

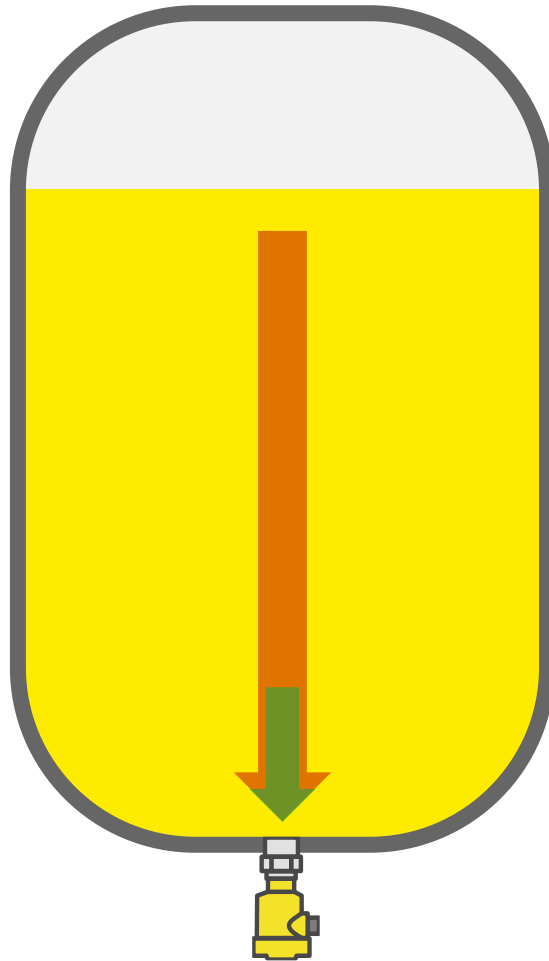


Pressure

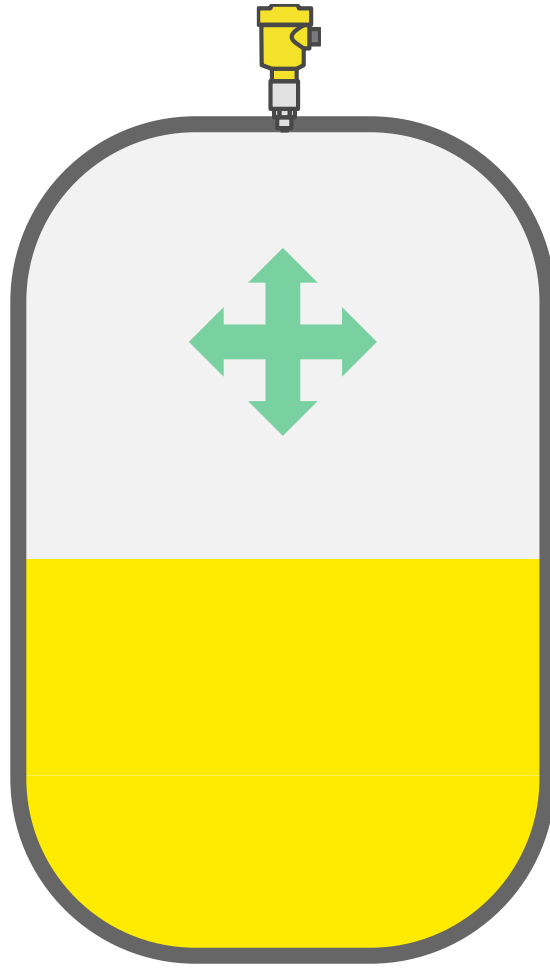
Pressure and differential pressure measurement

VEGA Pressure solutions

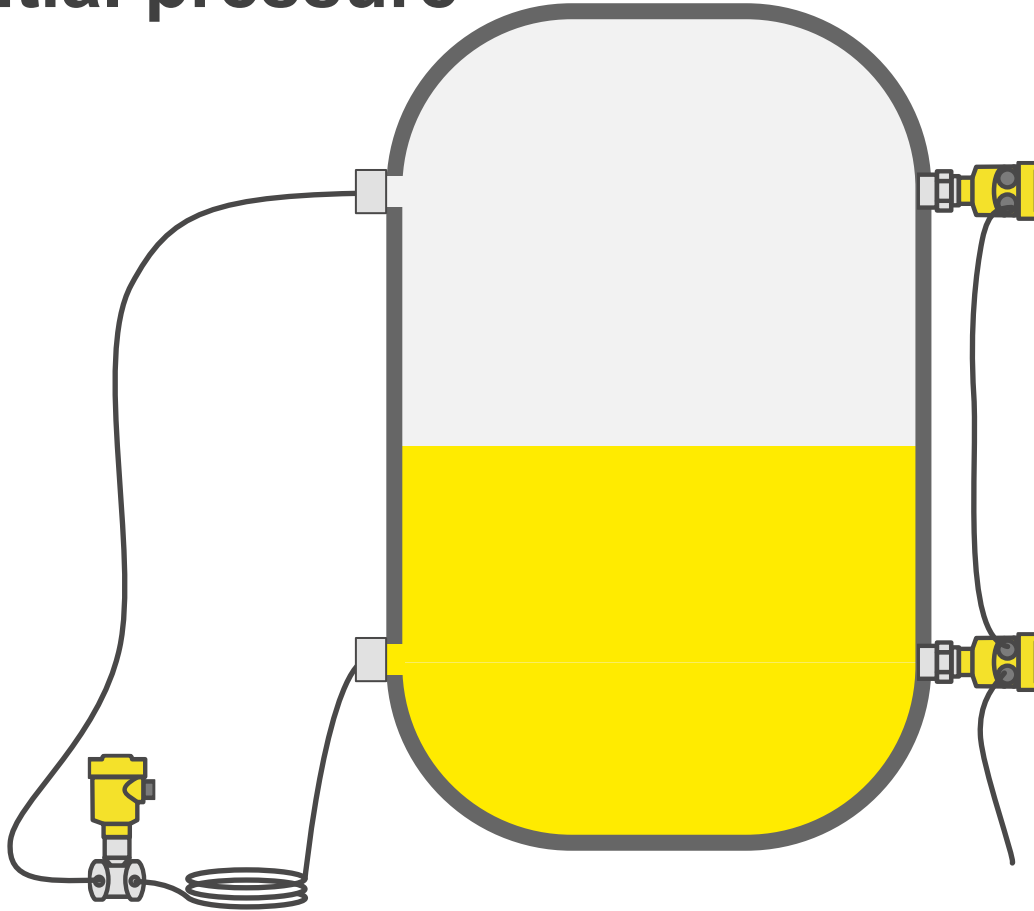
Level



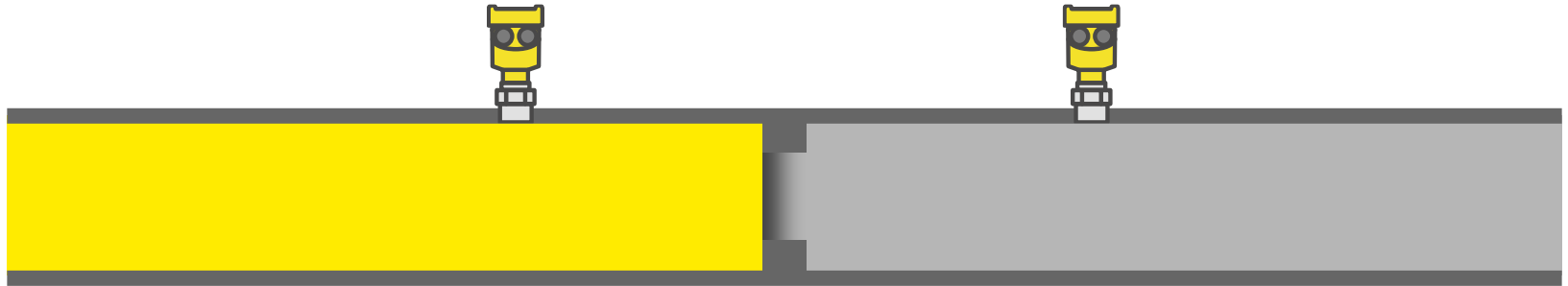
Pressure



Differential pressure



Flow



VEGA Pro vs Basic devices

VEGA-product lines



Unlimited variety in
highest quality and
precision



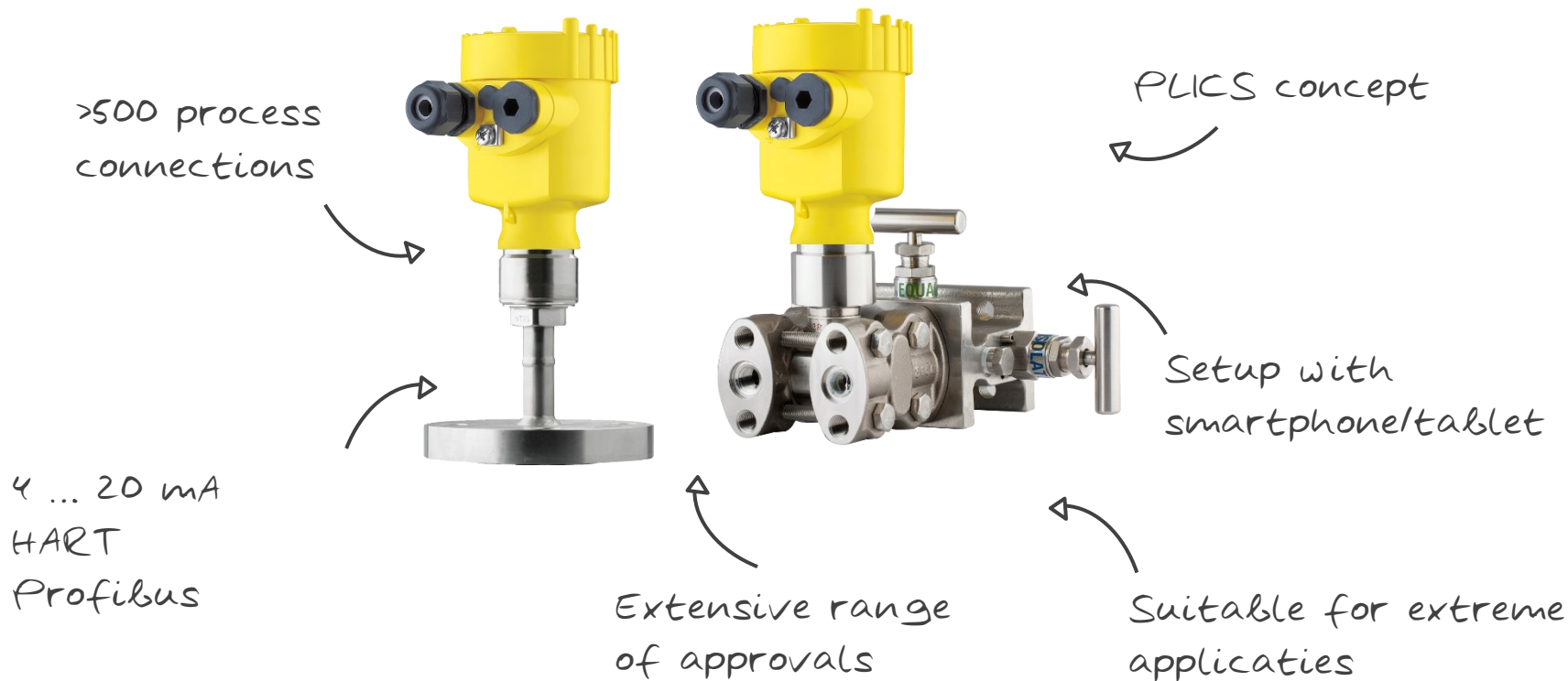
VEGABAR 80

VEGADIF 85

VEGAWELL 52

VEGABAR/DIF

(Differential-) Pressure sensor for all applications





VEGA-product lines



Compact and accurate all-rounders



VEGABAR
10/20/30

BASIC

VEGABAR 10/20/30

BASIC Line





Measuring cells

VEGABAR 82

The all-rounder

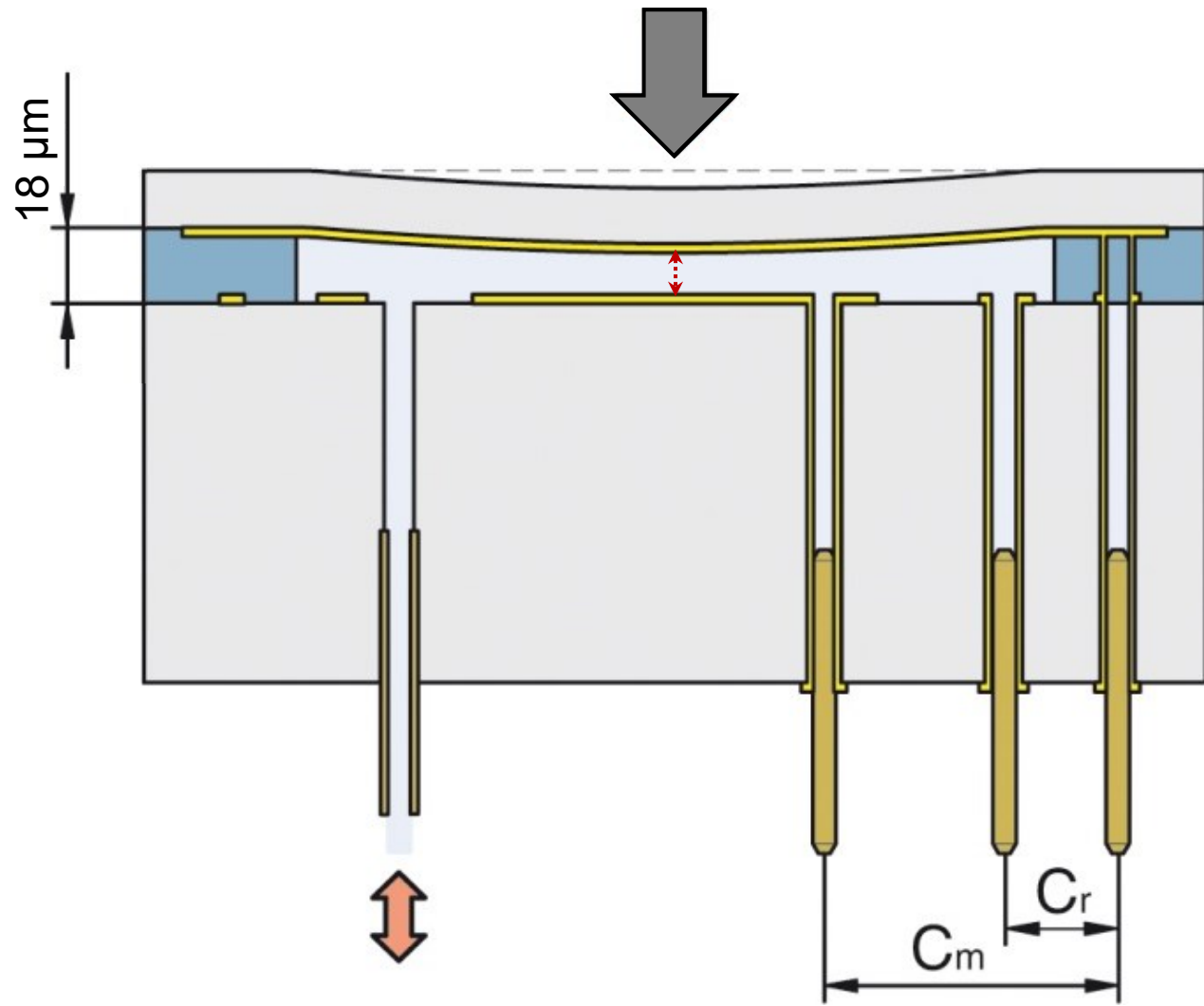
Full vacuum
resistant

Long-term stable

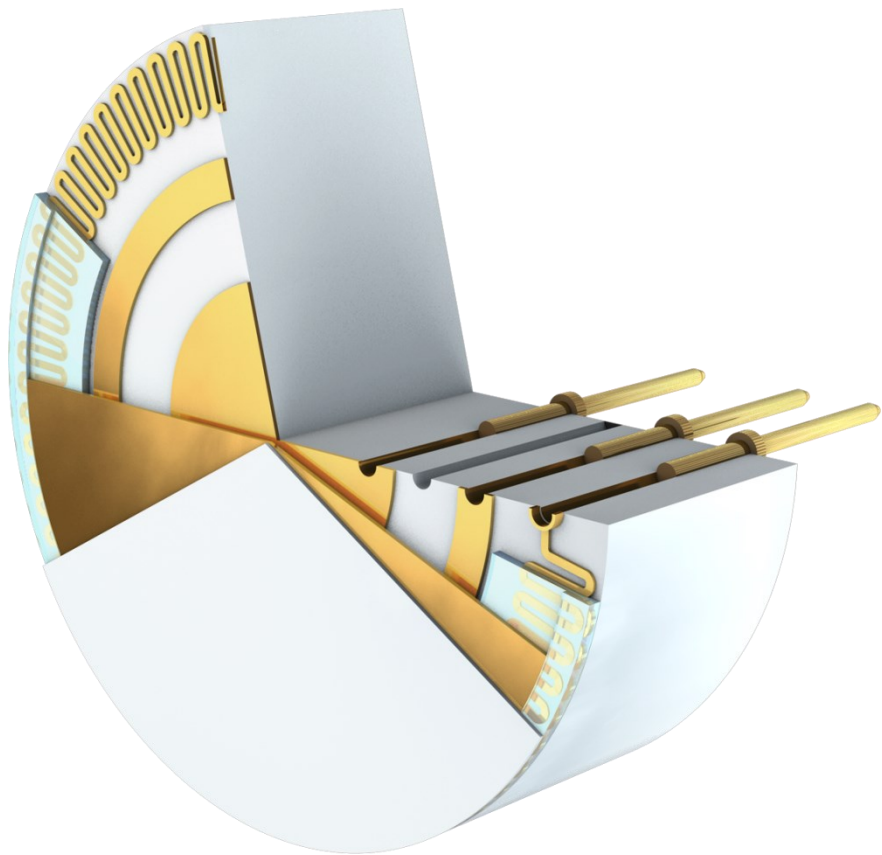
High overload
resistance

Ceramic CERTEC
measuring cell









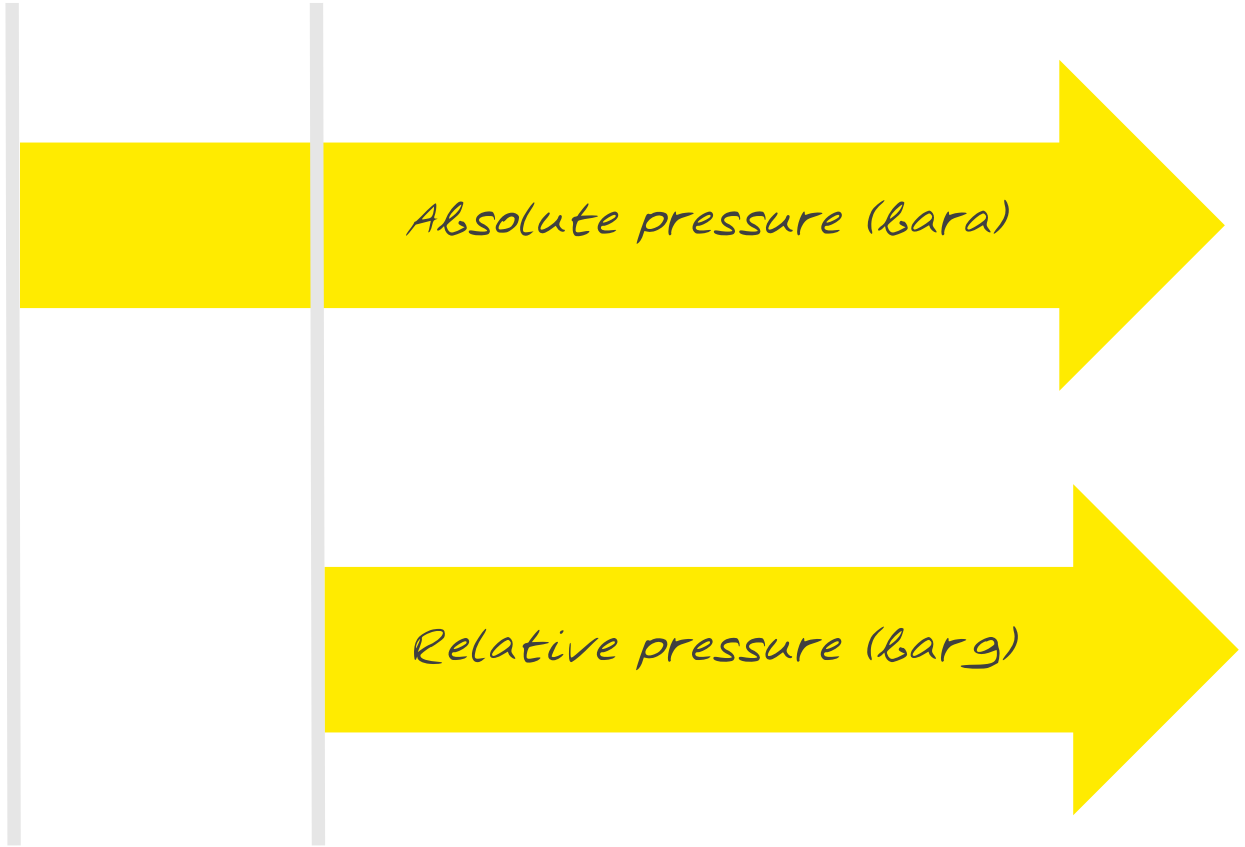


Overload resistance



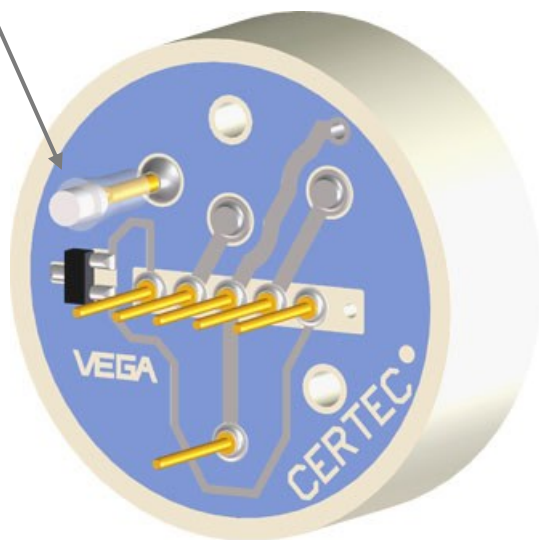
Measuring range	Max pressure	OL Factor
25 mbar	5 bar	200x
100 mbar	15 bar	150x
400 mbar	30 bar	75x
1 bar	35 bar	35x
2,5 bar	50 bar	20x
10 bar	90 bar	9x
25 bar	130 bar	5x
100 bar	200 bar	2x

Vacuum

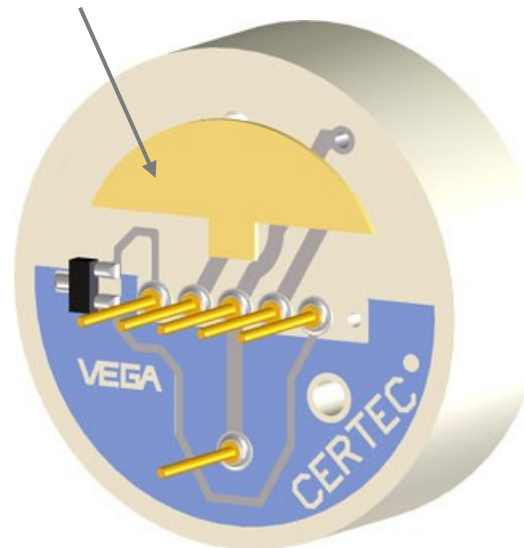


Ambient pressure

Ambient pressure compensation
(bara)



Hermetically sealed (bara)



VEGABAR 81

The specialist for
extreme temperatures



With chemical seal
assembly

VEGABAR 81

With chemical seal
assembly



VEGABAR 83

The specialist
for high pressure



Metallic measuring
cell



Metallic vs Ceramic

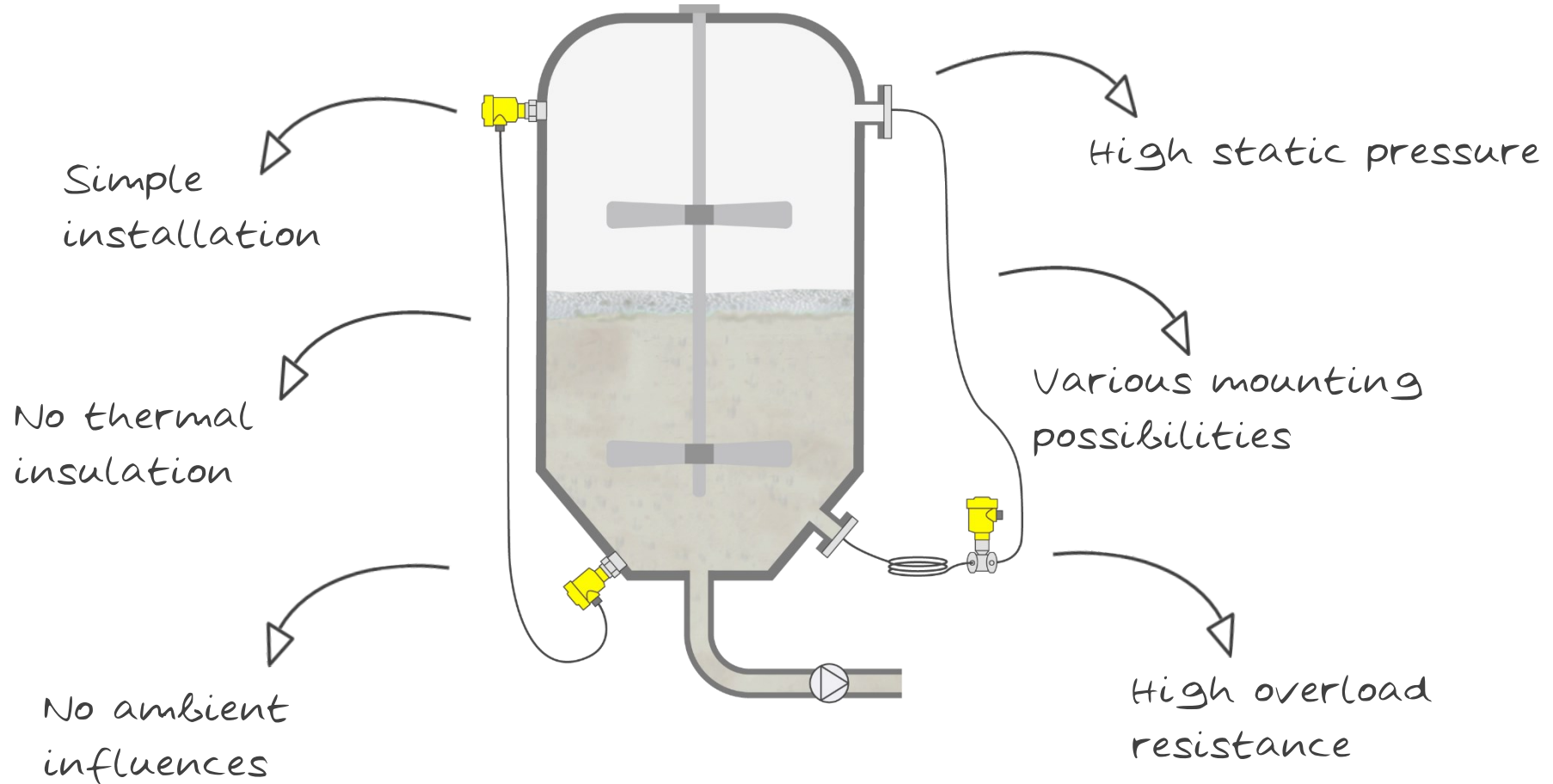
	Metallic	Ceramic
Overload resistance	+/-	++
High pressure	++	+/-
High temperature	++	-
Abrasion resistance	--	++
Low pressure (vacuum)	+/-	++
Long term stability	+	++

Elektronic vs classic differential pressure measurement

Differential pressure solutions for all applications



Note: max factor $\sim 20\times$



Differential pressure VEGADIF 85

Meas. ranges:
10 mbar to 16 bar

Reference accuracy:
 $<0.1\%$ or $<0.065\%$



Operating/Process/
Ambient temperature:
 $-40 \dots +80\text{ }^{\circ}\text{C}$

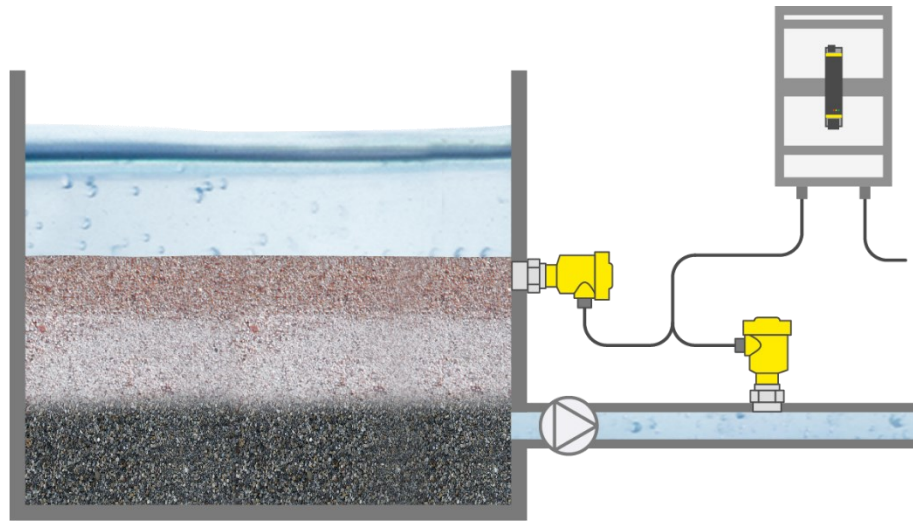
Long-term stability:
 $<0.1\% \times \text{TD (5 years)}$

Electronic differential pressure

Two VEGABAR measuring cells



Filter monitoring



Differential pressure
measurement



Comparison Applications

Applications	Electronics differential pressure	Conventional differential pressure
Level measurement in pressurized vessel	+	-
Flow measurement via pitot tube	-	+
Density measurement	+	-

Comparison

Conditions	Electronic differential pressure	Conventional differential pressure
High temperatures	+	+
Fluctuating process temperature	+	-
Fluctuating ambient temperature	+	-
Abrasive solids	+	-
Vacuum	+	-
High static pressure	-	+

Questions

