

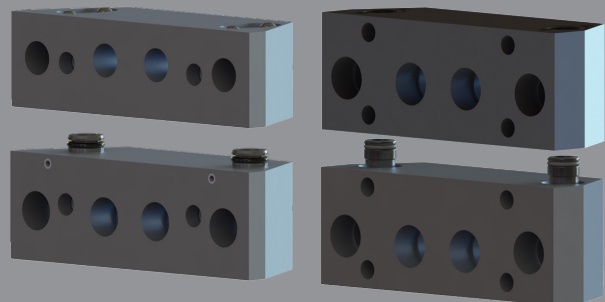
XCHANGE® Utility Module

Medium Duty Pneumatic Module

The E80/100 & E125LP Pneumatic Modules pass fluid during an automatic tool changing operation.

Advantages:

- Valved/Checked interface on Master/Robot Side
- Additional connections for applications that need more than the imbedded pneumatic pass throughs built into the Master/Robot and Tool Sides
 - o Allows the use of two (2) imbedded and adds two (2) additional pass throughs



SPECIFICATIONS

Model	Compatible XCHANGE™ Tool Changers	Number of User Connections	Robot Adaptor Weight kg (lb)	Tool Adaptor Weight kg (lb)	User Interface*	Flow Cv
Pneumatic Module – E80/100	E80 and E100	4 *	0.28 (0.63)	0.34 (0.74)	1/4" BSPP	0.37
Pneumatic Module – E125LP	E125LP	4 *	0.54 (1.19)	0.54 (1.19)	3/8" BSPP	0.92

Operating Temperature: **5 - 60 °C (40 - 140 °F)**

User Pressure Range: **0- 7 bar (0 - 101 psi)**

Noise Emissions (Sound Pressure): **≤ 70 dB(A) in any direction***

* Allows the use of two (2) imbedded pass throughs and adds two (2) additional pass throughs.

FLOW FORMULAS

Imperial measurement units:

Flow of Gases (Pneumatic Module)

$$Q_G = 962 * C_v * \sqrt{\frac{P_1^2 - P_2^2}{G_g * T}}$$

Q_G = Gas flow rate in Standard Cubic Feet per Hour (SCFH)

Q = Valve flow rate in gallons per minute (US gpm)

C_v = Flow Coefficient = 1.54 for these modules

P_1 = Upstream (inlet) absolute pressure in pounds per square inch (psi)

P_2 = Downstream (outlet) absolute pressure in pounds per square inch (psi)

G_g = Specific gravity of medium where air at 70°F and 14.7 psia equals 1.0

G_f = Specific gravity of fluid related to water

T = Absolute temperature in °R (°F + 460)

Metric measurement units:

Flow of Gases (Pneumatic Module)

$$Q_G = 395 * C_v * \sqrt{\frac{P_1^2 - P_2^2}{G_g * T}}$$

Q_G = Gas flow rate in Standard Cubic Meters per Hour (m³/h)

Q = Valve flow rate in Cubic Meters per Hour (m³/h)

C_v = Flow Coefficient = 1.54 for these modules

P_1 = Upstream (inlet) absolute pressure in bar

P_2 = Downstream (outlet) absolute pressure in bar

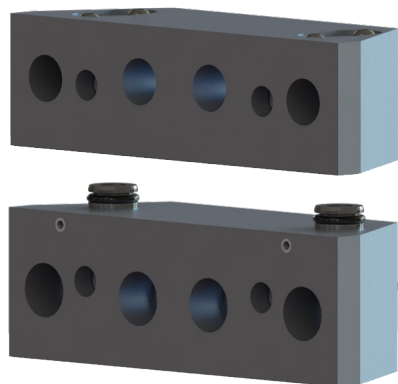
G_g = Specific gravity of medium where air at 20°C and 1 bar equals 1.0

G_f = Specific gravity of fluid related to water

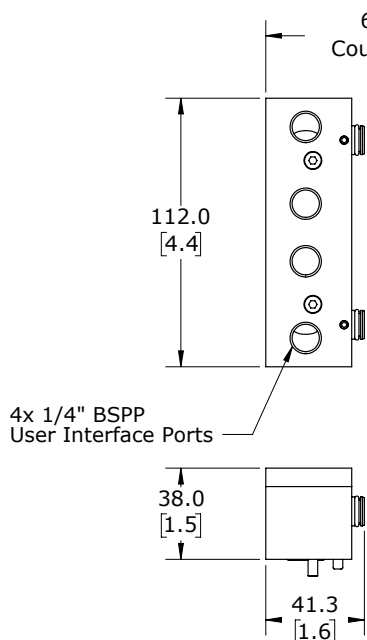
T = Absolute temperature in °R (°F + 460)

PRODUCT INFORMATION

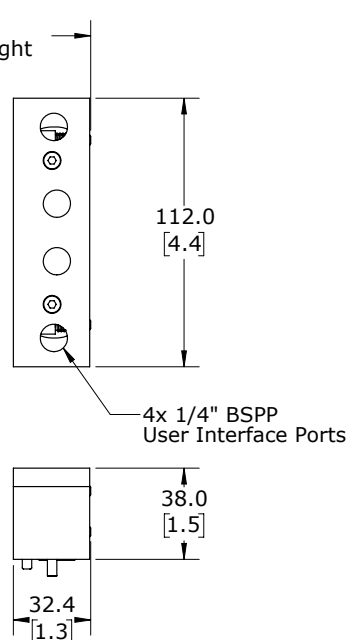
E80/100 MODULES



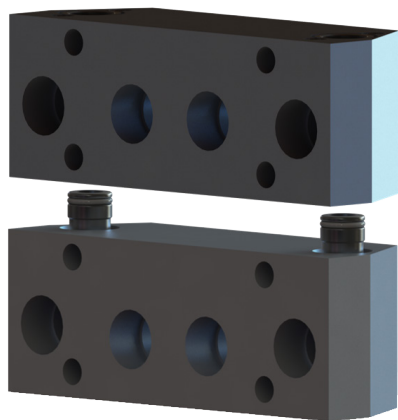
ROBOT ADAPTOR MODULE



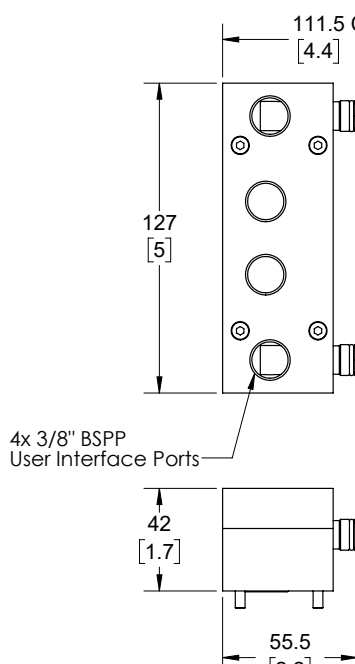
TOOL ADAPTOR MODULE



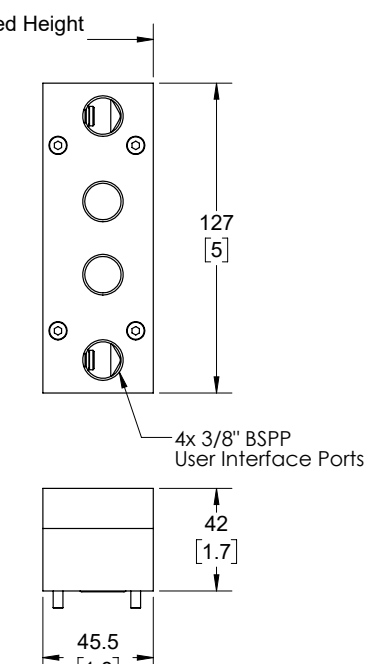
E125LP MODULES



ROBOT ADAPTOR MODULE



TOOL ADAPTOR MODULE



* Dimensions are in millimeters (inches).

** All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification.



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