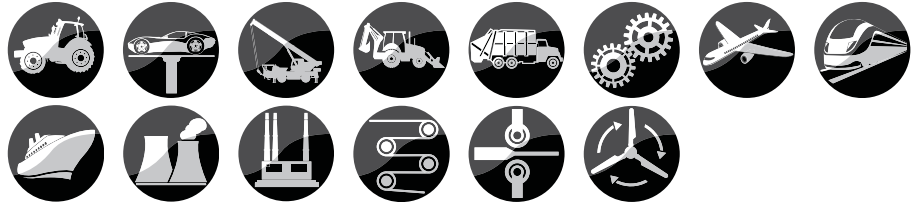


## EVS 3100 Series Flow Rate Sensor



### Applications



### Description

The flow rate transmitters in the series EVS 3100 (*aluminum range*) are specially designed for use in hydraulic and other fluid technology systems.

They operate according to the turbine principle, i.e. the speed of an impeller turning in the fluid flow is measured and converted into a 4 to 20 mA analogue signal.

Two further G1/4 threaded holes in the turbine housing provide connections for additional units, e.g. temperature and pressure transmitters.

### Special Features

- Pressure resistant to 400 bar (*depending on model*)
- Viscosities of 1 to 100 cSt
- Output signal 4 to 20 mA
- Additional connection of temperature and / or pressure transmitters possible

### Approvals

**CE** CE mark is a mandatory conformity mark on many products placed on the single market in the European Economic Area

### Technical Details

Housing material - EVS 3100 EVS 3110	Aluminum Stainless Steel
Measurement medium - EVS 3100 EVS 3110	Hydraulic oils* Water based fluids*
Supply voltage	10 to 32 V DC
Residual ripple of supply voltage	≤ 5%
Signal output, permitted resistance	4 to 20 mA, 2 wire $R_{Lmax} = (u_B - 10 V) / 20 \text{ mA}$ [kΩ]
CE mark	EN 61000-6-1 / 2 / 3 / 4
Compensated temperature range	-4° to 158°F (-20° to 70°C)
Operating temperature	-4° to 158°F (-20° to 70°C)
Media temperature range	-4° to 194°F (-20° to 90°C)
Storage temperature	-40° to 212°F (-40° to 100°C)
Permissible viscosity range	1 to 100 cSt
Calibrated at - EVS 3100 EVS 3110	30 cSt 5 cSt
Accuracy class	≤ ±2% of the instantaneous value
Measuring ranges / Operating pressure EVS 31XX-A-0020-000 EVS 31XX-A-0060-000 EVS 31XX-A-0300-000 EVS 31XX-A-0600-000	0.26 to 5.28 gpm / 5800psi 1.59 to 15.9 gpm / 5800 psi 3.96 to 79.3 gpm / 5800 psi 10.6 to 159 gpm / 4567 psi (5800 psi max for EVS 3110)
Protection class to DIN 40050	IP 65 ( <i>Binder 714 M18</i> ) IP 67 ( <i>M12x1, with ZBE 08 molded cable</i> )
Mechanical connection/ Torque rating EVS 31XX-A-0020-000 EVS 31XX-A-0060-000 EVS 31XX-A-0300-000 EVS 31XX-A-0600-000	G1/4 female thread / approx. 44 lb-ft (60 Nm) G1/2 female thread / approx. 95 lb-ft (130 Nm) G1 1/4 female thread / approx. 370 lb-ft (500 Nm) G1 1/2 female thread / approx. 440 lb-ft (600 Nm)
Additional connections on housing	2 x G 1/4 female ports for pressure or temperature sensors

\*other fluids on request

\*\*other ranges on request

## Model Code

EVS 3 1 X X - A - XXXX - 000

### Housing Material

- 0 = Aluminum (for hydraulic oils)
- 1 = Steel (for water based fluids)

### Electrical Connection

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

### Signal

- A = 4 to 20 mA, 2 conductor

### Measuring Range

- 0020 = 0.26 to 5.28 gpm
- 0060 = 1.59 to 15.9 gpm
- 0300 = 3.96 to 79.3 gpm
- 0600 = 10.6 to 159 gpm

### Modification Number

- 000 = Standard
- SAE 37 = SAE 37 Thread using an adapter (this adapter handles up to 2000 psi)

**Note:** On units with a different modification number, please read the label or the technical amendment details supplied with the unit.

**Accessories:** Appropriate accessories, such as electrical connectors, can be found in the Accessories section.

## Pin Connections

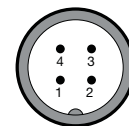
### Binder 714 M18



#### Pin 31X4-A

- 1 nc
- 2 Signal +
- 3 Signal -
- 4 nc

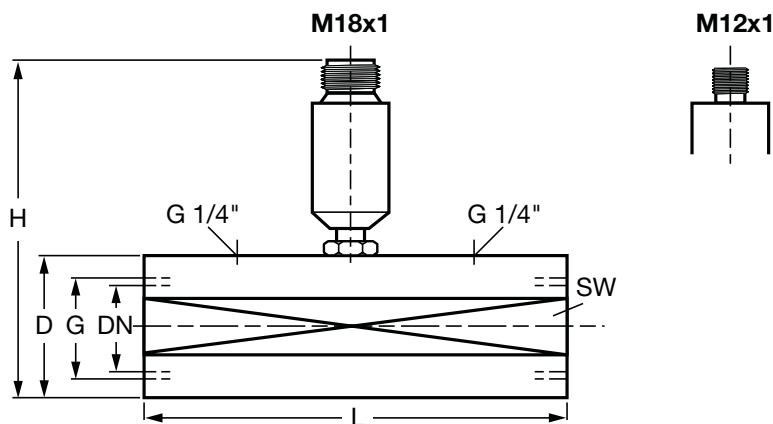
### M12x1, 4 pole



#### Pin 31X6-A

- 1 Signal +
- 2 nc
- 3 Signal -
- 4 nc

## Dimensions



Model	Measuring Range gpm	Material	L	H	D / SW*	G	DN	P <sub>max</sub> in psi	T <sub>max</sub>
EVS 310X-A-0020	0.26 to 5.28	AL/SS	4.61"	5.31"	1.85" / 1.81"	G 1/4	0.28"	5800	-4° to 194°F
EVS 310X-A-0060	1.59 to 15.9	AL/SS	5.67"	5.31"	1.91" / 1.81"	G 1/2	0.43"	5800	-4° to 194°F
EVS 310X-A-0300	3.96 to 79.3	AL/SS	6.10"	5.91"	2.50" / 2.36"	G 1 1/4	0.87"	5800	-4° to 194°F
EVS 310X-A-0600	10.6 to 159	AL/SS	7.13"	5.91"	2.50" / 2.36"	G 1 1/2	1.81"	4565(A) 5800(S)	-4° to 194°F