



Flat rate inspection charges – vane wheel flow sensors FA

calibration flat rate **not** included

Type	Description	Article No.
FA	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-FA
FAR	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-FAR
FT	Visual inspection, cleaning, performance check of velocity and temperature sensors, assessment of wear parts, minor repair work	PRÜ-FT
FA Di	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-FADI

Example of possible article combination see page 7

Flat rate inspection charges – vortex flow sensors VA		
calibration flat rate not included		
Type	Description	Article No.
VA	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-VA
VAT	Visual inspection, cleaning, performance check of velocity and temperature sensors, assessment of wear parts, minor repair work	PRÜ-VAT
VA Di up to Di100	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-VADI
VA Di greater Di100	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-VADI2
VAR TwinPipe	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-VAR
Flat rate inspection charge – ultrasonic flow meter UA		
calibration flat rate not included		
Type	Description	Article No.
ExactSonic	Visual inspection, cleaning, performance check, assessment of wear parts	PRÜ-SONIC
Flat rate inspection charges – thermal flow sensors TA		
calibration flat rate not included		
Type	Description	Article No.
TA	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-TA
TA Di	Visual inspection, cleaning, performance check, assessment of wear parts, minor repair work	PRÜ-TADI
Flat rate inspection charges – other sensors		
Type	Description	Article No.
Temperature probes TF	Visual inspection, cleaning, performance check	PRÜ-TF
Pressure sensors	Visual inspection, cleaning, performance check	PRÜ-P
Humidity probes	Visual inspection, cleaning, performance check	PRÜ-RH

Calibration flat rates

for 6 standard calibration values. Inspection flat rate and calibration certificate not included.
For sensors with evaluation unit, the calibration values are selected in the scaled range, provided that the set analog output does not correspond to the physical end value.

DAkKS velocity calibration – flow sensors

6 calibration values

Range	Reference	Article No.
0.1 m/s bis 40 m/s	WK320, LDA	CV-40 DAKKS
0.1 m/s bis 70 m/s	WK320, LDA	CV-70 DAKKS
additional calibration values	per value	CV-X DAKKS

For the measurement uncertainty of the reference please refer to the calibration document U325.
The calibration medium is air. Calibration is carried out at room temperature under atmospheric conditions.

ISO velocity calibration – flow sensors

Terminal value	Type	Calibration values in m/s						Article No.
		0.5	0.6	0.7	0.8	0.9	1.0	
1 m/s	FA*	0.5	0.6	0.7	0.8	0.9	1.0	CV-1ZS
1 m/s	TA	0.25	0.35	0.5	0.6	0.75	1.0	CV-1TA
2 m/s	FA*	0.5	0.75	1.0	1.25	1.5	2.0	CV-2ZS
2 m/s	TA	0.25	0.5	0.75	1.0	1.5	2.0	CV-2TA
3 m/s	TA, FA*	0.5	0.75	1.0	1.5	2.0	3.0	CV-3
20 m/s	TA, FA	1	2	5	10	15	20	CV-20
30 m/s	TA, FA, VA	1	2	5	10	20	30	CV-30
60 m/s	VA, VAT	1	4	8	16	32	60	CV-60
60 m/s	TA	1	5	10	20	40	60	CV-60
60 m/s	FA	2	5	10	20	40	60	CV-60
120 m/s	TA	2	5	10	40	80	120	CV-120
150 m/s	TA	2	10	20	40	80	150	CV-150
180 m/s	TA	2	10	20	60	100	180	CV-180
200 m/s	TA	2	10	20	60	120	200	CV-200
additional calibration values		per value						CV-X

For the measurement uncertainty of the reference please refer to the calibration document U325.
The calibration medium is air.
*applies to FA sensors with vane wheel set 'md20' or 'md3'.
Calibration of FAR probes generally from one direction of flow.

DakkS flow rate calibration – measuring tubes

6 calibration values

Range	Reference	Calibration medium	Article No.
0.022 m ³ /h to 57.9 m ³ /h	DVP	air	CQ-100 DAKKS
5 m ³ /h to 100 m ³ /h	AVP	air	CQ-100 DAKKS
5 m ³ /h to 1600 m ³ /h	AVP	air	CQ-1600 DAKKS
5 m ³ /h to 5500 m ³ /h	AVP	air	CQ-5500 DAKKS
additional calibration values	per value		CQ-X

For the measurement uncertainty of the reference please refer to the calibration document U325. Calibration is carried out at room temperature under atmospheric conditions. These calibrations always include as well a DakkS calibration certificate.

ISO air/gas flow rate calibration – measuring tubes (atmospheric or at pressure)

6 standard calibration values in the scaled measuring range

Range	Reference	Calibration medium	Article No.
0.022 m ³ /h bis 61 m ³ /h	DVP	air	CQ-100 ISO
0.06 m ³ /h bis 100 m ³ /h	RVP	air *	CQ-100 ISO
0.2 m ³ /h bis 100 m ³ /h	HDVP**	air *	CQ-100 ISO
1.5 m ³ /h bis 100 m ³ /h	AVP	air	CQ-100 ISO
0.2 m ³ /h bis 1600 m ³ /h	HDVP**	air *	CQ-1600 ISO
1.5 m ³ /h bis 1600 m ³ /h	AVP	air	CQ-1600 ISO
0.2 m ³ /h bis 4000 m ³ /h	HDVP**	air *	CQ-5500 ISO
1.5 m ³ /h bis 5500 m ³ /h	AVP	air	CQ-5500 ISO
1.5 m ³ /h bis 10000 m ³ /h	AVP	air	CQ-10000 ISO
additional calibration values	per value		CQ-X

* other gases on request

** calibration at pressure up to 10 bar / 1 MPa and pipe dimension up to DN200

For the measurement uncertainty of the reference please refer to the calibration document U325. Additional costs for sensor adaption may apply for special designs. Sensors in special designs may incur additional costs for sensor adaptation. If a FA Di measuring tube does not have a directly assigned transducer, the profile factor and the pairs of value of frequency and average flow velocity are determined during calibration and documented in the calibration certificate. The pairs of values are used for an optimal adaptation of sensor and transducer to achieve the highest possible accuracy.

Liquid flow calibration		
6 standard calibration values		
Calibration medium	Range	Article No.
water	0.02 l/min to 9 l/min	CQ-FVP
additional calibration values	per value	CQ-FVPX
For the measurement uncertainty of the reference please refer to the calibration document U325. Calibration in other liquids on request. Additional costs for sensor adaption may apply for special designs.		

Liquid flow calibration – flow sensors		
6 standard calibration values		
Calibration medium	Range	Article No.
water	0.5 m ³ /h to 100 m ³ /h (0.02 m/s to 3.5 m/s)	CQ-WVP
additional calibration values	per value	CQ-WVPX
For the measurement uncertainty of the reference please refer to the calibration document U325. The average flow velocity based on flow rate together with a profile factor are determined and documented in the calibration certificate. Calibration of FAR probes generally from one direction of flow. Additional costs for sensor adaption may apply for special designs.		

Velocity calibration – flow sensors - in high-temperature testing facility		
6 standard calibration values		
Calibration medium	Range	Article No.
air	0.5 m/s to 70 m/s, operating temperature +20 °C to 400 °C	C-HTP
additional calibration values	per value	C-HTPX
For the measurement uncertainty of the reference please refer to the calibration document U325.		

Calibration – temperature probes		
3 standard calibration values incl. calibration certificate		
Calibration medium	Range	Article No.
temperature calibration	+20 °C to +100 °C	KLB-T/PT100
additional calibration values	per value	CT-X
Comparison with reference thermometer in liquid bath. Measurement uncertainty of the reference < 0.1 K.		

ISO / DAkkS Calibration certificates		
Calibration certificate*	Range	Article No.
Calibration certificate*	ISO or DAkkS calibration certificate as proof of traceability	KLB
* the calibration of measuring tubes always automatically includes a calibration certificate		

Flat rate inspection charges – evaluation units

Type	Description	Article No.
Transducer - separate or integrated in the sensor	visual inspection, assessment, performance check and adjustment, software update, minor repair work	PRÜ-U
Ex-transducer – separate or integrated in the sensor	visual inspection, assessment, performance check and adjustment, software update, check of parameters relevant for explosion protection, minor repair work	PRÜ-Ex
System unit with keypad and display	visual inspection, assessment, performance check and adjustment	PRÜ-S
Ex-system unit with keypad and display	visual inspection, assessment, performance check and adjustment, software update, check of parameters relevant for explosion protection, minor repair work	PRÜ-S-Ex
Handheld unit	visual inspection, assessment, performance check and adjustment, software update, minor repair work	PRÜ-H
Ex-handheld unit	visual inspection, assessment, performance check and adjustment, determination of battery life, software update, check of parameters relevant for explosion protection, minor repair work	PRÜ-X
External devices	visual inspection, assessment, performance check	PRÜ-FREMD

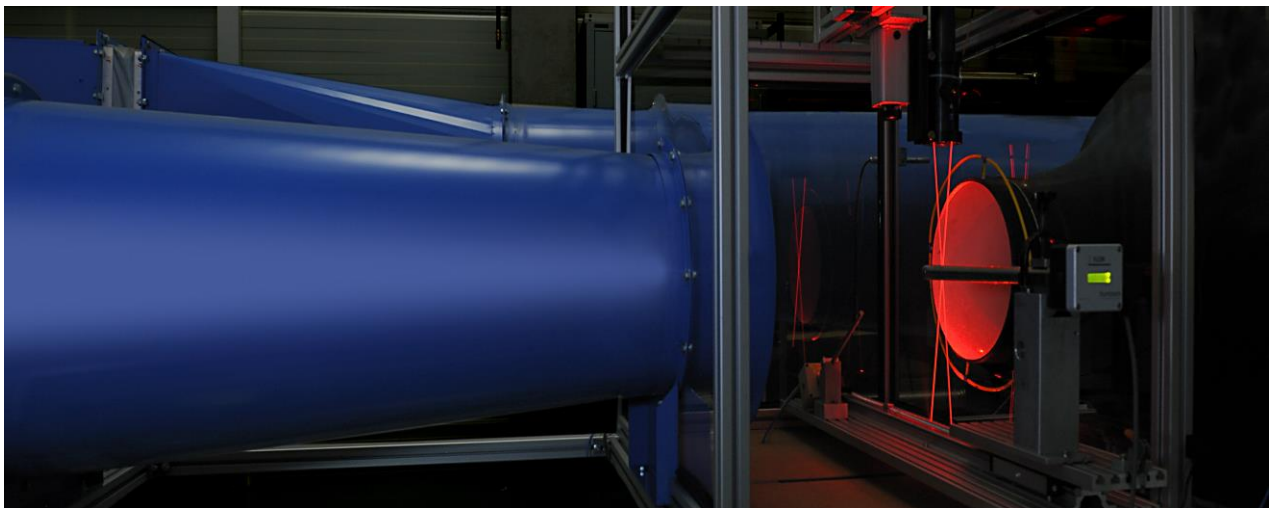
Miscellaneous

Type	Description	Article No.
Temperature test	performance check of flow sensors at varying temperatures in the range +20 °C to +600 °C in temperature test chamber	PRÜ-VT



Inspection documents for metallic products according to 10204:2004		
Type	Description	Article No.
2.1 Declaration of compliance with the order	Manufacturer's statement of compliance with the order	WB 2.1
2.2 Test report	Manufacturer's statement of compliance with the order with indication of results on non-specific inspection	WB2.2
3.1 Inspection certificate	Statement of compliance with the order with indication of results of specific inspection by manufacturer's authorized inspection representative independent of the manufacturing department	WB 3.1
Compliance statement	ISO 9001	CECONF

Example of possible article combination		
Sensor	Service	Article No.
ZS25 with integrated transducer	Calibration certificate "as found" (optional) Calibration up to 30 m/s Inspection charge FA Inspection charge transducer Calibration up to 30 m/s Calibration certificate "as left" (optional)	KLB CV-30 PRÜ-FA PRÜ-U CV-30 KLB



Höntzsch GmbH & Co. KG
Gottlieb-Daimler-Straße 37
D-71334 Waiblingen
Telefon +49 7151 / 17 16-0
E-Mail info@hoentzsch.com
Internet www.hoentzsch.com

Subject to alteration