



NO ideal for gas relief line of industrial combustion equipment

Solenoid relief valve **VNR Series**

- NO (closed when energized)
- City gas/natural gas/LPG
- Port size: Rp1/2, Rp3/4, Rp1, Rp1 1/4, Rp1 1/2



Features

- The DC driven actuator with rectifier has eliminated noise and coil burnout for safety.
- Equipped with a robust dedicated terminal box with JIS standard conduit thread, making electrical wiring easy too.

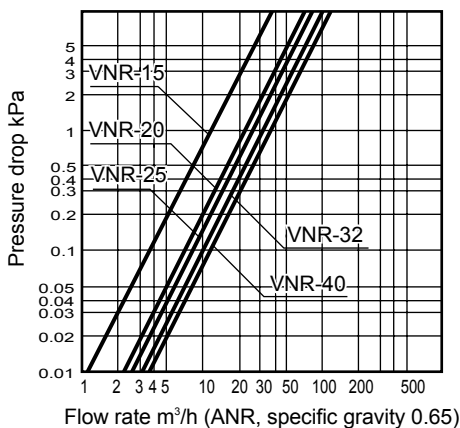
Main applications

- Industrial furnaces
- Drying furnaces

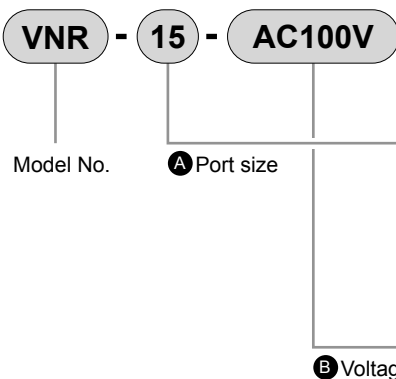
Specifications

Item	VNR-15	VNR-20	VNR-25	VNR-32	VNR-40
Working fluid	City gas/natural gas/LPG				
Working pressure	kPa 0 (≈0 psi, 0 bar) to 20 (≈2.9 psi, 0.2 bar)				
Flow rate	5.8	11.7	12.7	16.6	17.2
<small>Specific gravity of natural gas 0.65 ΔP = 0.25 kPa</small>	m ³ /h(ANR)				
Cv	3.8	7.8	8.4	11.0	11.4
Rated voltage	100 AC ^{+10%} _{-15%}		200 AC ^{+10%} _{-15%}		
Frequency	Hz Common to 50 and 60				
Power consumption (apparent power)	31			50	
Ambient temperature	°C -20 (-4°F) to +60 (140°F) (no freezing)				
Closing time	s 1.0 or less				
Opening time	s Approx. 0.5				
Frequency	Cycle/min. 30 or less				
Mounting orientation	Vertical direction with the coil up or horizontal direction with the coil horizontal				
Connection	Screw-in (Rp)				
Port size	1/2	3/4	1	1 1/4	1 1/2
Weight	1.6	2.3	2.2	3.4	3.3
Proof pressure	MPa 0.1 (≈15 psi, 1 bar)				
Degree of protection	IPX4				

Flow characteristics



How to order



Code	Description
A Port size	
15	Rp1/2
20	Rp3/4
25	Rp1
32	Rp1 1/4
40	Rp1 1/2
B Voltage	
AC100V	100 VAC 50/60 Hz
AC200V	200 VAC 50/60 Hz

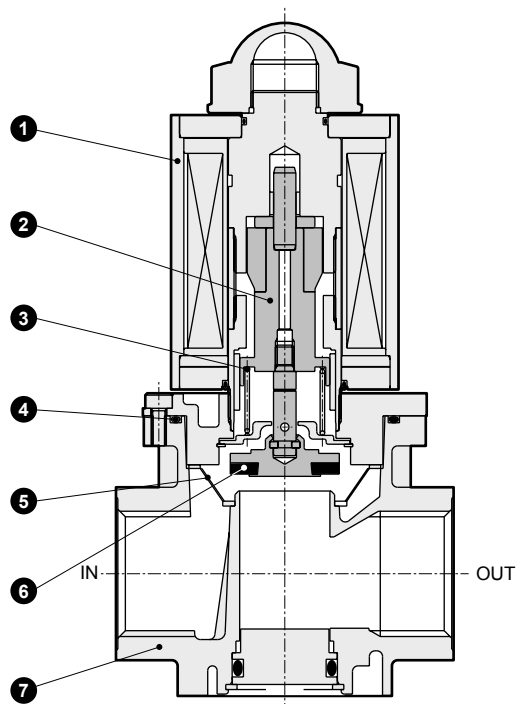
For voltages other than above, contact CKD.

Reference: conversion coefficient

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

Gas type	Natural gas (13A)	City gas (6B.6C)	Propane	Butane	Butane-air (6A)
Specific gravity (air = 1)	0.65	0.54	1.6	2.0	1.25
Coefficient	1.0	1.09	0.63	0.57	0.72

Internal structure and parts list

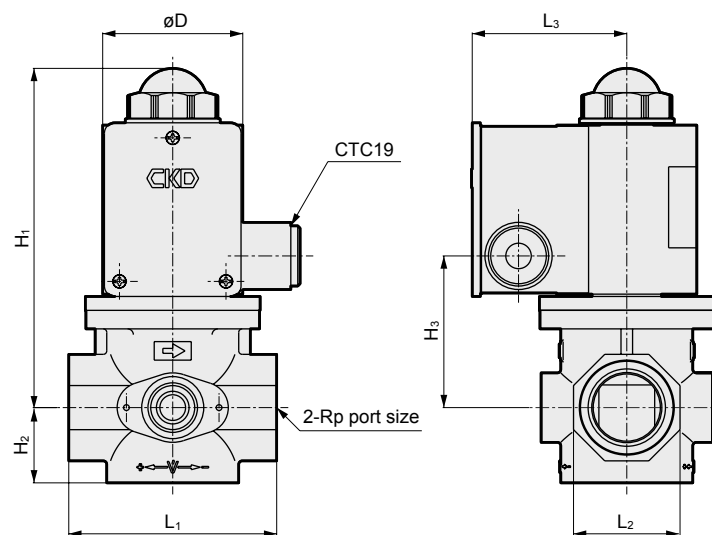


Cannot be disassembled

No.	Part name	Material
1	Bonnet	Steel
2	Plunger	Stainless steel
3	Spring	Stainless steel wire
4	O-ring	Nitrile rubber
5	Strainer	Resin
6	Valve disc	Fluoro rubber
7	Body	Aluminum die-casting

Dimensions

● VNR-15 to 40



Code Model No.	Port size	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	øD
VNR-15	1/2	132.5	24.5	51	69	32	63	50
VNR-20	3/4	147	33	65.5	89	46	68	60.5
VNR-25	1	147	33	65.5	89	46	68	60.5
VNR-32	1 1/4	166	39.5	84.5	128	65	73	70
VNR-40	1 1/2	166	39.5	84.5	128	65	73	70

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/
AD
APK/
ADK
DryAir
EX-
XPLNprf
XPLNprf
HVB/
HVL
S ⌀ B/
NAB
LAD/
NAD
Water-
Rela
NP/NAP/
NVP
SNP
CHB/G
MXB/G
Other valves
SWD/
MWD
DustColl
CVE/
CVSE
CCH/
CPE/D
LifeSci
Gas-
Combus
Auto-
Water
Outdoor
SpecFld
Custom
Ending