



Total Air Prep (TAP)



TAP-3000



TAP-1000



For a variety of cable options see our website www.AutomationDirect.com

The NITRA Total Air Prep (TAP) unit is the latest technology for compressed air preparation. A single, high flow unit contains an automatic drain air filter with clogged filter indicator, relieving regulator, lockable shut-off valve, pressure gauge and air dump. Electric models also have an adjustable electric soft start / shut-off valve and an adjustable pressure switch with indicator LEDs. Interchangeable inlet and outlet port inserts allow the TAP to easily mount to most pipe sizes.

Features:

- 20 micron air filter with automatic drain (optional 5 micron filter element sold separately)
- 0-120 psi operating range
- Units ship with 1/2" NPT inlet/outlet ports. Optional NPT or BSPP port inserts in sizes 1/4" thru 1" (sold separately). Any combination of port sizes all in one small footprint!
- Units ship with panel mounting hardware. Optional thru-panel mount hardware sold separately.

Nitra Total Air Prep (TAP) Units

Part No.	Price	Description	Weight
TAP-3000	\$324.00	NITRA pneumatic total air prep unit, 1/2in female NPT inlet(s), 1/2in female NPT outlet(s), 0-120 psi (0-8 bar) adjustable range, polycarbonate bowl, automatic drain, clog indicator, manual shutoff valve, soft start valve, pressure switch.	3.0
TAP-1000	\$177.00	NITRA pneumatic total air prep unit, 1/2in female NPT inlet(s), 1/2in female NPT outlet(s), 0-120 psi (0-8 bar) adjustable range, polycarbonate bowl, automatic drain, clog indicator, manual shutoff valve.	2.5

Nitra Total Air Prep (TAP) Unit Specifications

Specification	1/4" Units	3/8" Units	1/2" Units	3/4" Units	1" Units
Flow rate at 91psi (6.3 bar) Δp 7psi (0.5 bar)	78 scfm, 2200 NI/min	102 scfm, 2900 NI/min	127 scfm, 3600 NI/min		
Flow rate at 91psi (6.3 bar) Δp 14psi (1 bar)	85 scfm, 2400 NI/min	116 scfm, 3300 NI/min	141 scfm, 4000 NI/min		
Flow rate on discharge at 14psi (6 bar)	56 scfm, 1600 NI/min				
1/4" Port flow rate of non-regulated filtered air at 91psi (6.3 bar) Δ pressure 1 bar	64 scfm, 1800 NI/min				
Flow rate of each supplementary 1/4" filtered and regulated air port at 91psi (6.3 bar) Δ pressure 1 bar*	85 scfm, 2400 NI/min				
Fluid	Compressed air				
Setting Range	0-120 psi (0-8 bar)				
Degree of Filtration	5µm (yellow) or 20µm (white)				
Maximum Inlet Pressure	145psi (10 bar)				
Operating Temperature Range	-10 to 50°C (-14 to 122°F)				
Protection Class	IP 65 with connector				
Mounting	Front, with M5 x 75 screws or back with M6 x 70 screws (screws are included)				
Mounting Position	Vertical				
Direction of Flow	From left to right				
Approvals	CE				

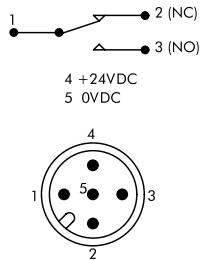
* Total flow rate from two supplementary outlets and the main one cannot exceed 4000 NI/min at 6.3 bar with $\Delta P = 1$



Total Air Prep (TAP)

Nitra Total Air Prep (TAP) Unit Specifications (TAP 3000 only)					
Specification	1/4" Units	3/8" Units	1/2" Units	3/4" Units	1" Units
Solenoid Valve Voltage	24VDC \pm 10%				
Pressure Interval Settable on the Pressure Switch	7 to 145 psi (0.5 to 10 bar)				
Pressure Switch Hysteresis (not adjustable)	6 to 12 psi (0.4 to 0.8 bar)				
Maximum Pressure Switch Current	0.5 A (protected against overload and short-circuit)				
Maximum Pressure Switch Voltage	3 to 30 VAC/VDC				
Pressure Switch Contacts	Normally Open (NO) and Normally Closed (NC)				
Rated Switching Cycles	5×10^6				
Protection Class	IP 65 with connector				
Solenoid Valve Insulation Class	Insulation class = F (155°C or 311°F)				
Switching Time	100% ED				
Electrical Connection	M12 x 1 5-pin to CEI IEC 60947-5-2				

Wiring



Cable Assembly Wiring Colors:

Pin 1 - Brown

Pin 2 - White

Pin 3 - Blue

Pin 4 - Black

Pin 5 - Yellow/Green

Note: wiring colors are based on AutomationDirect CD12L and CD12M 5-pole cable assemblies.

Version with solenoid valve and pressure switch

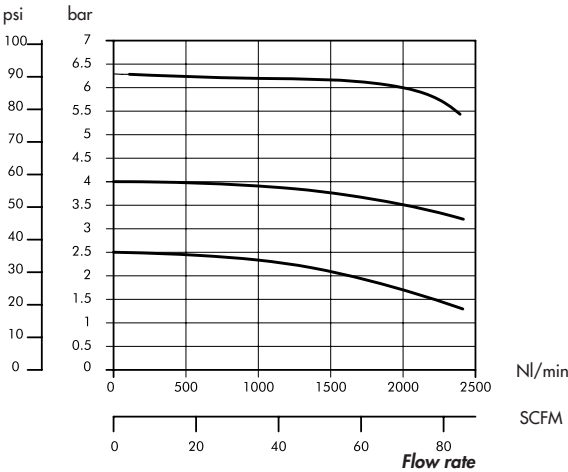


Total Air Prep (TAP)

Flow Charts:

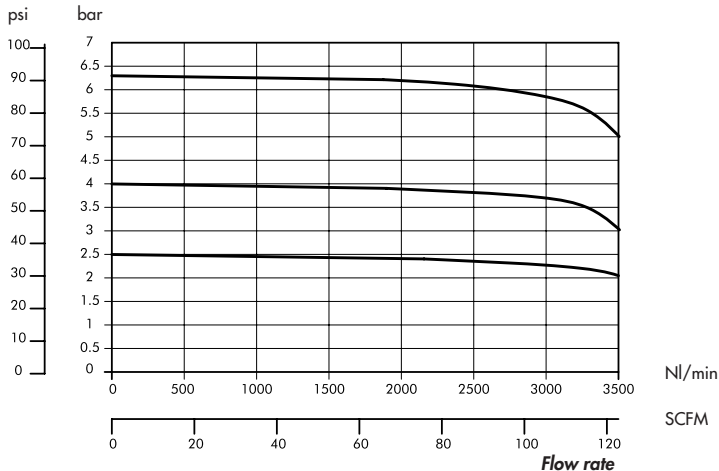
1/4"

Pm = 116 psi - 8 bar
Preset pressure



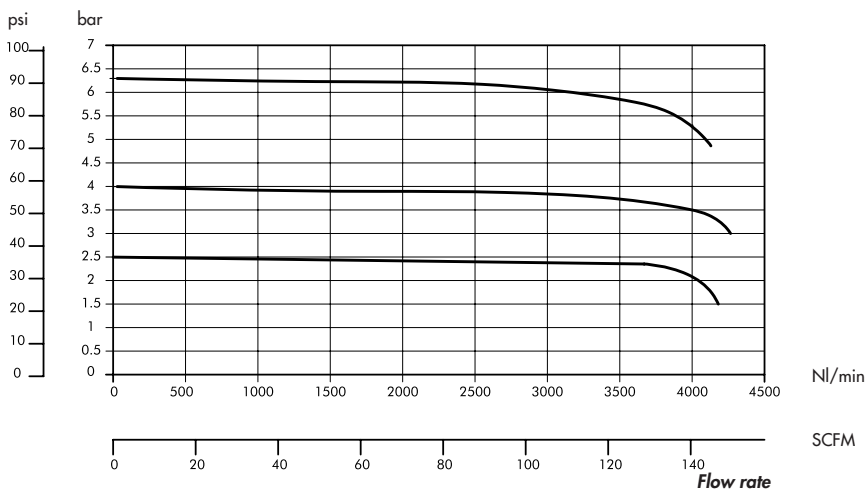
3/8"

Pm = 116 psi - 8 bar
Preset pressure



1/2" - 3/4" - 1"

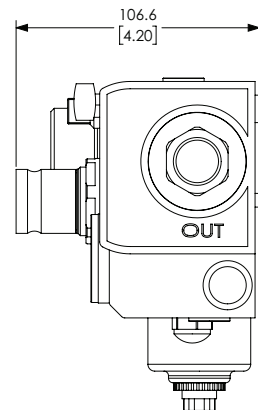
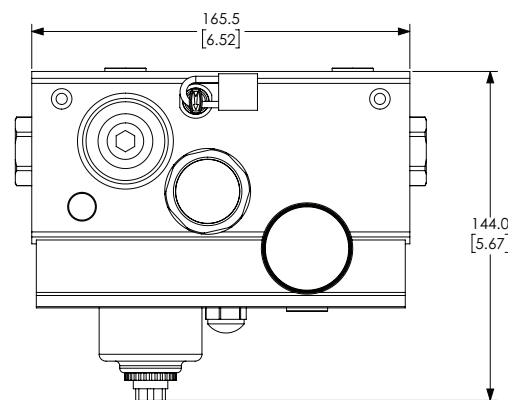
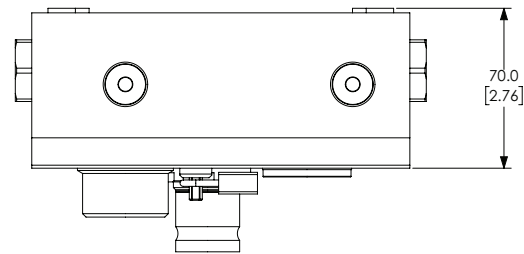
Pm = 116 psi - 8 bar
Preset pressure



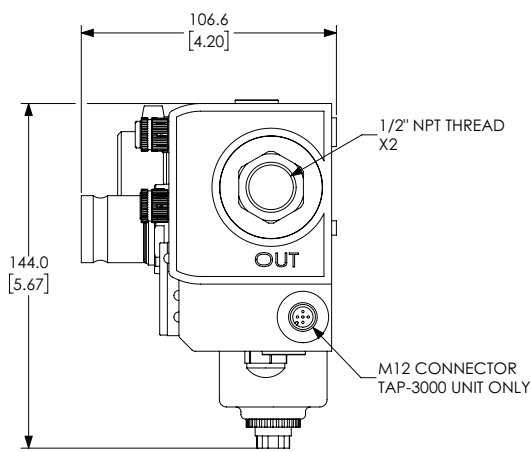
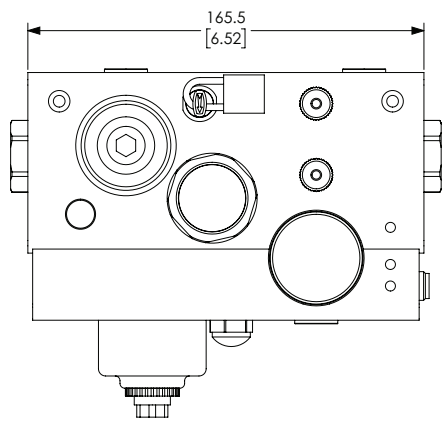
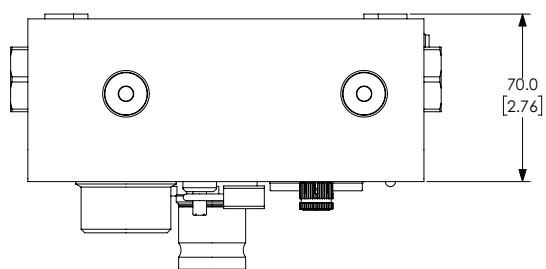


Total Air Prep (TAP)

Dimensions mm [inches]



TAP-1000 Series



TAP-3000 Series

See our website www.AutomationDirect.com for complete Engineering drawings.



Total Air Prep (TAP) - Accessories

Total Air Prep (TAP) - Accessories				
Item	Part No.	Price	Description	Weight (lbs)
	TAP-ACC01	\$13.50	NITRA panel mounting brackets, plated steel. For use with TAP unit. Mounting hardware included.	0.2
	TAP-ACC02	\$7.50	NITRA filter element, replacement, 20 micron, ultra high molecular weight polyethylene (UHMWPE). For use with TAP unit.	0.2
	TAP-ACC03	\$16.50	NITRA regulator, replacement, 0-120 psi (0-8 bar) adjustable range, acetal. For use with TAP unit.	0.3
	TAP-ACC04	\$7.50	NITRA filter element, replacement, 5 micron, ultra high molecular weight polyethylene (UHMWPE). For use with TAP unit.	0.1
	TAP-ACC05	\$7.75	NITRA regulator diaphragm, replacement, brass. For use with TAP unit.	0.1
	TAP-ACC06	\$14.00	NITRA plug and filter element, replacement, 20 micron, acetal. For use with TAP unit.	0.1
	TAP-ACC07	\$16.00	NITRA port insert, 1/4in NPT, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC08	\$16.00	NITRA port insert, G1/4 BSPP, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC09	\$16.00	NITRA port insert, 3/8in NPT, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC10	\$16.00	NITRA port insert, G3/8 BSPP, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC11	\$19.00	NITRA port insert, replacement, 1/2in NPT, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC12	\$19.00	NITRA port insert, G1/2 BSPP, anodized aluminum. For use with TAP unit.	0.3

Note: For power cables see our Wiring Devices section online at www.AutomationDirect.com



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Item	Part No.	Price	Description	Weight (lbs)
	TAP-ACC13	\$22.00	NITRA port insert, 3/4in NPT, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC14	\$22.00	NITRA port insert, G3/4 BSPP, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC15	\$26.00	NITRA port insert, 1in NPT, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC16	\$26.00	NITRA port insert, G1 BSPP, anodized aluminum. For use with TAP unit.	0.3
	TAP-ACC17	\$4.50	NITRA regulator removal wrench, steel. For use with TAP unit.	0.3
	TAP-ACC18	\$38.50	NITRA solenoid valve, replacement. For use with TAP-3000 unit.	0.3
	TAP-ACC20	\$45.50	NITRA automatic drain valve, replacement, acetal. For use with TAP unit.	0.3
	TAP-ACC21	\$9.50	NITRA padlock, replacement, brass. For use with TAP unit.	0.3
	TAP-ACC23	\$1.50	NITRA regulator knob, replacement, 0-120 psi (0-8 bar) adjustable range, acetal. For use with TAP unit.	0.1

Note: For power cables see our Wiring Devices section online at www.AutomationDirect.com