

## Dispensing Valves Type EFC 20 PPSU

### Electronic Flow Control Valve

EFC the new electronic dispensing valve from AVS Römer

Motorised dispensing valve for regulating the flow volume of liquids and gases.

The separately available cable electronics of the type XFC allow the position of the Motor via an analog voltage signal.

The position of the precision throttle, which is connected directly to a linear motor, determines the flow rate.

In conjunction with the proven ELSA push-in connectors made from PPSU, this valve is also used in the food industries.

A set position can also be maintained unpowered due to the stepper motor technology.

#### Other features:

- less dead space
- materials and constructional design especially optimised for food applications
- low hysteresis
- simple control
- easy connection using ELSA plug-in connector

#### Variations / options:

- other seal materials
- other nominal diameters
- other voltage ranges
- other characteristics of the valve by variation of the stem tip or A/D converter characteristics



### CHARACTERISTICS

#### GENERAL

Constructional design	Motorised precision tapered throttle
Product name	Electronic flow control valve
Product type	EFC-20-958P3..., EFC-20-955P3...
Nominal diameter	DN 0,5 / DN 1 / DN 1,5 / DN 2 / DN 3 / DN 4 / DN 5
Connection	ELSA push-in connectors for pipe/tube OD 4 ,OD 6 or AD 8
Ambient temperature	0° C to +60 °C
Medium temperature	0 °C to +80 °C
Body material	PPSU (KTW approved, NSF certified)
Spindle material	1.4404
O-ring material	FKM
Housing material	PPSU GF40 (UL94-V0)
Mounting method	via M3 DIN 931 hexagonal bolts in the groove or spring clips with inside diameter 18-22 mm (not included)
Mounting position	Preferably upright
Approval	NSF/ANSI 169

#### PNEUMATIC - HYDRAULIC

Nominal pressure	PN8 EFC-20-958-..., PN6 EFC-20-955-...
Pressure range	0 bar bis 8 bar EFC-20-958-..., 0 bar bis 6 bar EFC-20-955-...
Flow rate	KV value, Q <sub>90</sub> value according to the table
Medium	Gases or liquids which do not corrode the materials specified.
Contamination	The upstream connection of a filter with a mesh size of 0.1 mm is recommended (e.g. SMF-958-P3-...-100)
Cycle duration	700 ms (completely open to completely closed or vice versa)
Response time	< 15 ms (shorter response time on request)
Time delay	After adjustment the valve does not respond until after a 70 ms time delay (shorter on request)

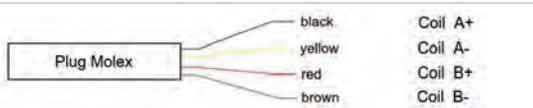
#### ENGINE SPECIFICATION

Operating voltage	5 V DC
Resistance per phase	12.7 Ohm ± 7 %
Inductance	6 mH ± 20 %
Current max.	0.39 A
Stroke per step	0.0127 mm
Electrical connection	4 strands AWG28 100 mm, connector Molex 35507-0400
Protection class	IP30

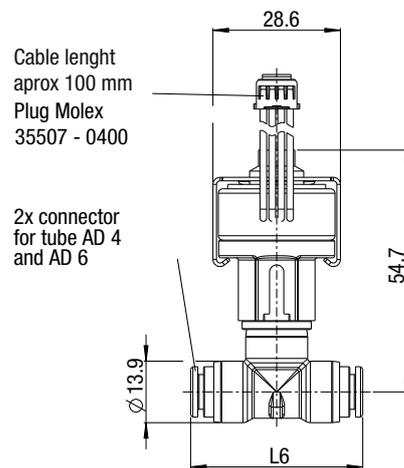
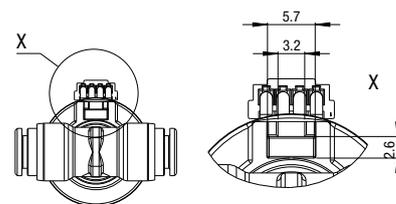
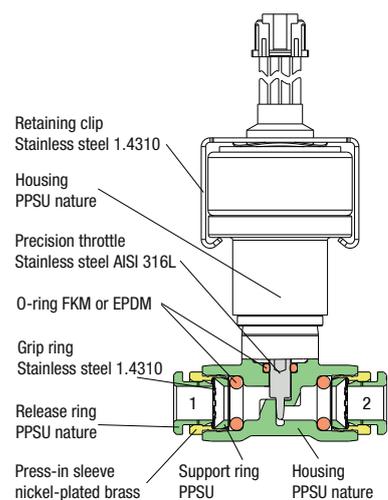
**Caution!** PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

**Dispensing Valve - Type EFC 20-958**

 Price group **630** PN 8  
 Amb. temp.  $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$   
 Med. temp.  $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +80\text{ }^{\circ}\text{C}$ 

 Plastic  
 PPSU


for tube OD	DN	Kv-value water [l/min]	Qnn value 0-x [l/min]	L6	Sealant material	Type	Order number
4	0.5	0 - 0.25	0 - 15	37.8	FKM	EFC-20-958P305-4FF	691800
6	0.5	0 - 0.25	0 - 15	38.6	FKM	EFC-20-958P305-6FF	691801
4	1	0 - 0.75	0 - 50	37.8	FKM	EFC-20-958P310-4FF	691802
6	1	0 - 0.75	0 - 50	38.6	FKM	EFC-20-958P310-6FF	691803
4	1.5	0 - 1.35	0 - 85	37.8	FKM	EFC-20-958P315-4FF	691804
6	1.5	0 - 1.35	0 - 85	38.6	FKM	EFC-20-958P315-6FF	691805
4	2	0 - 1.8	0 - 120	37.8	FKM	EFC-20-958P320-4FF	691806
6	2	0 - 1.8	0 - 120	38.6	FKM	EFC-20-958P320-6FF	691807
6	3	0 - 2.4	0 - 190	38.6	FKM	EFC-20-958P330-6FF	691809

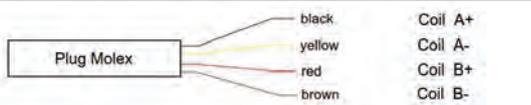
**Illustration**


**Dispensing Valve - Type EFC 20-955**

Price group **630** PN 6  
 Amb. temp.  $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +60\text{ }^{\circ}\text{C}$   
 Med. temp.  $T_{min} 0\text{ }^{\circ}\text{C}, T_{max} +80\text{ }^{\circ}\text{C}$



Plastic PPSU



for tube OD	DN	Kv-value water [l/min]	Qnn value 0-x [l/min]	L1	L2	L3	D1	D2	Sealant material	Type	Order number
6	3	0 - 3.7	0 - 220	19.3	19.3	54.7	13.9	13.9	FKM	EFC-20-955P330-6FF	690655
8	3	0 - 4.2	0 - 245	22.4	22.4	57.2	17.2	17.2	FKM	EFC-20-955P330-8FF	690656
6	4	0 - 5	0 - 320	21.9	21.9	57.2	17.2	17.2	FKM	EFC-20-955P340-6FF	690652
8	4	0 - 7	0 - 400	22.4	22.4	57.2	17.2	17.2	FKM	EFC-20-955P340-8FF	690653
8	5	0 - 9.3	0 - 480	22.4	22.4	57.2	17.2	17.2	FKM	EFC-20-955P350-8FF	690654

**Illustration**

