

3/2-way solenoid valves from brass

Materials: Body: Brass, internal parts: Brass/stainless steel, seal: NBR (G 1/8"-G 1/4": FKM)

Temperature range: 0°C to +90°C (G 1/8"-G 1/4": -10°C to max. +130°C)

Media: Compressed air, neutral gases, water, neutral low-viscosity media, heating oil, other media on request

Voltages: Standard: 24V=, 230V AC, upon request: See order examples for other voltages

Protection class: IP 65

Type 24V=	Type 230V AC	Thread	DN	Op. pres- sure (bar)	Installation pos.	kv value ¹⁾
Closed (NC) without power						
M 318 24V=*	M 318 230V*	G 1/8"	2.5	0 - 7	Standing magnet	3.4 l/min
M 314 24V=*	M 314 230V*	G 1/4"	2.5	0 - 7	Standing magnet	3.4 l/min
M 338 24V=	M 338 230V	G 3/8" (exhaust G 3/4")	12	0.5 - 16	Arbitrary	38 l/min
M 312 24V=	M 312 230V	G 1/2" (exhaust G 3/4")	12	0.5 - 16	Arbitrary	43 l/min
M 334 24V=	M 334 230V	G 3/4" (exhaust G 1")	20	0.5 - 16	Arbitrary	110 l/min
M 310 24V=	M 310 230V	G 1" (exhaust G 1 1/4")	25	0.5 - 10	Arbitrary	166 l/min
M 3112 24V=	M 3112 230V	G 1 1/2" (exhaust G 2")	40	0.5 - 10	Arbitrary	400 l/min
Open (NO) without power						
MO 318 24V=*	MO 318 230V*	G 1/8"	2.5	0 - 7	Standing magnet	3.4 l/min
MO 314 24V=*	MO 314 230V*	G 1/4"	2.5	0 - 7	Standing magnet	3.4 l/min
MO 338 24V=	MO 338 230V	G 3/8" (exhaust G 3/4")	12	0.5 - 16	Arbitrary	38 l/min
MO 312 24V=	MO 312 230V	G 1/2" (exhaust G 3/4")	12	0.5 - 16	Arbitrary	43 l/min
MO 334 24V=	MO 334 230V	G 3/4" (exhaust G 1")	20	0.5 - 16	Arbitrary	110 l/min
MO 310 24V=	MO 310 230V	G 1" (exhaust G 1 1/4")	25	0.5 - 10	Arbitrary	166 l/min
MO 3112 24V=	MO 3112 230V	G 1 1/2" (exhaust G 2")	40	0.5 - 10	Arbitrary	400 l/min

¹⁾ water flow rate at +20°C, 1 bar pressure at the valve inlet, free discharge.

Flow for air [l/min] $\approx 13.4 \cdot kv \cdot P_{input}$, if $P_{output} < P_{input}$ (Pinput and Poutput are absolute values in bar.)

* warning: Pressure input at connection 2, venting over connection 3



For opening or closing, servo-controlled valves require a pressure difference between the valve inlet and valve outlet. The pressure difference is given as minimum pressure. There is a pressure compensation in the valve, resulting that no or little medium is used at the valve outlet, the valve will no longer function (it opens or closes unreliably).

3/2-way solenoid valves from stainless steel

Materials: Body: AISI 430F, seal: FKM

Temperature range: -10°C to max. +120°C

Installation position: With upright magnets

Voltages: Standard: 24V=, 230V AC, upon request: See order examples for other voltages

Protection class: IP 65, plug size 3

Warning: Pressure connection contrary to the standard at connection 2, venting via connection 3

Optional: NPT thread -NPT

Type 24V=	Type 230V AC	Thread	DN	Operating pressure (bar)	kv value ¹⁾	Basic setting
M 318 ES 24V=	M 318 ES 230V	G 1/8"	2	0 - 10	2.2 l/min.	Closed (NC)
M 314 ES 24V=	M 314 ES 230V	G 1/4"	2	0 - 10	2.2 l/min.	Closed (NC)
MO 318 ES 24V=	MO 318 ES 230V	G 1/8"	2	0 - 10	2.2 l/min.	Open (NO)
MO 314 ES 24V=	MO 314 ES 230V	G 1/4"	2	0 - 10	2.2 l/min.	Open (NO)

to 2" connection thread with kv=484 l/min. available, Please ask us.

¹⁾ water flow rate at +20°C, 1 bar pressure at the valve inlet, free discharge.

Air flow [l/min] $\approx 13.4 \cdot kv \cdot P_{input}$, if $P_{output} < P_{input}$ (Pinput and Poutput are absolute values in bar.)

Order example: M 318 ES ** **

Standard type

Designation for the options:
NPT thread-NPT

Available voltages

24V= (standard)	-24V=	24V AC	-24VAC
230V AC (standard)	-230V	115V AC	-115V
12V=	-12V=	48V AC	-48VAC
48V=	-48V=		



type M 318 and M 314
type MO 318 and MO 314



Order example: M 318 **

Standard type

Available voltages

24V= (standard)	-24V=
230V AC (standard)	-230V
12V=	-12V=
48V=	-48V=
24V AC	-24VAC
115V AC	-115V
48V AC	-48VAC



type M...ES ..

type MO...ES ..

These valves are generally delivered with coils and plugs!

3/2-way vacuum valves - direct control without external air

4 - 130 m³/h

Controller: Direct control, closed without power

Materials: Housing: Brass, internal parts: AISI 430F, seal: FKM

Temperature range: -10°C to max. +80°C, environment: Max. +35°C

Protection class: IP 65

Media: Neutral, gas forming and liquid media

Flow direction: From A to P

In a standard type, the breathing takes place via the anchor (M 5 female thread).

Type 24V=	Type 230V AC	Thread	DN	Suction per- formance (m³/h)	Operating pressure (bar)	Installation pos.	L
Standard							
M 314 VU 24V=	M 314 VU 230V	G 1/4"	3	4	-0.9 to 6	Arbitrary	40
M 338 VU 24V=	M 338 VU 230V	G 3/8"	3	5	-0.9 to 6	Arbitrary	50
M 312 VU 24V=	M 312 VU 230V	G 1/2"	3	5	-0.9 to 6	Arbitrary	60
For high flow rates							
M 314 VU H 24V=	M 314 VU H 230V	G 1/4"	6	13	-0.9 to 8	Standing magnet	55
M 338 VU H 24V=	M 338 VU H 230V	G 3/8"	11	26	-0.9 to 10	Standing magnet	70
M 312 VU H 24V=	M 312 VU H 230V	G 1/2"	11	30	-0.9 to 10	Standing magnet	70
M 334 VU H 24V=	M 334 VU H 230V	G 3/4"	21	130	-0.9 to 1	Standing magnet	95
M 310 VU H 24V=	M 310 VU H 230V	G 1"	21	130	-0.9 to 1	Standing magnet	95

All data are considered to be unbinding reference values. We accept no liability for data selection that is not confirmed in writing. Pressure data refer, if not otherwise indicated, to liquids of Group II at +20°C.



for high flow values



standard