



Storing a characteristic for application in other gases

based on	Article No.
calibration in air and conversion of the air characteristic for another gas, up to '60 m/s'	TA_TRANSFO (on request)
real gas calibration for achieving best measurement uncertainties	(on request)

Examples of measurable flow rates

measuring tube inside diameter Di [mm]	profile factor PF* [-]	smallest measurable value [Nm ³ /h]	terminal value [Nm ³ /h] with sensor measuring range				
			'60 m/s'	'120 m/s'	'150 m/s'	'180 m/s'	'200 m/s'
40	0.810	0.73	220	440	550	660	730
50	0.840	1.2	356	713	890	1070	1180
60	0.840	1.7	513	1030	1280	1540	1710
80	0.840	3.0	912	1820	2280	2740	3040
100	0.840	4.8	1425	2850	3560	4280	4750
120	0.840	6.8	2050	4100	5130	6160	6840
150	0.840	11	3210	6410	8020	9620	10600
200	0.840	19	5700	11400	14250	17100	19000
300	0.840	43	12820	25650	32060	38480	42750
400	0.840	76	22800	45600	57000	68400	76000
500	0.840	120	35600	71200	89100	106900	118800
1000	0.840	480	142500	285000	356300	427600	475000

Standard flow rate measuring range specifications with centric positioning of the sensor, non-rotational inlet flow and amply dimensioned input/output sections (see Information for Use).

* The profile factor PF describes the ratio of average flow velocity in the measurement cross section and the flow velocity measured from the sensor. The afore-mentioned operating conditions apply.

(5) Permissible temperature

medium	-10 ... +140 °C
ambient	-20 ... +50 °C

Permissible ambient and media temperature ranges subject to the chosen temperature class. Ambient temperature (electronics) T_U, media temperature T_M

Category 1/2G equipment		
Temperature class	T _M	T _U
T4	- 10 °C ... +60 °C	- 20 °C ... +50 °C
T3	- 10 °C ... +60 °C	- 20 °C ... +50 °C
Category 2G equipment		
Temperature class	T _M	T _U
T4	- 10 °C ... +130 °C	- 20 °C ... +50 °C
T3	- 10 °C ... +140 °C	- 20 °C ... +50 °C
T2	- 10 °C ... +140 °C	- 20 °C ... +50 °C
T1	- 10 °C ... +140 °C	- 20 °C ... +50 °C
Category 1/2D or 2D equipment		
maximum surface temperature		T _U
T 135 °C		- 20 °C ... +50 °C



(6) Working pressure

max. 16 bar / 1.6 MPa overpressure
higher than 16 bar / 1.6 MPa on request

(7) Design

as in Drawing (Page 1)

(8) ATEX protection

for gas : Ⓜ II 1/2 G Ex ia/d e [ia] IIC T4 Ga/Gb
for dust : Ⓜ II 1/2 D Ex ia/tb IIIC T135°C Da/Db
sensor : Category 1 (Zone 0 or 20)
transducer housing : Category 2 (Zone 1 or 21)

Installation position

any positioning under atmospheric pressure, with overpressure inflow must not come from above

Ex-d transducer housing

Dimensions	outside diameter/length/height: approx. 110/205/182 mm
Material	aluminium cast alloy max. 0.5 % Mg, coated
Protection	IP68, IEC 529 and EN 60 529
Connection	glands for shielded cables with outside diameter 5 ... 9 mm, contacting of overall screen on the ground terminal in the housing
Alignment	rotatable by approx. 350 ° and lockable
Setup	dual chamber system consisting of: 1) electronics in Ex-d protection (flameproof enclosure) 2) connections in Ex-e protection (increased safety) with terminal block and cable glands

Electromagnetic Compatibility (EMC)

according to EN 61 000-6-2 / IEC77

Transducer UTA integrated in the connection housing

Analog output flow	4 ... 20 mA resistance max. 500 Ohm
Output limit value or quantity pulse	potential-free relay contact (normally-open) max. 300 mA / 27 VDC
Communication port	HART® via modem adapter for PC connection and UCOM software (see Accessories) output signals are electrically isolated from the power supply
Self-monitoring	parameter settings, sensor interface; in the case of error: analog output < 3.6 mA
Power supply	24 V DC (20 ... 27 V DC)
Power consumption	less than 5 W
Setting parameters	analog output, time constant, profile factor, tube inside diameter, limit value or quantity pulse (rating adjustable), 'working pressure' to zero correction (only relevant for $N_v < 1$ m/s), standard basis, standard density

