

DIGMA Solenoid Valves Type EAV Series 300



FEATURES

GENERAL

Constructional design	Seat valve, rubber seals
Product name	3/2-way flange solenoid valve
Actuation	electrical, direct-acting
Product type	EAV-3...-C..
Function	"C" in 0 position "1" closed, "2" after "3" discharged (closing against flow)
Nominal diameter	DN 1.2 to DN 1.8
Connections	Flange according to factory standard
Ambient temperature	-20 °C to +60 °C (others on request)
Medium temperature	for NBR: -10 °C to +90 °C for FKM: -10 °C to +130 °C (for restrictions see table)
Medium viscosity	up to approx. 20 mm ² /s
Valve body material	Brass
Manual material	PPE (Polyphenylene ether)
Seat nozzle material	Stainless steel
Other internal components material	Stainless steel and non-ferrous metal. DC version with FKM seal non-ferrous metal-free
Sealing material	NBR (nitrile rubber) or FKM (fluoride rubber) (others on request)
Mounting method	by 2 through bores in the valve body
Mounting position	optional, preferably upright

PNEUMATIC - HYDRAULIC

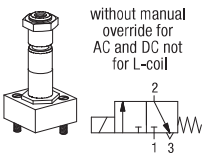
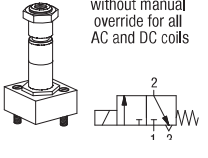
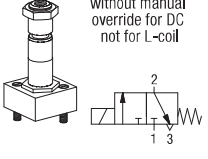
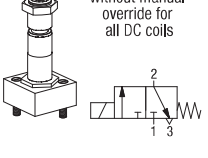
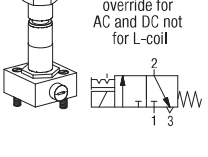
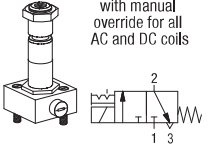
Nominal pressure	according to type table. The numerical value of the nominal pressure PN signifies the permitted excess operating pressure PB in bar at 60 °C ambient temperature and 60 °C medium temperature.
Pressure range	technical vacuum up to permitted operating pressure PB. For exceptions which refer to minimum permitted operating pressure see table.
Flow rate	Kv-value and QNn-value according to type table
Medium	gaseous or liquid media sealing material NBR: e.g. compressed air, water, hydraulic fluids, neutral gases sealing material FKM: e.g. solvents, hot water, hot air
Response time	Opening time: 7 - 20 ms, closing time: 12 - 20 ms
Electric	see under solenoid coils

3/2-Way Solenoid Valve - Type EAV Series 300

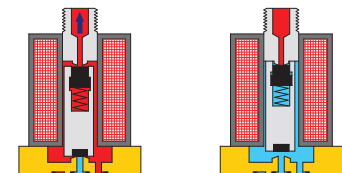
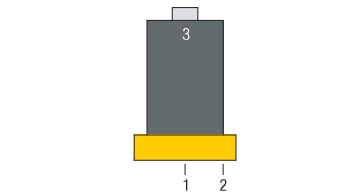
Price group **51**

“C” in 0-position “1” closed,
“2” after “3” discharged

Brass

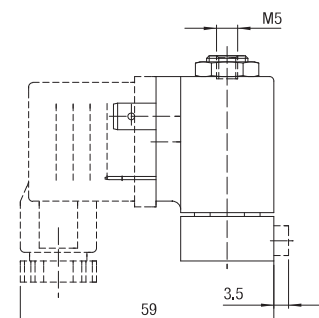
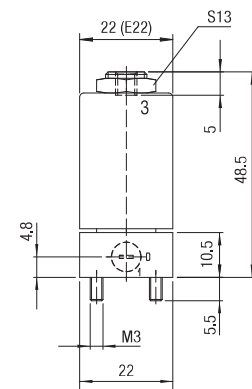
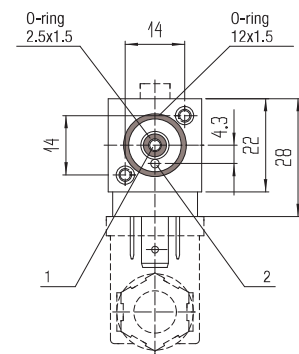
Version	DN	Kv-value water [m³/h]	Q _N -value air [l/min]	PN	Sealing material	Type	Order number	Price
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-311-C12-FL1B-00	609201	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-311-C12-FL1F-00	609202	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-311-C15-FL1B-00	609203	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-311-C15-FL1F-00	609204	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-311-C18-FL1B-00	609205	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-311-C18-FL1F-00	609206	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-315-C12-FL1B-00	609217	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-315-C12-FL1F-00	609218	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-315-C15-FL1B-00	609219	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-315-C15-FL1F-00	609220	o. r.
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-313-C12-FL1B-00	609209	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-313-C12-FL1F-00	609210	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-313-C15-FL1B-00	609211	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-313-C15-FL1F-00	609212	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-313-C18-FL1B-00	609213	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-313-C18-FL1F-00	609214	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-317-C12-FL1B-00	609225	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-317-C12-FL1F-00	609226	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-317-C15-FL1B-00	609227	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-317-C15-FL1F-00	609228	o. r.
	1.2	1 > 2 0.05	1 > 2 50	12.5	NBR	EAV-321-C12-FL1B-00	609251	o. r.
		2 > 3 0.06	2 > 3 65	12.5	FKM	EAV-321-C12-FL1F-00	609252	o. r.
	1.5	1 > 2 0.06	1 > 2 68	10	NBR	EAV-321-C15-FL1B-00	609253	o. r.
		2 > 3 0.10	2 > 3 115	10	FKM	EAV-321-C15-FL1F-00	609254	o. r.
	1.8	1 > 2 0.11	1 > 2 120	8	NBR	EAV-321-C18-FL1B-00	609255	o. r.
		2 > 3 0.10	2 > 3 115	8	FKM	EAV-321-C18-FL1F-00	609256	o. r.
	1.2	1 > 2 0.05	1 > 2 50	10	NBR	EAV-325-C12-FL1B-00	609267	o. r.
		2 > 3 0.05	2 > 3 50	10	FKM	EAV-325-C12-FL1F-00	609268	o. r.
	1.5	1 > 2 0.06	1 > 2 68	8	NBR	EAV-325-C15-FL1B-00	609269	o. r.
		2 > 3 0.06	2 > 3 68	8	FKM	EAV-325-C15-FL1F-00	609270	o. r.

Illustration



Normal position

Operational position



Permitted Operating Pressure for 3/2-way Flange Solenoid Valve - Type EAV Series 300

“C” in 0-position “1” closed,
“2” after “3” discharged

DN	Type	PN	Combined solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C															
			Type	Nominal power P ₂₀			AC 50 Hz  90 %U _N Medium temperature			AC 60 Hz  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  90 %U _N Medium temperature			DC  100 %U _N Medium temperature			
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]																
1.2	EAV-311-C12..	12.5	E22...M.	5,5	5	5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
			E22...H.	-	-	8	-	-	-	-	-	-	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
			E30...P.	12	10,5	8	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
	EAV-315-C12..	10	E22...L.	3,5	on req.	2,5	10	-	-	10	-	-	10	10**	10**	10**	10**	10**	10	10**	10**	10**
			E22...M.	5,5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	12	10,5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	EAV-313-C12..	12.5	E22...M.	-	-	5	-	-	-	-	-	-	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
			E22...H.	-	-	8	-	-	-	-	-	-	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
			E30...P.	-	-	8	-	-	-	-	-	-	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
	EAV-317-C12..	10	E22...L.	-	-	2,5	-	-	-	-	-	-	10	10**	10**	10**	10**	10**	10	10**	10**	10**
			E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10
	EAV-321-C12..	12.5	E22...M.	5,5	5	5	12,5	*	*	12,5	*	*	12,5	*	*	12,5	*	*	12,5	*	*	*
			E22...H.	-	-	8	-	-	-	-	-	-	12,5	*	*	12,5	*	*	12,5	*	*	*
			E30...P.	12	10,5	8	12,5	*	*	12,5	*	*	12,5	*	*	12,5	*	*	12,5	*	*	*
	EAV-325-C12..	10	E22...L.	3,5	on req.	2,5	10	-	-	10	-	-	10	*	*	10**	*	*	10	*	*	*
			E22...M.	5,5	5	5	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	*
			E22...H.	-	-	8	-	-	-	-	-	-	10	*	*	10	*	*	10	*	*	*
			E30...P.	12	10,5	8	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*	*
	1.5	EAV-311-C15..	10	E22...M.	5,5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
				E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10
				E30...P.	12	10,5	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
EAV-315-C15..		8	E22...L.	3,5	on req.	2,5	8	8	-	-	-	-	8	8	8**	8	8**	8**	8	8**	8**	
			E22...M.	5,5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
			E30...P.	12	10,5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
EAV-313-C15..		10	E22...M.	-	-	5	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
			E22...H.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
			E30...P.	-	-	8	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	
EAV-317-C15..		8	E22...L.	-	-	2,5	-	-	-	-	-	-	8	8**	8**	8**	8**	8**	8	8**	8**	
			E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
	E22...H.		-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8		
	E30...P.		-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8		
EAV-321-C15..	10	E22...M.	5,5	5	5	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*		
		E22...H.	-	-	8	-	-	-	-	-	-	10	*	*	10	*	*	10	*	*		
		E30...P.	12	10,5	8	10	*	*	10	*	*	10	*	*	10	*	*	10	*	*		
EAV-325-C15..	8	E22...L.	3,5	on req.	2,5	8	*	*	-	-	-	8	*	*	8	*	*	8	*	*		
		E22...M.	5,5	5	5	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*		
		E22...H.	-	-	8	-	-	-	-	-	-	8	*	*	8	*	*	8	*	*		
		E30...P.	12	10,5	8	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*		
1.8	EAV-311-C18..	8	E22...M.	5,5	5	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
			E30...P.	12	10,5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	EAV-313-C18..	8	E22...M.	-	-	5	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
			E22...H.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
			E30...P.	-	-	8	-	-	-	-	-	-	8	8	8	8	8	8	8	8	8	
	EAV-321-C18..	8	E22...M.	5,5	5	5	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	
			E22...H.	-	-	8	-	-	-	-	-	-	8	*	*	8	*	*	8	*	*	
			E30...P.	12	10,5	8	8	*	*	8	*	*	8	*	*	8	*	*	8	*	*	

* Solenoid valves with manual override can only be used at medium temperatures up to max. 60 °C. ** Minimum pressure of 2 bar required

3/2-Way Solenoid Valve Battery - Type EAV Series 300

Price group	51	"C" in 0 position "1" closed, "2" after "3" discharge
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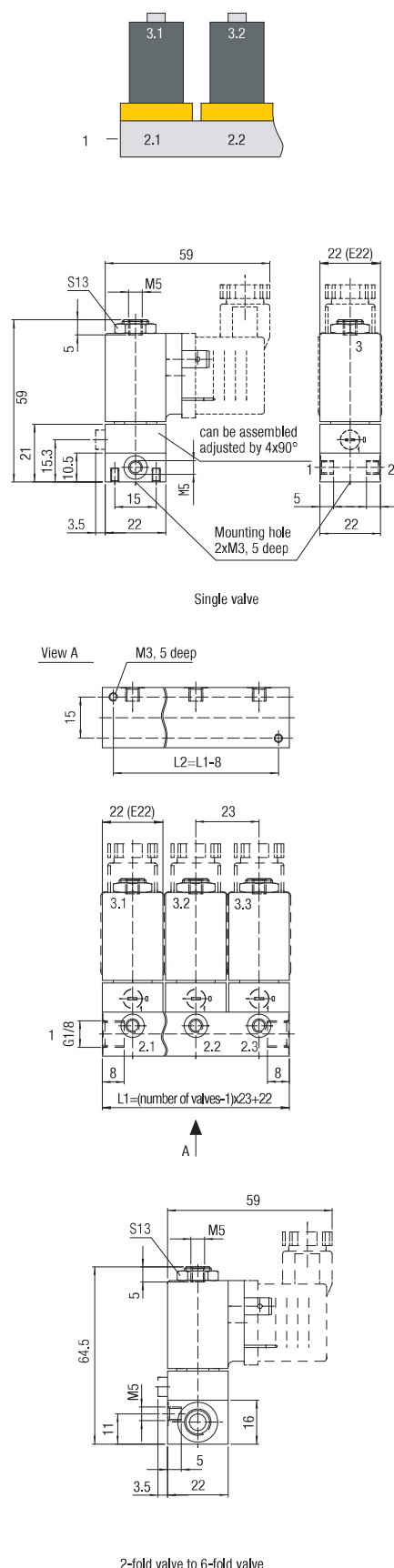
Brass

Material single manifold: Ms, multiple manifold: aluminium alloy, sealing material: NBR, solenoid valves: see type EAV series 300

Kv-value water [m³/h], QNn-value air [l/min]
see type EAV series 300

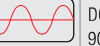
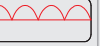
	Version	PN	Type	Order number	Price
	without manual override for AC and DC not for L-coil	10	EAV-311/01-C15-M05B	609601	o. r.
	without manual override for all AC and DC coils	8	EAV-315/01-C15-M05B	609625	o. r.
	without manual override for DC not for L-coil	10	EAV-313/01-C15-M05B	609613	o. r.
	without manual override for all DC coils	8	EAV-317/01-C15-M05B	609637	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/02-C15-M05B	609602	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/02-C15-M05B	609626	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/02-C15-M05B	609614	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/02-C15-M05B	609638	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/03-C15-M05B	609603	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/03-C15-M05B	609627	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/03-C15-M05B	609615	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/03-C15-M05B	609639	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/04-C15-M05B	609604	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/04-C15-M05B	609628	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/04-C15-M05B	609616	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/04-C15-M05B	609640	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/05-C15-M05B	609605	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/05-C15-M05B	609629	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/05-C15-M05B	609617	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/05-C15-M05B	609641	o. r.
	without manual override, for E22, AC and DC not for L-coil	10	EAV-311/06-C15-M05B	609606	o. r.
	without manual override, for all E22, AC and DC coils	8	EAV-315/06-C15-M05B	609630	o. r.
	without manual override, for all E22, DC not for L-coil	10	EAV-313/06-C15-M05B	609618	o. r.
	without manual override, for all E22, DC coils	8	EAV-317/06-C15-M05B	609642	o. r.
	with manual override for AC and DC not for L-coil	10	EAV-321/01-C15-M05B	609651	o. r.
	with manual override for all AC and DC coils	8	EAV-325/01-C15-M05B	609675	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/02-C15-M05B	609652	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/02-C15-M05B	609676	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/03-C15-M05B	609653	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/03-C15-M05B	609677	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/04-C15-M05B	609654	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/04-C15-M05B	609678	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/05-C15-M05B	609655	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/05-C15-M05B	609679	o. r.
	with manual override, for E22, AC and DC not for L-coil	10	EAV-321/06-C15-M05B	609656	o. r.
	with manual override, for all E22, AC and DC coils	8	EAV-325/06-C15-M05B	609680	o. r.

Illustration



Permitted Operating Pressure for 3/2-Way Solenoid Valve Battery - Type EAV Series 300

"C" in 0 position "1" closed,
"2" after "3" discharge

DN	Type	PN	Combined solenoid coils				Permitted operating pressure [bar] at ambient temperature +60 °C									
			Type	Nominal power P ₂₀			AC 50 Hz 		AC 60 Hz 		DC 		DC 		DC 	
				AC 50 Hz [VA]	AC 60 Hz [VA]	DC [W]	90 %U _N Medium temperature		90 %U _N Medium temperature		90 %U _N Medium temperature		90 %U _N Medium temperature		100 %U _N Medium temperature	
							60°C	90°C	60°C	90°C	60°C	90°C	60°C	90°C	60°C	90°C
1.5	EAV-311/...-C15..	10	E22...M.	5,5	5	5	10	-	10	-	10	-	10	-	10	-
			E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-
	EAV-315/...-C15..	8	E22...L.	3,5	on req.	2,5	8	-	8	-	8	8**	8	8**	8	8**
			E22...M.	5,5	5	5	8	8	8	8	8	-	8	-	-	-
			E22...H.	-	-	8	-	-	-	-	8	-	8	-	8	-
	EAV-313/...-C15..	10	E22...M.	-	-	5	-	-	-	-	10	-	10	-	10	-
			E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-
	EAV-317/...-C15..	8	E22...L.	-	-	2,5	-	-	-	-	8	8**	8	8**	8	8**
			E22...M.	-	-	5	-	-	-	-	8	-	8	-	8	-
			E22...H.	-	-	8	-	-	-	-	8	-	8	-	8	-
	EAV-321/...-C15..	10	E22...M.	5,5	5	5	10	-	10	-	10	-	10	-	10	-
			E22...H.	-	-	8	-	-	-	-	10	-	10	-	10	-
	EAV-325/...-C15..	8	E22...L.	3,5	on req.	2,5	8	*	8	*	8	*	8**	*	8**	*
			E22...M.	5,5	5	5	8	-	8	*	8	-	8	-	8	-
			E22...H.	-	-	8	-	-	-	-	8	-	8	-	8	-

* Solenoid valves with manual override can only be used at medium temperatures up to max. 60 °C.

** Minimum pressure of 2 bar required

Collector Manifold for Solenoid Valve - Type EAV Type ZAV Series 300

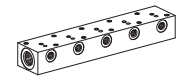
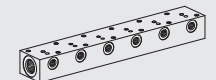
Price group **51**

Alu blank

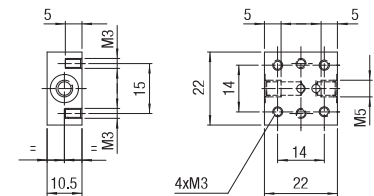
Solenoid valves type EAV series 300 can be assembled on the single and collector manifold. Single manifold made of Ms, multiple manifold made of aluminium alloy.

The collector manifold can however only be equipped with solenoid coils type E22. The permitted highest medium temperature is generally limited as follows:

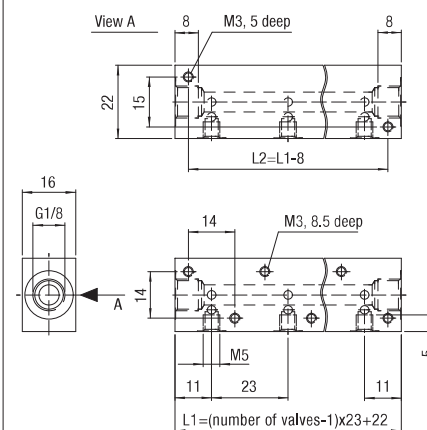
solenoid coils E22-...L. 90 °C
solenoid coils E22-...M. and E22-...H. 60 °C

Manifold	G	Type	Order number	Price
	M 5	ZAV-310-M05U	500269	a. A.
	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/02-M05A	500302	a. A.
	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/03-M05A	500303	a. A.
	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/04-M05A	500304	a. A.
	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/05-M05A	500305	a. A.
	pressure inlet "P": G 1/8 Outlet "A": M5	ZAV-310/06-M05A	500306	a. A.

Illustration



Single plate



Collector plate

AVS Römer

www.avs-roemer.de E12F

Elektronisches Dosierventil

EFC-958-P310-8FF-024-10

DN 1 PN8

Vs=24V Vc=0-10V



AVS Römer

www.avs-roemer.de E28F

Leitfähigkeitssensor

ICS-958P3-8FF

1*12-20mS DN4

Vs=9-24V Vout=0-11



1

2

E18F

3
10