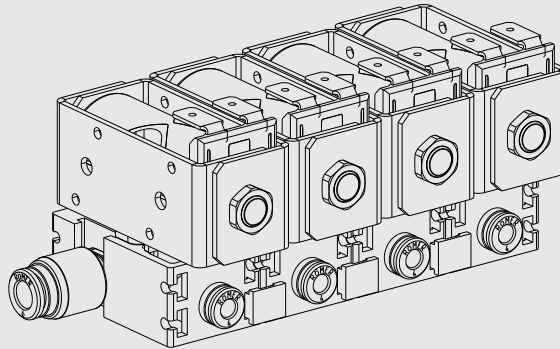


**MAGMA 2/2-way Solenoid Valve Battery Type ETV Series 200**

**MAGMA** the special valve principle by AVS-Römer



An innovative high quality valve series with a coaxial flow in 2/2 and 3/2-way version, particularly for the use in the food and medical technology.

The electromagnet actuates a pivot mounted lever on which a diaphragm is fitted against a spring force. The valve interior is therefore spatially and thermally separated from the magnet 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.

**Further features:**

- minimal dead space
- easily disassembled, e.g. for cleaning
- insensitive to contamination (1 mm hub at seat)
- thermal insulation between the electro-magnet and the medium (no calcification!)
- emergency manual override and position indication as standard
- materials and design are particularly suited for food applications

**Versions/Options:**

- distributor connections left, right, dual-sided
- valves with different nominal diameters in the same battery
- NC and NO valves in the one battery

**CHARACTERISTICS**
**GENERAL**

<b>Constructional design</b>	Lever actuated seat valve with separating membrane	
<b>Product name</b>	2/2-way solenoid valve, battery	
<b>Actuation</b>	Electric, direct acting or by emergency manual override with position indicator	
<b>Type</b>	ETV-2221/V.-A.	ETV-2221/V.-B.
<b>Functions</b>	Function "A" normally closed (closing with the flow)	Function „B“ normally open (closing with the flow)
<b>Nominal diameters</b>	DN 1.0 to DN 2.5	DN 1.0 to DN 2.5
<b>Connections</b>	ELSA push-in connectors for pipe/tube OD 4 mm or OD 6 mm	
<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 inserts material</b>	PPA and PPSU plastic (KTW and NSF approved)	
<b>Membrane material</b>	EPDM or FKM (each FDA compliant)	
<b>O-ring material</b>	EPDM (FDA compliant and KTW approved) or FKM (FDA compliant)	
<b>Solenoid housing material</b>	PPS plastic (UL94-V0)	
<b>Mounting method</b>	via two M3 threaded inserts for each individual valve	
<b>Mounting position</b>	optional	
<b>Approvals</b>	NSF/ANSI 169	

**PNEUMATIC-HYDRAULIC**

<b>Nominal pressure</b>	Up to PN 16 in accordance with the specification table
<b>Pressure range</b>	0 bar up to the permitted excess pressure PB in accordance with the table dependent on ED, PB 50% applies for max. SD 60 s
<b>Flow rate</b>	Kv value according to the table
<b>Medium</b>	Gaseous or liquid mediums which do not attack the materials present
<b>Response time</b>	Opening time: 10 to 25 ms Closing time: 10 to 25 ms

**ELECTRICAL**

<b>Nominal voltage</b>	24 V DC
<b>Voltage tolerance</b>	± 10%
<b>Power consumption P<sub>nom</sub></b>	6 W
<b>Duty cycle</b>	100% ED (DB) , according to the duty cycle in each case, the power consumption can be decreased by up to 30 %
<b>Electrical connection</b>	Spade terminals for spade connectors 6.3 x 0.8 DIN 46247

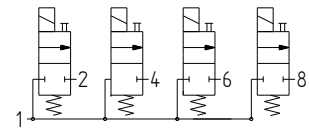
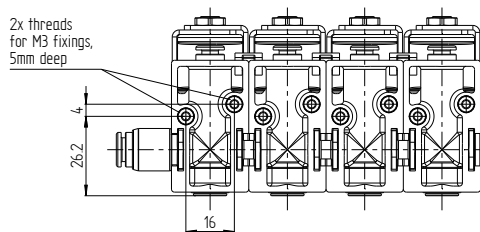
2/2-way Solenoid Valve Battery Type ETV Series 200

Product group **55** Function „A“ normally closed (NC) (closing with the flow)

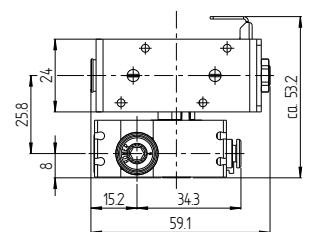
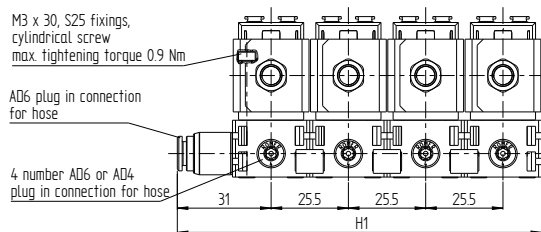
NSF FDA compliant plastic

Constructional design	DN	Kv Value for 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	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	on req.	
			6					EPDM	24 V DC	ETV-2221/V2-A10-4PF-024/=-U0	627902	on req.	
	1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V2-A15-4FF-024/=-U0	627905	on req.	
			6					EPDM	24 V DC	ETV-2221/V2-A15-4PF-024/=-U0	627906	on req.	
	2.0	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V2-A20-4FF-024/=-U0	627909	on req.	
			6					EPDM	24 V DC	ETV-2221/V2-A20-6PF-024/=-U0	627910	on req.	
	2.5	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V2-A25-4FF-024/=-U0	627913	on req.	
			6					EPDM	24 V DC	ETV-2221/V2-A25-6PF-024/=-U0	627914	on req.	
		1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V3-A10-4FF-024/=-U0	627917	on req.
				6					EPDM	24 V DC	ETV-2221/V3-A10-4PF-024/=-U0	627918	on req.
		1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V3-A15-4FF-024/=-U0	627921	on req.
				6					EPDM	24 V DC	ETV-2221/V3-A15-4PF-024/=-U0	627922	on req.
2.0		2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V3-A20-4FF-024/=-U0	627925	on req.	
			6					EPDM	24 V DC	ETV-2221/V3-A20-6PF-024/=-U0	627926	on req.	
2.5		3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V3-A25-4FF-024/=-U0	627929	on req.	
			6					EPDM	24 V DC	ETV-2221/V3-A25-6PF-024/=-U0	627930	on req.	
		1.0	0.8	4	16	16	16	10	FKM	24 V DC	ETV-2221/V4-A10-4FF-024/=-U0	627933	on req.
				6					EPDM	24 V DC	ETV-2221/V4-A10-4PF-024/=-U0	627934	on req.
		1.5	1.4	4	16	16	12.5	6	FKM	24 V DC	ETV-2221/V4-A15-4FF-024/=-U0	627937	on req.
				6					EPDM	24 V DC	ETV-2221/V4-A15-4PF-024/=-U0	627938	on req.
	2.0	2.4	4	12.5	12.5	10	5	FKM	24 V DC	ETV-2221/V4-A20-4FF-024/=-U0	627941	on req.	
			6					EPDM	24 V DC	ETV-2221/V4-A20-6PF-024/=-U0	627942	on req.	
	2.5	3.4	4	8	8	6	3	FKM	24 V DC	ETV-2221/V4-A25-4FF-024/=-U0	627945	on req.	
			6					EPDM	24 V DC	ETV-2221/V4-A25-6PF-024/=-U0	627946	on req.	

Illustration



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

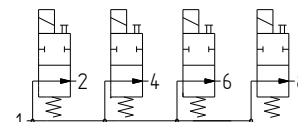
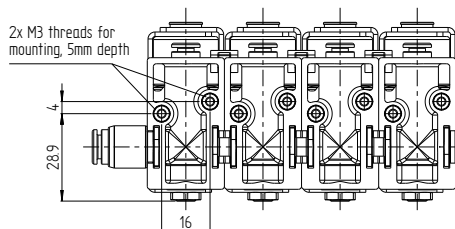


**2/2-way Solenoid Valve Battery ETV Series 200**

 Product group **55** Function „B“ normally open (N) (closing with the flow)


FDA compliant plastic

Constructional design	DN	Kv Value for 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	Type	Order number	Price
	1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V2-B10-4FF-024/-U0	627951	on req.
								EPDM	24 V DC	ETV-2111/V2-B10-4PF-024/-U0	627952	on req.
			FKM					24 V DC	ETV-2111/V2-B10-6FF-024/-U0	627953	on req.	
			EPDM					24 V DC	ETV-2111/V2-B10-6PF-024/-U0	627954	on req.	
			FKM					24 V DC	ETV-2111/V2-B15-4FF-024/-U0	627955	on req.	
			EPDM					24 V DC	ETV-2111/V2-B15-4PF-024/-U0	627956	on req.	
	1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V2-B15-6FF-024/-U0	627957	on req.
								EPDM	24 V DC	ETV-2111/V2-B15-6PF-024/-U0	627958	on req.
			FKM					24 V DC	ETV-2111/V2-B20-4FF-024/-U0	627959	on req.	
			EPDM					24 V DC	ETV-2111/V2-B20-4PF-024/-U0	627960	on req.	
			FKM					24 V DC	ETV-2111/V2-B20-6FF-024/-U0	627961	on req.	
			EPDM					24 V DC	ETV-2111/V2-B20-6PF-024/-U0	627962	on req.	
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V2-B25-4FF-024/-U0	627963	on req.	
							EPDM	24 V DC	ETV-2111/V2-B25-4PF-024/-U0	627964	on req.	
		FKM					24 V DC	ETV-2111/V2-B25-6FF-024/-U0	627965	on req.		
		EPDM					24 V DC	ETV-2111/V2-B25-6PF-024/-U0	627966	on req.		
		FKM					24 V DC	ETV-2111/V3-B10-4FF-024/-U0	627967	on req.		
		EPDM					24 V DC	ETV-2111/V3-B10-4PF-024/-U0	627968	on req.		
1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V3-B10-6FF-024/-U0	627969	on req.	
							EPDM	24 V DC	ETV-2111/V3-B10-6PF-024/-U0	627970	on req.	
		FKM					24 V DC	ETV-2111/V3-B15-4FF-024/-U0	627971	on req.		
		EPDM					24 V DC	ETV-2111/V3-B15-4PF-024/-U0	627972	on req.		
		FKM					24 V DC	ETV-2111/V3-B15-6FF-024/-U0	627973	on req.		
		EPDM					24 V DC	ETV-2111/V3-B15-6PF-024/-U0	627974	on req.		
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V3-B20-4FF-024/-U0	627975	on req.	
							EPDM	24 V DC	ETV-2111/V3-B20-4PF-024/-U0	627976	on req.	
		FKM					24 V DC	ETV-2111/V3-B20-6FF-024/-U0	627977	on req.		
		EPDM					24 V DC	ETV-2111/V3-B20-6PF-024/-U0	627978	on req.		
		FKM					24 V DC	ETV-2111/V3-B25-4FF-024/-U0	627979	on req.		
		EPDM					24 V DC	ETV-2111/V3-B25-4PF-024/-U0	627980	on req.		
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V3-B25-6FF-024/-U0	627981	on req.	
							EPDM	24 V DC	ETV-2111/V3-B25-6PF-024/-U0	627982	on req.	
		FKM					24 V DC	ETV-2111/V4-B10-4FF-024/-U0	627983	on req.		
		EPDM					24 V DC	ETV-2111/V4-B10-4PF-024/-U0	627984	on req.		
		FKM					24 V DC	ETV-2111/V4-B10-6FF-024/-U0	627985	on req.		
		EPDM					24 V DC	ETV-2111/V4-B10-6PF-024/-U0	627986	on req.		
	1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V4-B15-4FF-024/-U0	627987	on req.
								EPDM	24 V DC	ETV-2111/V4-B15-4PF-024/-U0	627988	on req.
			FKM					24 V DC	ETV-2111/V4-B15-6FF-024/-U0	627989	on req.	
			EPDM					24 V DC	ETV-2111/V4-B15-6PF-024/-U0	627990	on req.	
			FKM					24 V DC	ETV-2111/V4-B20-4FF-024/-U0	627991	on req.	
			EPDM					24 V DC	ETV-2111/V4-B20-4PF-024/-U0	627992	on req.	
	1.5	1.4	4	12.5	12.5	12.5	12.5	FKM	24 V DC	ETV-2111/V4-B20-6FF-024/-U0	627993	on req.
								EPDM	24 V DC	ETV-2111/V4-B20-6PF-024/-U0	627994	on req.
			FKM					24 V DC	ETV-2111/V4-B25-4FF-024/-U0	627995	on req.	
			EPDM					24 V DC	ETV-2111/V4-B25-4PF-024/-U0	627996	on req.	
			FKM					24 V DC	ETV-2111/V4-B25-6FF-024/-U0	627997	on req.	
			EPDM					24 V DC	ETV-2111/V4-B25-6PF-024/-U0	627998	on req.	
	1.0	0.8	4	16	16	16	16	FKM	24 V DC	ETV-2111/V4-B25-6FF-024/-U0	627999	on req.
								EPDM	24 V DC	ETV-2111/V4-B25-6PF-024/-U0	627998	on req.
			FKM					24 V DC	ETV-2111/V4-B10-4FF-024/-U0	627983	on req.	
			EPDM					24 V DC	ETV-2111/V4-B10-4PF-024/-U0	627984	on req.	
			FKM					24 V DC	ETV-2111/V4-B10-6FF-024/-U0	627985	on req.	
			EPDM					24 V DC	ETV-2111/V4-B10-6PF-024/-U0	627986	on req.	
	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	on req.
								EPDM	24 V DC	ETV-2111/V4-B15-4PF-024/-U0	627988	on req.
			FKM					24 V DC	ETV-2111/V4-B15-6FF-024/-U0	627989	on req.	
			EPDM					24 V DC	ETV-2111/V4-B15-6PF-024/-U0	627990	on req.	
			FKM					24 V DC	ETV-2111/V4-B20-4FF-024/-U0	627991	on req.	
			EPDM					24 V DC	ETV-2111/V4-B20-4PF-024/-U0	627992	on req.	
2.0	2.4	4	8	8	8	8	FKM	24 V DC	ETV-2111/V4-B20-6FF-024/-U0	627993	on req.	
							EPDM	24 V DC	ETV-2111/V4-B20-6PF-024/-U0	627994	on req.	
		FKM					24 V DC	ETV-2111/V4-B25-4FF-024/-U0	627995	on req.		
		EPDM					24 V DC	ETV-2111/V4-B25-4PF-024/-U0	627996	on req.		
		FKM					24 V DC	ETV-2111/V4-B25-6FF-024/-U0	627997	on req.		
		EPDM					24 V DC	ETV-2111/V4-B25-6PF-024/-U0	627998	on req.		
2.5	3.4	4	4	4	4	4	FKM	24 V DC	ETV-2111/V4-B25-6FF-024/-U0	627999	on req.	
							EPDM	24 V DC	ETV-2111/V4-B25-6PF-024/-U0	627998	on req.	

**Illustration**

**Valve design**

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

Cap screw M3 x 30, S25, max. tightening torque 0.9 Nm

OD 6 push-in connector for tube

4 OD 6 or OD 4 push-in connectors for tube

