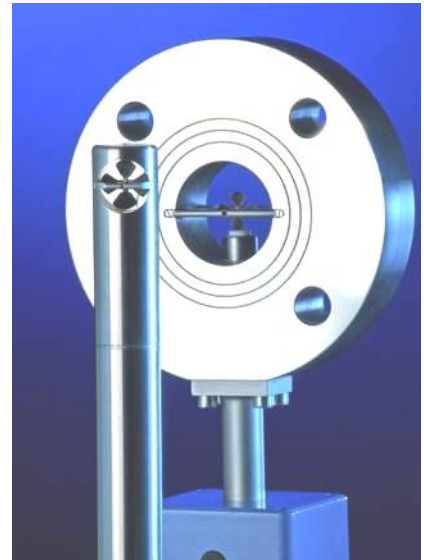




**Parameterizable transducer UFA in IP65 aluminium housing
for use with vane wheel flow sensors FA and FA Di
for measuring flow rate and flow velocity**



UFA in AS102 housing



UFA with probe ZS and measuring tube FA Di

Properties

- for measuring flow velocity and flow rate
- flexible use via PC interface for modification of calibration and parameter data
- potential-free quantity pulse, limit value output or '±direction' output
- conversion from actual to standard flow velocity or flow rate
- compatible for all Höntzsch probes FA and measuring tubes FA Di with and without ±direction sensing
- easy to read, optional LCD with instantaneous value, quantity counter und error code
- robust IP65 aluminium housing
- permanent self-diagnosis
- highly reliable even in extreme industrial application conditions

Model designation (example)

UFA	4-20 mA	230 VAC	AS102
(1)	(2)	(3)	(4)

Basic types

Type	Article No.
'4-20 mA'	
UFA / 4-20 mA / 230 VAC / AS102	A016/051
UFA / 4-20 mA / 24 VDC / AS102	A016/052
UFA / 4-20 mA / 12 VDC / AS102	A016/053
'0-10 V'	
UFA / 0-10 V / 230 VAC / AS102	A016/054
UFA / 0-10 V / 24 VDC / AS102	A016/055
UFA / 0-10 V / 12 VDC / AS102	A016/056



(1) Transducer type

UFA	
input flow v/FA or v/FAR	for Höntzsch vane wheel flow sensors FA and FAR without and with \pm directional sensing, as probe (ZS, TS ..., ZSR, TSR ...) and as measuring tube (FA Di, FAR Di ...)

(2) Outputs

analog output v, flow velocity/flow rate	for FA / FAR*: 4 ... 20 mA = 0 ... x m/s (or m ³ /h), for FAR: 4 ... 12 ... 20 mA = -x ... 0 ... +x m/s (or m ³ /h), parameterizable terminal values x / burden max. 400 Ohm, alternatively:
* for FAR sensors when parameterizing the relay (see under): \pm direction of flow	for FA / FAR*: 0 ... 10 V = 0 ... x m/s (or m ³ /h), for FAR: 0 ... 5 ... 10 V = -x ... 0 ... +x m/s (or m ³ /h), parameterizable terminal values x / impedance 1 kOhm

output either limit value or quantity pulse or \pm direction of flow (with selection ' \pm direction of flow' for FAR sensors: analog output (see above) proportional of sum, unsigned)	relay (potential-free normally open contact), max. 300 mA / max. 27 V DC limit value (alternative 1, parameterizable): flow velocity < limit value: relay rest position, flow velocity > limit value: relay working position quantity pulse (alternative 2, parameterizable): max. pulse repetition frequency 1 Hz per unit of volume, parameterizable, e.g. 1 pulse per 1, 10 or 100 (norm)-m ³ , pulse duration 0.5 s (with FAR sensors: parameterizable for '+' or '-' direction of flow \pmdirection of flow (alternative 3, parameterizable): +direction: relay rest position, -direction: relay working position
PC interface RS232	or modifying calibration data and parameter, connection via RJ22 connector (in the housing) output signals electrically isolated from the mains supply
self-diagnosis according to NAMUR NE43	errors: - with output 4-20 mA : < 3.6 mA, - with output 0-10 V : < -0.2 V, - LED shines yellow power supply OK : LED shines green with input signal 'flow' > 0 m/s: LED flashes green

(3) Power supply

mains supply	230 V AC (215 ... 255 V AC), 50 ... 60 Hz, output < 10 VA 24 V DC (20 ... 27 V DC), output < 5 W 12 V DC (10 ... 17 V DC), output < 5 W
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(4) Housing

aluminium housing AS102	dimensions L/B/H: 150/100/80 mm bush for shielded cables with outside diameter 5 ... 10 mm, contacting of Cu overall shielding by the metallic screwed cable glands
connection	'Push In' terminals; no tools necessary to connect conductor; conductors can be separated by applying pressure with a pen or screwdriver; suitable for conductors with cross sections from 0.14 ... 1.5 mm ²
protection	IP65, IEC 529 and EN 60 529
EMC	EN 61 000-6-2 / IEC77
working temperature range	without display : -25 ... +50 °C with display : -20 ... +50 °C



Parameter

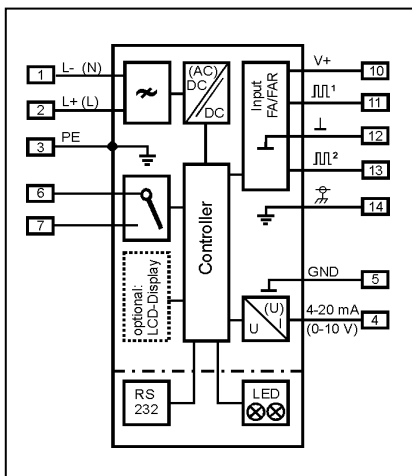
setting parameter as per parameter set no. 00100

analog output, time constant, profile factor, tube inside diameter, linearization of characteristics (sensor type / medium or pairs of variates), limit value or quantity pulse or \pm direction of flow, quality rating quantity pulse, switching actual/standard flow with setting parameters 'actual pressure' and 'actual temperature'

setting parameter with PC software UCOM and PC connecting cable (see Accessories) alterable

Accessories (optional)

	Description	Art.-No.
LCD in top cover	1st row: 'instantaneous value': flow rate or flow velocity 2nd row: 'quantity counter' or 'error code'; 2 x 16 digit, height 5.5 mm working temperature range -20 ... +50 °C	A010/016
PC software UCOM	for configuring transducers UFA and UVA via RS232 interface, PC connecting cable RJ22 / Sub-D-9-pin additional requirement	A010/052
PC connecting cable RJ22 / Sub-D-9-pin	for configuring transducers UFA and UVA in LDG16 or AS102 housings via RS232 interface with software UCOM; transducer connection: RJ22, PC connection: Sub-D, 9-pin	A010/051
interface converter USB / RS232	for connecting PC with USB interface and Höntzsch programming adapter with RS232 interface; PC connection: USB plug type A programming adapter connection: Sub-D 9-pin	A010/100



wiring diagram UFA in aluminium housing AS102



PC with configuration software UCOM



PC connecting cable with CD-ROM UCOM