

VRSS1000

Mechanical Levelling Valve

- > Wide operating temperature range: -40°C to 80°C
- > Wide operating pressure: 0.5 bar to 10 bar
- > Choice of port sizes: 1/4", 3/8", M12
- > Choice of thread types: G, Rc, NPT, Metric
- > Integrated non-return valve
- > Long life span: ≥ 2 million cycles
- > Excellent repeatability over life
- > Wide working angle: ±180°
- > Anti-corrosion to ISO 9227
- > Shock and vibration to IEC 61373-1999, Category 2
- > Complies to EN14817 (Railway applications, suspension components, Air-spring control components)



Technical features

Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

Operating pressure:

0.5 ... 10 bar

Proof pressure

12 bar

Port size:

G1/4, G3/8, Rc 1/4, Rc 3/8, 1/4 NPT, 3/8 NPT, M12 x 1.5

Working angle:

±180°

Overall dead range:

No more than 10 mm (with a lever length of 160 mm), equal to about 3.6° (±1.8°)

Life cycle:

≥ 2 million cycles.

Shock and vibration:

IEC61373-1999, Category 2

Anti-Corrosion:

Salt & spray test 1000 hours according to ISO 9227

Protection class:

IP54

Ambient/Media temperature:

-40...+80°C

Air supply must be dry enough to avoid ice formation below +2°C

Materials:

Body: Aluminium

Poppet: Aluminium

Internal parts: Stainless steel 304

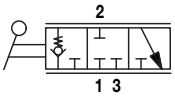
Screws: Stainless steel 304

Silencer: Stainless steel 316

Seals: TPU, NBR

Plug: Stainless steel 316, Brass

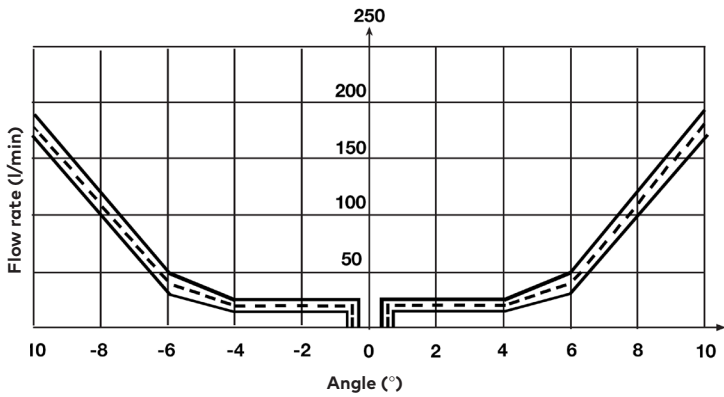
Technical data - standard options

Symbol	Ports size	Thread form	Max flow rate (l/min) @ 4 Bar Pressure Differential	Weight (kg)	Drawing no.	Model
	1/4"	NPT	200	1.1	1 & 4	VRSS1000-2A00
	1/4"	ISO G	200	1.1	1 & 2	VRSS1000-2G00
	1/4"	ISO Rc	200	1.1	1 & 3	VRSS1000-2B00
	3/8"	NPT	200	1.1	1 & 4	VRSS1000-3A00
	3/8"	ISO G	200	1.1	1 & 2	VRSS1000-3G00
	3/8"	ISO Rc	200	1.1	1 & 3	VRSS1000-3B00
	M12	Metric	200	1.1	1 & 5	VRSS1000-7M00

	Min	Max
Total Dead band	0.66° (40')	1.33° (1°20')
Flow rate @ ±4° (slpm)	11	28
Flow rate @ 10° charging (slpm)	168	190
Flow rate @ 10° discharging (slpm)	168	195

Flow characteristics

Typical flow curve @ 4 bar pressure differential



Option selector

VRSS1000-★★★★






Port size	Substitute
1/4"	2
3/8"	3
M12 x 1,5	7

Lever	Substitute
Without lever	0
Lever option on request	*
Flow curve	Substitute
Standard	0
Other flow curve on request	*
Thread form	Substitute
NPT	A
ISO G	G
ISO Rc	B
ISO Metric	M

*Please consult our sales representative for details.

Notes: Valve can be either left- or right-hand operation, see installation manual for details

Accessories

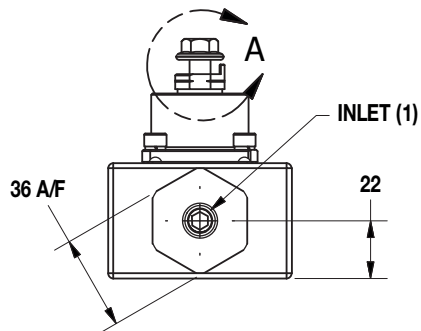
Silencer	Plug (G thread)	Plug (NPT thread)	Plug (R thread)	Plug (M thread)
				
A1505-177 (Stainless steel 316)	1/4: 4BN-04WD-SS (Stainless steel 304) 3/8: 4BN-06WD-SS (Stainless steel 304)	1/4: PLUG_NPT14_SS (Stainless steel 316) 3/8: PLUG_NPT38_SS (Stainless steel 316)	1/4: 150050028 (Nickel plated brass) 3/8: 150050038 (Nickel plated brass)	36056958 (Brass)

Dimensions

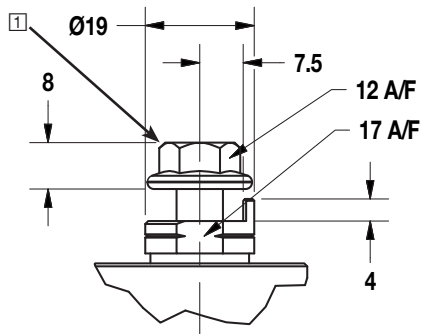
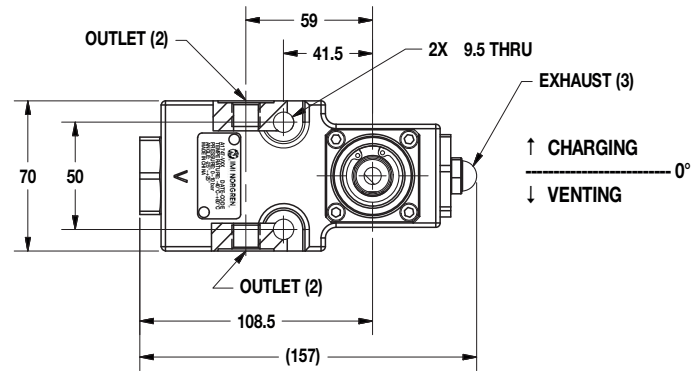
Dimensions in mm
Projection/First angle



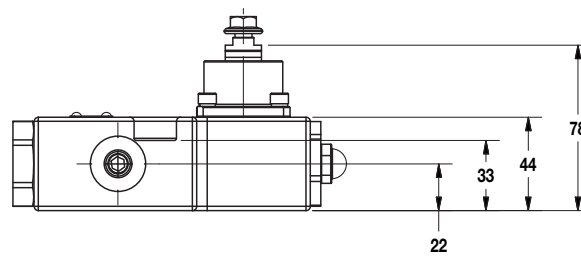
1



Detail 'A'

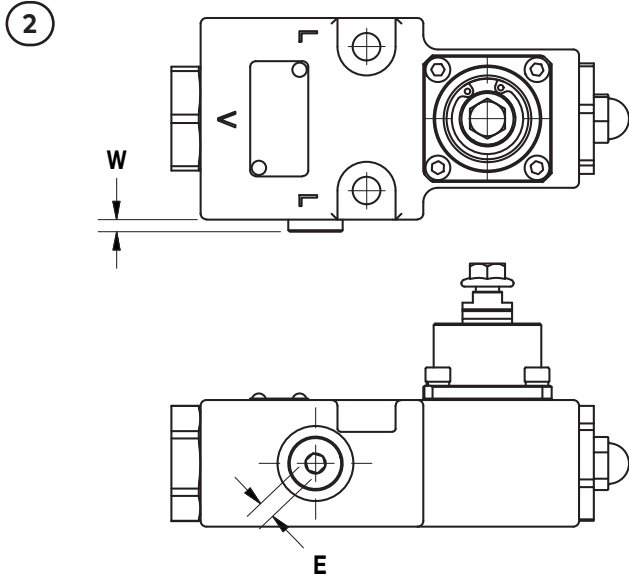


☐ Lever fixation screw supplied with valve
Type Bolt M8 x 25mm GB 5789-1986
Recommended max torque 19 - 25Nm

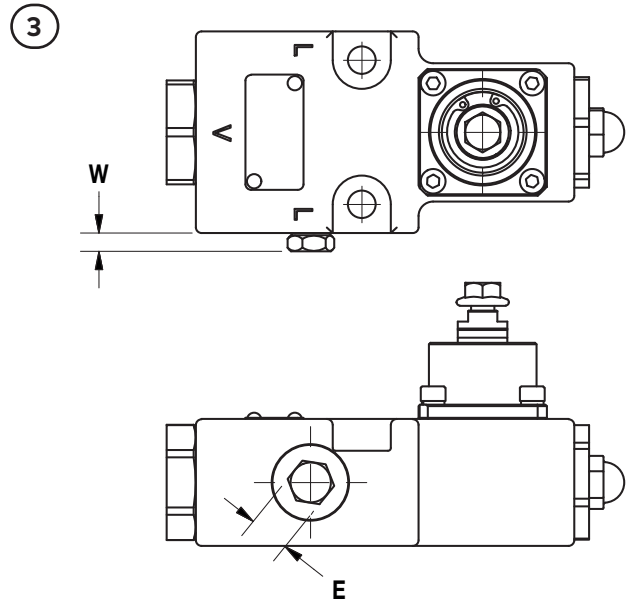


Dimensions

Dimensions in mm
Projection/First angle



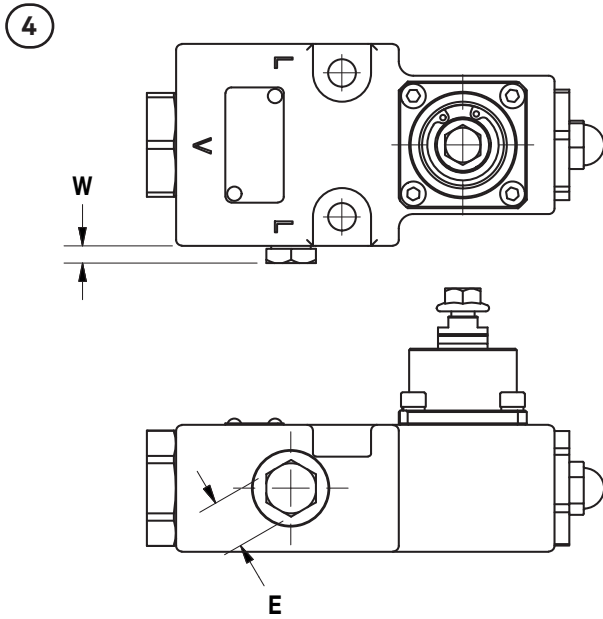
E	W	Model
6	4	VRSS1000-*G00
8	4	VRSS1000-*G00



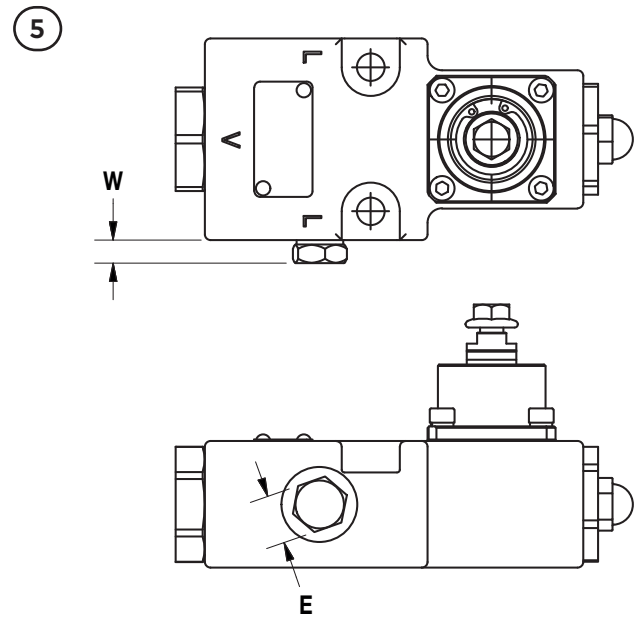
E	W	Model
14	6	VRSS1000-*B00
17	6	VRSS1000-*B00

Dimensions

Dimensions in mm
Projection/First angle

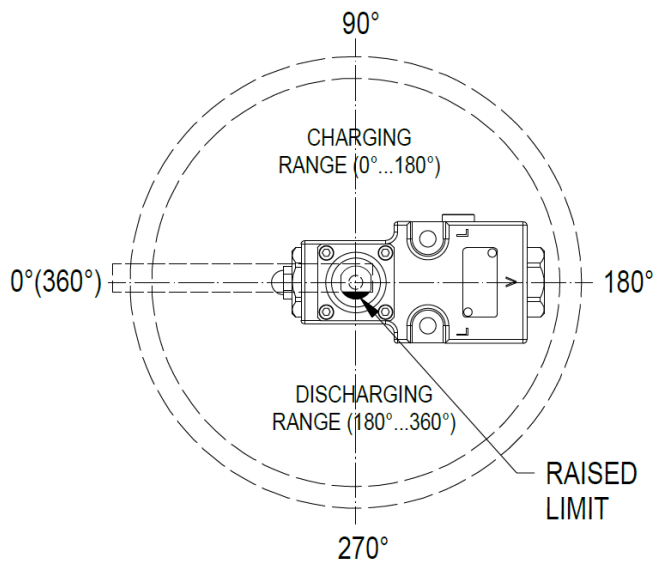


E	W	Model
17	6	VRSS1000-A00
19	8	VRSS1000-A00

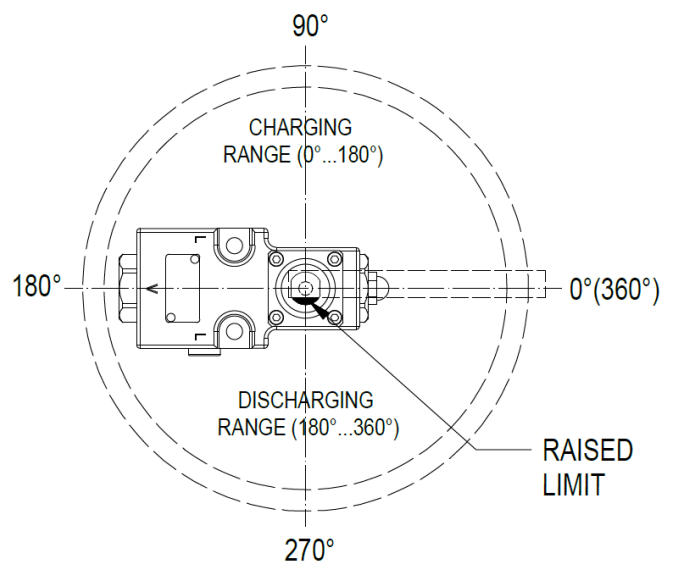


E	W	Model
17	8	VRSS1000-7M00

Left-hand operation



Right-hand operation



Warning

These products are intended for use in industrial compressed air and rail transport systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.