



For double cutoff compliant with low pressure (5 kPa) to intermediate pressure (45 kPa) specifications.

Gas cutoff valve (quick open) VNA Series

- NC (Open when energized)
- City gas/LPG
- Port size: Rp1/2, Rp3/4, Rp1, Rp1¹/₄, Rp1¹/₂, Rp2, Rp2¹/₂



Features

- Japan Gas Component Inspection Association (JIA) type certified product (Applicable models: VNA-32-AC100V, AC200V, VNA-40-AC100V, AC200V, VNA-50-AC100V, AC200V. *Optional products, Other bore sizes are not compliant.)
- For a wide range of gas pressures ranging from low pressure to intermediate pressure.
- Flow rate adjustment (calorie change) is easy, adjustable even after installation.
- Equipped with a robust dedicated terminal box with JIS standard conduit thread, making electrical wiring easy too.
- The DC driven actuator with rectifier has eliminated noise and coil burnout for safety.

Applications

- Gas boilers
- Industrial furnaces
- Gas absorption water coolers/heaters
- Drying furnaces
- Hydrogen-related devices (only hydrogen gas option is used as the working fluid)
- Other

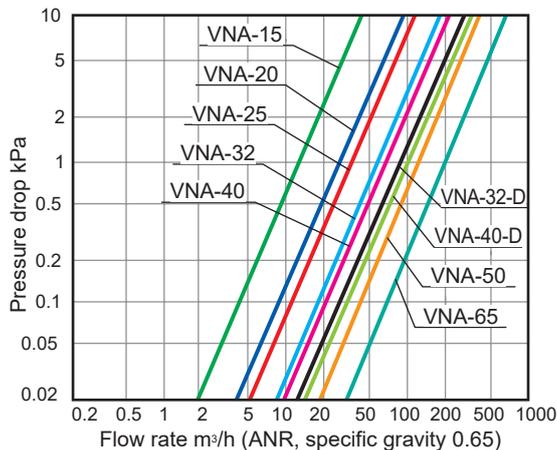
Specifications

Item	VNA-15	VNA-20	VNA-25	VNA-32	VNA-40	VNA-50	VNA-65	VNA-32-D	VNA-40-D
Working fluid	City gas/LPG (hydrogen gas *1)								
Working pressure kPa	0 to 45	0 to 30			0 to 20		0 to 5		
Flow rate <small>Specific gravity of city gas 0.65 ΔP=1.25kPa</small> m ³ /h (ANR)	6.9	14.8	18.7	30.3	34.5	70.0	112.6	45.0	49.0
Cv	4.6	9.9	12.5	20.4	23.2	47.1	75.8	30.3	33.0
Rated voltage V	100 AC ^{+10%} / _{-15%} 200 AC ^{+10%} / _{-15%}								
Frequency Hz	Common to 50 and 60								
Power consumption (apparent power) VA	31		50		73	74	50		
Ambient temperature °C	-20 to +60 (no freezing) *2								
Opening time s	0.5 or less								
Closing time s	1.0 or less								
Frequency cycles/min	30 or less								
Flow rate adjustment %	20 to 100							—	
Mounting orientation	Vertical direction with the coil on top or horizontal direction with the coil horizontal								
Connection	Screw-in (Rp)								
Port size	1/2	3/4	1	1 ¹ / ₄	1 ¹ / ₂	2	1 ¹ / ₂	1 ¹ / ₄	1 ¹ / ₂
Weight kg	1.7	2.5	2.4	4.0	3.9	8.3	14.6	3.7	3.7
Proof pressure MPa	0.1								
Degree of protection	IPX4								

* 1: Only the option for hydrogen gas as the working fluid can be used.

* 2: When micro switch for operation confirmation is selected, -15 to +60 (no freezing)

Flow characteristics



Reference: Conversion coefficient

Converted flow rate = (flow rate in table) x (coefficient)

Gas	City gas (13A)	Propane	Butane	Hydrogen gas *1
Specific gravity (air = 1)	0.65	1.6	2.0	0.07
Coefficient	1.0	0.63	0.57	3.04

How to order

VNA - 40 - D PY H2 - AC100V

Model No.

1 Port size

2 Capacity

*2

3 Other options

*3

*4

*5

*6

*7

*8

4 Hydrogen compatible

*9 option

5 Voltage

*10

Model No.						
VNA-15	VNA-20	VNA-25	VNA-32	VNA-40	VNA-50	VNA-65

Code	Description	VNA-15	VNA-20	VNA-25	VNA-32	VNA-40	VNA-50	VNA-65
1 Port size								
15	Rp1/2	●						
20	Rp3/4		●					
25	Rp1			●				
32	Rp1 ¹ / ₄				●			
40	Rp1 ¹ / ₂					●		
50	Rp2						●	
65	Rp2 ¹ / ₂							●
2 Capacity								
Blank	Standard	●	●	●	●	●	●	●
D	Large flow rate specifications				●	●		
3 Other options								
Blank	Standard	None	●	●	●	●	●	●
E	Option	With operation confirmation micro switch	●	●	●	●	●	●
H		0.1 MPa specifications	●	●	●	●	●	
L		With power indicator lamp	●	●	●	●	●	●
P		With pressure detection port	●	●	●	●	●	●
V		Vacuum specifications	●	●	●			
Y		With flow rate adjustment				●	●	
ZZ		Outdoor type	●	●	●	●	●	●
4 Hydrogen compatible option								
Blank	Standard							
H2	Working fluid: Hydrogen gas							
5 Voltage								
AC100V	Standard	100 VAC 50/60 Hz						
AC200V		200 VAC 50/60 Hz						
AC110V	Option	110 VAC 50/60 Hz						
AC220V		220 VAC 50/60 Hz						
DC24V		24 VDC						
DC100V		100 VDC						

*1: The combinations indicated with ● above are available.

*2: For large flow rate specifications (2 Capacity "D"), flow rate adjustment is not available. Combinations with flow rate adjustment (3 Other option "Y") are available. 2 In addition, combinations with the 0.1MPa specification (3 Other option "H") and vacuum specification (3 Other option "V") are not available for large flow rate specifications (2 Capacity "D").

*3: For models with operation confirmation micro switch (3 Other option "E"), a pressure detection port is provided as standard. Flow rate adjustment is not available. Combinations with the 0.1MPa specification (3 Other option "H"), vacuum specification (3 Other option "V"), and outdoor specification (3 Other option "ZZ") are not available.

*4: For port sizes 32 and 40 with 0.1MPa specification (3 Other option "H"), a power indicator lamp is provided as standard.

*5: Combination with the power indicator lamp (3 Other option "L") is not available for the outdoor specification (3 Other option "ZZ").

*6: The type with flow rate adjustment (3 Other option "Y") is dedicated for large flow rate specifications (2 Capacity "D"). Standard products all have flow rate adjustment equipped as standard.

*7: Combinations of the outdoor specification (3 Other option "ZZ") with micro switch for operation check (3 Other option "E") and with power indicator lamp (3 Other option "L") are not available.

*8: ● For combinations of other optional specifications other than above, contact CKD.

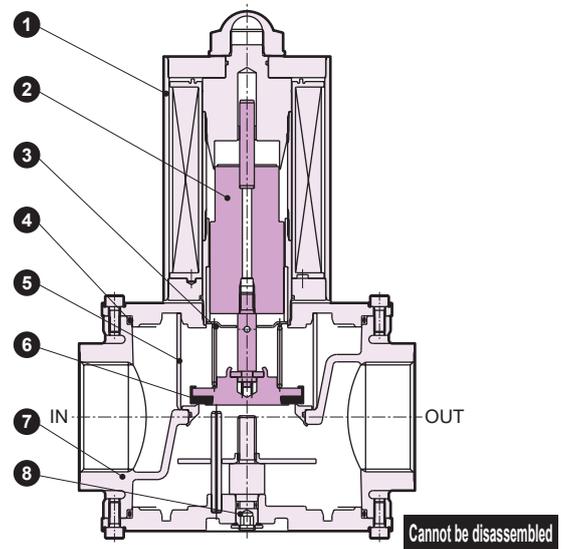
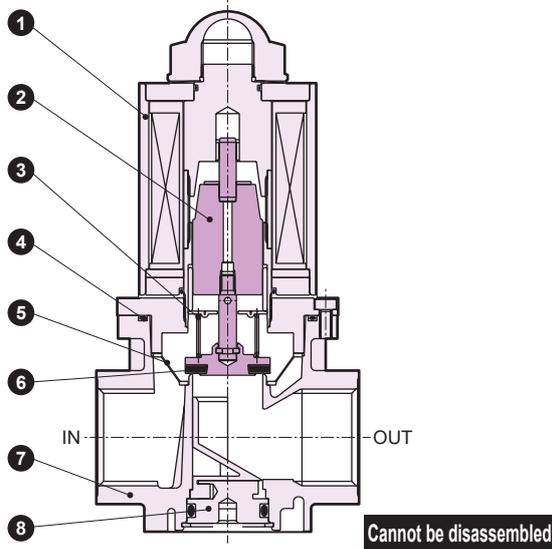
*9: Working gas: Combination of vacuum specification (3 Other option "V") is not available for hydrogen gas option.

*10: For voltages other than above, contact CKD.

Internal structure/material

● VNA-15 to 40

● VNA-50 to 65

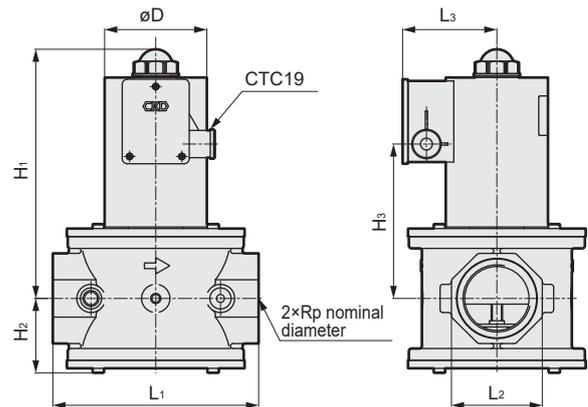
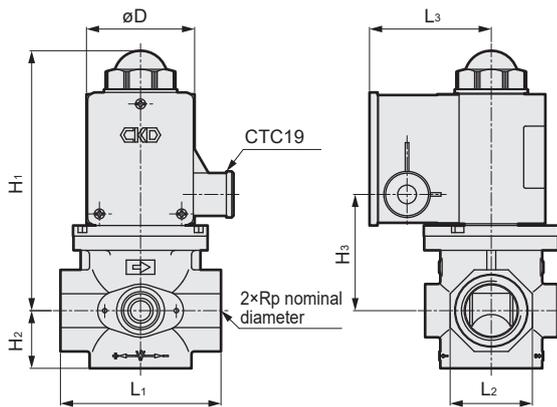


Part No.	Part name	Material	Part No.	Part name	Material
1	Bonnet	Steel	5	Strainer	Resin (15 to 50)/stainless steel wire (65)
2	Plunger	Stainless steel	6	Valve disc	Nitrile rubber
3	Spring	Stainless steel wire	7	Body	Aluminum
4	O-ring	Nitrile rubber	8	Flow rate adjusting screw	Aluminum (15 to 40)/steel (50 to 65)

Dimensions

● VNA-15 to 40

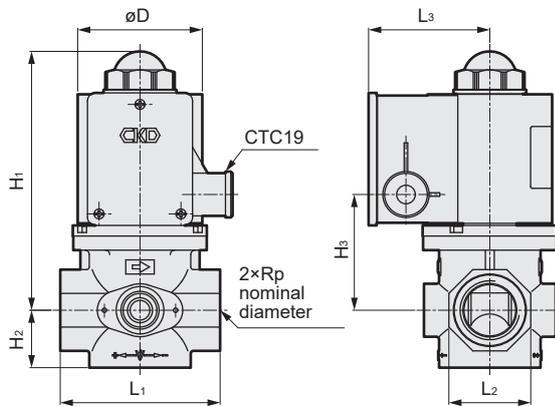
● VNA-50 to 65



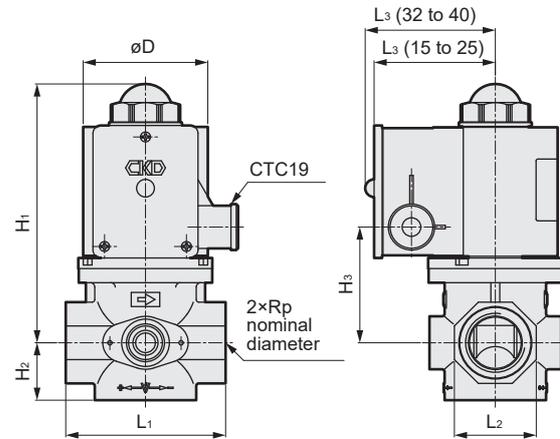
Code	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15	1/2	132.5	24.5	51	69	32	63	50
VNA-20	3/4	147	33	65.5	89	46	68	60.5
VNA-25	1	147	33	65.5	89	46	68	60.5
VNA-32	1 1/4	166	39.5	84.5	128	65	73	70
VNA-40	1 1/2	166	39.5	84.5	128	65	73	70
VNA-50	2	221	66.5	137	180	80	83	90
VNA-65	2 1/2	232	77.5	148	218	95	101	127
VNA-32-D	1 1/4	174.5	35	93	128	70	73	70
VNA-40-D	1 1/2	174.5	35	93	128	70	73	70

Optional dimensions

- Vacuum specifications: 1.33×10^{-5} to 101kPa (reverse vacuum not possible)
VNA-15/20/25-V



- 0.1 MPa specifications
VNA-15 to 40-H

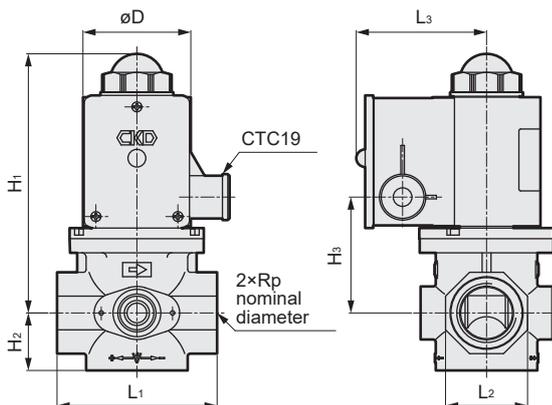


Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-V	1/2	136.5	24.5	55	69	32	68	60.5
VNA-20-V	3/4	147	33	65.5	89	46	73	70
VNA-25-V	1	147	33	65.5	89	46	73	70

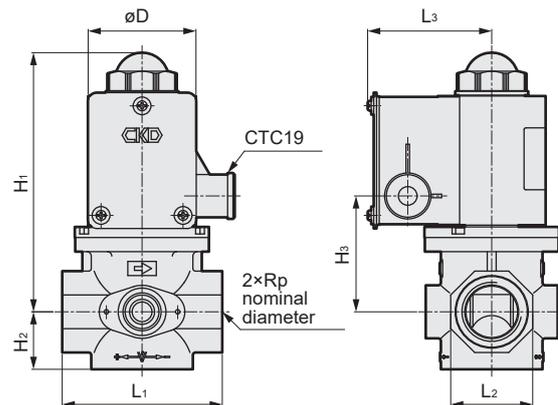
*For port sizes 32 and 40, power indicator lamp is provided as standard.

Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-H	1/2	136.5	24.5	55	69	32	68	60.5
VNA-20-H	3/4	147	33	65.5	89	46	73	70
VNA-25-H	1	147	33	65.5	89	46	73	70
VNA-32-H	1 1/4	193	39.5	111.5	128	65	88	90
VNA-40-H	1 1/2	193	39.5	111.5	128	65	88	90

- With power indicator lamp
VNA-15 to 65-L



- Outdoor type
VNA-15 to 65-ZZ

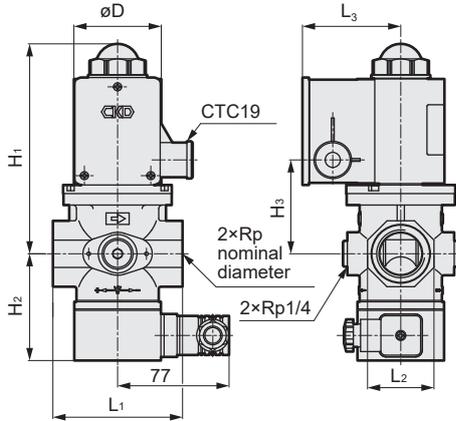


Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-L	1/2	132.5	24.5	51	69	32	68	50
VNA-20-L	3/4	147	33	65.5	89	46	73	60.5
VNA-25-L	1	147	33	65.5	89	46	73	60.5
VNA-32-L	1 1/4	166	39.5	84.5	128	65	78	70
VNA-40-L	1 1/2	166	39.5	84.5	128	65	78	70
VNA-50-L	2	221	66.5	137	180	80	88	90
VNA-65-L	2 1/2	232	77.5	148	218	95	106	127

Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-ZZ	1/2	132.5	24.5	51	69	32	63	50
VNA-20-ZZ	3/4	147	33	65.5	89	46	68	60.5
VNA-25-ZZ	1	147	33	65.5	89	46	68	60.5
VNA-32-ZZ	1 1/4	166	39.5	84.5	128	65	73	70
VNA-40-ZZ	1 1/2	166	39.5	84.5	128	65	73	70
VNA-50-ZZ	2	221	66.5	137	180	80	83	90
VNA-65-ZZ	2 1/2	232	77.5	148	218	95	101	127

Optional dimensions

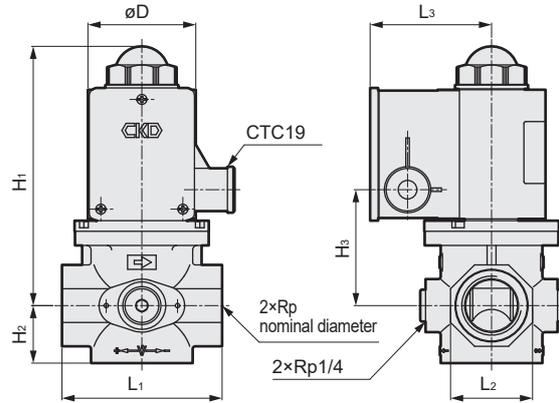
- With operation confirmation micro switch
VNA-15 to 65-E



* Pressure detection port is provided as standard. Flow rate adjustment is not available.

Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-E	1/2	132.5	69.5	51	69	32	63	50
VNA-20-E	3/4	147	75	65.5	89	46	68	60.5
VNA-25-E	1	147	75	65.5	89	46	68	60.5
VNA-32-E	1 1/4	166	81.5	84.5	128	65	73	70
VNA-40-E	1 1/2	166	81.5	84.5	128	65	73	70
VNA-50-E	2	221	104.5	137	180	80	83	90
VNA-65-E	2 1/2	232	115.5	148	218	95	101	127

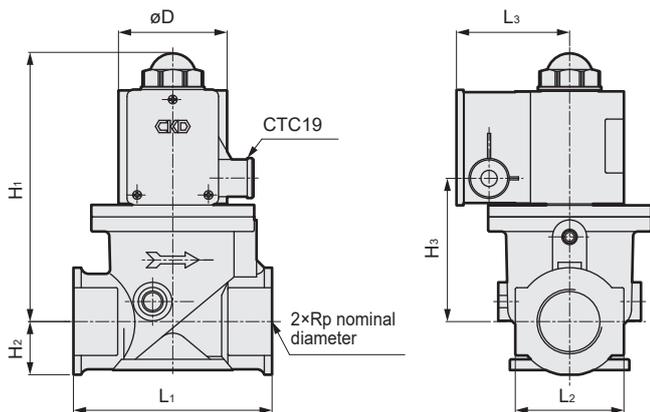
- With pressure detection port
VNA-15 to 65-P



* The pressure detection port is connected to the IN side.

Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-15-P	1/2	132.5	24.5	51	69	32	63	50
VNA-20-P	3/4	147	33	65.5	89	46	68	60.5
VNA-25-P	1	147	33	65.5	89	46	68	60.5
VNA-32-P	1 1/4	166	39.5	84.5	128	65	73	70
VNA-40-P	1 1/2	166	39.5	84.5	128	65	73	70
VNA-50-P	2	221	66.5	137	180	80	83	90
VNA-65-P	2 1/2	232	77.5	148	218	95	101	127

- Large flow rate specifications
VNA-32, 40-D



* Flow rate adjustment is not available.

Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNA-32-D	1 1/4	174.5	35	93	128	70	73	70
VNA-40-D	1 1/2	174.5	35	93	128	70	73	70