

Flow Data Sensor ZE 2000

- Sure measuring by innovative technique
- High calipering due to state-of-the-art components
- Measuring accuracy $\pm 1\%$ of measured value
- Reproducibility below 0,2 % over full scale
- Direct analog output 4 ... 20 mA
- Direct digital output RS232
- Programmable
- Flow rate minimum and maximum freely adjustable
- Input voltage: max. 55 mA
- Voltage: 24 V DC
- Protection: IP 65
- Thermoplastic material
- Connection: 6-channel contact plug acc. to DIN 45322
- Easy mounting on flowmeter by dove tail
- Accessories on request

Print 330 203 06/02

Description

The data sensor ZE 2000 measures the value of the present position of the magnetic float. It can be used for DFM 165 up to DFM 350.

The present position of the float with magnet is read by the sensor contactless at a measuring range of 10 % up to 100 % - with resolution of 0,1 % - and is supplied as analog signal of 4 ... 20 mA respectively as a digital signal via a serial interface RS232.

This type of data scanning is programmable for various media, specific gravities or temperatures. The ZE 2000 is therefore used in control panels, e.g. chemical industry.

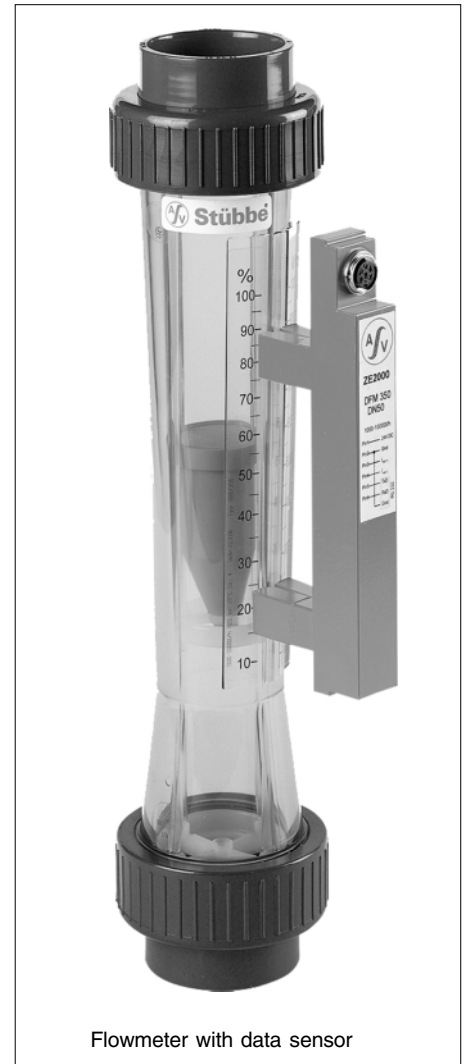
For proper operation the flowmeter has to be equipped with a magnetic float.

Mounting of flow data sensor ZE 2000

Easy fastening of the sensor on a dove tail rail. First of all the sensor is fixed with the lower foot from the bottom on the rail, then pushed upwards and fixed with the upper foot from the top on the rail. The position of the sensor ZE 2000 is fixed by tightening the adjusting screw.

Attention: Tighten the screw carefully. With the attached plug or cable the sensor is connected with the voltage supply and the various measuring instruments, interpretation units or controllers.

Adjusting of the vertically installed sensor as follows:
Loosen adjusting screw and move the sensor to the top or bottom so long as the measuring unit shows 4 mA (float in off-position). Fix the sensor by tightening the adjusting screw.
Now the sensor is ready for operation.



Flowmeter with data sensor

The **Controller 800** (see data sheet 330 204) is the ideal complement to ZE 2000.

Note:

In case of parallel fastening of several flow data sensors with annexed sensors ZE 2000 following minimum distances are to be observed:

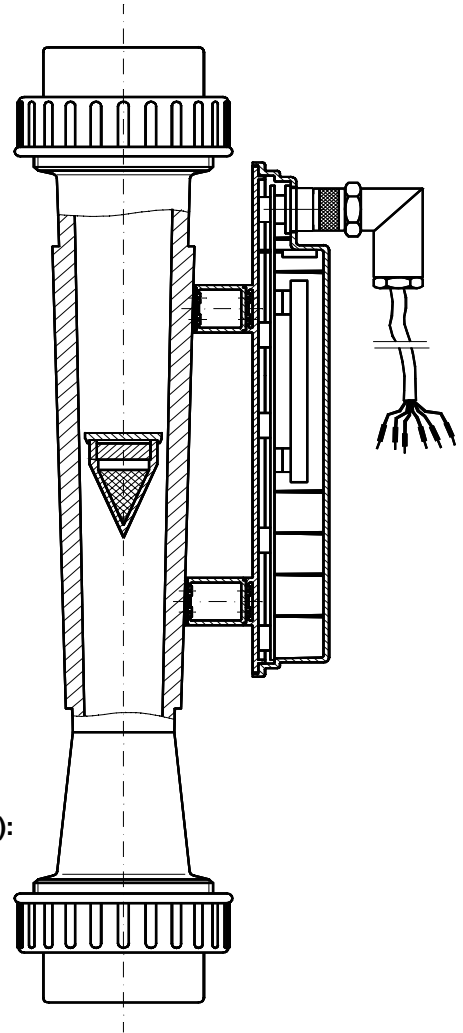
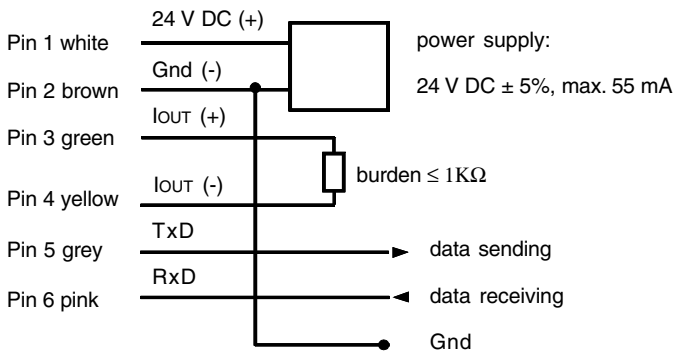
500 mm (DFM 335 and DFM 350) and
300 mm (DFM 165 up to DFM 200).

Connection of flow data sensor ZE 2000

Configuration:

- Pin 1 = 24 V DC (+)
 - Pin 2 = Gnd (-)
 - Pin 3 = $I_{out} (+)$
 - Pin 4 = $I_{out} (-)$ } analog output 4 ... 20 mA
 - Pin 5 = TxD (data sending)
 - Pin 6 = RxD (data receiving) } digital output RS232 interface
- Pin 5 und Pin 6: RS232 with TTL level,
Data format: 9600 baud, 8 data bits, 1 stopbit, no parity

Connection:



Operating instructions:

Attention Only appliances with galvanical separated inputs are allowed to be connected to the analog output of the ZE 2000.

Admissible cable length without amplifier (use screened conducted cable only):

- for using RS232 max. 2 metres
- for current outlet max. 20 metres

Connection with a PC by 9 poles sub socket:

ZE 2000	9 poles sub socket
Pin2 Gnd	Pin5 Gnd
Pin5 TxD	Pin2 RxD
Pin6 RxD	Pin3 TxD

Attention The ZE 2000 is equipped with an EPROM which will be configured for each case of application. Therefore all specifications of the operating conditions (e.g. media, concentration, viscosity, density etc.), which are also necessary for making the scales, must be known when placing the order.

Ident-No. flow data sensor ZE 2000 for:

Type	DN	Ident-No.
DFM 165	10	123803
DFM 170	15	123804
DFM 185	20	123805
DFM 200	25	123806

Type	DN	Ident-No.
DFM 335	25	123807
DFM 335	40	127577
DFM 335	50	127578
DFM 335	65	127579

Type	DN	Ident-No.
DFM 350	25	123808
DFM 350	32	127580
DFM 350	40	127581
DFM 350	50	127582
DFM 350	65	127583

Technical alterations excepted