



CMAP

C-316 Series Modular Air Package

Bulletin CMAP-316
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Versa Products' C-316 Series Modular Air Package (CMAP) consists of the most common pneumatic components and accessories utilized in the valve automation industry. A CMAP system consists of a regulator, filter, gauge and directional control valve all in one. CMAP is a simplified version of the successful VMAP system offering a cost effective complete package for basic valve control systems.

Versa's "Out of the Box" philosophy holds true for CMAP. Fully assembled and tested at the factory be reassured this system will go from "our box" to your "control package" with ease. Trouble free!

CMAP is all stainless steel construction available in 1/4 inch basic size with Viton seals. An all investment cast 316 design is utilized to maximize flow while reducing overall size and weight. CMAP is the smallest 1.5 Cv package available on the market today!

One of CMAP's key advantages is cost reduction. CMAP systems are easily specified. All systems include integral mounting means for easiest installation. These features reduce engineering design and specifying costs. Further cost reduction benefits include reduction of fittings and tubing further reducing engineering, fitting and installation costs.

CMAP is based on Versa's field proven C-316 and AR Series. All inter-component connections utilize "O"-ring interface sealing reducing potential leakage points. The combination of C-316 & AR reliability, "O" ring sealing and a simple design principal all provide a reliable and easily maintained product. CMAP is the sensible choice.

Modular Concept

The basic CMAP system is made of two configurable modules. Module one is the air preparation module consisting of regulators, filters, gauges and drains. Module two is the control valve module consisting of many different variations of 3-way control valves.

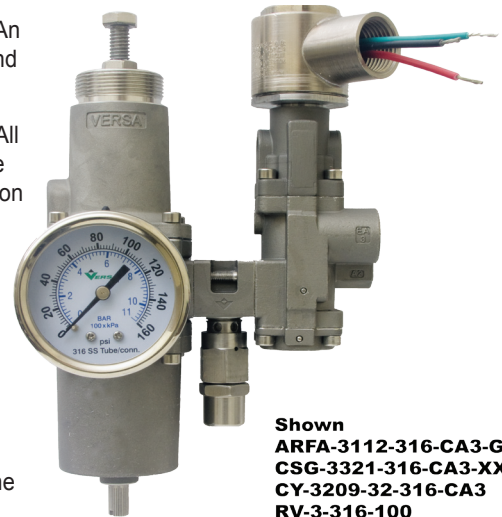
The Air Prep Module consists of regulators, filters, gauges and drains. Based on Versa's AR-316 Series this proven design is small, high flow, simple and configurable. Regulators are equipped with tamper proof adjustment locknut preventing unwanted changes in pressure. A manual drain is standard however an auto drain can be easily specified as an option.

The Control Valve Module is based on Versa's C-316 Series introduced over a decade ago. This proven design is small, yet yields high flow. C-316 valves are also simple and configurable in design. The C-316 Series has become a leader in the 1/4" size control package market. Furthermore, the C-316 Series is available as a solenoid, in almost every classification, as well as pilot, manual or latching configurations.

Options

Mount in any orientation. Threaded mounting holes are supplied as standard or utilize optional bracket.
Optional auxiliary port for monitoring and pressure take off.
Optional speed controls, and relief valves.
Optional low temperature sealing.

The Versa Modular Air Package design is protected under European Community Design Registration and US patent is pending.



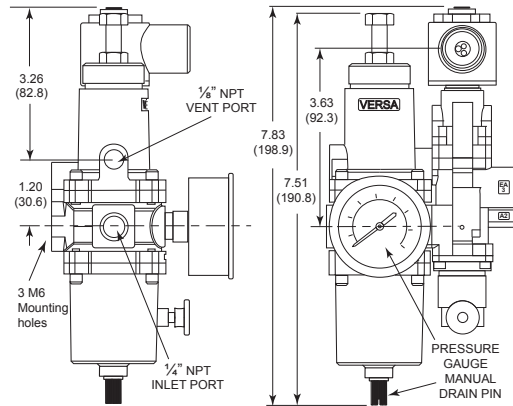
Shown
ARFA-3112-316-CA3-GB
CSG-3321-316-CA3-XX-D024
CY-3209-32-316-CA3
RV-3-316-100

Pressure:	
Max inlet:	290 psi. (20 bar)
Actuator port:	25 to 150 psi (1.8 to 10.3 bar), Single solenoid/ spring return 15 to 150 psi (1.0 to 10.3 bar), Double solenoid
For pressures above 125 psi, bleed controls or mufflers are recommended.	
Temperature:	
Standard -5° F to 200° F (-20° C to 93° C)	
Optional -55° F to 200° F (-48° C to 93° C) (-44 Suffix Detail)	
Function: 3-way, NC or NO (3/2)	

Materials:	
Regulator	Valve
Body: 316 stainless steel	316 stainless steel
Seals: Fluorocarbon	Fluorocarbon
Spring: Inconel	Inconel
NACE compliant body materials, for solenoids consult factory	

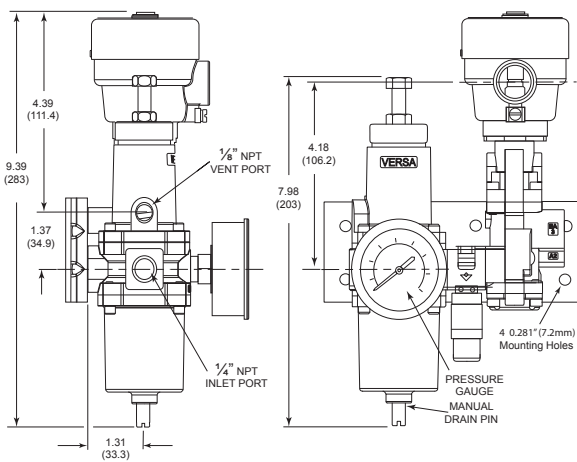
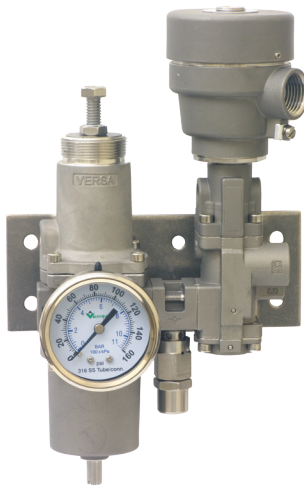
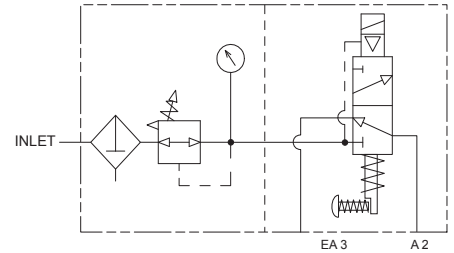
Media:	Air, gas
Port Size:	Inlet: 1/4" NPT Outlet: 1/4" NPT Exhaust: 1/4" NPT Regulator Vent 1/8" NPT
Flow:	1.5 Cv
Filter:	25 micron 40 & 5 micron optional
Drain:	Manual Drain Auto drain (optional)

CMAP Ordering Information



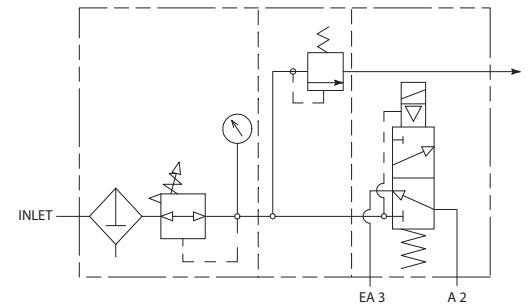
Bill of Materials

Description	Part Number
Regulator	ARFA-3112-316-CA3-GB
Valve	CAG-3321-316-356BN-CA3-XX-A120



Bill of Materials

Description	Part Number
Regulator	ARFA-3112-316-CA3-GB
Valve	CAG-3321-316-CA3-XDBS-A120
Spacer	CY-3209-32-316-CA3
Bracket	4302-99-316-CA3
Relief Valve	RV-3-316-100



Air Prep Selection

Regulator, Filter and manual drain*	Description	Part Number		Weights	
		0-100 psi	0-150 psi	lbs	kg
	No gauge	ARFA-3112-316-CA3	ARFA-3111-316-CA3	2.7	1.22
2" gauge liquid filled	ARFA-3112-316-CA3-GBG	ARFA-3111-316-CA3-GBG	2.9	1.32	
2 1/2" gauge liquid filled	ARFA-3112-316-CA3-GAG	ARFA-3111-316-CA3-GAG	2.9	1.32	

Control Valve Selection

Description	Part Number		Weights ††	
	3-way, normally closed †	3-way, normally open †	lbs	Kg
3/2 Solenoid, Spring Return	CSG-3321-316-CA3-**	CGS-3322-316-CA3-**	1.9	0.86
3/2 Double solenoid, detented	CGG-3321-316-CA3-**	CGG-3321-316-CA3-**	2.5	1.13
3/2 Solenoid, spring return w/ latch	CAG-3321-316-CA3-356BN-**	CGA-3322-316-CA3-356BN-**	2.2	0.99
3/2 Solenoid, spring return w/ latch and button	CAG-3321-316-CA3-356B-**	CGA-3322-316-CA3-356B-**	2.3	1.04
3/2 Pilot, spring return	CSP-3301-316-CA3	CPS-3302-316-CA3	1.3	0.59

Option Selection

Description	Part Number	Weights	
		lbs	kg
Mounting bracket	Add 4302-99-316-CA3 to bill of Material	0.5	0.23
Auxiliary port plate	Add CY-3209-32-316-CA3 to bill of Material	0.2	0.09
Relief Valve (also specify port plate)	Add RV-3-316-*** to bill of Material	0.2	0.09
Speed Control, close only	Add suffix -BC3 to Control Valve p/n	0.1	0.05
Speed Control, both open closed	Add FCV-3-316 to bill of Material	0.5	0.23

Notes:

- * For regulator auto drain, consult factory
- ** Add voltage and solenoid options. See C-316 catalog;
- † For pilot change 3321 to 3301
- †† Weight are for -XX type solenoids
- *** Add set pressure, for example RV-3-316-080 for 80 psi