

Modular F.R.L.

Modular F.R.L. Units **AC-A**



- Easy element replacement
The element and the bowl are integrated. Replacement can be done in hand.
- Energy-saving regulator Pressure drop: Max. 50% improvement
- Reduced required maintenance space: Max. 46% reduction
- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.
- Attachments:
Spacer: Y200-A, Y300-A, Y400-A, Y500-A
Spacer with bracket: Y200T-A, Y300T-A, Y400T-A, Y500T-A

Combination equipment	Series	Port size	Set pressure [MPa]
Air filter, Regulator, Lubricator	AC10 to 40-A	M5, 1/8, 1/4, 3/8, 1/2, 3/4	0.05 to 0.7, 0.02 to 0.2
Filter regulator, Lubricator	AC10A to 40A-A		
Air filter, Regulator	AC10B to 40B-A		
Air filter, Mist separator, Regulator	AC20C to 40C-A	1/8, 1/4, 3/8, 1/2, 3/4	
Filter regulator. Mist separator	AC20D to 40D-A		

Air Filter **AF-A**



- Easy element replacement
The element and the bowl are integrated. Replacement can be done in hand.
- Reduced required maintenance space: Max. 46% reduction
- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.

Series	Port size	Filtration [μm]
AF10 to 60-A	M5, 1/8, 1/4, 3/8, 1/2, 3/4, 1	5

Mist Separator **AFM-A**



- Easy element replacement
The element and the bowl are integrated. Replacement can be done in hand.
- Reduced required maintenance space: Max. 46% reduction
- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.

Series	Port size	Filtration [μm]
AFM20 to 40-A	1/8, 1/4, 3/8, 1/2, 3/4	0.3

Micro Mist Separator **AFD-A**



- Easy element replacement
The element and the bowl are integrated. Replacement can be done in hand.
- Reduced required maintenance space: Max. 46% reduction
- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.

Series	Port size	Filtration [μm]
AFD20 to 40-A	1/8, 1/4, 3/8, 1/2, 3/4	0.01

Regulator **AR-A**



- Energy-saving regulator Pressure drop: Max. 50% improvement

Series	Port size	Set pressure [MPa]
AR10 to 40-A	M5, 1/8, 1/4, 3/8, 1/2, 3/4	0.05 to 0.7, 0.02 to 0.2

Modular F.R.L.

Lubricator AL-A



- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.
- Semi-standard specifications: 1000 cm³ tank (AL30 to AL60)

Series	Port size	Bowl capacity [cm ³]
AL10 to 60-A	M5, 1/8, 1/4, 3/8, 1/2, 3/4, 1	7 to 135

Filter Regulator AW-A



- Easy element replacement
The element and the bowl are integrated.
Replacement can be done in hand.
- Energy-saving regulator Pressure drop: Max. 50% improvement
- Reduced required maintenance space: Max. 46% reduction
- Better visibility & increased safety
The bowl is covered with a transparent bowl guard.

Series	Port size	Set pressure [MPa]	Filtration [μm]
AW10 to 40-A	M5, 1/8, 1/4, 3/8, 1/2, 3/4	0.05 to 0.7, 0.02 to 0.2	5

Modular F.R.L Units AC-B



- Better visibility and environmental resistance
- Easy element replacement
The element and the bowl are integrated.
Replacement can be done in hand.
- Reduced required maintenance space: Max. 46% reduction
- Regulator: Set pressure 0.05 to 0.85 MPa, 0.02 to 0.2 MPa
- Choose from a selection of pressure gauges:
Square embedded type pressure gauge, Round type pressure gauge, Digital pressure switch

Combination equipment	Series	Port size	Set pressure [MPa]
Air filter, Regulator, Lubricator	AC20 to 60-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2
Filter regulator, Lubricator	AC20A to 60A-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2
Air filter, Regulator	AC20B to 60B-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2
Air filter, Mist separator, Regulator	AC20C to 40C-B	1/8, 1/4, 3/8, 1/2, 3/4	0.05 to 0.85 0.02 to 0.2
Filter regulator, Mist separator	AC20D to 40D-B	1/8, 1/4, 3/8, 1/2, 3/4	0.05 to 0.85 0.02 to 0.2

Regulator AR-B



Series	Port size	Set pressure [MPa]
AR20 to 60-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2

Regulator with Backflow Function AR□K-B



- The regulator with backflow function incorporates a mechanism that exhausts the air pressure in the outlet side quickly.

Series	Port size	Set pressure [MPa]
AR20K to 60K-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2

Modular F.R.L.

Filter Regulator **AW-B**



Series	Port size	Set pressure [MPa]	Filtration [μ m]
AW20 to 60-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2	5

Filter Regulator with Backflow Function **AW□K-B**



- Integrated filter and regulator units save space and require less piping.
- The filter regulator with backflow function incorporates a mechanism that exhausts the air pressure in the outlet side quickly.

Series	Port size	Set pressure [MPa]	Filtration [μ m]
AW20K to 60K-B	1/8, 1/4, 3/8, 1/2, 3/4, 1	0.05 to 0.85 0.02 to 0.2	5

Filter Regulator **AW30/40-X2622**



- Stainless steel 316 and special temperature environment (−40°C) specifications
- Material of external parts: Stainless steel 316
- Ambient and fluid temperature: −40 to 80°C
- NACE International Standards compliant

Series	Port size	Set pressure [MPa]	Filtration [μ m]
AW30/40-X2622	1/4, 3/8, 1/2, 3/4	0.05 to 0.85	5

Mist Separator Regulator **AWM**



Series	Port size	Set pressure [MPa]	Filtration [μ m]
AWM20 to 40	1/8, 1/4, 3/8, 1/2	0.05 to 0.85	0.3

Micro Mist Separator Regulator **AWD**



Series	Port size	Set pressure [MPa]	Filtration [μ m]
AWD20 to 40	1/8, 1/4, 3/8, 1/2	0.05 to 0.85	0.01

Modular F.R.L.

Modular Type F.R.L. Unit **ACG**



- Improves the visibility of pressure gauges located in various locations

Combination equipment	Series	Port size	Set pressure [MPa]
Air filter, Regulator with built-in pressure gauge, Lubricator	ACG20 to 40	1/8, 1/4, 3/8, 1/2	0.05 to 0.85
Filter regulator with built-in pressure gauge, Lubricator	ACG20A to 40A	1/8, 1/4, 3/8, 1/2	0.05 to 0.85
Air filter, Regulator with built-in pressure gauge	ACG20B to 40B	1/8, 1/4, 3/8, 1/2	0.05 to 0.85
Air filter, Mist separator, Regulator with built-in pressure gauge	ACG20C to 40C	1/8, 1/4, 3/8, 1/2	0.05 to 0.85
Filter regulator with built-in pressure gauge, Mist separator	ACG20D to 40D	1/8, 1/4, 3/8, 1/2	0.05 to 0.85

Regulator with Built-in Pressure Gauge **ARG**



- Improves the visibility of pressure gauges located in various locations

Series	Port size	Set pressure [MPa]
ARG20 to 40	1/8, 1/4, 3/8, 1/2	0.05 to 0.85

Regulator with Built-in Pressure Gauge with Backflow Function **ARG□K**



- Improves the visibility of pressure gauges located in various locations

Series	Port size	Set pressure [MPa]
ARG20K to 40K	1/8, 1/4, 3/8, 1/2	0.05 to 0.85

Filter Regulator with Built-in Pressure Gauge **AWG**



- Improves the visibility of pressure gauges located in various locations

Series	Port size	Set pressure [MPa]	Filtration [μm]
AWG20 to 40	1/8, 1/4, 3/8, 1/2	0.05 to 0.85	5

Filter Regulator with Built-in Pressure Gauge with Backflow Function **AWG□K**

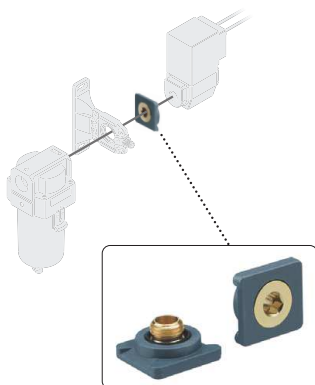


- Improves the visibility of pressure gauges located in various locations

Series	Port size	Set pressure [MPa]	Filtration [μm]
AWG20K to 40K	1/8, 1/4, 3/8, 1/2	0.05 to 0.85	5

Modular F.R.L.

Modular Adapter E210/310/410



- Can be easily connected to current products
- Can be freely rotated, thus allowing a wide selection of mounting directions
- Can be connected to current products of different sizes
- Reduced required space/piping maintenance costs

Series	Port size	Applicable products
E210	1/8, 1/4	Modular F.R.L. equipment (Filters, regulators, lubricators, etc.) 2 port solenoid valve 3 port solenoid valve
E310	1/4, 3/8	
E410	1/4, 3/8, 1/2	

Conforming to OSHA Standard: Pressure Relief 3 Port Valve with Locking Holes VHS20/30/40/50

For pressure relief



- Compliant with OSHA Standards (Occupational Safety and Health Administration Department of Labor)
- Manually operated valve that can be used to prevent accidents caused by residual pressure in pneumatic lines
- It is possible to verify the supply and exhaust status of air flow at a glance.
- When in the exhaust position, the valve can be padlock secured. This prevents accidental start-ups while personnel are cleaning or servicing equipment.
- Push the knob and then turn. This 2-step action prevents malfunctions.

Series	Description	Knob operation	Port size
VHS20	Pressure relief 3 port valve with locking holes	Single action	1/8, 1/4
VHS30			1/4, 3/8
VHS40			1/4, 3/8, 1/2, 3/4
VHS50			3/4, 1
VHS2510		Double action	1/8, 1/4
VHS3510			1/4, 3/8
VHS4510			1/4, 3/8, 1/2, 3/4
VHS5510			3/4, 1

Soft Start-up Valve AV



- A starting valve that can supply air at a low speed and exhaust it at a high speed by blocking the air supply

Series	Port size	Operating pressure [MPa]
AV2000 to 5000	1/4, 3/8, 1/2	0.1 to 1

Large Flow Air Filter AF



Series	Port size	Filtration [μm]
AF800/900	1 1/4, 1 1/2, 2	5