



ACTIVELINE GAUGES

The new ActiveLine PKR and IKR gauges.
Compact, durable and maintenance-friendly, minimized stray magnetic field.



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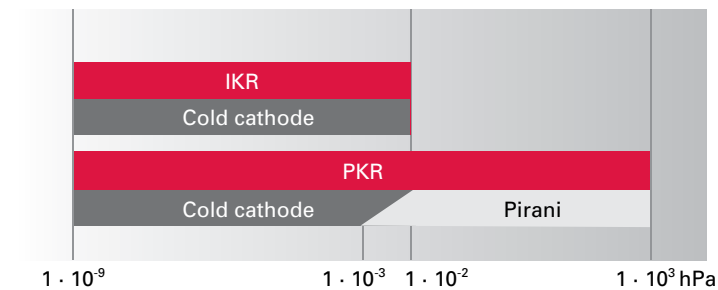
Compact, durable and maintenance-friendly, minimized stray magnetic field.

Longer service life, easy maintenance

Various new developments have substantially improved the durability of these gauges: The new dual-chamber design ensures that contaminants are collected in the first chamber while the second chamber offers a clean area for vacuum measurements. The texture of the surface inside the measurement chamber prevents measuring errors or faults caused by self-sputtering effects. The measurement chamber and the ignition tool are easy to replace, facilitating effortless maintenance.

Pure cold cathode and FullRange® gauges

The new gauges are available as pure cold cathode gauges IKR 360/361 and as Pirani cold cathode gauges PKR 360/361. The IKR gauges cover the pressure range from $1 \cdot 10^{-2}$ to $1 \cdot 10^{-9}$ hPa, whereas the FullRange® PKR gauges allow atmospheric pressure measurements up to $1 \cdot 10^9$ hPa.



Advantages

- Compact dimensions
- Minimized stray magnetic field
- Pure cold cathode IKR gauges or PKR FullRange® gauges
- High and low current versions for various pressure ranges
- Variant with increased corrosion protection



Customer benefits

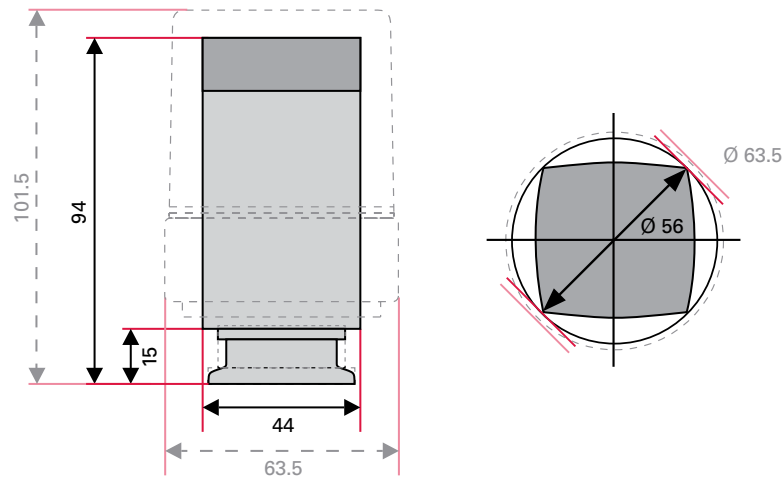
- Easy integration
- Ideal for applications sensitive to magnetic fields
- Durable and maintenance-friendly
- Different variants for optimum process compatibility

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Compact dimensions

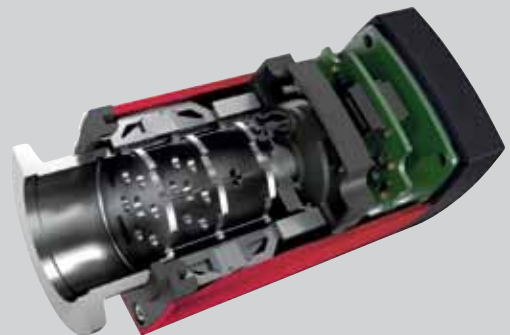
The new gauges are significantly smaller than conventional vacuum gauges (IKR/PKR2XX). This facilitates installation in new and also in existing applications.



Durable and maintenance-friendly



Dual-chamber with textured surface



Cross section of the gauge

Variant with increased corrosion protection

With an optional ceramic coating, these gauges can also be used in corrosive applications. The coating protects the vacuum feedthrough as well as the Pirani filament.

High and low current version

For optimal process compatibility they are available as a low current version (IKR 360 and PKR 360) and as a high current version (IKR 361 and PKR 361). The low current version is especially suitable for applications in the medium vacuum range, in order to prevent contamination in this pressure range. The high current version, on the other hand, is the version of choice in high vacuum, in order to achieve optimal ignition characteristics even at low pressures.



Minimized stray magnetic field

The innovative design minimizes the stray magnetic field. This is of particular benefit in applications where external magnetic fields are undesirable (e.g. mass spectrometer or electron microscope). With the new IKR 360/361 and PKR 360/361, elaborate and expensive magnetic shielding becomes obsolete.



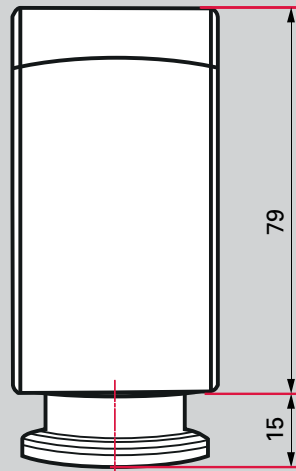
Comparison of conventional vacuum gauge with new gauge

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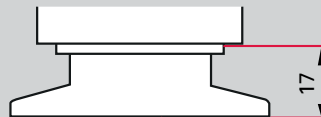
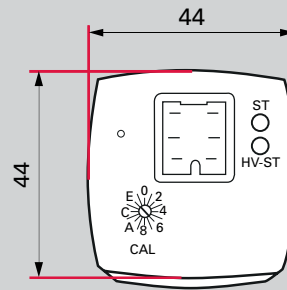
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Dimensions

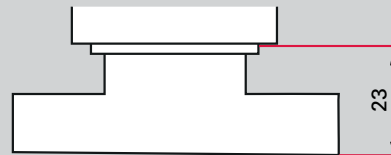
PKR 360/361
IKR 360/361



DN 25 ISO-KF



DN 40 ISO-KF



DN 40 CF-F

(Dimensions in mm)

Technical data

	IKR 36x	PKR 36x
Indicating range (Air, N ₂)	1 · 10 ⁻⁹ ... 1 · 10 ⁻² hPa	1 · 10 ⁻⁹ ... 1000 hPa
Measuring range (Air, N ₂)	1 · 10 ⁻⁸ ... 1 · 10 ⁻² hPa	1 · 10 ⁻⁸ ... 1000 hPa
Accuracy IKR (N ₂)	30 % of the measured value	
1 · 10 ⁻⁸ ... 1 · 10 ⁻² hPa		
Accuracy PKR (N ₂)	30 % of the measured value	
1 · 10 ⁻⁸ ... 100 hPa		
100 ... 1000 hPa	50 % of the measured value	
Reproducibility (N ₂)	5 % of the measured value	
IKR, 1 · 10 ⁻⁸ ... 1 · 10 ⁻² hPa		
PKR, 1 · 10 ⁻⁸ ... 100 hPa	5 % of the measured value	
Voltage range (analog output)	0 ... +10,5 V	
Supply voltage	+14.5 ... +30 V (dc)	
Power input	≤2 W	
Current inside the measurement chamber		
IKR / PKR 361, High current	≤500 µA	
IKR / PKR 360, Low current	≤100 µA	
Materials against vacuum		
Vacuum connection	Stainless steel (1.4435)	
Measurement chamber	Stainless steel (1.4435)	
Pirani heating filament (PKR 36x)	Tungsten	
Feedthrough, IKR/PKR 36x		
Insulation	Glass, ceramics (Al ₂ O ₃)	
Ring	Stainless steel (1.4435)	
Anode, pin	Molybdenum	
Feedthrough, IKR/PKR 36x C	Ceramic coated	
Ionization chamber	Stainless steel (1.4301, 1.4016)	
Ignition tool	Stainless steel (1.4310)	
Maximum pressure (absolute)	1000 kPa limited to inert gases < 55°C	
Permissible temperatures		
Operation	+5 °C ... +55 °C	
Bakeout	≤150 °C (without electronics unit)	
Storage	-40 °C ... +70 °C	
Protection class	IP 40	
Weight		
DN 25 ISO-KF	<280 g	
DN 40 ISO-KF	<320 g	
DN 40 CF-F	<570 g	

Order number matrix PKR/IKR

Order number **PT T aa bb 0 01 e**

Version	aa
IKR 360	00
IKR 361	01
PKR 360	02
PKR 361	03
Flange	bb
DN 25 ISO-KF	14
DN 40 ISO-KF	15
DN 40 CF-F	35
Options	e
Standard	0
Corrosive (C)	1