



NO ideal for gas relief line of industrial combustion equipment

Solenoid relief valve **VNR Series**

- NO (Closed when energized)
- City gas/LPG
- Port size: Rp1/2, Rp3/4, Rp1, Rp1¹/₄, Rp1¹/₂



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.

Applications

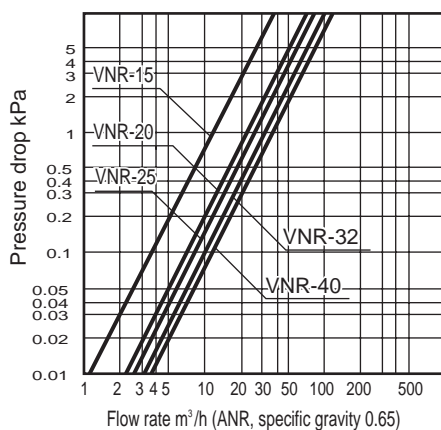
- Industrial furnaces
- Drying furnaces
- Hydrogen-related devices (only working fluid is hydrogen gas option)

Specifications

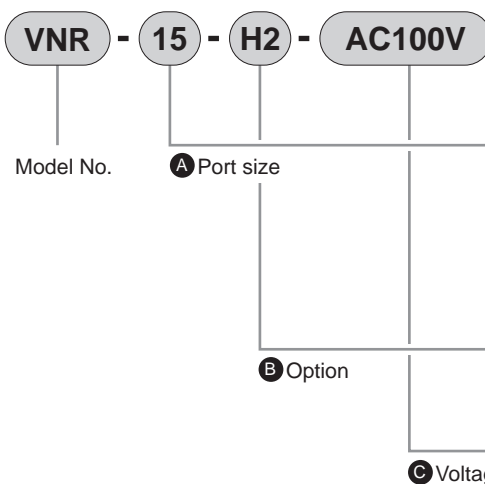
Item	VNR-15	VNR-20	VNR-25	VNR-32	VNR-40
Working fluid	City Gas LPG (hydrogen gas *1)				
Working pressure kPa	0 to 20				
Flow rate <small>Specific gravity of city gas 0.65 ΔP=0.25kPa</small> m ³ /h (ANR)	5.8	11.7	12.7	16.6	17.2
Cv	3.8	7.8	8.4	11.0	11.4
Rated voltage V	100 AC ^{+10%} _{-15%} 200 AC ^{+10%} _{-15%}				
Frequency Hz	Common to 50 and 60				
Power consumption (apparent power) VA	31		50		
Ambient temperature °C	-20 to +60 (no freezing)				
Closing time s	1.0 or less				
Opening time s	Approx. 0.5				
Frequency cycles/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 kg	1.6	2.3	2.2	3.4	3.3
Proof pressure MPa	0.1				
Degree of protection	IPX4				

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

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 Option	
Blank	Standard
H2	Working fluid: Hydrogen gas
C Voltage	
AC100V	100 VAC 50/60Hz
AC200V	200 VAC 50/60Hz

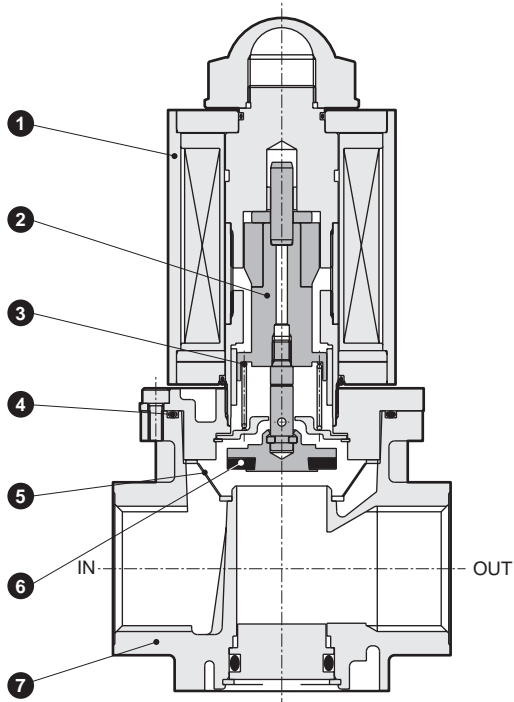
For voltages other than above, contact CKD.

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

Internal structure and parts list

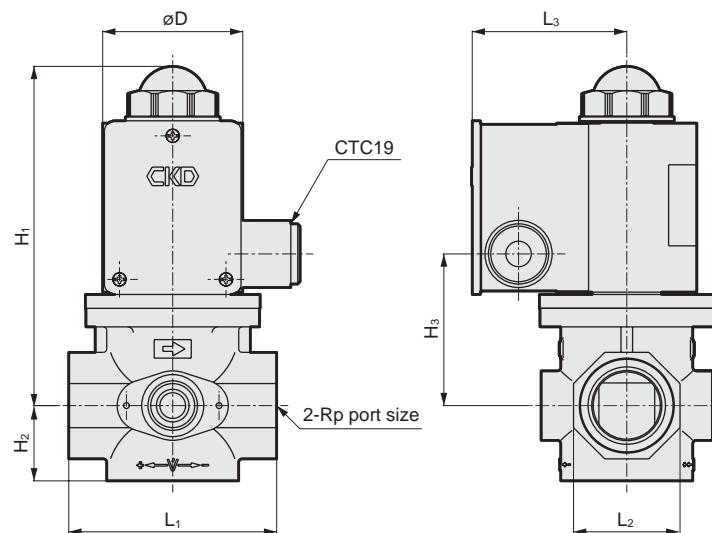


Cannot be disassembled

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