Gemini Valve B.V.
Zijperstraat 29, 1823CX Alkmaar
Netherlands
Tel.: +31(0) 161-227.909
Mobile: +316 1358 2578

info@geminivalve.nl
www.geminivalve.nl

GV225

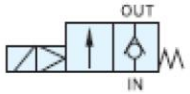
Stainless steel solenoid valve SPU GV225 servo-assisted

FEATURES

The SPU 225 is a pilot operated 2/2 solenoid valve in stainless steel. It's intented for the shut-off of networks of fluids with pipes in stainless steel. Normally closed operating. The standard construction is with stainless steel body and diaphragm in FPM. This solenoid valve, exists in numerous types. Operating normally closed with 0,5 bar minimum differential pressure.

AVAILABLE MODELS

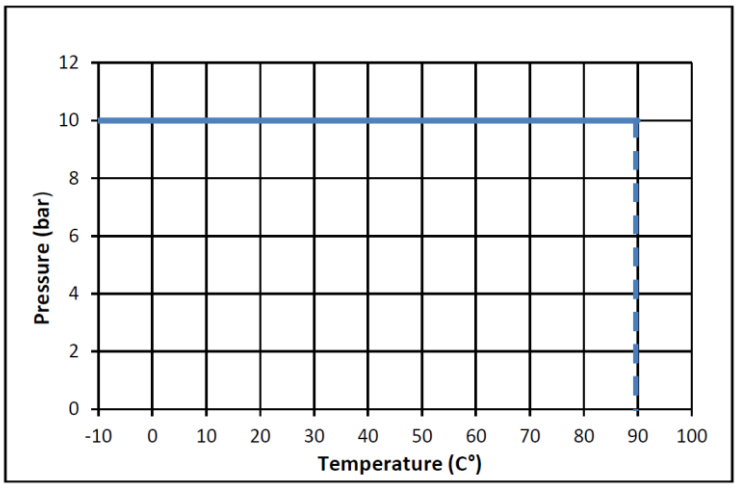
SPU225 : G 3/8'' to G 2''
Diaphragm : FPM.
Voltages : See on page 3.
BSP Screwed end connections.



LIMITS OF USE

Electric protection :	IP 65
Max allowed fluid pressure : PS	10 bar
Minimum +ΔP :	0,5 bar
Max viscosity :	50 Cst
Max allowed fluid temperature : TS	-10°C / +90°C
Room temperature* :	-20°C / +60°C

* In direct current, over 40°C, the maximum differentiel Pressure can be reduced.



Information given as an indication only, and subject to possible modifications.

Gemini Valve B.V.
Zijperstraat 29, 1823CX Alkmaar
Netherlands
Tel.: +31(0) 161-227.909
Mobile: +316 1358 2578

info@geminivalve.nl
www.geminivalve.nl

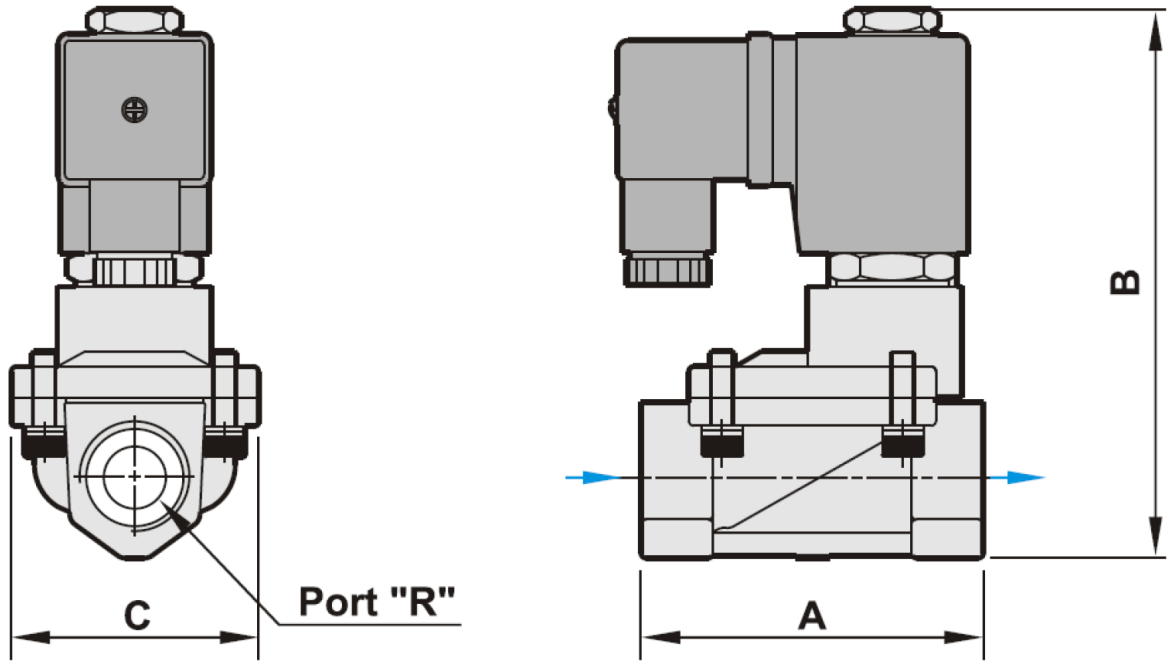
GV225

REGULATIONS AND STANDARD OF CONSTRUCTION

Item	Standard	Item	Standard
Pressure Equipment Directive 2014/68	**3/8" to 1"**: A4 § 3	Stainless steel materials	EN 1503-1
Low voltage directive CE 2014/35	**1" 1/4 to 2"** : catégory I	BSP Thread	ISO 228
Connector	DIN 43650	Sizing	EN 12516-1

DIMENSIONS (mm) AND WEIGHT (kg)

DN	A	B	C	Weight (kg)
3/8"	66,5	106,5	48	0,75
1/2"	66,5	106,5	48	0,74
3/4"	99	126,5	70	1,57
1"	99	126,5	70	1,44
1" 1/4	131	145,5	96	2,66
1" 1/2	131	145,5	96	2,45
2"	160	160,5	112	3,80



Information given as an indication only, and subject to possible modifications.

Gemini Valve B.V.
Zijperstraat 29, 1823CX Alkmaar
Netherlands
Tel.: +31(0) 161-227.909
Mobile: +316 1358 2578

info@geminivalve.nl
www.geminivalve.nl

GV225

HYDRAULICS CHARACTERISTICS

DN	Port (R) (mm)	Kv (m^3/h)	Max Diff Pressure (bar)	Min Diff Pressure (bar)	Operating time (s)
3/8 ''	13	3,4	10	0,5	20-60 ms
1/2''	13	3,4	10	0,5	20-60 ms
3/4 ''	25	8,9	10	0,5	20-60 ms
1''	25	8,9	10	0,5	20-60 ms
1'' 1/4	38	15,8	10	0,5	50-80 ms
1'' 1/2	38	21,3	10	0,5	50-80 ms
2''	50	34,1	10	0,5	50-80 ms

ELECTRIC CHARACTERISTICS

Coil classified F. Duty 100%. Connecting by connector T30.

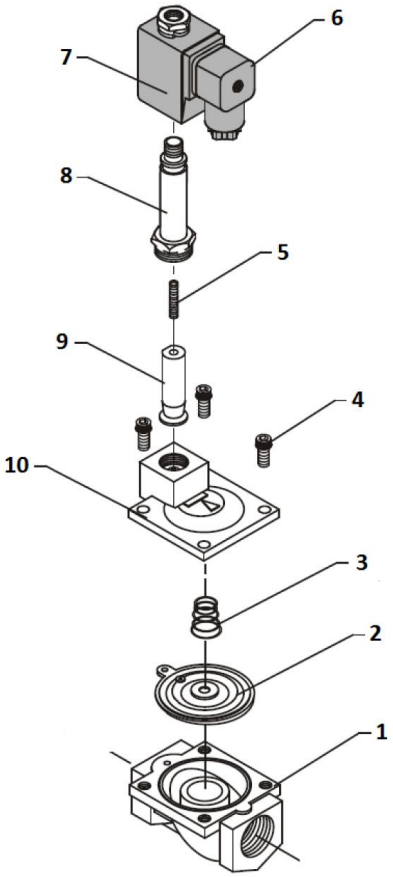
Coil	Current	Available voltages (V)				Frequency		Power consumption
	AC Coil	24	48	110	230	50 Hz	60 Hz	18,1 VA
	DC Coil	12	24					15 W

70% energy saving connector (24 Vdc version)

Using this innovative connector saves up to 70% of electrical energy and extends the life of the coil. The connector first sends a current surge at the nominal supply voltage to activate the solenoid. After 500 ms, the current is reduced by 80% to a value sufficient to maintain the magnetic field. As well as saving energy, this connector also significantly reduces coil heating.

CONSTRUCTION

Topology example



n°	Item	Material
1	Body	Stainless steel 1.4408
2	Diaphragm	FPM
3	Spring	Stainless steel
4	Screw	Stainless steel 1.4301
5	Spring	Stainless steel
6	Connector	Plastic
7	Coil	PBT +30 % GF
8	Tube-guide	Stainless steel 1.4301
9	Plunger	Stainless steel 1.4301
10	Cover	Stainless steel 1.4408

Information given as an indication only, and subject to possible modifications.

Gemini Valve B.V.
Zijperstraat 29, 1823CX Alkmaar
Netherlands
Tel.: +31(0) 161-227.909
Mobile: +316 1358 2578

info@geminivalve.nl
www.geminivalve.nl

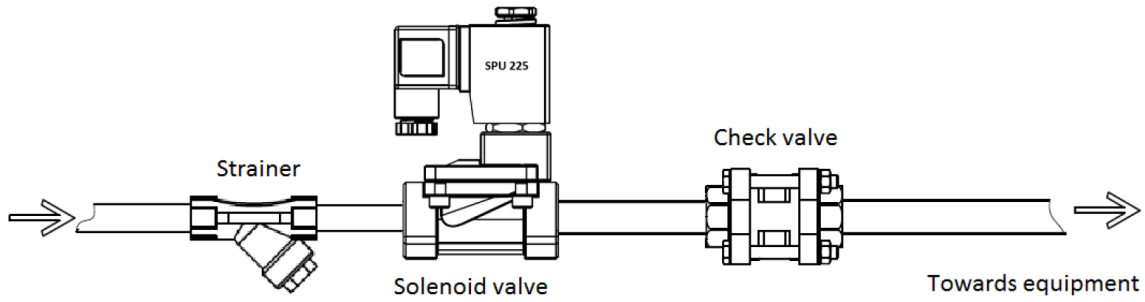
GV225

MOUNTING

Installation in every position except horizontal pipe with coil towards the bottom.
Respect the sense of flow indicated by the arrow marked on the body.
For an use on liquids, the installation of a strainer for upstream protection is recommended.

Check-valve :
A solenoid valve cannot be used as a check-valve. A de-energized normally closed solenoid valve can be crossed by a downstream counterflow. If a both side tightness is required, please add a check-valve downstream of the solenoid valve.

Example



Scaling :
A solenoid valve used on hard water and kept energized during long period can face scaling problem that can block the operation. For this kind of application, please consult.

Conform also to the assembly instructions supplied with the solenoid valve.

SPARE PARTS

Coil (item 7)							Connector
Voltage	230V 50/60Hz	24V 50/60Hz	48V 50/60Hz	110V 50/60Hz	12V cc	24V cc	T30
Code	980550	980551	980553	980554	980556	980552	980696
						70% energy saving connector	
						24v cc	**980592**

Diaphragm (item 2)					
DN	**3/8" - 1/2"**	**3/4" - 1"**	**1" 1/4**	**1" 1/2**	**2"**
FPM	980570	980571	980572	980573	980574
EPDM	980585	980586	980587	980588	980589

OPTION

Diaphragm : EPDM
NPT thread according to ANSI B1.20
ATEX type (SPU 225X)