

## Type VE/B directional solenoid valves

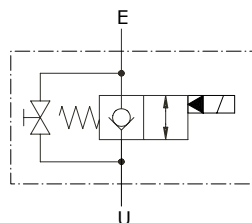
- Two way
- With emergency
- Pilot operated

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

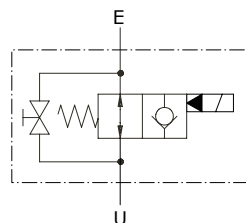
	VE/B 14	VE/B 38	VE/B 12	VE/B 34	VE/B 100	
Nominal flow	20 l/min (5.3 US gpm)	40 l/min (10.6 US gpm)	60 l/min (15.8 US gpm)	75 l/min (19.8 US gpm)	160 l/min (42.3 US gpm)	
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)					
Oil leakage	0.25 cm <sup>3</sup> /min - 0.015 in <sup>3</sup> /min. (2 drops) at 210 bar - 3050 psi					
Fluid	mineral based oil					
Viscosity	from 10 to 200 cSt					
Max. level of contamination	18/16/13 ISO4406					
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F)					
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)					
Weight	<i>aluminium</i>	0.39 kg (0.86 lb)	0.39 kg (0.86 lb)	1.10 kg (2.43 lb)	1.08 kg (2.38 lb)	1.58 kg (3.48 lb)
	<i>steel</i>	0.77 kg (1.70 lb)	0.74 kg (1.63 lb)	1.93 kg (4.25 lb)	1.85 kg (4.08 lb)	2.90 kg (6.39 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt.

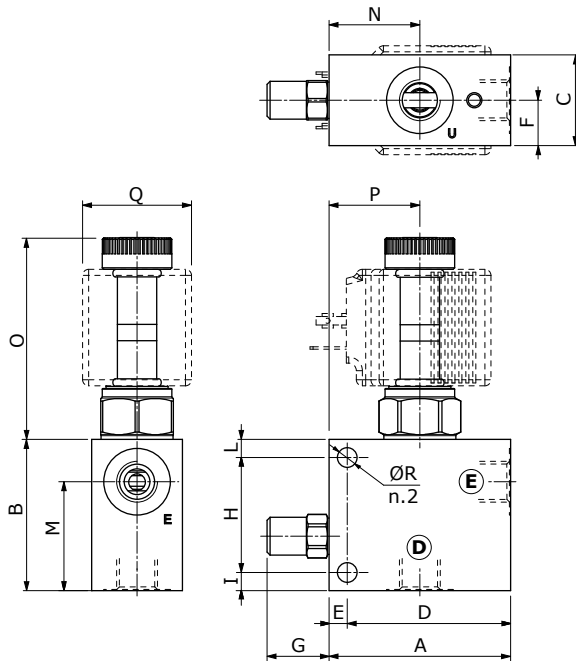
**Normally closed configuration (NC)**



**Normally open configuration (NA)**



## Dimensions



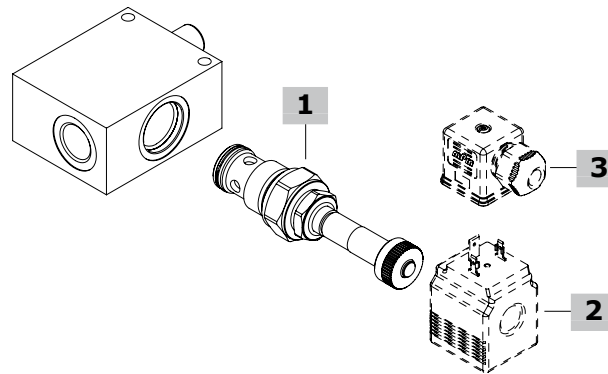
Valve type	U	E
VE/B 14	G1/4	G1/4
VE/B 38	G3/8	G3/8
VE/B 12	G1/2	G1/2
VE/B 34	G3/4	G3/4
VE/B 100	G1"	G1"

Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	I	L	M	N	O		P	Q	ØR
													(NA)	(NC)			
VE/B 14	60	50	30	54	6	15	20	38	6	6	36	30	66.7	62.8	30	36	6.5
	2.36	1.97	1.18	2.13	0.236	0.59	0.79	1.50	0.236	0.236	1.42	1.18	2.63	2.47	1.18	1.42	0.256
VE/B 38	60	50	30	54	6	15	20	38	6	6	36	30	66.7	62.8	30	36	6.5
	2.36	1.97	1.18	2.13	0.236	0.59	0.79	1.50	0.236	0.236	1.42	1.18	2.63	2.47	1.18	1.42	0.256
VE/B 12	80	65	40	74	6	20	23	53	6	6	43	40	86.4	81	40	36.5	6.5
	3.15	2.56	1.57	2.91	0.236	0.79	0.91	2.09	0.236	0.236	1.69	1.57	3.40	3.19	1.57	1.44	0.256
VE/B 34	80	65	40	74	6	20	23	53	6	6	43	40	86.4	81	40	36.5	6.5
	3.15	2.56	1.57	2.91	0.236	0.79	0.91	2.09	0.236	0.236	1.69	1.57	3.40	3.19	1.57	1.44	0.256
VE/B 100	90	80	50	82.5	7.5	25	23	65	7.5	7.5	49	43	79.4	74.2	43	36.5	8.5
	3.54	3.15	1.97	3.25	0.295	0.98	0.91	2.56	0.295	0.295	1.93	1.69	3.13	2.92	1.69	1.44	0.335

Ordering codes and description composition

Port size  
**VE/B 14/NA**  
**1**



**VE/B complete valves**

TYPE	CODE	DESCRIPTION
<b>(NA) normally open solenoid valve configuration</b>		
<b>VE/B 14/NA/EC08M</b>	1720011101	Aluminium body, G1/4 ports
<b>VE/B 38/NA/EC08M</b>	1720021106	Aluminium body, G3/8 ports
<b>VE/B 12/NA</b>	1720031112	Aluminium body, G1/2 ports
<b>VE/B 34/NA</b>	1720041114	Aluminium body, G3/4 ports
<b>VE/B 100/NA</b>	1720051108	Aluminium body, G1" ports
<b>VE/B 14/NA/ac</b>	1720012101	Steel body, G1/4 ports
<b>VE/B 38/NA/ac</b>	1720022101	Steel body, G3/8 ports
<b>VE/B 12/NA/ac</b>	1720032104	Steel body, G1/2 ports
<b>VE/B 34/NA/ac</b>	1720042105	Steel body, G3/4 ports
<b>VE/B 100/NA/ac</b>	1720052109	Steel body, G1" ports
<b>(NC) normally closed solenoid valve configuration</b>		
<b>VE/B 14/NC/EC08M</b>	1720011100	Aluminium body, G1/4 ports
<b>VE/B 38/NC/EC08M</b>	1720021105	Aluminium body, G3/8 ports
<b>VE/B 12/NC</b>	1720031111	Aluminium body, G1/2 ports
<b>VE/B 34/NC</b>	1720041113	Aluminium body, G3/4 ports
<b>VE/B 100/NC</b>	1720051107	Aluminium body, G1" ports
<b>VE/B 14/NC/ac</b>	1720012100	Steel body, G1/4 ports
<b>VE/B 38/NC/ac</b>	1720022102	Steel body, G3/8 ports
<b>VE/B 12/NC/ac</b>	1720032103	Steel body, G1/2 ports
<b>VE/B 34/NC/ac</b>	1720042104	Steel body, G3/4 ports
<b>VE/B 100/NC/ac</b>	1720052108	Steel body, G1" ports

For other steel body configurations, SAE thread, other port sizes and configurations with FPM (Viton) seals, please contact our Sales Dpt.

**1 Solenoid valve**

TYPE	CODE	DESCRIPTION
<b>(NA) normally open valve</b>		
<b>EC08M/10NB</b>	0EC08002031	For VE/B 14 and VE/B 38 valves, BER coils required
<b>EC10M/10NB</b>	0EC10002012	For VE/B 12 and VE/B 34 valves, BER coils required
<b>EC16M/10NB</b>	0EC16002020	For VE/B 100 valve, BER coils required
<b>(NC) normally closed valve</b>		
<b>EC08M/20NB</b>	0EC08002032	For VE/B 14 and VE/B 38 valves, BER coils required
<b>EC10M/20NB</b>	0EC10002013	For VE/B 12 and VE/B 34 valves, BER coils required
<b>EC16M/20NB</b>	0EC16002021	For VE/B 100 valve, BER coils required

**2 Coils**

TYPE	CODE	DESCRIPTION
<b>BER 12VDC</b>	4SLE001200A	12VDC-ISO4400 coil

For complete coils list see from page 433

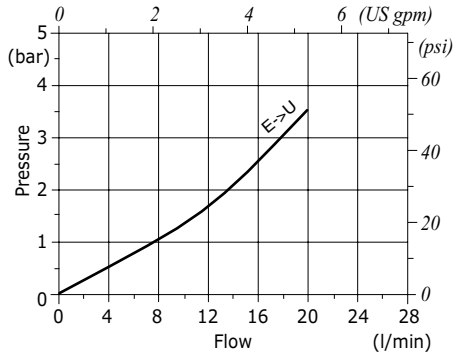
**3 Connector**

TYPE	CODE	DESCRIPTION
<b>ISO4400</b>	4CN1009995	Connector

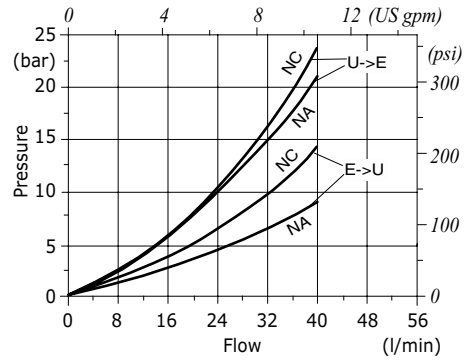
For complete connectors list see from page 433

Rating diagrams

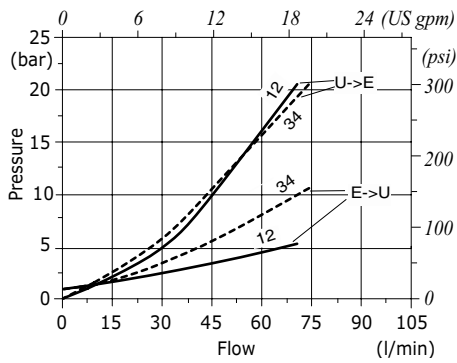
**VE/B 14 pressure drop vs. flow from E→U**



**VE/B 38 pressure drop vs. flow from E→U and U→E**



**VE/B 12-34 pressure drop vs. flow from E→U and U→E**



**VE/B 100 pressure drop vs. flow from E→U and U→E**

