



High-durability process gas valve

AGD**R-HD Series

Made to Order

Specifications

Descriptions	AGD0*R-HD	AGD1*R-HD
Working fluid	Inert gas/process gas	
Working pressure Pa(abs) to MPa(G)	1.3 x 10 ⁻⁶ to 0.99	
Fluid temperature °C	5 to 80	
Operating ambient temperature °C	5 to 80	
Storage ambient temperature °C	-10 to 80	
Valve seat leakage Pa·m ³ /s (He)	1.0 x 10 ⁻¹⁰ or less (initial) 1.3 x 10 ⁻⁹ or less (after operation)	
External leakage Pa·m ³ /s (He)	2.8 x 10 ⁻¹² or less	
Cv (23°C, under pressurization)	0.1	0.3
Connection	1/4" JXR male fitting 1/4" JXR female fitting	1/4" JXR male fitting 1/4" JXR female fitting 1/4" double barbed fitting
Operating pressure MPa	NC 0.4 to 0.6 NO 0.4 to 0.5	
Operating port	M5	
Durability	Guaranteed: 10 million cycles (actual: 30 million cycles or more)	
Variation	NC, NO, block valve, with proximity switch (OMRON)	

How to order

AGD0 1 R - HD - 4RM

A Actuation

B Connection

Code	Content
A Actuation	
1	NC (normally closed)
2	NO (normally open)
B Connection	
4RM	1/4" JXR male fitting
4R	1/4" JXR female fitting

AGD1 1 R - HD - 4RM

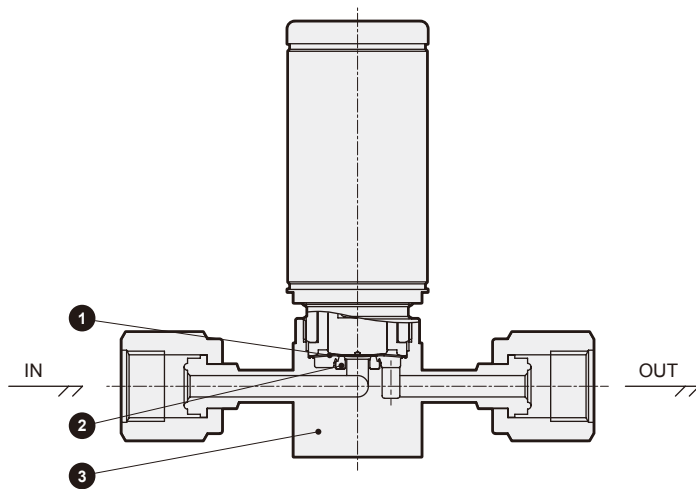
A Actuation

B Connection

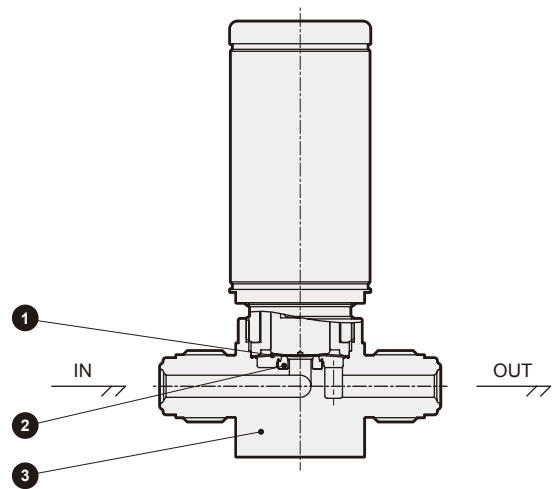
Code	Content
A Actuation	
1	NC (normally closed)
2	NO (normally open)
B Connection	
4RM	1/4" JXR male fitting
4R	1/4" JXR female fitting
4S	1/4" double barbed fitting

Internal structure and parts list

● AGD11R-HD-4R



● AGD11R-HD-4RM

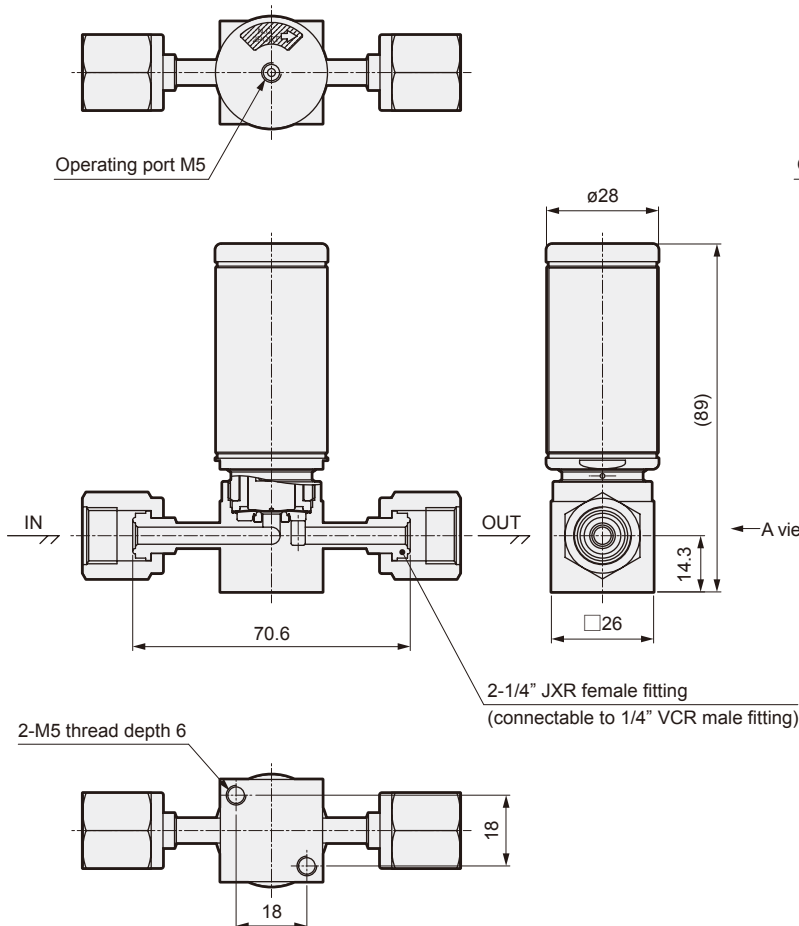


Gas contact part materials

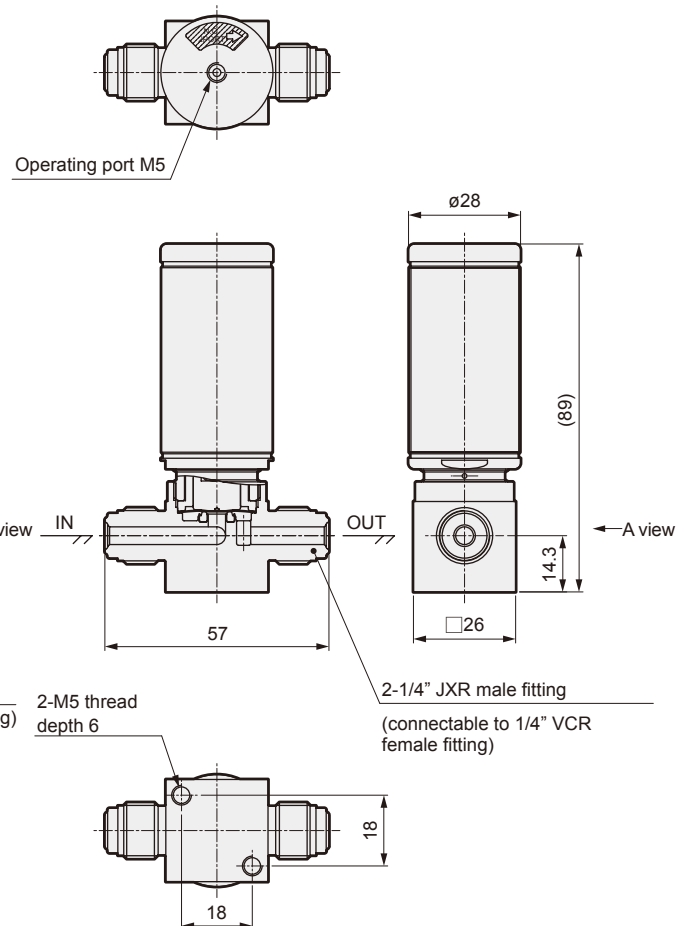
	Part name	Material
1	Diaphragm	Ni-Co alloy
2	Valve seat	PCTFE
3	Body	SUS316L

Dimensions

● AGD11R-HD-4R



● AGD11R-HD-4RM





High-durability process gas valve for high temperatures

AGD**R-HDF Series

Made to Order

Specifications

Descriptions	AGD1*R-HDF	AGD2*R-HDF
Working fluid	Inert gas/process gas	
Working pressure Pa(abs) to MPa(G)	1.3×10^{-6} to 0.5	1.3×10^{-6} to 0.99
Fluid temperature °C	20 to 200	
Operating ambient temperature °C	20 to 150	
Storage ambient temperature °C	-10 to 80	
Valve seat leakage Pa·m ³ /s (He)	1.0×10^{-10} or less (at 23°C)	
External leakage Pa·m ³ /s (He)	2.8×10^{-12} or less	
Cv (23°C under pressurization)	0.3	0.65
Connection	1/4" JXR male fitting 1/4" JXR female fitting 1/4" double barbed fitting	3/8" JXR male fitting 3/8" JXR female fitting 3/8" double barbed fitting
Operating pressure MPa	NC 0.4 to 0.6 NO 0.4 to 0.5	
Operating port	M5	
Durability	Guaranteed: 10 million cycles (actual: 30 million cycles or more)	
Variation	NC, NO, block valve, with fiber sensor	

How to order

AGD1 1 R - HDF - 4RM

A Actuation

B Connection

Code	Content
A Actuation	
1	NC (normally closed)
2	NO (normally open)
B Connection	
4RM	1/4" JXR male fitting
4R	1/4" JXR female fitting
4S	1/4" double barbed fitting

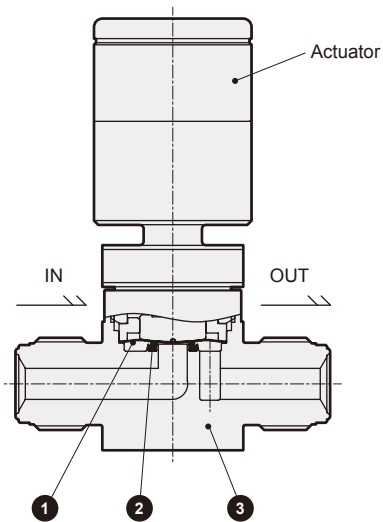
AGD2 1 R - HDF - 6RM

A Actuation

B Connection

Code	Content
A Actuation	
1	NC (normally closed)
2	NO (normally open)
B Connection	
6RM	3/8" JXR male fitting
6R	3/8" JXR female fitting
6S	3/8" double barbed fitting

Internal structure and parts list

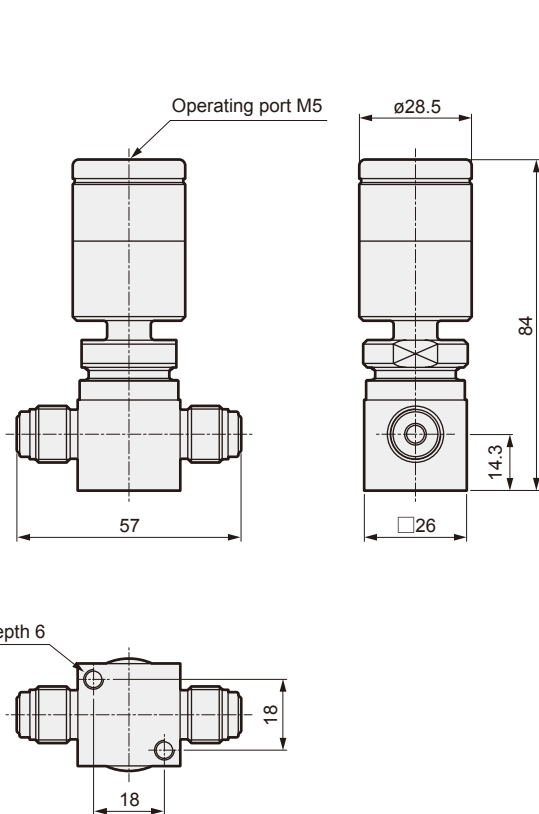


Gas contact part materials

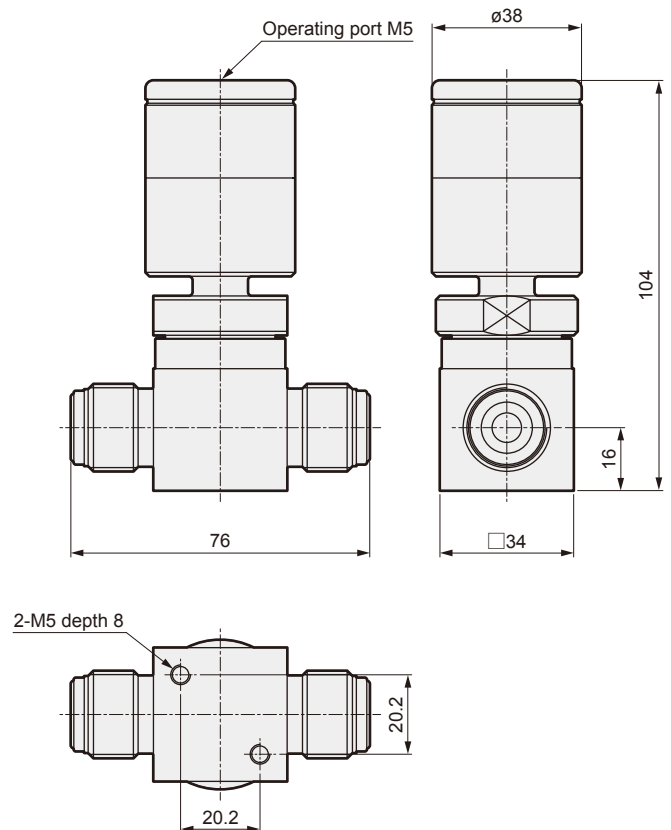
	Part name	Material
1	Diaphragm	Ni-Co alloy
2	Valve seat	PFA
3	Body	SUS316L

Dimensions

● AGD1*R-HDF-4RM



● AGD2*R-HDF-6RM





High-durability process gas valve for high temperatures

AGD21R-A Series

● Air operated metal diaphragm valve

RoHS

Specifications

Descriptions	AGD21R-A
Working fluid	Inert gas/process gas
Proof pressure MPa	1.5
Working pressure Pa(abs)-MPa(G)	1.3×10^{-6} to 0.5
Fluid temperature °C	150 to 200 (*1)
Operating ambient temperature °C	20 to 80
Storage ambient temperature °C	-10 to 80
Valve seat leakage Pa·m ³ /s (He)	1×10^{-7} or less (at 200°C)
External leakage Pa·m ³ /s (He)	2.8×10^{-12} or less
Cv (200°C, negative pressure)	0.4 or more
Connection	3/8" JXR male fitting 3/8" JXR female fitting 3/8" double barbed fitting
Actuation	NC (normally closed)
Operating pressure MPa	0.4 to 0.6
Operating port	ø4 push-in fitting
Weight kg	0.7

*1: 110°C or below for actuator part

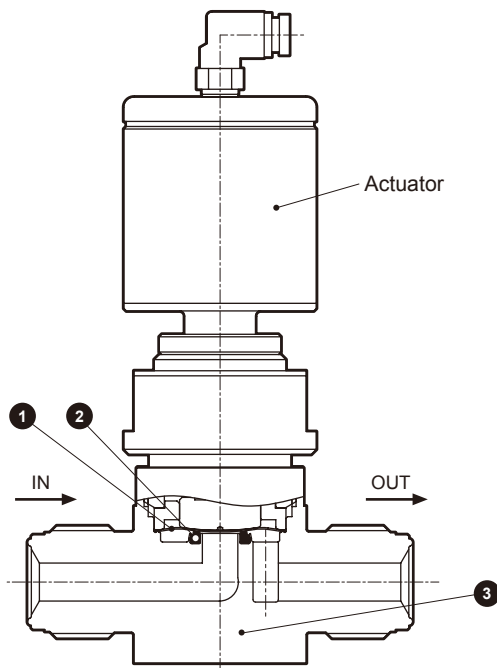
How to order

AGD21R-A- **6RM**

Model No. A Connection

Code	Content
A Connection	
6RM	3/8" JXR male fitting
6R	3/8" JXR female fitting
6S	3/8" double barbed fitting

Internal structure and parts list



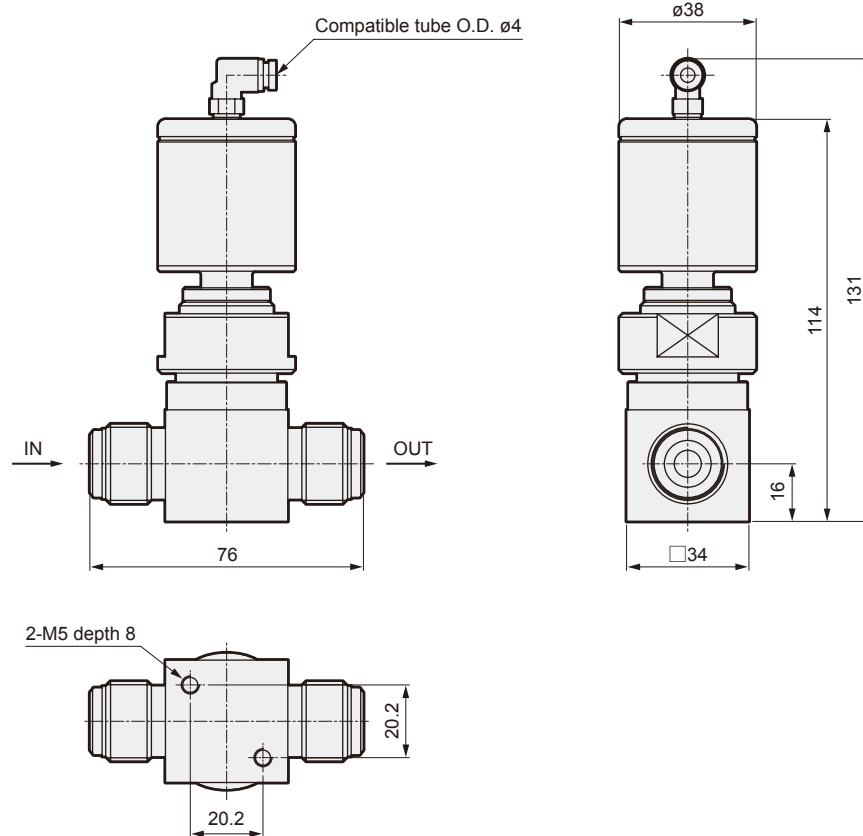
Gas contact part materials

No.	Part name	Material
1	Diaphragm	Ni-Co alloy
2	Valve seat	PFA
3	Body	SUS316L

Dimensions

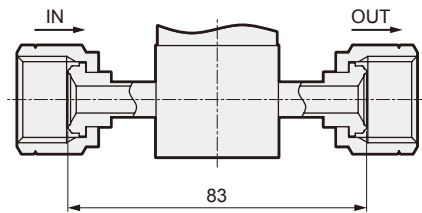
AGD21R-A-6RM

- JXR male fitting



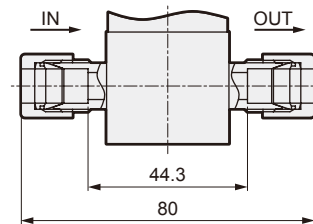
AGD21R-A-6R

- JXR female fitting



AGD21R-A-6S

- Double barbed fitting



AGD21R-A Actuator option

Appearance

Made to Order

AGD21R-A with sensor



- Valve open/close confirmation can be output from the sensor.

Fiber sensor
E3NX-FA Series (OMRON Corporation)