

Cooling Element

KEIRv

Accessory for diaphragm seals and in-line seals

Information on applications, features, metrological influences such as temperature and floating time of our cooling elements can be found in model overview 7000.

Application

Cooling elements for decoupling pressure measuring instruments from the measuring point are recommended for applications where medium temperatures at the measuring point are higher than +100 °C (+212 °F) however below +300 °C (+572 °F).

The cooling element meets the current requirements of the international standards concerning hygienic applications.

It stands out due to exceptionally easy cleanability and a better cooling efficiency. For pressure gauge/chemical seal combinations with cooling element, which are mounted and filled at our factory, we supply the welded cooling element version KEIRv as standard.

Construction

Models KEIRv and **KEIRvG** have an orifice d8 as instrument connection for welding to a pressure gauge, e.g. RCh 100 – 3vDW or capillary line.

Leakage cannot occur at the welded connection of pressure gauge/cooling element/chemical seal and the filling port that is not accessible externally. The parts can be easily cleaned externally.

Models KEIRvGi and **KEIRvGixG** have a measuring instrument adapter with female thread for direct mounting to measuring instruments with male thread.

The screwed connections pressure gauge/adapter and the filling port must not be loosened or opened, as otherwise filling fluid leaks and the measuring unit loses its functional capability.



Standard Versions

Material

316L

Instrument Connection

Orifice d8 for welding to the measuring instrument

Process Connection

Model KEIRv with 8 mm (0.31") welding connection, other connections see page 2

Temperature

Class 300 (up to +300 °C)

Nominal Pressure

PN 600 bar

Dimensional Drawings

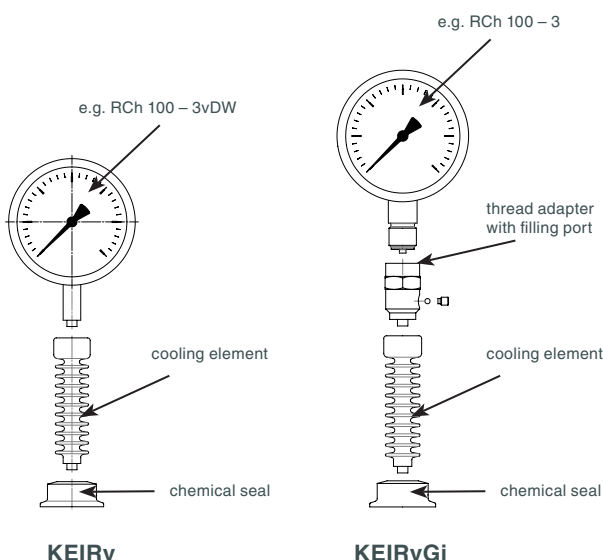
See page 2

Mounting/Filling

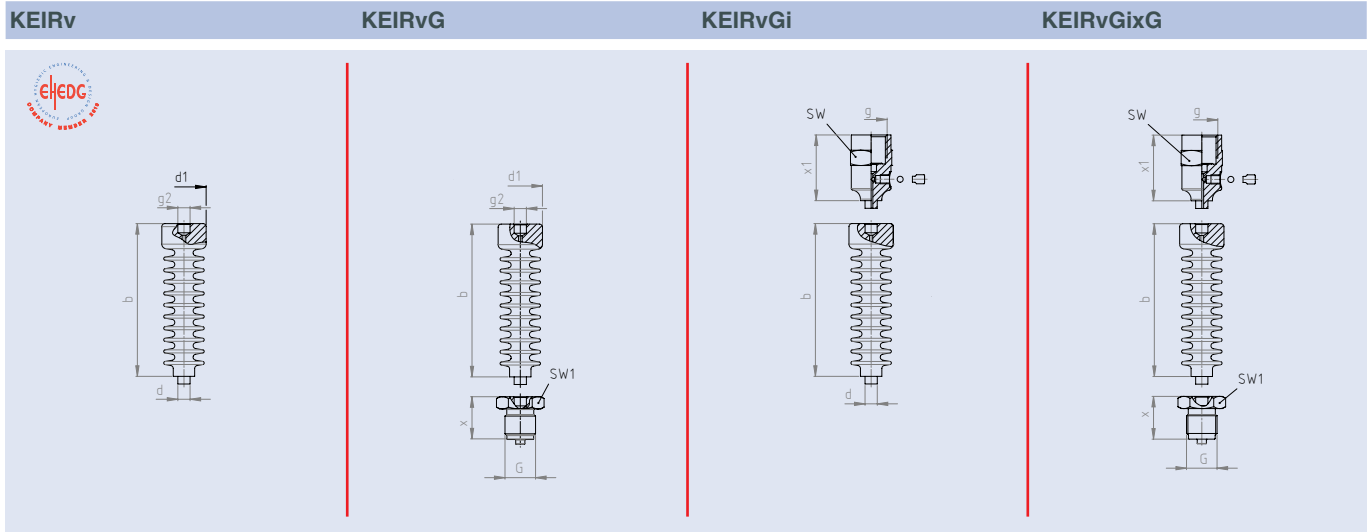
Information on mounting and filling is available upon request.

Ordering Information

KEIRv	welded with chemical seal and measuring instrument
KEIRvG	screwed with chemical seal and welded with measuring instrument
KEIRvGi	welded with chemical seal and screwed with measuring instrument
KEIRvGixG	screwed with chemical seal and measuring instrument



Dimensional Drawing, Dimensional Data, Weight, Temperature Graph



Dimensional Data (mm/inch) and Weights (kg/lb)

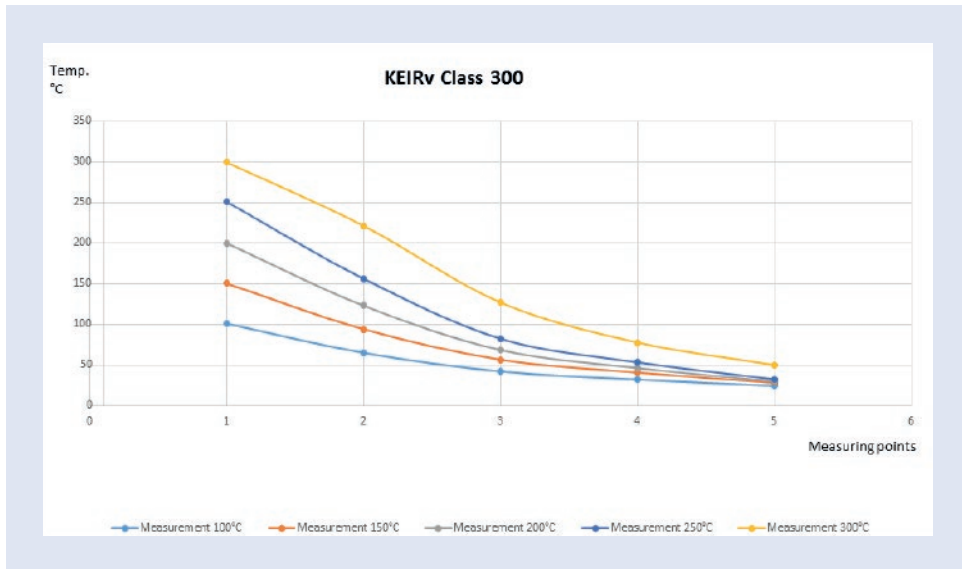
Cooling element					
Model	b	d	d1	g2	Weight
KEIRv	100 3.94	ø8x5	29 1.14	ø8	0.25
KEIRvG		—			0.33
KEIRvGi		ø8x5		0.32	
KEIRvGixG		—		0.33	
				—	0.71
					0.73

Dimensional Data (mm/inch)

Instrument connection		
g	x1	SW
G ½i	43 1.69	27 1.06
M 20x1,5i		
½NPTi		
G ¼i	37 1.46	
M 12x1,5i		
¼NPTi		

Dimensional Data (mm/inch)

Process connection		
G	x	SW1
G ½B	28	27 1.06
M 20x1,5	1.10	
½NPT	27	1.06
G ¼B	23 0.91	22 0.87
M 12x1,5		
¼NPT		



- Measuring point 1 = medium temperature
- Measuring point 2 = cooling element bottom
- Measuring point 3 = cooling element centre
- Measuring point 4 = cooling element top
- Measuring point 5 = pressure gauge body

The constant medium temperatures were measured at different measuring points. In the diagram, the corresponding values for intermediate temperatures can be determined approximately.

