

PRODUCT GUIDE FOR PLANTS



Proposals to the future plant industry

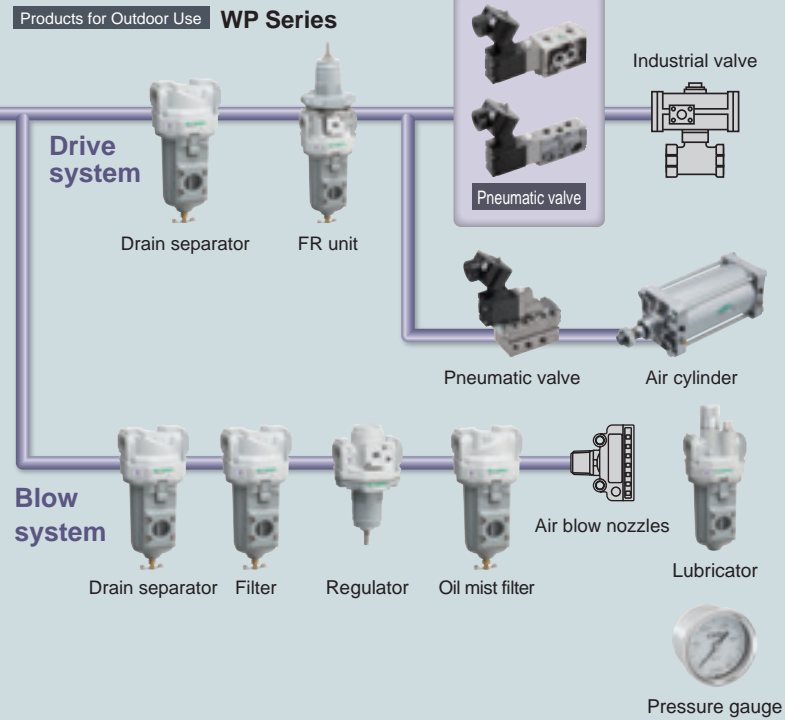
Compressed air

Clean air products



Outdoors

Outdoor use problem solving products



Indoors

Non-explosion-proof area

Clean gas extraction product

Nitrogen gas extraction unit
NS Series



Proposed products for food manufacturing processes

Anti-bacterial/Bacteria-removing filter
SFC/SFS Series

Inline oxygen monitor
PNA Series

Inline particle counter
EPC Series



New products for contributing to carbon neutrality



3.5-port pilot operated valve, plug-in block manifold
TVG Series

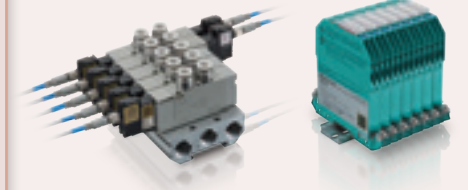
Explosion-proof area

Explosion-proof products can be used according to application and space

Intrinsic safety explosion-proof

Pilot operated solenoid valves
4GD/E E* Series

Zener barrier
Z779

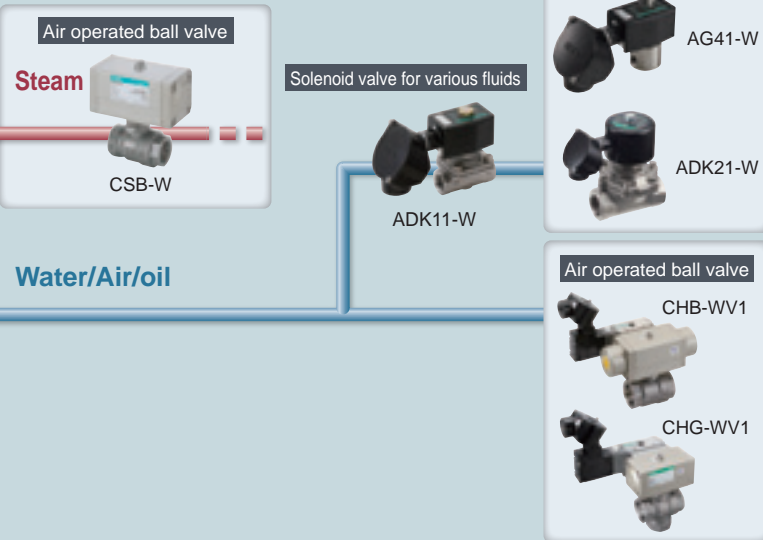


Pressure and explosion proof



Pilot operated 5-port valve
4F**0EX Series

Various fluids



Direct acting 2.3-port solenoid valve Multi-fit valve
FFB/FFG Series

Hydrogen gas combustion valves

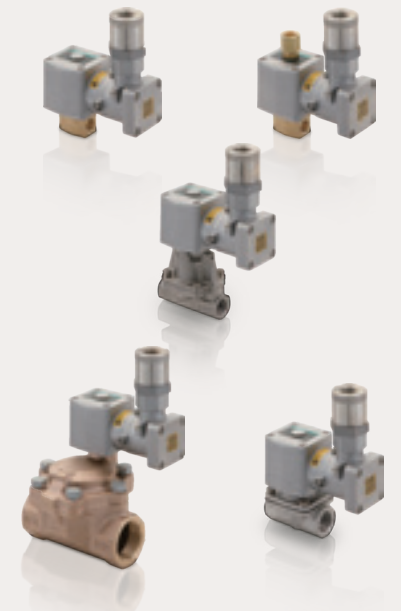
Proposed products for process control

Flow rate control valve (open loop control method)
SWD-T Series

Poppet diaphragm valve
SPD Series

Fine pinch valve (air operated)
HYA Series

Direct acting, pilot operated 2, 3-port valve
AB/AG/AP/AD/ADK Series



Problem solving products for Outdoor use

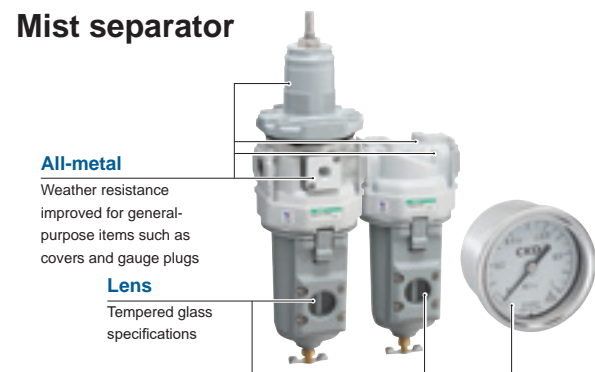
Products for Outdoor Use WP Series Select from 177 models available according to specifications

Recommended Plants

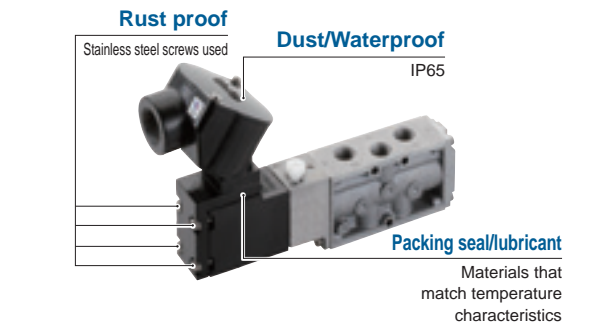
- Chemical plant
- Steel plant
- Water treatment plant
- Power plant
- Batcher plant
- Waste disposal plant

Component for compressed air

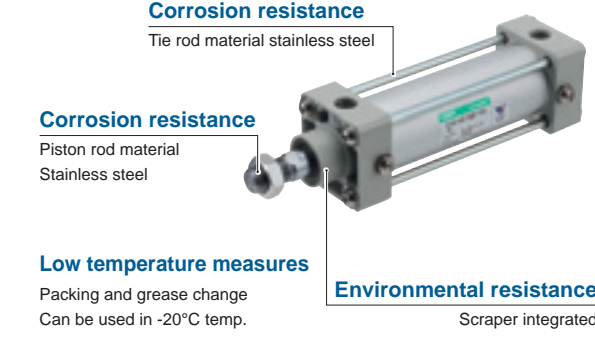
Filter regulator
Mist separator



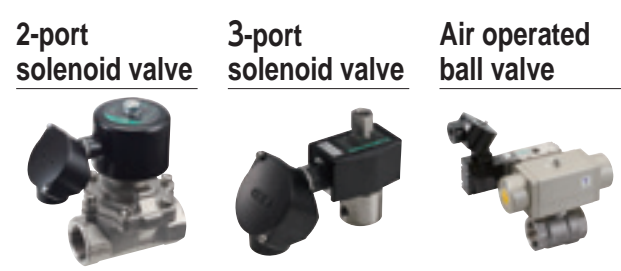
4-direction switching valve



Air cylinder



Fluid control components



Long-term no trouble in the harsh outdoors
The product has passed environmental tests for rain, salt damage, dust, humidity, ultraviolet rays, and ozone, and can be used with peace of mind.

Weathering test
3-year
Acceleration equiv.

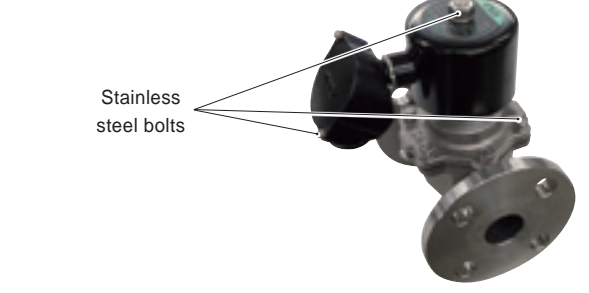
Combined cycle test
7-year
Acceleration equiv.

Ozone exposure test
400
Hours

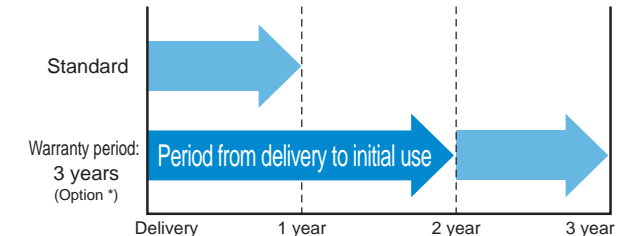
Series of products for ambient temperatures from -20°C to 60°C is available, and no heat insulation measures are required even in cold climates.



Maintenance parts are SUS-types.
Trouble-free maintenance.



Solenoid valve and F.R.L. guaranteed for up to 3 years (Option)



* The specifications are exchanged to clarify the warranty period.

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Explosion-proof products can be used according to application and space

Intrinsically safe explosion-proof pilot operated solenoid valves **4GD/E E* Series**

Recommended Plants

- Chemical plant
- Pharmaceutical plant

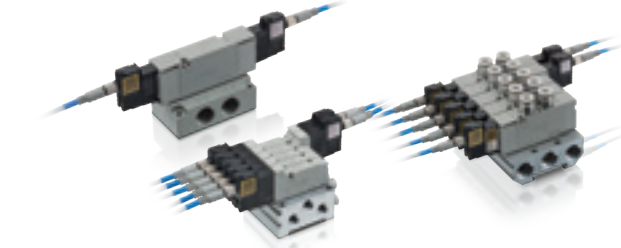
Intrinsically safe explosion-proof solenoid valve with widths from 10mm

Smallest explosion-proof class Hazardous area (ZONE1.2) compatible

Explosion-proof certification

Japan: **JPEX** Europe: **IECEX**

China, Korea, Taiwan, International: **CCC** **IECEX** **KS** **TS**



Explosion-proof performance: Ex ib IIC T4
Can be used in hydrogen, acetylene, and city gas atmospheres.

Optimized realization with space and energy saving

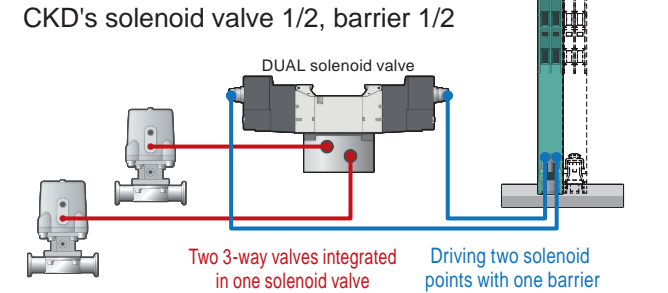
Footprint
84%
Reduced

Ultra-lightweight
82%
Reduced

Power consumption
85%
Reduced

*Conventional 8-station model comparison

DUAL solenoid valve + 2CH barrier for significant space reduction



Protection
IP67

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2, 3-port pressure-resistant explosion-proof solenoid valve **AB/AG/AP/AD/ADK Series**

5-port pressure-resistant explosion-proof solenoid valve **4F**0EX Series** (NAMUR compatible product available)

Recommended Plants

- Chemical plant
- Steel plant
- Power plant

A highly rated pressure and explosion-proof solenoid valve

Hazardous area (ZONE1.2) compatible

Explosion-proof certification

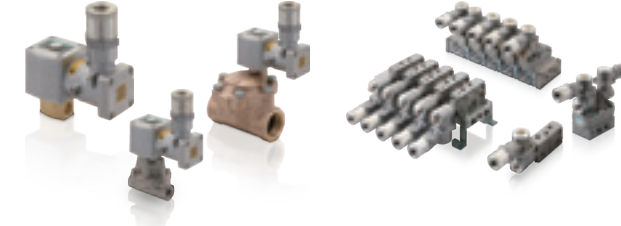
Japan: **JPEX** Korea: **KS**

China: **CCC** Taiwan: **TS**

Protection
IP65

Direct acting, pilot operated 2, 3-port valve

Pilot operated 5-port valve

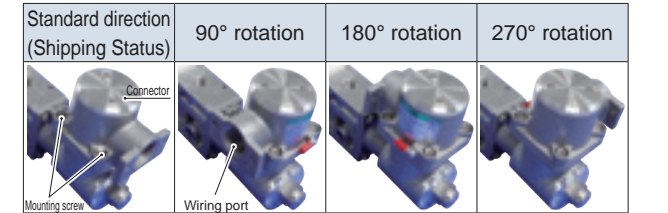


Robust and simple system configuration

- 2, 3-port direct acting / pilot operated multi-fluid
 - 5-port pilot operated compressed air
- Applicable cable ø7.5 to 13.5mm²

Terminal box can be rotated 270° (AB/AG/AP/AD/ADK)

Wiring port can be rotated 90° (4FEX, figure below)**



Actuator direction variable (360 degrees)

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Clean air products

Refrigeration air dryer **GT9000 Series**

Super heatless dryer **SHD Series**

Large main line filter **AF5000 Series**

Recommended Plants

- Chemical plant
- Steel plant
- Power plant
- Waste disposal plant
- Pharmaceutical plant
- Food plant
- Beverage plant
- Batcher plant

Main line unit

Supplies necessary air quality at low pressure loss

GT9000 Series

Refrigeration dryer for 75 to 970kw compressors. Outdoor specifications are available by special order.



AF5000 Series

Rust-free large main line filter with stainless steel vessel. Can be modified to outdoor specifications by special order.



SHD Series

Heatless dryer with atmospheric pressure dew point of -72°C. Optimal energy-saving operation is realized by dew point monitoring system.



Refrigeration air dryer, heatless dryer

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Large main line filter

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Clean gas extraction product

Nitrogen gas extraction unit **NS Series**

Recommended Plants

- Food plant
- Chemical plant

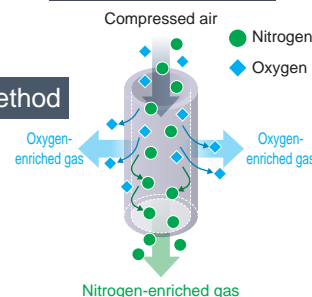


Nitrogen is produced from air (MAX 99.9%)

Membrane extraction method

Easily generates nitrogen-enriched gas just by feeding compressed air.

Image of enriched gas extraction from a single hollow fiber strand



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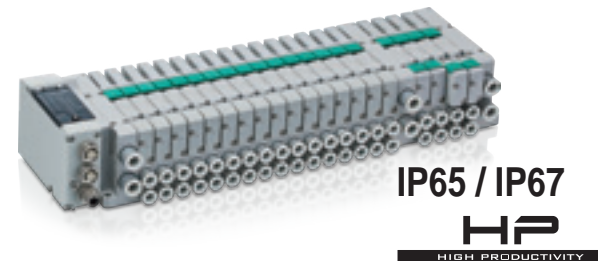
New products contributing to carbon neutrality

3.5-port pilot operated valve, plug-in block manifold **TVG Series**

Recommended Plants

- Chemical plant
- Food plant
- Beverage plant

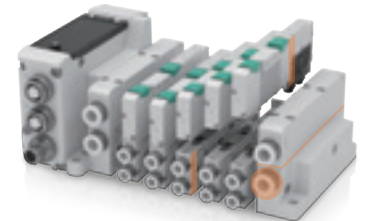
Ultra-long service life new plug-in manifold valve



CN, Pursuit of ease of use and reliability

Reduces air leakage. Maintains energy savings even after long-term use.

Where air leaks from general solenoid valves



Uses materials with reduced environmental load

Biomass plastic and recycled material resin used.

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Direct acting 2, 3-port solenoid valve Multi-fit valve **FFB / FFG Series**

Recommended Plants

- Chemical plant
- Water treatment plant
- Power plant

NEW STANDARD for Fluid control valves



CN, Pursuit of ease of use and reliability

Power consumption	CO ₂ reduction	Durability
65% Reduced	0.056t /Year	400% Up

- Compatible with dry air
- Improved corrosion resistance of wetted parts
- Full-wave rectifier standard
- Energy saving
- Pressure-resistant container structure
- Silent structure

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Hydrogen gas combustion valves

Recommended Plants

- Waste disposal plant
- Food plant

Low / Intermediate / Medium pressure compatible valves for hydrogen



Pursuing system safety from every angle

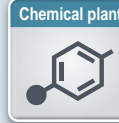
Necessary components for gas combustion systems are available.

Water coolers/heaters Building/factory air conditioning, aquarium, etc.	Industrial furnaces Incinerator, industrial product coating, drying, etc.	Boiler Hospitals, thermal power plants, food plants, etc.	Burner Industrial Components, equipment, agriculture, etc.
Methanation Control of greenhouse gases, decarbonization, etc.	Clean energy Hydrogen extraction, hydrogen combustion, etc.	Click!	
		Click here for details	

Proposed products for process control

Valve for pharmaceutical manufacturing processes

Recommended
Plant



Flow rate control valve
(Open loop control method)

SWD-T Series

Automation of flow rate adjustment using manual valves.



Poppet
Diaphragm valve

SPD Series

Ideal for pharmaceutical and food manufacturing processes.



pinch valve for high purity fluids
(Air operated)

HYA Series

Ideal for environments requiring sterility.



Proposed products for food manufacturing processes

Air-related components for food products

Recommended
Plant



Antibacterial/Bacteria-removing filter

SFC/SFS Series

Anti-bacterial / Bacteria-removing compressed air.



Inline oxygen monitor

PNA Series

Visualization of oxygen concentration under pressure.



Inline particle counter

EPC Series

Constant control of the number of particles in compressed air / inert gas.



*Contact CKD Sales.

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