



## Flow Rate Transmitter EVS 3110

Turbine

High accuracy

Additional measuring connections

For water-based media

### Description:

The flow rate transmitters in the EVS 3110 series (stainless steel series) are specially designed for use in hydraulic and other fluid power systems. They operate in accordance with the turbine principle, which means that the rpm of an impeller wheel rotating in the flow of the media is measured and converted into a 4 .. 20 mA analogue signal.

In the EVS 3110 stainless steel series, the impeller has a carbide bearing and the resulting increased robustness also makes it suitable for use in pulsating, dynamic applications.

Two further G1/4 threaded holes in the turbine housing allow additional units to be connected, e.g. temperature and pressure sensors.

### Technical data:

#### Input data

Measuring ranges <sup>1)</sup> and operating pressure

1.2 .. 20.0 l/min	400 bar
6.0 .. 60.0 l/min	400 bar
15.0 .. 300.0 l/min	400 bar
40.0 .. 600.0 l/min	400 bar

Additional connection options 2 x G1/4 female threads for pressure and/or temperature sensors

Housing material Stainless steel

#### Output data

Output signal, permitted load resistance 4 .. 20 mA, 2-conductor  
 $R_{Lmax} = (U_B - 10 \text{ V}) / 20 \text{ mA [k}\Omega\text{]}$

Accuracy  $\leq 2 \%$  of the actual value

#### Environmental conditions

Compensated temperature range -20 .. +70 °C

Operating temperature range -20 .. +70 °C

Storage temperature range -40 .. +100 °C

Fluid temperature range -20 .. +90 °C

CE mark EN 61000-6-1 / 2 / 3 / 4

Protection class acc. to DIN EN 60529 <sup>2)</sup> IP 65 (Binder male connector 714 M18)  
 IP 67 (M12x1 male connector)

#### Other data

Measuring medium <sup>3)</sup> Water-based media

Viscosity range 1 .. 100 cSt

Calibration viscosity 5 cSt

Supply voltage 10 .. 32 V DC

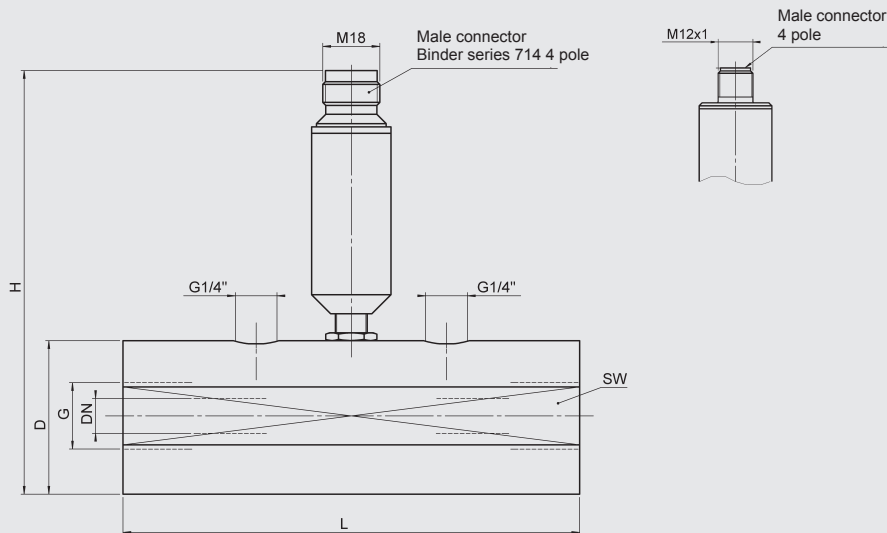
Residual ripple of supply voltage  $\leq 5 \%$

Note: <sup>1)</sup> Other measuring ranges on request.

<sup>2)</sup> With mounted mating connector in corresponding protection class

<sup>3)</sup> Other measuring media on request

## Dimensions:



Model	Measuring range [l/min]	L [mm]	H [mm]	D / SW [mm]	G	Torque, recommended [Nm]	DN [mm]
EVS 311X-A-0020	1.2 .. 20	117	135	47 / 46	G1/4"	60	7
EVS 311X-A-0060	6 .. 60	144	135	48.5 / 46	G1/2"	130	11
EVS 311X-A-0300	15 .. 300	155	150	63.5 / 60	G1 1/4"	500	22
EVS 311X-A-0600	40 .. 600	181	150	63.5 / 60	G1 1/2"	600	30

## Model code:

**EVS 3 1 1 X - A - XXXX - 000**

### Housing material

1 = stainless steel

### Electrical connection

4 = male, 4 pole Binder series 714 M18  
(mating connector not supplied)  
6 = male M12x1, 4 pole  
(mating connector not supplied)

### Output signal

A = 4 .. 20 mA, 2-conductor (4 mA  $\pm$  0 l/min)

### Measuring range

0020 = 1.2 .. 20 l/min  
0060 = 6.0 .. 60 l/min  
0300 = 15.0 .. 300 l/min  
0600 = 40.0 .. 600 l/min

### Modification number

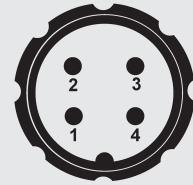
000 = standard

### Accessories:

Appropriate accessories, such as mating connectors, can be found in the Accessories brochure.

## Pin connections:

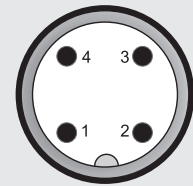
Binder series 714 M18



Pin EVS 3114-A

1	Reserved
2	Signal +
3	Signal -
4	Reserved

M12x1



Pin EVS 3116-A

1	Signal +
2	Reserved
3	Signal -
4	Reserved

## Note:

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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