

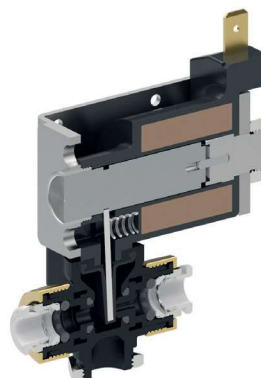
## MAGMA Solenoid Valves Type ETV Series 100

MAGMA the special valve principle from AVS Römer

MEDIUM  
SEPARATED

ELSA  
Push-in Fittings

NSF  
COMPONENT



High quality valve series with coaxial flow or 90° flow, in 2/2- and 3/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

### Other features:

- minimal dead space without dirt pockets
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- medium is barely heated by the solenoid
- emergency manual override with position indicator as standard
- materials and constructional design are particularly suited for food applications

### Variations / options:

- other tube connector
- other material for seal
- other nominal diameter or other pressure range
- version for vacuum
- other nominal voltage

## CHARACTERISTICS

### GENERAL

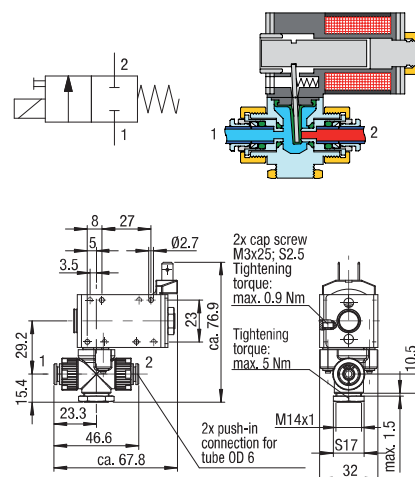
Constructional design	Lever actuated seat valve with separating membrane		
Product name	2/2-way solenoid valve	3/2-way solenoid valve	3/2-way solenoid valve
Actuation	Electric, direct acting or via emergency manual override with position indicator		
Product type	ETV-12x -A .	ETV-117-C .	ETV-139-F .
Function	"A" in 0-position closed	"C" in 0-position "1" closed, "2" to "3" discharged	"F" in 0-position "1" to "2" closed, "1" to "4" open
Nominal diameter	DN 2 to DN 6		
Connection	ELSA push-in connectors for pipe/tube OD 6   OD 8 (others on request)		
Ambient temperature	0 °C to +60 °C (others on request)		
Medium temperature	0 °C to +130 °C (others on request)		
Medium viscosity	up to approx. 35 mm <sup>2</sup> /s		
Valve body and insert material	PPA		
O-ring material	FKM, EPDM on request		
Membran material	FKM, EPDM on request		
Union nut material	Brass		
Solenoid housing material	Plastic-molded PBT, "H" (180 °C)		
Mounting method	with lock nut M14x1 or with self-tapping screws ISO 7049-ST3.5x6.5-C		
Mounting position	optional		
Approval	NSF/ANSI 169		
PNEUMATIC - HYDRAULIC			
Nominal pressure [bar]	up to PN 16 in accordance with the specification table		
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table		
Flow rate	Kv-value in accordance with the specification table		
Medium	Gases or liquids which do not corrode the materials specified		
Response time	Opening time 10 to 25 ms; Closing time: 15 to 25 ms		
ELECTRIC			
Nominal voltage	24 V DC (other DC upon request)		
Voltage tolerance	±10 %		
Nominal power P <sub>20</sub>	8 W		
Duty cycle	100 %		
Electrical connection	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247		
Protection class according to EN 60529	IP 00		

**2/2-Way Coaxial Solenoid Valve - Type ETV Series 100**

 Price group **56** "A" in 0-position closed (closing with the flow)


Plastic PPA

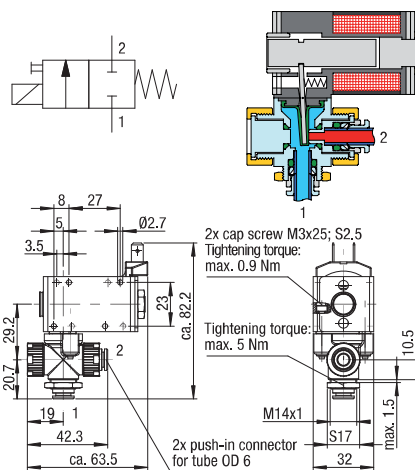
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.8	6	16	0 - 16	FKM (FDA-compliant)	24 V DC	ETV-122-A20-6FF-024/--R0	627003	o. r.
3	3.4	6	16	0 - 16	FKM (FDA-compliant)	24 V DC	ETV-122-A30-6FF-024/--R0	627008	o. r.
4	5.4	6	8	0 - 8	FKM (FDA-compliant)	24 V DC	ETV-122-A40-6FF-024/--R0	627010	o. r.
6	11	8	2.5	0 - 2.5	FKM (FDA-compliant)	24 V DC	ETV-122-A60-8FF-024/--R0	629013	o. r.

**Illustration**

**2/2-Way 90° Solenoid Valve - Type ETV Series 100**

 Price group **56** "A" in 0-position closed (closing with the flow)


Plastic PPA

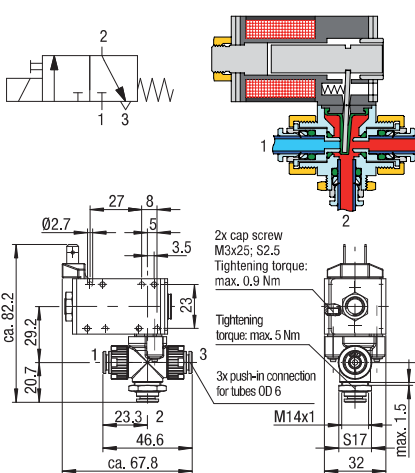
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.8	6	16	0 - 16	FKM (FDA-compliant)	24 V DC	ETV-125-A20-6FF-024/--R0	627033	o. r.
3	3.4	6	16	0 - 16	FKM (FDA-compliant)	24 V DC	ETV-125-A30-6FF-024/--R0	627038	o. r.
4	5.4	6	8	0 - 8	FKM (FDA-compliant)	24 V DC	ETV-125-A40-6FF-024/--R0	627040	o. r.
6	9.9	8	2.5	0 - 2.5	FKM (FDA-compliant)	24 V DC	ETV-125-A60-8FF-024/--R0	629023	o. r.

**Illustration**

**3/2-Way Solenoid Valve - Type ETV Series 100**

 Price group **56** "C" in 0-position "1" closed, "2" to "3" discharged


Plastic PPA

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.7	6	12.5	0 - 12.5	FKM (FDA-compliant)	24 V DC	ETV-117-C20-6FF-024/--R0	627103	o. r.
3	3.3	6	6	0 - 6	FKM (FDA-compliant)	24 V DC	ETV-117-C30-6FF-024/--R0	627108	o. r.
4	5.3	6	3	0 - 3	FKM (FDA-compliant)	24 V DC	ETV-117-C40-6FF-024/--R0	627113	o. r.
6	8.3	8	1	0 - 1	FKM (FDA-compliant)	24 V DC	ETV-117-C60-8FF-024/--R0	629033	o. r.

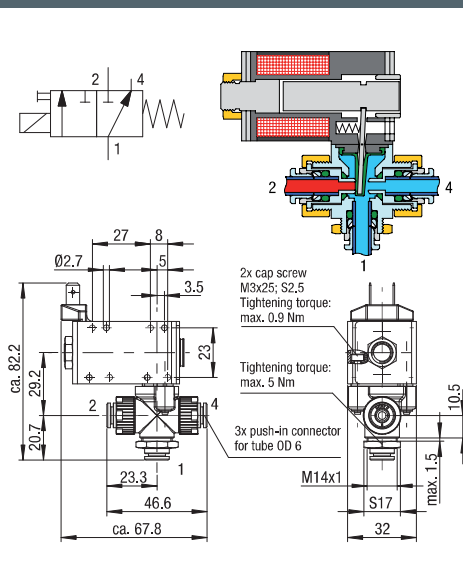
**Illustration**


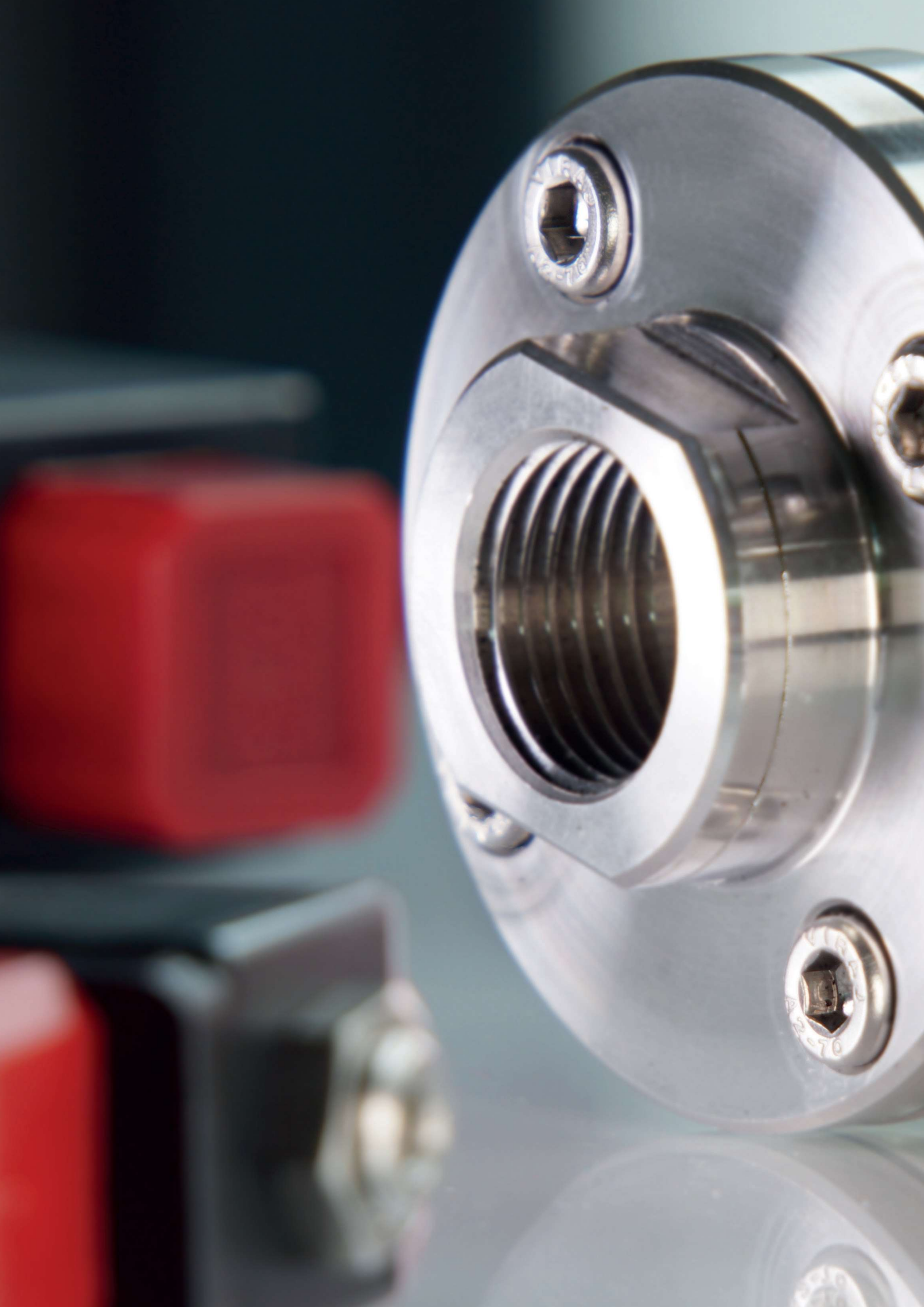
**3/2-Way Solenoid Valve - Type ETV Series 100**

 Price group **56** "F" in 0-position "1" to "2" closed, "1" to "4" open


Plastic PPA

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
2	1.8	6	10	0 - 10	FKM (FDA-compliant)	24 V DC	ETV-139-F20-6FF-024/=-R0	627153	o. r.
3	3.3	6	8	0 - 8	FKM (FDA-compliant)	24 V DC	ETV-139-F30-6FF-024/=-R0	627157	o. r.
4	5.3	6	6	0 - 6	FKM (FDA-compliant)	24 V DC	ETV-139-F40-6FF-024/=-R0	627161	o. r.
6	9.9	8	2	0 - 2	FKM (FDA-compliant)	24 V DC	ETV-139-F60-8FF-024/=-R0	629043	o. r.

**Illustration**




**MAGMA Solenoid Valves Type ETV Series 200**

 MEDIUM  
SEPARATED


 ELSA  
Push-in Fittings


 NSF  
COMPONENT


High quality valve series with coaxial flow or 90° flow, in 2/2-way and 3/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

**Other features:**

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- thermal insulation between the electro-magnet and the medium
- emergency manual override with position indicator as standard
- materials and constructional design especially optimised for food applications

**Variations / options:**

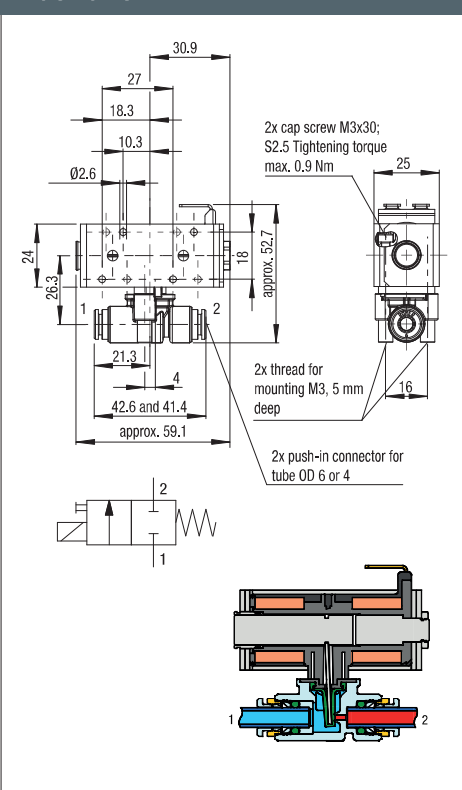
- other tube connector
- other material for seal
- other nominal diameter or other pressure range
- version for vacuum
- other function (e.g. 3/2-way distribution valve)
- other nominal voltage

**CHARACTERISTICS**
**GENERAL**

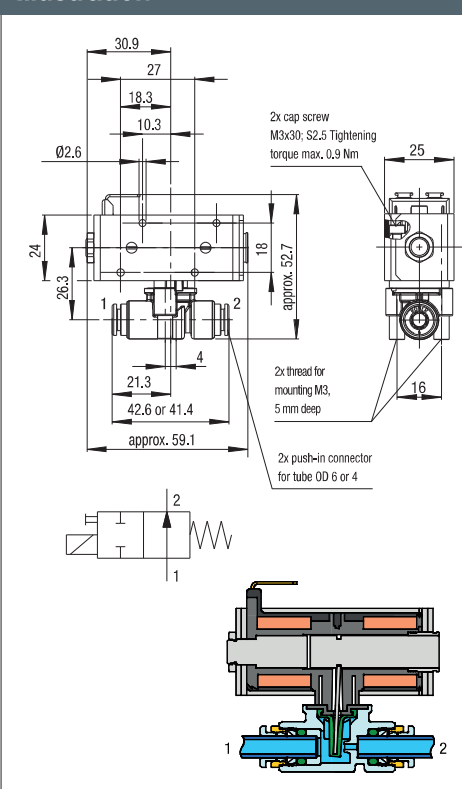
<b>Constructional design</b>	Lever actuated seat valve with separating membrane			
<b>Product name</b>	2/2-way solenoid valve		3/2-way solenoid valve	
<b>Actuation</b>	Electric, direct acting or by emergency manual override with position indicator			
<b>Product type</b>	ETV-222-A .	ETV-211-B .	ETV-217-C .	ETV-219-F .
<b>Function</b>	"A" in 0-position closed	"B" in 0-position open	"C" in 0-position "1" closed, "2" to "3" discharged	"F" in 0-position "1" to "2" closed, "1" to "4" open
<b>Nominal diameter</b>	DN 1.5 to DN 2.5	DN 1.5 to DN 2.5	DN 1.5 to DN 3	DN 1.5 to DN 3
<b>Connection</b>	ELSA push-in connectors for pipe/tube OD 6 or OD 4			
<b>Ambient temperature</b>	0 °C to +60 °C			
<b>Medium temperature</b>	0 °C to +130 °C			
<b>Medium viscosity</b>	up to approx. 35 mm <sup>2</sup> /s			
<b>Valve body and insert material</b>	PPA, PPSU			
<b>Membrane and O-ring material</b>	FKM, EPDM (UL94-V0) plastic			
<b>Solenoid housing material</b>	PPS, insulation class "F" (155 °C)			
<b>Mounting method</b>	with 2 thread press-fit inserts M3, self-tapping screws ISO7049-ST3.5x6.5-C or with M14x1 locknut			
<b>Mounting position</b>	optional			
<b>Approval</b>	NSF/ANSI 169			
<b>PNEUMATIC - HYDRAULIC</b>				
<b>Nominal pressure</b>	up to PN 16 in accordance with the specification table			
<b>Pressure range</b>	0 bar up to allowable operating pressure OP in accordance with the specification table depending on duty, OP 50 % duty is valid at max. SD 60 s			
<b>Flow rate</b>	Kv-value in accordance with the specification table			
<b>Medium</b>	Gases or liquids which do not corrode the materials specified			
<b>Response time</b>	Opening time 10 to 25 ms; Closing time: 10 to 25 ms			
<b>ELECTRIC</b>				
<b>Nominal voltage</b>	24 V DC			
<b>Voltage tolerance</b>	±10 %			
<b>Nominal power P<sub>20</sub></b>	6 W			
<b>Duty cycle</b>	100 %, depending on the duty cycle the power consumption decreases by up to 30 %			
<b>Electrical connection</b>	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247			
<b>Protection class according to EN 60529</b>	IP 00			

**2/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

Price group <b>56</b>		"A" in 0-position closed (closing with the flow)					NSF		Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low, OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	16	16	12.5	6	EPDM	24 V DC	ETV-222-A15-4PF-024/=-U0	627351	o. r.
1.5	1.4	6	16	16	12.5	6	EPDM	24 V DC	ETV-222-A15-6PF-024/=-U0	627352	o. r.
2	2.4	4	12.5	12.5	10	5	EPDM	24 V DC	ETV-222-A20-4PF-024/=-U0	627363	o. r.
2	2.4	6	12.5	12.5	10	5	EPDM	24 V DC	ETV-222-A20-6PF-024/=-U0	627364	o. r.
2.5	2.5	4	8	8	6	3	EPDM	24 V DC	ETV-222-A25-4PF-024/=-U0	627353	o. r.
2.5	3.4	6	8	8	6	3	EPDM	24 V DC	ETV-222-A25-6PF-024/=-U0	627354	o. r.
1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-222-A15-4FF-024/=-U0	627355	o. r.
1.5	1.4	6	16	16	12.5	6	FKM	24 V DC	ETV-222-A15-6FF-024/=-U0	627356	o. r.
2	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-222-A20-4FF-024/=-U0	627365	o. r.
2	2.4	6	12.5	12.5	10	5	FKM	24 V DC	ETV-222-A20-6FF-024/=-U0	627366	o. r.
2.5	2.5	4	8	8	6	3	FKM	24 V DC	ETV-222-A25-4FF-024/=-U0	627357	o. r.
2.5	3.4	6	8	8	6	3	FKM	24 V DC	ETV-222-A25-6FF-024/=-U0	627358	o. r.

**Illustration**

**2/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

Price group <b>56</b>		"B" in 0-position open (closing with the flow)					NSF		Plastic PPA		
DN	Kv-value water [l/min]	for tube OD	PN	Al-low, OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	12.5	12.5	12.5	12.5	EPDM	24 V DC	ETV-211-B15-4PF-024/=-U0	627401	o. r.
1.5	1.4	6	12.5	12.5	12.5	12.5	EPDM	24 V DC	ETV-211-B15-6PF-024/=-U0	627402	o. r.
2	2.4	4	8	8	8	8	EPDM	24 V DC	ETV-211-B20-4PF-024/=-U0	627409	o. r.
2	2.4	6	8	8	8	8	EPDM	24 V DC	ETV-211-B20-6PF-024/=-U0	627410	o. r.
2.5	2.5	4	4	4	4	4	EPDM	24 V DC	ETV-211-B25-4PF-024/=-U0	627403	o. r.
2.5	3.4	6	4	4	4	4	EPDM	24 V DC	ETV-211-B25-6PF-024/=-U0	627404	o. r.
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-211-B15-4FF-024/=-U0	627405	o. r.
1.5	1.4	6	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-211-B15-6FF-024/=-U0	627406	o. r.
2	2.4	4	8	8	8	8	FKM	24 V DC	ETV-211-B20-4FF-024/=-U0	627411	o. r.
2	2.4	6	8	8	8	8	FKM	24 V DC	ETV-211-B20-6FF-024/=-U0	627412	o. r.
2.5	2.5	4	4	4	4	4	FKM	24 V DC	ETV-211-B25-4FF-024/=-U0	627407	o. r.
2.5	3.4	6	4	4	4	4	FKM	24 V DC	ETV-211-B25-6FF-024/=-U0	627408	o. r.

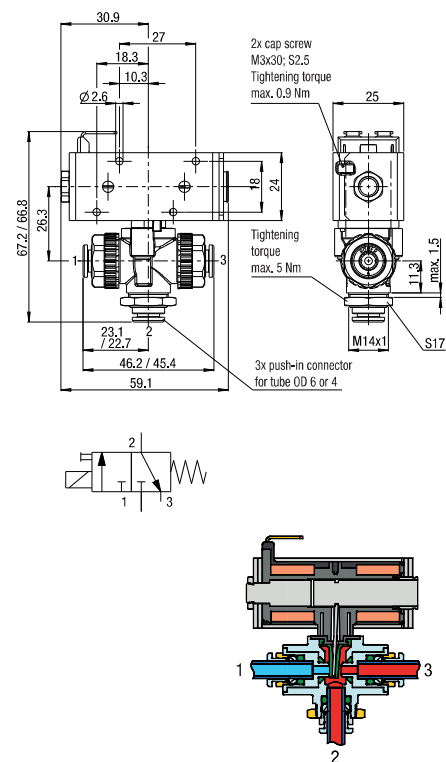
**Illustration**


**3/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

 Price group **56** "C" in 0-position "1" to "2" closed, "2" to "3" discharged


Plastic PPA

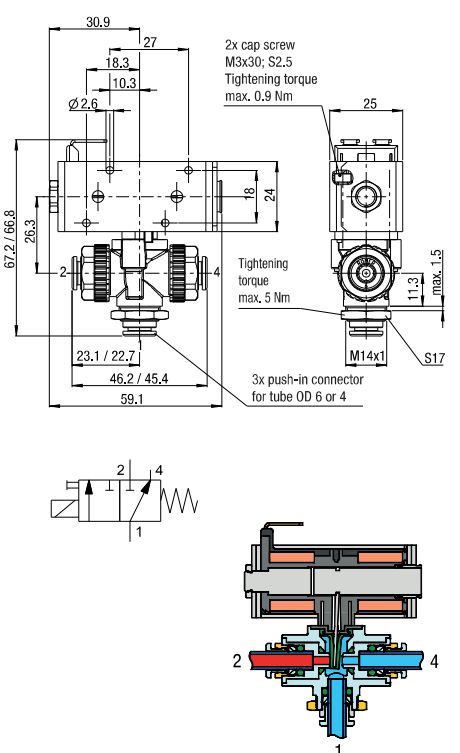
DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	6	6	6	6	EPDM	24 V DC	ETV-217-C15-4PF-024/=-U0	627421	o. r.
1.5	1.5	6	6	6	6	6	EPDM	24 V DC	ETV-217-C15-6PF-024/=-U0	627424	o. r.
2	1.5	4	5	5	5	5	EPDM	24 V DC	ETV-217-C20-4PF-024/=-U0	627427	o. r.
2	1.8	6	5	5	5	5	EPDM	24 V DC	ETV-217-C20-6PF-024/=-U0	627430	o. r.
3	1.7	4	2	2	2	2	EPDM	24 V DC	ETV-217-C30-4PF-024/=-U0	627433	o. r.
3	2.5	6	2	2	2	2	EPDM	24 V DC	ETV-217-C30-6PF-024/=-U0	627436	o. r.
1.5	1.4	4	6	6	6	6	FKM	24 V DC	ETV-217-C15-4FF-024/=-U0	627422	o. r.
1.5	1.5	6	6	6	6	6	FKM	24 V DC	ETV-217-C15-6FF-024/=-U0	627425	o. r.
2	1.5	4	5	5	5	5	FKM	24 V DC	ETV-217-C20-4FF-024/=-U0	627428	o. r.
2	1.8	6	5	5	5	5	FKM	24 V DC	ETV-217-C20-6FF-024/=-U0	627431	o. r.
3	1.7	4	2	2	2	2	FKM	24 V DC	ETV-217-C30-4FF-024/=-U0	627434	o. r.
3	2.5	6	2	2	2	2	FKM	24 V DC	ETV-217-C30-6FF-024/=-U0	627437	o. r.

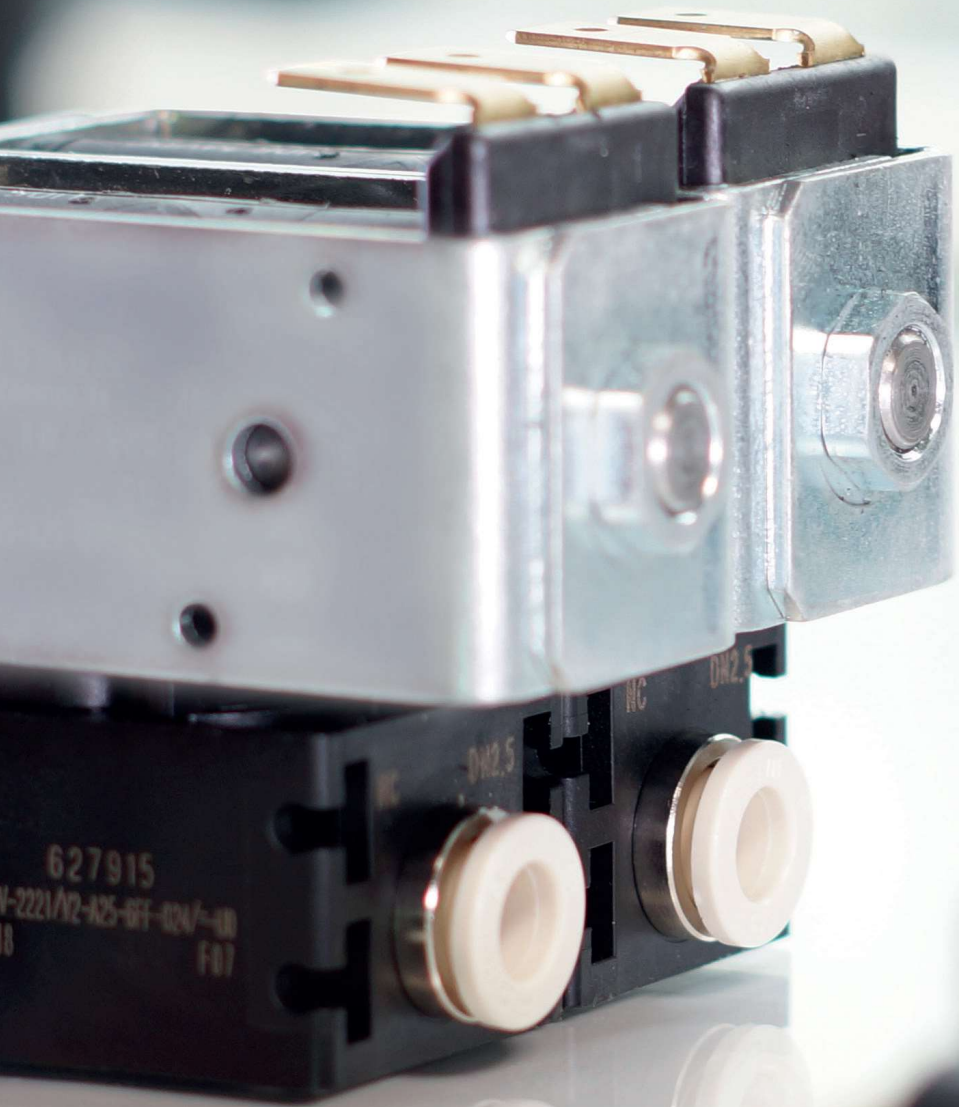
**Illustration**

**3/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

 Price group **56** "F" in 0-position "1" to "2" closed, "1" to "4" open


Plastic PPA

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price
1.5	1.4	4	12.5	12.5	12.5	6	EPDM	24 V DC	ETV-219-F15-4PF-024/=-U0	627451	o. r.
1.5	1.5	6	12.5	12.5	12.5	6	EPDM	24 V DC	ETV-219-F15-6PF-024/=-U0	627454	o. r.
2	1.6	4	10	10	10	6	EPDM	24 V DC	ETV-219-F20-4PF-024/=-U0	627457	o. r.
2	1.8	6	10	10	10	6	EPDM	24 V DC	ETV-219-F20-6PF-024/=-U0	627460	o. r.
3	1.8	4	4	4	4	3	EPDM	24 V DC	ETV-219-F30-4PF-024/=-U0	627463	o. r.
3	2.8	6	4	4	4	3	EPDM	24 V DC	ETV-219-F30-6PF-024/=-U0	627466	o. r.
1.5	1.4	4	12.5	12.5	12.5	6	FKM	24 V DC	ETV-219-F15-4FF-024/=-U0	627452	o. r.
1.5	1.5	6	12.5	12.5	12.5	6	FKM	24 V DC	ETV-219-F15-6FF-024/=-U0	627455	o. r.
2	1.6	4	10	10	10	6	FKM	24 V DC	ETV-219-F20-4FF-024/=-U0	627458	o. r.
2	1.8	6	10	10	10	6	FKM	24 V DC	ETV-219-F20-6FF-024/=-U0	627461	o. r.
3	1.8	4	4	4	4	3	FKM	24 V DC	ETV-219-F30-4FF-024/=-U0	627464	o. r.
3	2.8	6	4	4	4	3	FKM	24 V DC	ETV-219-F30-6FF-024/=-U0	627467	o. r.

**Illustration**




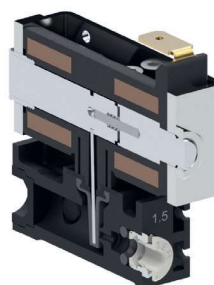
627915  
V-2221/V2-425-677-024/-40  
F01

DN 5  
EM 100% ED  
-LOGWGL'q6  
F01



## MAGMA Solenoid Valve Batteries Type ETV Series 200

MAGMA the valve principle from AVS Römer



High quality valve series with coaxial flow, in 2/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

### Other features:

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- thermal insulation between the electromagnet and the medium
- emergency manual override with position indicator as standard
- materials and constructional design especially optimised for food applications

### Variations / options:

- distribution connection left, right, both sides
- valves with varying nominal diameters in one battery
- NC and NO valves in one battery
- mixer version

## CHARACTERISTICS

### GENERAL

Constructional design	Lever actuated seat valve with separating membrane	
Product name	2/2-way solenoid valve, battery	
Actuation	electric, direct acting or by emergency manual override with position indicator	
Product type	ETV-2221/V-A.	ETV-2111/V.- B.
Function	"A" in 0-position closed	"B" in 0-position open
Nominal diameter	DN 1.0 to DN 2.5	DN 1.0 to DN 2.5
Connection	ELSA push-in connectors for pipe/tube OD 6 or OD 4	
Ambient temperature	0 °C to +60 °C	
Medium temperature	0 °C to +130 °C	
Medium viscosity	up to approx. 35 mm <sup>2</sup> /s	
Valve body and insert material	PPA and PPSU	
Membrane material	EPDM or FKM	
O-ring material	FKM or EPDM	
Solenoid housing material	PPS (UL94-V0) plastic, insulation class "F" (155 °C)	
Mounting method	with 2 thread press-fit inserts M3 per single valve	
Mounting position	optional	
Approval	NSF/ANSI 169	

### PNEUMATIC - HYDRAULIC

Nominal pressure	up to PN 16 in accordance with the specification table
Pressure range	0 bar up to allowable operating pressure OP in accordance with the specification table depending on duty, OP 50 % duty is valid at max. SD 60 s
Flow rate	Kv-value in accordance with the specification table
Medium	gases or liquids which do not corrode the materials specified
Response time	Opening time 10 to 25 ms; Closing time: 10 to 25 ms

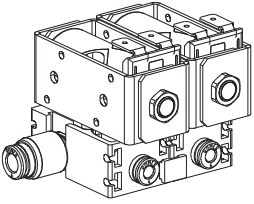
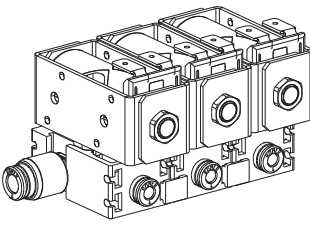
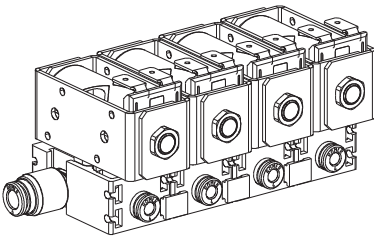
### ELECTRIC

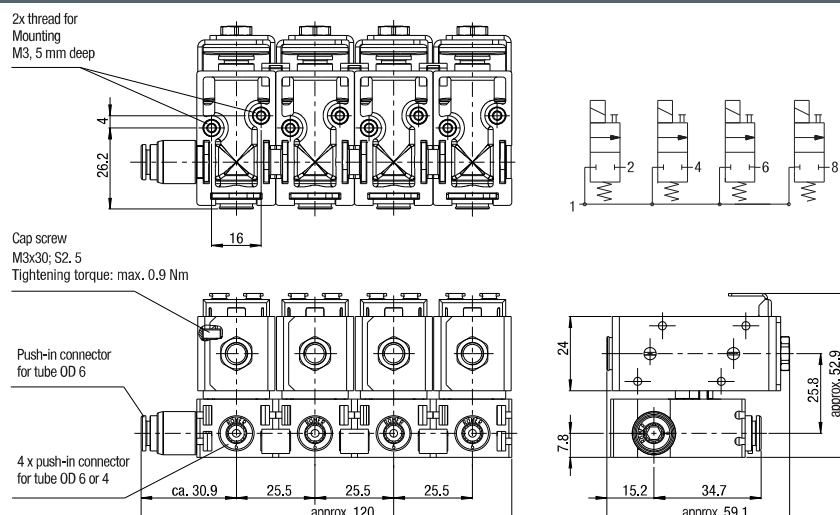
Nominal voltage	24 V DC
Voltage tolerance	±10 %
Nominal power P <sub>20</sub>	6 W
Duty cycle	100 %, depending on the duty cycle the power consumption decreases by up to 30 %
Electrical connection	Spade terminals for spade connectors 6.3 x 0.8 mm, DIN 46247
Protection class according to EN 60529	IP 00

**2/2-Way Solenoid Valve Battery - Type ETV Series 200**

 Price group **56** "A" in 0-position closed (closing with the flow)


Plastic PPA

Version	DN	Kv-value water [l/min]	for tube OD	PN	Al-low. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price	
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V2-A10-4FF-024/--U0	627901	o. r.	
			EPDM					24 V DC	ETV-2221/V2-A10-4PF-024/--U0	627902	o. r.		
			FKM					24 V DC	ETV-2221/V2-A10-6FF-024/--U0	627903	o. r.		
			EPDM					24 V DC	ETV-2221/V2-A10-6PF-024/--U0	627904	o. r.		
	1.5	1.4	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V2-A15-4FF-024/--U0	627905	o. r.
				EPDM					24 V DC	ETV-2221/V2-A15-4PF-024/--U0	627906	o. r.	
				FKM					24 V DC	ETV-2221/V2-A15-6FF-024/--U0	627907	o. r.	
				EPDM					24 V DC	ETV-2221/V2-A15-6PF-024/--U0	627908	o. r.	
	2.0	2.4	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V2-A20-4FF-024/--U0	627909	o. r.
				EPDM					24 V DC	ETV-2221/V2-A20-4PF-024/--U0	627910	o. r.	
				FKM					24 V DC	ETV-2221/V2-A20-6FF-024/--U0	627911	o. r.	
				EPDM					24 V DC	ETV-2221/V2-A20-6PF-024/--U0	627912	o. r.	
2.5	3.4	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V2-A25-4FF-024/--U0	627913	o. r.	
			EPDM					24 V DC	ETV-2221/V2-A25-4PF-024/--U0	627914	o. r.		
			FKM					24 V DC	ETV-2221/V2-A25-6FF-024/--U0	627915	o. r.		
			EPDM					24 V DC	ETV-2221/V2-A25-6PF-024/--U0	627916	o. r.		
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V3-A10-4FF-024/--U0	627917	o. r.	
			EPDM					24 V DC	ETV-2221/V3-A10-4PF-024/--U0	627918	o. r.		
			FKM					24 V DC	ETV-2221/V3-A10-6FF-024/--U0	627919	o. r.		
			EPDM					24 V DC	ETV-2221/V3-A10-6PF-024/--U0	627920	o. r.		
	1.5	1.4	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V3-A15-4FF-024/--U0	627921	o. r.
				EPDM					24 V DC	ETV-2221/V3-A15-4PF-024/--U0	627922	o. r.	
				FKM					24 V DC	ETV-2221/V3-A15-6FF-024/--U0	627923	o. r.	
				EPDM					24 V DC	ETV-2221/V3-A15-6PF-024/--U0	627924	o. r.	
	2.0	2.4	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V3-A20-4FF-024/--U0	627925	o. r.
				EPDM					24 V DC	ETV-2221/V3-A20-4PF-024/--U0	627926	o. r.	
				FKM					24 V DC	ETV-2221/V3-A20-6FF-024/--U0	627927	o. r.	
				EPDM					24 V DC	ETV-2221/V3-A20-6PF-024/--U0	627928	o. r.	
2.5	3.4	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V3-A25-4FF-024/--U0	627929	o. r.	
			EPDM					24 V DC	ETV-2221/V3-A25-4PF-024/--U0	627930	o. r.		
			FKM					24 V DC	ETV-2221/V3-A25-6FF-024/--U0	627931	o. r.		
			EPDM					24 V DC	ETV-2221/V3-A25-6PF-024/--U0	627932	o. r.		
	1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V4-A10-4FF-024/--U0	627933	o. r.	
			EPDM					24 V DC	ETV-2221/V4-A10-4PF-024/--U0	627934	o. r.		
			FKM					24 V DC	ETV-2221/V4-A10-6FF-024/--U0	627935	o. r.		
			EPDM					24 V DC	ETV-2221/V4-A10-6PF-024/--U0	627936	o. r.		
	1.5	1.4	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V4-A15-4FF-024/--U0	627937	o. r.
				EPDM					24 V DC	ETV-2221/V4-A15-4PF-024/--U0	627938	o. r.	
				FKM					24 V DC	ETV-2221/V4-A15-6FF-024/--U0	627939	o. r.	
				EPDM					24 V DC	ETV-2221/V4-A15-6PF-024/--U0	627940	o. r.	
	2.0	2.4	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V4-A20-4FF-024/--U0	627941	o. r.
				EPDM					24 V DC	ETV-2221/V4-A20-4PF-024/--U0	627942	o. r.	
				FKM					24 V DC	ETV-2221/V4-A20-6FF-024/--U0	627943	o. r.	
				EPDM					24 V DC	ETV-2221/V4-A20-6PF-024/--U0	627944	o. r.	
2.5	3.4	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V4-A25-4FF-024/--U0	627945	o. r.	
			EPDM					24 V DC	ETV-2221/V4-A25-4PF-024/--U0	627946	o. r.		
			FKM					24 V DC	ETV-2221/V4-A25-6FF-024/--U0	627947	o. r.		
			EPDM					24 V DC	ETV-2221/V4-A25-6PF-024/--U0	627948	o. r.		

**Illustration**

**Valve Design**

Description	H1
2-valve battery	69.2
3-valve battery	94.7
4-valve battery	120.2

**2/2-Way Solenoid Valve Battery - Type ETV Series 200**

 Price group **56**

"B" in 0-position open (closing with the flow)

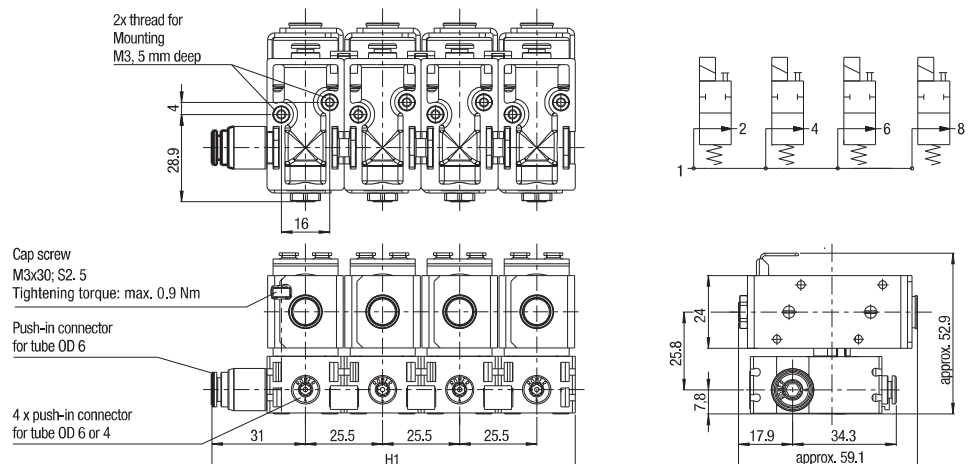


Plastic PPA

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Allow. OP by 50 % duty [bar]	Allow. OP by 100 % duty [bar]	Seal material	Voltage / current	Type	Order number	Price	Version
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V2-B10-4FF-024/=-U0	627951	o. r.	
							EPDM	24 V DC	ETV-2111/V2-B10-4PF-024/=-U0	627952	o. r.	
		FKM	24 V DC	ETV-2111/V2-B10-6FF-024/=-U0	627953	o. r.						
		EPDM	24 V DC	ETV-2111/V2-B10-6PF-024/=-U0	627954	o. r.						
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V2-B15-4FF-024/=-U0	627955	o. r.	
							EPDM	24 V DC	ETV-2111/V2-B15-4PF-024/=-U0	627956	o. r.	
		FKM	24 V DC	ETV-2111/V2-B15-6FF-024/=-U0	627957	o. r.						
		EPDM	24 V DC	ETV-2111/V2-B15-6PF-024/=-U0	627958	o. r.						
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V2-B20-4FF-024/=-U0	627959	o. r.	
							EPDM	24 V DC	ETV-2111/V2-B20-4PF-024/=-U0	627960	o. r.	
		FKM	24 V DC	ETV-2111/V2-B20-6FF-024/=-U0	627961	o. r.						
		EPDM	24 V DC	ETV-2111/V2-B20-6PF-024/=-U0	627962	o. r.						
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V2-B25-4FF-024/=-U0	627963	o. r.	
							EPDM	24 V DC	ETV-2111/V2-B25-4PF-024/=-U0	627964	o. r.	
		FKM	24 V DC	ETV-2111/V2-B25-6FF-024/=-U0	627965	o. r.						
		EPDM	24 V DC	ETV-2111/V2-B25-6PF-024/=-U0	627966	o. r.						
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V3-B10-4FF-024/=-U0	627967	o. r.	
							EPDM	24 V DC	ETV-2111/V3-B10-4PF-024/=-U0	627968	o. r.	
		FKM	24 V DC	ETV-2111/V3-B10-6FF-024/=-U0	627969	o. r.						
		EPDM	24 V DC	ETV-2111/V3-B10-6PF-024/=-U0	627970	o. r.						
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V3-B15-4FF-024/=-U0	627971	o. r.	
							EPDM	24 V DC	ETV-2111/V3-B15-4PF-024/=-U0	627972	o. r.	
		FKM	24 V DC	ETV-2111/V3-B15-6FF-024/=-U0	627973	o. r.						
		EPDM	24 V DC	ETV-2111/V3-B15-6PF-024/=-U0	627974	o. r.						
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V3-B20-4FF-024/=-U0	627975	o. r.	
							EPDM	24 V DC	ETV-2111/V3-B20-4PF-024/=-U0	627976	o. r.	
		FKM	24 V DC	ETV-2111/V3-B20-6FF-024/=-U0	627977	o. r.						
		EPDM	24 V DC	ETV-2111/V3-B20-6PF-024/=-U0	627978	o. r.						
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V3-B25-4FF-024/=-U0	627979	o. r.	
							EPDM	24 V DC	ETV-2111/V3-B25-4PF-024/=-U0	627980	o. r.	
		FKM	24 V DC	ETV-2111/V3-B25-6FF-024/=-U0	627981	o. r.						
		EPDM	24 V DC	ETV-2111/V3-B25-6PF-024/=-U0	627982	o. r.						
1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V4-B10-4FF-024/=-U0	627983	o. r.	
							EPDM	24 V DC	ETV-2111/V4-B10-4PF-024/=-U0	627984	o. r.	
		FKM	24 V DC	ETV-2111/V4-B10-6FF-024/=-U0	627985	o. r.						
		EPDM	24 V DC	ETV-2111/V4-B10-6PF-024/=-U0	627986	o. r.						
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V4-B15-4FF-024/=-U0	627987	o. r.	
							EPDM	24 V DC	ETV-2111/V4-B15-4PF-024/=-U0	627988	o. r.	
		FKM	24 V DC	ETV-2111/V4-B15-6FF-024/=-U0	627989	o. r.						
		EPDM	24 V DC	ETV-2111/V4-B15-6PF-024/=-U0	627990	o. r.						
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V4-B20-4FF-024/=-U0	627991	o. r.	
							EPDM	24 V DC	ETV-2111/V4-B20-4PF-024/=-U0	627992	o. r.	
		FKM	24 V DC	ETV-2111/V4-B20-6FF-024/=-U0	627993	o. r.						
		EPDM	24 V DC	ETV-2111/V4-B20-6PF-024/=-U0	627994	o. r.						
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V4-B25-4FF-024/=-U0	627995	o. r.	
							EPDM	24 V DC	ETV-2111/V4-B25-4PF-024/=-U0	627996	o. r.	
		FKM	24 V DC	ETV-2111/V4-B25-6FF-024/=-U0	627997	o. r.						
		EPDM	24 V DC	ETV-2111/V4-B25-6PF-024/=-U0	627998	o. r.						

**Illustration**
**Valve Design**

Description	H1
2-valve battery	69,2
3-valve battery	94,7
4-valve battery	120,2



AVS Römer

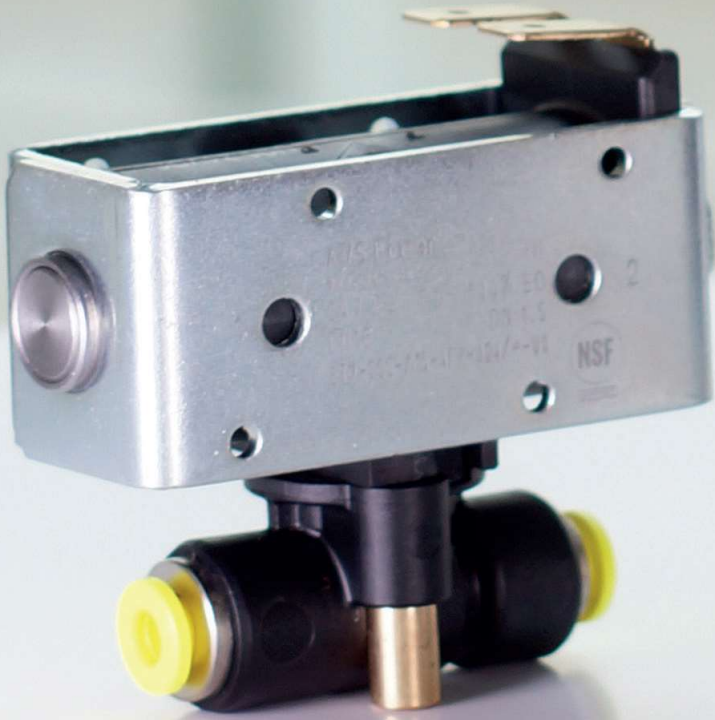
[www.avs-roemer.de](http://www.avs-roemer.de) E12F

Elektronisches Dosierventil

EFC-950-P310-6FF-024-10

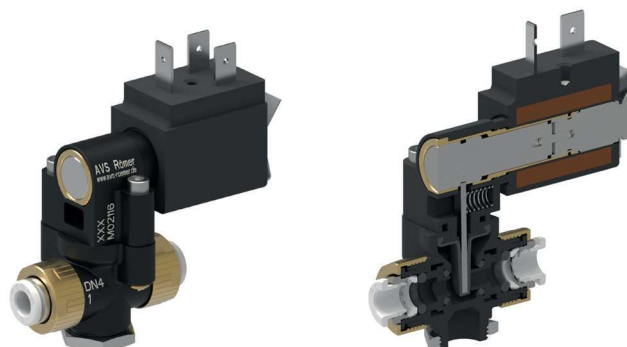
DN 1 PN8

$V_s=24V$   $V_c=0-10V$



**MAGMA Solenoid Valves Type ETV Series 400**

MAGMA the valve principle from AVS Römer



High quality valve series with coaxial flow or 90° flow, in 2/2-way and 3/2-way version, especially for use in the food industries and medical technology.

The solenoid operates against spring force a pivot mounted lever to which a membrane is attached. The interior of the valve is spatially and thermally separated from the solenoid system.

A particularly effective ratio of electric power to flow rate and allowable operating pressure is obtained by the optimisation of lever and spring in conjunction with the low friction transmission.

**Other features:**

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination
- thermal insulation between the electro-magnet and the medium
- emergency manual override with position indicator as standard
- materials and constructional design especially optimised for food applications
- IP class 65 possible

**Variations / options:**

- other tube connector
- other material for seal
- other nominal diameter or other pressure range
- version for vacuum
- other function (e.g. 3/2-way distribution valve)
- other nominal voltage
- 230 V AC using a bridge rectifier (see under cable sockets)

**CHARACTERISTICS**
**GENERAL**

<b>Constructional design</b>	Lever actuated seat valve with separating membrane	
<b>Product name</b>	2/2-way solenoid valve	3/2-way solenoid valve
<b>Actuation</b>	Electric, direct acting or by emergency manual override with position indicator	
<b>Product type</b>	ETV-422-A .	ETV-419-F .
<b>Function</b>	"A" in 0-position closed	"F" in 0-position "1" to "2" closed, "1" to "4" open
<b>Nominal diameter</b>	DN 4 (DN 1,5 - 6 on demand)	
<b>Connection</b>	ELSA push-in connectors for pipe/tube OD 6 (OD 4   OD 8 on request)	
<b>Ambient temperature</b>	0 °C to +60 °C	
<b>Medium temperature</b>	0 °C to +130 °C	
<b>Medium viscosity</b>	up to approx. 35 mm <sup>2</sup> /s	
<b>Valve body and insert material</b>	PPA, PPSU	
<b>Membrane and O-ring material</b>	FKM and EPDM	
<b>Solenoid housing material</b>	PPS, EPDM (UL94-V0) plastic, insulation class "F"	
<b>Mounting method</b>	with M14x1 locknut	
<b>Mounting position</b>	optional	
<b>Approval</b>	NSF/ANSI 169	
<b>PNEUMATIC - HYDRAULIC</b>		
<b>Nominal pressure</b>	in accordance with the specification table	
<b>Pressure range</b>	0 bar up to allowable operating pressure OP in accordance with the specification table	
<b>Flow rate</b>	Kv-value in accordance with the specification table	
<b>Medium</b>	Gases or liquids which do not corrode the materials specified	
<b>Response time</b>	Opening time 10 to 25 ms; Closing time: 10 to 25 ms	
<b>ELECTRIC</b>		
<b>Nominal voltage</b>	24 V DC	
<b>Voltage tolerance</b>	±10 %	
<b>Nominal power P<sub>20</sub></b>	6 W	
<b>Duty cycle</b>	100 %, depending on the duty cycle the power consumption decreases by up to 20 %	
<b>Electrical connection</b>	11 mm - industry standard form B (DIN EN 175301 - 803)	
<b>Protection class according to EN 60529</b>	IP 00	

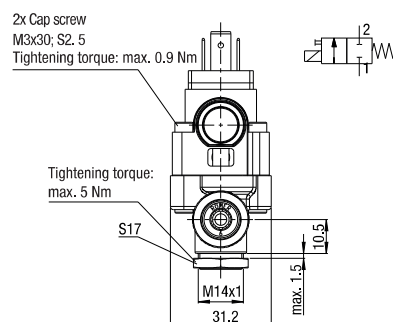
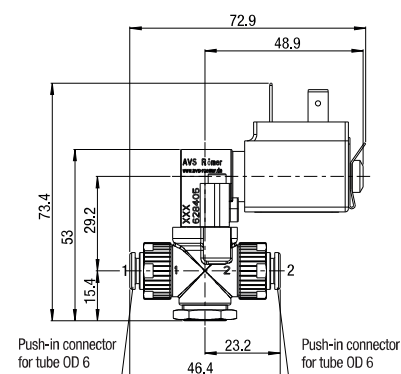
**2/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

 Price group **56** "A" in 0-position closed (closing with the flow)


Plastic PPA

Irrespective of the information in the solenoid valve tables a housing temperature of +155 °C may not be exceeded. The value is limited to +120 °C with use of a cable socket. In case of doubt we are pleased to advise you.

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
4	5	6	2	0-2	FKM	24 V DC	ETV-422-A40-6FF-024/=-H0	628407	o. r.
4	5	6	2	0-2	EPDM	24 V DC	ETV-422-A40-6PF-024/=-H0	628417	o. r.

**Illustration**

**3/2-Way Coaxial Solenoid Valve - Type ETV Series 200**

 Price group **56** "F" in 0-position "1" to "2" closed, "1" to "4" open


Plastic PPA

Irrespective of the information in the solenoid valve tables a housing temperature of +155 °C may not be exceeded. The value is limited to +120 °C with use of a cable socket. In case of doubt we are pleased to advise you.

DN	Kv-value water [l/min]	for tube OD	PN	Allow. OP [bar]	Seal material	Voltage / current	Type	Order number	Price
4	5	6	1.5	0-1.5	FKM	24 V DC	ETV-429-F40-6FF-024/=-H0	628537	o. r.
4	5	6	1.5	0-1.5	EPDM	24 V DC	ETV-429-F40-6PF-024/=-H0	628547	o. r.

**Illustration**
