0÷6 0÷10 / 0÷16 / 0÷25 / 0÷40
<b>MSE/A: Clamp</b>	<b>Scale in bar</b>
Clamp 1½"	0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40
Clamp 2"	0÷1 / 0÷1,6 / 0÷2,5 / 0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40
<b>MSE/S Sanitary DIN11851</b>	<b>Scale in bar</b>
DIN25 female swivel	0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40
DIN32 female swivel	0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40
DIN40 female swivel	0÷1,6 / 0÷2,5 / 0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40
DIN50 female swivel	0÷1 / 0÷1,6 / 0÷2,5 / 0÷4 / 0÷6 / 0÷10 / 0÷16 / 0÷25 / 0÷40