

2/2 – Realtime Solenoid Valve for Gases (Comp. Air, Inert, or similar)

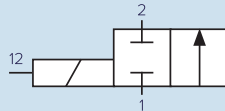
Advantages

- Energy-saving
- Powerful pulsing or continuous
- Fast switching
- durable (>10⁹ cycl.)
- Low maintenance
- Heat resistant, non-corrosive

Media

- Compressed Air
- Inert Gases
- Hydrogen
- Nitrogen
- ...

Symbol



Applications

- Blasting
 - Cleaning
 - Drying
 - Dosing
 - Injecting
 - Aerating
- Sensor-triggered or parametrized



Design Principles

- Increased performance, less media consumption through pulsing mode *)
- Few shifting parts, no springs, diaphragms, spirals or similar
- Energy-saving operation (electrical)
- Four performance classes/sizes available **)
- Easy fine-tuning of D_N and K_V for specific application requirements
- Fast sensor signal processing
- High pulsing frequencies (0 - 2.000 Hz.)
- High repeatability (volume, mass, cycle time)
- Flexible control of pulsing frequency through KTW Valve Controller

Function

- Pressure-free open, under pressure closed
- Closed, no electrical current, no heating-up
- Electrical current, ball lifts off the valve seat against media pressure
- Cooling via media and housing
- Media-supported closing

*) to realize full performance potential of the valves, use of KTW Valve Controller HSOS-2 required

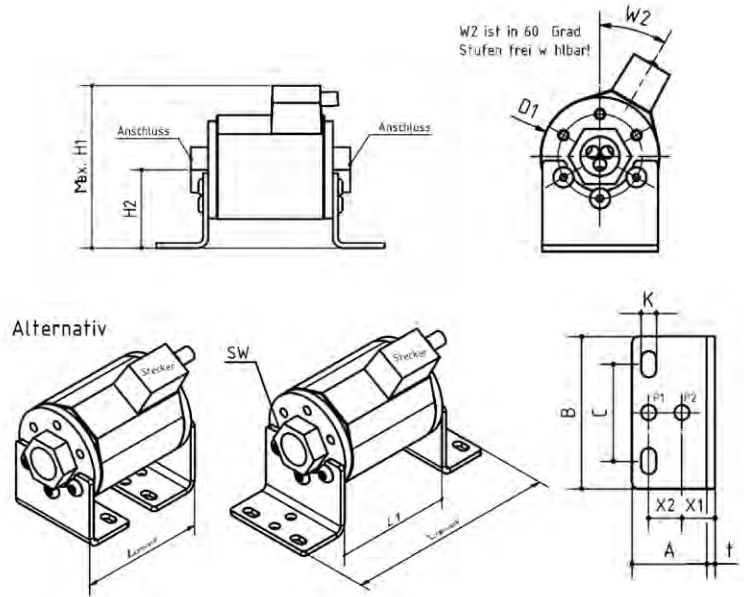
***) Application-specific adjustment/tuning of standard valves possible

For questions:

KTW Technology GmbH | Gleeser Strasse 14 | 56653 Wehr | +49 2636 807773 | info@ktwsystems.de | www.ktwsystems.de

Dimensions

Description	V 100 A	V 200 A	V 300 A	V 400 A
L1	52	66	72	76
L _{total}	L1 + (A+t)x2	L1 + (A+t)x2	L1 + (A+t)x2	L1 + (A+t)x2
L _{total, alt.}	L1+(2xt)	L1+(2xt)	L1+(2xt)	L1+(2xt)
A	25	28	27	32
B	37	50	55	55
C	25	35	35	35
X1	10	12	9	14
X2	9	12	12	13
t	1,5	2,5	2,5	3
D1	37	52	72	65
W2	Variant 120°	Variant 60°	Variant 60°	Variant 60°
H1	70	90	95	105
H2	32	40	45	42,5 - 57,5
K	5,5	5,5	5,5	6,5
P1	5,5	5,5	5,5	6,5
P2	5,5	5,5	5,5	6,5
SW	13	22	26	22
Port size	G1/8"	G3/8"	G1/2"	G3/8"



Valves overview

Attributes	V 100 A	V 200 A	V 300 A	V 400 A
Media	Compr. Air (fine filtered) Gases	Compr. Air (fine filtered) Gases	Compr. Air (fine filtered) Gases	Compr. Air (fine filtered) Gases
Abbrasive Media	Std.: No Special: yes, particle free	Std.: No Special: yes, particle free	Std.: No Special: yes, particle free	Std.: No Special: yes, particle free
Function	pressure-free open	pressure-free open	pressure-free open	pressure-free open
Modes of Operation (through KTW Valve Controller)	Options, selectable: (1) Pulse on Trigger (2) On-time on Trigger (3) Tick Count on Trigger (4) On-time Off-time	Options, selectable: (1) Pulse on Trigger (2) On-time on Trigger (3) Tick Count on Trigger (4) On-time Off-time	Options, selectable: (1) Pulse on Trigger (2) On-time on Trigger (3) Tick Count on Trigger (4) On-time Off-time	Options, selectable: (1) Pulse on Trigger (2) On-time on Trigger (3) Tick Count on Trigger (4) On-time Off-time
Closing element	Ball	Ball	Ball	Ball / Ball ring
No. of Closing element	1	1	1 - 3	1
Making	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Valve seat material (options)	Plastics Metall	Plastics Metall	Plastics Metall	Plastics Metall
Valve seat diameter D _N (mm) (in 0,2 mm increments available)	1 - 3	2 - 5	2 - 5 (1-3x)	3 - 7
Pressure diff. range (bar)	1 - 20	1 - 20	1 - 20	1 - 10
Min. pressure difference (bar)	Std.: 0,9 Special: 0,5	Std.: 0,9 Special: 0,5	Std.: 0,9 Special: 0,5	1,5
K _{vS} -Factor (m ³ /h) (depending on D _N)	1 - 10	8 - 30	25 - 80	25 - 85
K _v -Factor range	(refer to performance characteristics diagrams)			
Frequency (max., Hz.) dep. on pressure and media	Std.: 0 - 50 Special: max. 3000	Std.: 0 - 50 Special: max. 1000	Std.: 0 - 50 Special: max. 1000	0 - 30
Electr. Cycle time (s)	0,001	0,002	0,002	0,01
Cycle time (valve)	(depending on parameters / configuration)			
Fast Closing (electr.)	yes	yes	yes	yes
Temperature range of media (°C)	Std.: -40 < x < 100 Special: yes	Std.: -40 < x < 100 Special: yes	Std.: -40 < x < 100 Special: yes	Std.: -40 < x < 100 Special: yes
Fixation	Mounting bracket (2x)	Mounting bracket (2x)	Mounting bracket (2x)	Mounting bracket (2x)
Port size (IN, OUT)	1/8"	3/8"	1/2"	3/8"
Weight (kg)	0,4	1,0	1,3	1,8
Protection class	Std.: IP65 Special: IP67, IP69K	Std.: IP65 Special: IP67, IP69K	Std.: IP65 Special: IP67, IP69K	Std.: IP65 Special: IP67, IP69K
External valve controller	HSOS-2	HSOS-2	HSOS-2	HSOS-2
Nominal voltage	DC 48 V	DC 48 V	DC 48 V	DC 48 V
Valve voltage	DC 48 V	DC 48 V	DC 48 V	DC 48 V
Current consumption	1 - 15A	1 - 15A	1 - 15A	1 - 15A
Max. On-time ratio	100 %	100 %	100 %	100 %

Full performance potential only if valve seat diameter D_N represents smallest diameter in Inlet and Outlet system.
 KTW reserves the right to perform technical changes without prior notification.

Abbr: standard product

Special: special solution, available on request only, extra development work required