

# High Performance Coriolis HPC

## Variable Mounting Concept

Ex Works



› **Inline-Version**  
In-LINE mounting



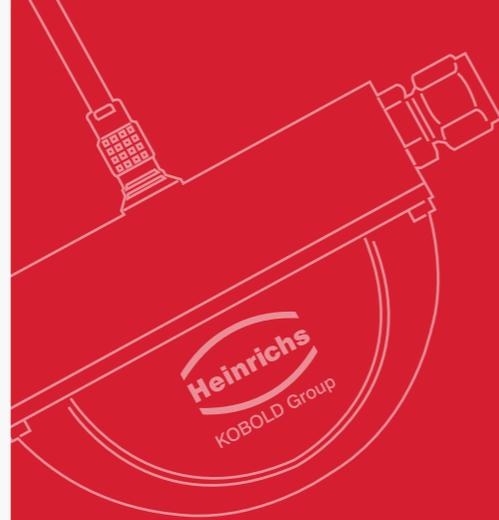
› **Wall mounting**  
Mounting with  
wall brackets



› **Desk-Version**  
Measuring pipes  
pointing downwards



› **Desk-Version 2**  
Measuring pipes  
pointing upwards



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KOBOLD Group

100 YEARS PROCESS-INSTRUMENTATION 1911-2011  
We measure flow, mass, density, level and pressure



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## Low Flow – High Performance Coriolis Mass Flow Meter

- › For smallest flow rates
- › High accuracy  $\pm 0.1\%$  of actual value
- › Temperatures up to  $180\text{ }^{\circ}\text{C}$
- › Pressure resistant up to 600 bar
- › Insensitive to vibrations
- › Variable mounting concept

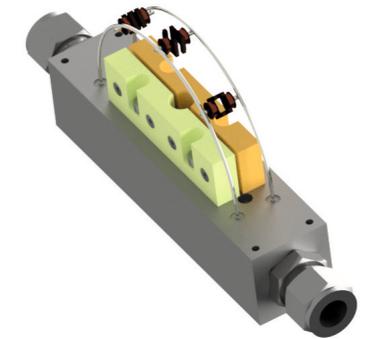


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# High Performance Coriolis HPC

## Revolutionary Dual Bent Measuring Tube Design

Innovative and high accurate



For the measurement of very small flow rates it is common practice to use single pipe coriolis flow meters. However, with the use of just one measuring pipe the influence of external interferences increases dramatically, often necessitating a costly decoupling. With low-flow coriolis sensors, the weight influence of the sensor coils - due to the mechanical measurement principle - is significant when compared to the weight of the measuring pipes, thus the relation of the pipe diameter to the weight of the sensor coils primarily defines the limits of the construction principle for small pipe diameters.

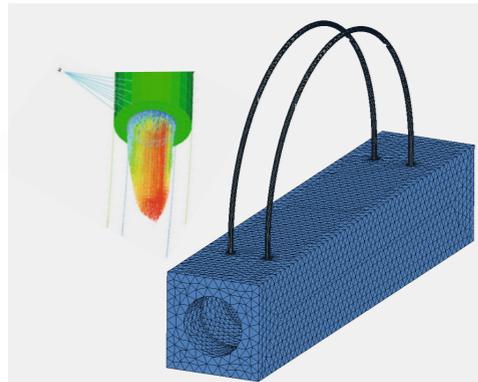
**As the first worldwide, we have pierced these limits by providing a coriolis sensor concept with sensor coils mounted between, rather than on the pipes.** Merely extreme lightweight magnets are mounted onto the pipes. This provides the sensor with a significantly noise-reduced and predictable dynamic behaviour, capable of working at higher frequencies, so further decoupling the sensors measurement from external vibrations. Furthermore, up to 4 sensor coils are positioned between the pipes, increasing the resolution accordingly. **With these characteristics, the new HPC Coriolis Sensor is therefore not only extremely accurate, but also particularly resistant against external interferences.**

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# High Performance Coriolis HPC

## Coriolis Flow Measurement

Taken to the next level



# High Performance Coriolis HPC

## Meter Concept and technology

the "Dual Bent Measuring Pipe" concept and the extremely compact dimensions are the heart of the HPC family.

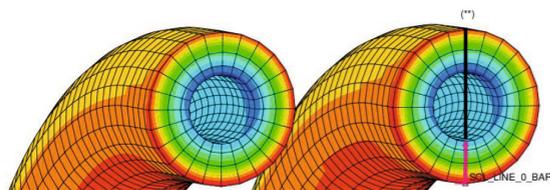
There are 3 measuring ranges 0-20 / 0-50 / 0-160 kg/h available within an extremely robust and compact flow housing. The integrated electrical plug concept allows an uncomplicated connection to various Heinrichs-transmitters.

- > NEW Dual Bent Coriolis concept
- > 4 sensor coils for extremely high resolution
- > Very small measuring ranges available
- > High measuring accuracy
- > Very robust flow body
- > Vibration resistant
- > Variable housing and mounting concept
- > Operatable with various transmitters

## Research and Development at it's highest level

High-End simulation technology enables the analysis and coupling of different models such as CSD, ( FEM) CFD, CEM, FSI, TFSI thus saving a substantial amount of pre-development time as was the case in earlier days. This is our path into the future, solving customer-driven high complex measurement tasks optimally.

Using state-of-the-art technology, we are positioned to quickly recognise application barriers and overcome them with optimal customer oriented solutions.



# High Performance Coriolis HPC

## Technical Data Overview

### Measuring Ranges:

|         |                  |
|---------|------------------|
| HPC-S01 | 0-20 kg/h (nom)  |
| HPC-S02 | 0-50 kg/h (nom)  |
| HPC-S03 | 0-160 kg/h (nom) |

Reference conditions acc. IEC 770, H2O at 20 °C

### Measuring accuracy:

|          |                   |
|----------|-------------------|
| Liquids: | ± 0,1 % of actual |
| Gases:   | ± 0,5% of actual  |

### Materials:

|                  |                        |
|------------------|------------------------|
| Measuring pipes: | st.st. 1.4561 (316 TI) |
| Flow body:       | st.st. 1.4404 (316 L)  |
| Enclosure cover: | aluminum, st.st.       |

### Process connection:

G1/2F, 1/2 NPT F  
Gyrolok 6/8/10 mm  
Swagelok 6/10/12 mm

### Nominal pressure:

PN100 / PN 320 / PN 400

### Process temperature:

-40 ...+180 °C

### Ambient temperature:

-20 ...+60 °C

### Electrical connection:

plug Harting HAN® R 23  
ODU Mini Snap®