

Rail Prospector[®], 2/2 & 3/2 Solenoid pilot actuated poppet valves



- > Port size: 3/8" ... 1" (BSPP/PTF)
- > Exceptionally high flow
- > High reliability
- > Durable, robust construction
- > Internal Pilot Check valve standard
- > Wide temperature range
- > Shock vibration tested to EN 61373, Category 1, class A and B
- > Wide voltage tolerance
- > Large selection of voltages

Technical features

Medium:

Filtered and lubricated or non-lubricated compressed air

Mounting:

Through-holes in valve body

Operating pressure:

0 ... 10 bar (0 ... 145 psi)

Pilot pressure:

2,8 bar (40 psi) minimum and or equal to or greater than supply pressure

Ambient temperature:

-40 ... +70°C (-40 ... +158°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Materials:

Body, piston, poppets and sub-base: Aluminum alloy
Valve Base: Zinc or Plastic
Coil: glass reinforced nylon
Internal parts: Stainless steel
Seals: NBR

Technical data – solenoid operators

Nominal voltages	24, 37, 72, 96, 110 V d.c.
Power consumption	6 Watt
Voltage tolerance	±30% of nominal
Duty cycle	100% ED
Electrical connection	DIN EN 175301-803 (DIN 43650) Form A
Protection Class	IP65 (with sealed plug fitted)
Fire & Smoke	NF F16-101 and EN 45545-2:2013

Test results—EN 45545-2:2013

Requirement set	Test results (hazard level classification)
R22	HL2
R23	HL3

Option selector

VR★★O★★-R★★

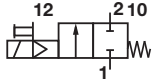
Valve type	Substitute
2/2 Normally Closed	A
2/2 Normally Open	B
3/2 Normally Closed	D
3/2 Normally Open	E
Thread form	Substitute
BSPP	A
PTF	1

Port size	Body size	Valve type	Substitute
3/8"	1/2"	2/2	13
1/2"	1/2"	2/2	14
3/4"	1/2"	2/2	15
1"	1"	2/2	26
3/8"	1/2"	3/2*1)	23
1/2"	1/2"	3/2	24
3/4"	1/2"	3/2	25
1"	1"	3/2	36

Pilot	Substitute
Internal Pilot	C
External Pilot	H
Voltage	Substitute
110 V d.c.	11
24 V d.c.	24
37 V d.c.	37
72 V d.c.	72
96 V d.c.	96

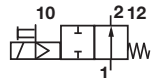
*1) Only available on the 3/2 NC version.

Technical data - 2/2 Normally closed



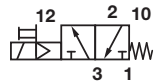
Symbol	Port Size	Wattage (W)	Valve Body Basic Size (Inch)	Inlet to Outlet Flow *1) (l/min)	Model *2)
	3/8 PTF	6	1/2	3,400	VRA1013C-R**
	1/2 PTF	6	1/2	5,500	VRA1014C-R**
	3/4 PTF	6	1/2	6,500	VRA1015C-R**
	1 PTF	6	1	13,500	VRA1026C-R**
	3/8 BSPP	6	1/2	3,400	VRAA013C-R**
	1/2 BSPP	6	1/2	5,500	VRAA014C-R**
	3/4 BSPP	6	1/2	6,500	VRAA015C-R**
	1 BSPP	6	1	13,500	VRAA026C-R**

Technical data - 2/2 Normally open



Symbol	Port Size	Wattage (W)	Valve Body Basic Size (Inch)	Inlet to Outlet Flow *1) (l/min)	Model *2)
	3/8 PTF	6	1/2	3,400	VRB1013C-R**
	1/2 PTF	6	1/2	5,500	VRB1014C-R**
	3/4 PTF	6	1/2	6,500	VRB1015C-R**
	1 PTF	6	1	13,500	VRB1026C-R**
	3/8 BSPP	6	1/2	3,400	VRBA013C-R**
	1/2 BSPP	6	1/2	5,500	VRBA014C-R**
	3/4 BSPP	6	1/2	6,500	VRBA015C-R**
	1 BSPP	6	1	13,500	VRBA026C-R**

Technical data - 3/2 Normally closed



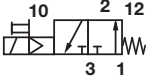
Symbol	Port Size	Wattage (W)	Valve Body Basic Size (Inch)	Inlet to Outlet Flow *1) (l/min)	Outlet to Exhaust Flow *1) (l/min)	Model *2)
	3/8 PTF	6	1/2	3,600	4,900	VRD1023C-R**
	1/2 PTF	6	1/2	4,600	5,800	VRD1024C-R**
	3/4 PTF	6	1/2	5,400	6,200	VRD1025C-R**
	1 PTF	6	1	13,200	14,600	VRD1036C-R**
	3/8 BSPP	6	1/2	3,600	4,900	VRDA023C-R**
	1/2 BSPP	6	1/2	4,600	5,800	VRDA024C-R**
	3/4 BSPP	6	1/2	5,400	6,200	VRDA025C-R**
	1 BSPP	6	1	13,200	14,600	VRDA036C-R**

***) Choose voltage code from Option selector above, where as a 24 V d.c. would be shown as -R24

*1) Flow was originally measured in Cv and was converted by the following formula Cv of 1 = 1,000 l/min

*2) Internal pilot version shown, where the inlet pressure must be a minimum of 2,8 bar (40 psi) or greater than supply pressure

Technical data - 3/2 Normally open

Symbol	Port Size	Wattage (W)	Valve Body Basic Size (Inch)	Inlet to Outlet Flow *1) (l/min)	Outlet to Exhaust Flow *1) (l/min)	Model *2)
	1/2 PTF	6	1/2	4,100	5,500	VRE1024C-R**
	3/4 PTF	6	1/2	4,900	5,800	VRE1025C-R**
	1 PTF	6	1	11,700	13,800	VRE1036C-R**
	1/2 BSPP	6	1/2	4,100	5,500	VREA024C-R**
	3/4 BSPP	6	1/2	4,900	5,800	VREA025C-R**
	1 BSPP	6	1	11,700	13,800	VREA036C-R**

**1) Choose voltage code from Option selector above, where as a 24 V d.c. would be shown as -R24

*1) Flow was originally measured in Cv and was converted by the following formula Cv of 1 = 1,000 l/min

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Accessories

Connector



0570275

Connector with moulded cable



M/P 43315/1 (1 m)

M/P 43315/3 (3 m)

To ensure IP65 integrity, a compliant plug and gasket is to be fitted checking that the cable gland/wiring is terminated and sealed correctly. The cable plug is fastened using M3 screw with a torque value of 0.4–0.6Nm.

Repair Kits

53474-52

Kits contain
Seal between valve body and solenoid and all internal body seals

VRA10**13, 14 & 15
VRB10** 13, 14 & 15
VRD10** 23, 24, 25
VRE10** 24, 25

53475-41

Kits contain
Seal between valve body and solenoid and all internal body seals

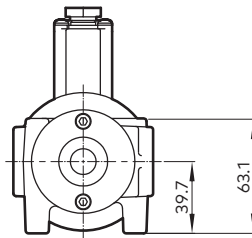
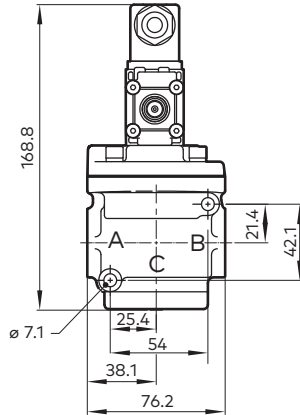
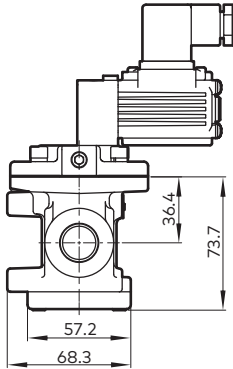
VRA1026
VRB1026
VRD1036
VRE1036



Basic dimensions

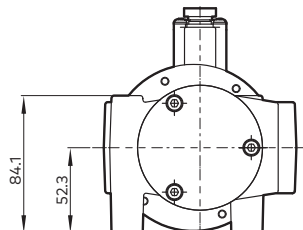
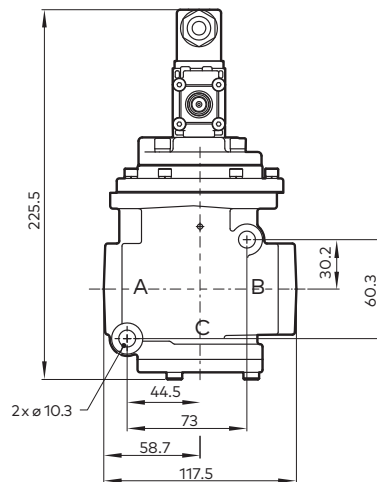
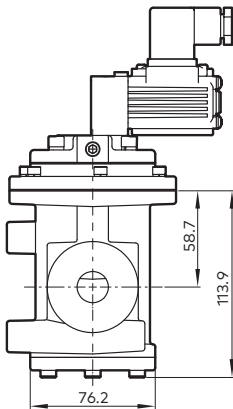
2/2-way valve

Valve body basic: 1/2"



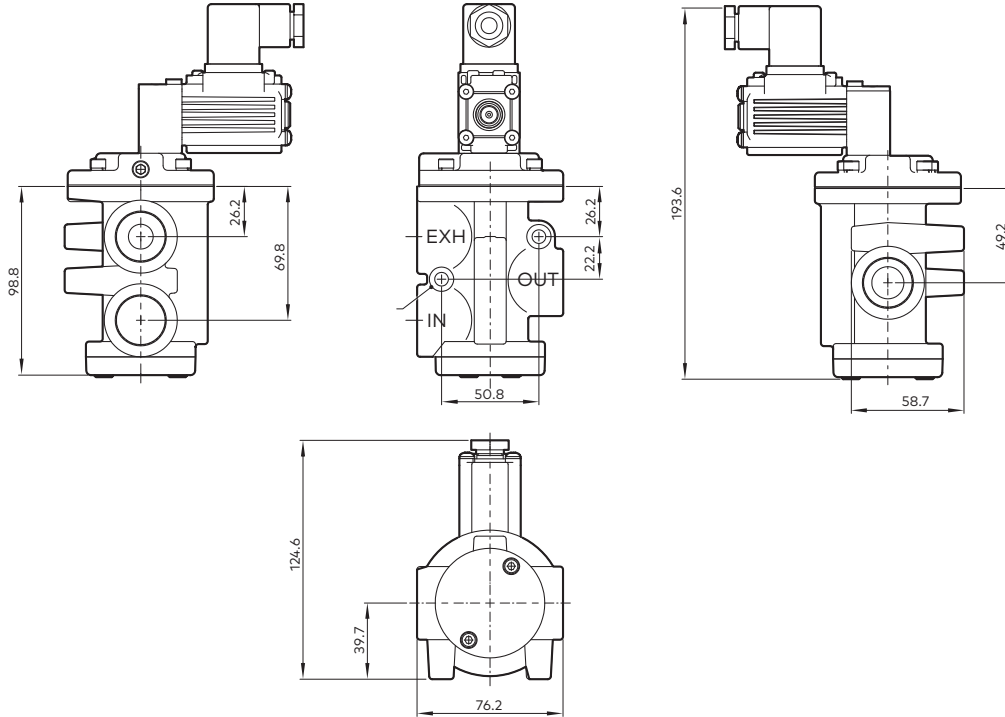
2/2-way valve

Valve body basic: 1"

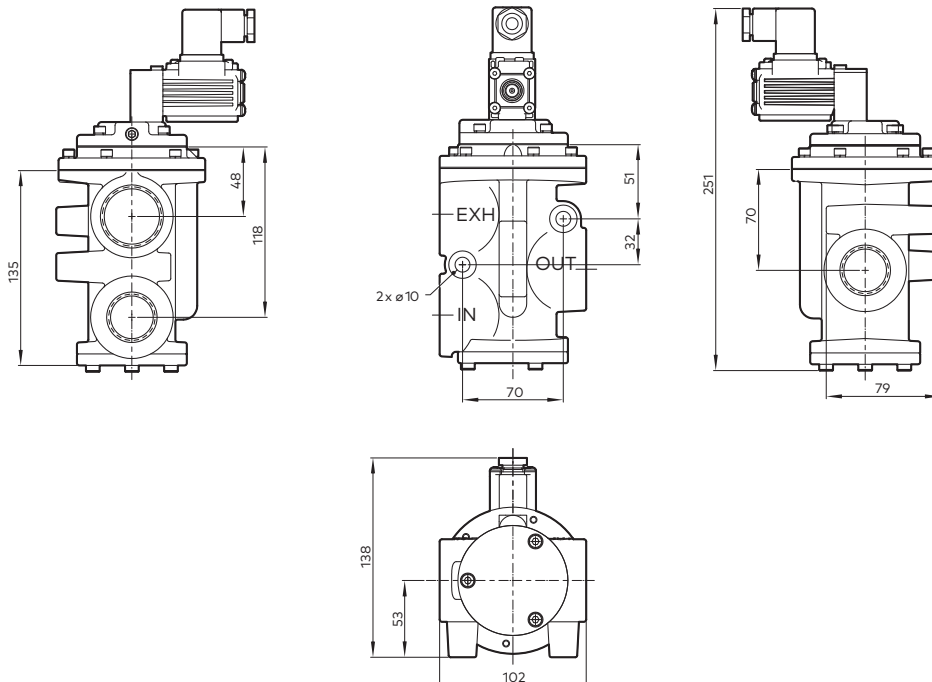




3/2-way valve Valve body basic: 1/2"



2/2-way valve Valve body basic: 1"



Warning

These products are intended for use in industrial compressed air 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 IMI Precision Engineering, 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.