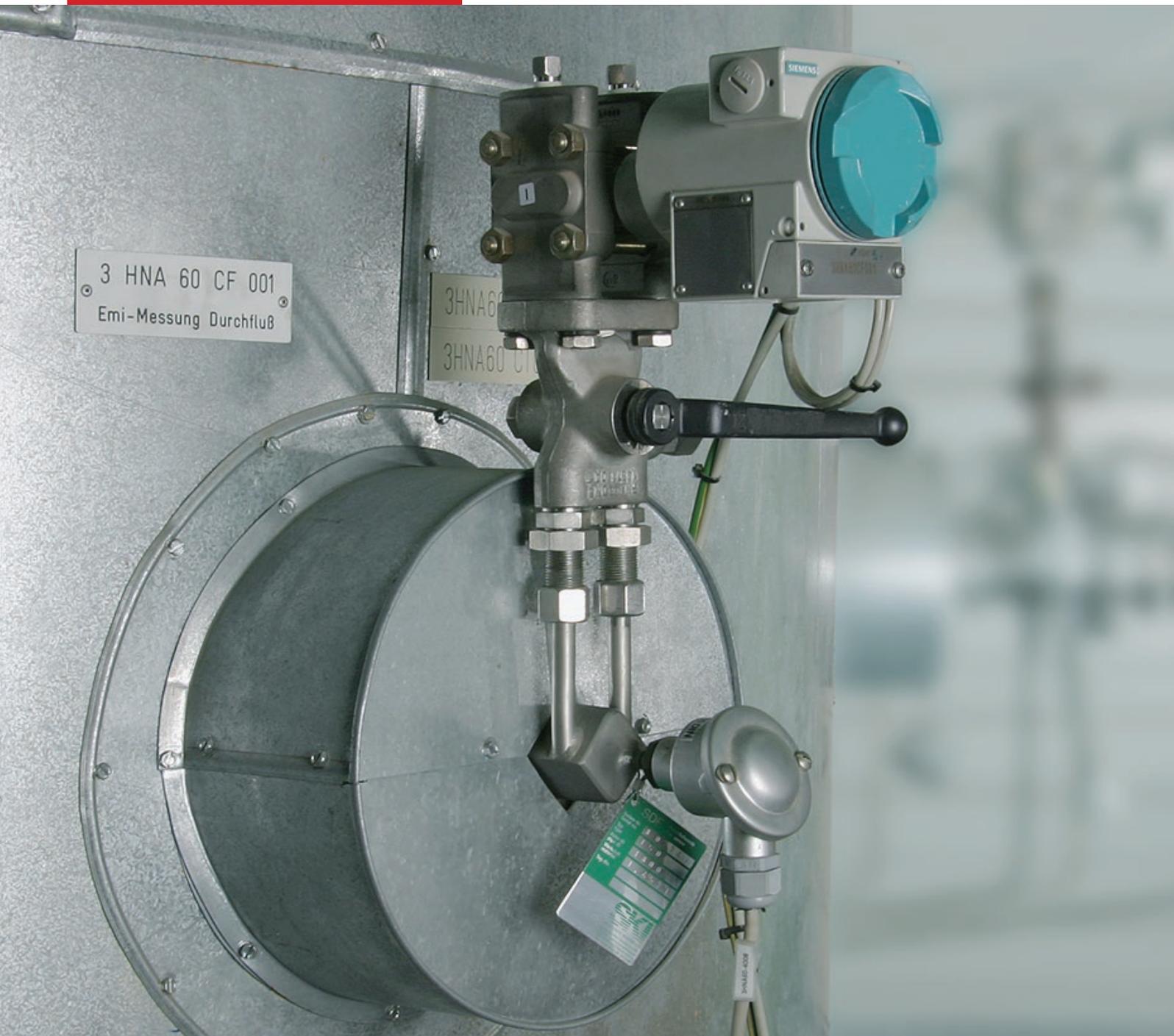


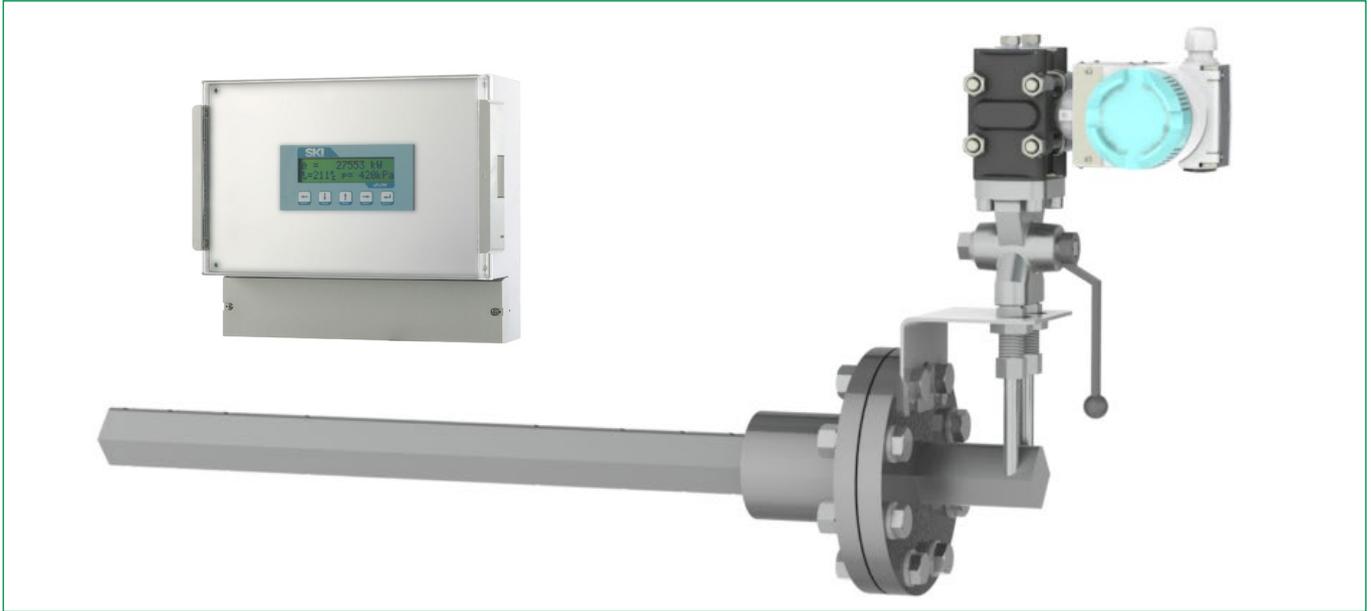
**Future-proof!**

TÜV audited  
according to  
**EN16911**

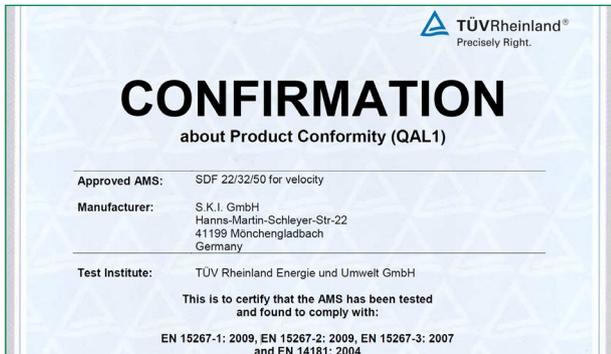
# AccuFlo<sup>®</sup>QAL

Certified emission measurement





## ■ Protect the environment



## ■ AccuFlo®QAL

Our AccuFlo®QAL is an automatic measuring system certified according to the QAL 1 for monitoring emissions.

The AccuFlo®QAL works on the principle of differential pressure-flow measurement and consists of a SDF-sensor, AccuMu transmitter and the µFlow electronic evaluation system. In addition the AccuFlo®QAL offers options for measuring fluctuations in density, temperature protective housing and air purging.

## ■ Simple to handle

The AccuFlo®QAL is easy to install and to handle. That means for you a fast and simple implementation as well as an almost maintenance-free system.





## ■ Technical Highlights

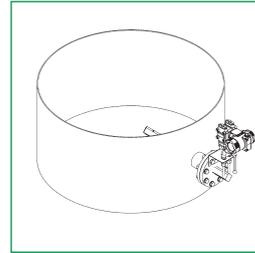
|                        |   |
|------------------------|---|
| Measuring principle    | Differential pressure   |
| Velocity               | 2-20, 2-40, 2-60m/s *   |
| Diameter               | > 100mm   |
| Medium temperature     | to 800°C<br>Higher temperature on request   |
| ambiente temperature   | -20°C to 50°C   |
| Voltage                | 115/230AC<br>Optional 24DC  |
| Interfaces             | <ul style="list-style-type: none"> <li>Analog output (optional one additional analog output)</li> <li>3 relay: purging relay, service relay, fail relay</li> <li>Pulse output if the velocity falls below a determined minimum value</li> </ul> |
| Material               | 1.4571, Hastelloy<br>Other materials on request   |
| Evaluation electronics | Panel mounting<br>Optional connection housing   |

## ■ Certification details

|                         |  |
|-------------------------|--|
| Measurement system      | SDF 22/32/50   |
| Certification           | QAL1: Federal Environmental Agency,<br>TÜV Rheinland<br>MCerts: SIRA |
| Tested standards        | DIN EN 14181<br>DIN EN 15267-1-3<br>DIN EN 15259<br>DIN EN 16911-2   |
| TÜV report              | 936/21219344/A   |
| TÜV interim certificate | Since 21.12.2012   |
| MCERTS Certificate      | SIRA MC120218/00   |

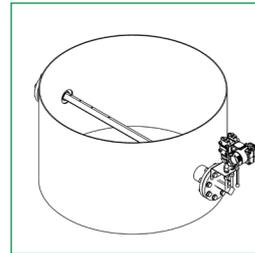
## ■ Make the right choice

The DIN EN 16911 2 article 8.3 regulates the relation between the flow profile shape, caused by the existing pipe isometrics, and the measuring system to be used. The AccuFlo® QAL provides the right solution for any requirement:



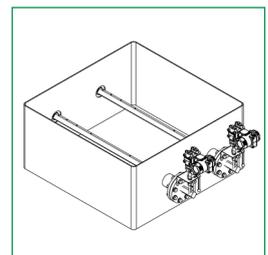
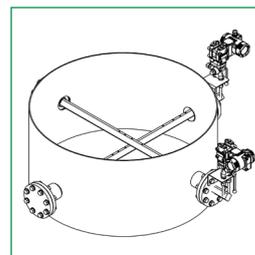
### Part stream flow sensor

Exhaust gas ducts with long inlet and outlet lengths have a symmetrical flow profile. In this case the right choice for a measuring system is the SDF-part stream flow sensor with limited path length, also in rectangular ducts.



### 1 Cross-Duct-measuring path

Exhaust gas ducts with shorter inlet and outlet lengths have a non-symmetric flow profile. SDF-sensors are used as measuring system. In the case of a strong non-symmetric flow profile the measurement must be taken along the axis with the largest asymmetry. In rectangular ducts identical SDF-sensors are used.



### 2 Cross-Duct-measuring path

In exhaust gas ducts with very short inlet and outlet lengths and the resulting very non-symmetric flow profile with twist formation, installation of two SDF-sensors is required.



KOMPETENTE MESSTECHNIK

## ■ AccuFlo®QAL Options



### ■ Temperature

Due to typically high temperature variations of exhaust gas in general and the resulting density changes, a precise temperature measurement is advisable. Our temperature measurement is integrated in the AccuFlo®QAL and measures reliably the temperature in the exhaust gas duct.



### ■ Pressure

Pressure variations in exhaust gas ducts lead to changes in the gas density. For precise pressure measuring we recommend our pressure measuring transmitter AccuP which can be easily integrated in the AccuFlo®QAL.

$$V = \sqrt{\frac{\Delta p}{\rho}} * \frac{k \cdot D}{25}$$

### ■ Volumetric flow calculation

Based on the measuring of pressure and temperature our external electronic evaluation unit µFlow can be upgraded to include volumetric flow calculation. Alternatively the volumetric flow can also be calculated with a suitable emission calculator using our temperature and pressure measurement system



### ■ Protective Housing

Our protective housing SK-100 including the arctic coating and heating optimizes your volumetric flow measuring also at extremely low temperatures. .



### ■ Air flushing device

At a dust concentration of more than 150mg/Nm<sup>3</sup> we recommend using our LSE-air purging device. It cleans SDF-sensors before they get blocked by dust. Safe and reliable. Following a very simple principle – and without any magnetic valves.

## S.K.I. Schlegel & Kremer Industrieautomation GmbH

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