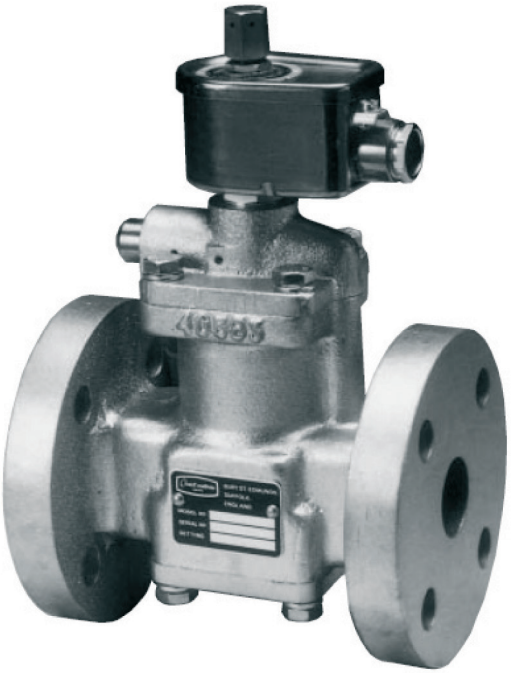
Air Start Valve

Model 4123C

Overview

The Model 4123C is a pilot-operated control valve with instant open-close action handling high flow rate air at high pressure designed for use on diesel and gas engine air starting systems.



Model 4123C
Air Start Valve

Typical applications

- Designed for use on diesel and gas engine air starting systems

Key benefits

- Electric, pneumatic or manual actuation - can be used in many systems
- On/off with vent action
- Flanged or screwed ports - suitable for any system
- Solenoid versions to 35 bar (500 psi) rating

Specification

Valve body

Material	Bronze to BS 1400 LG2	
Seals material	Nitrile rubber	
Valve flanges	DIN 2503, ND40	or ports threaded 1” NPT or BSPT
Vent port threaded	3/8” NPT or BSPT	
Minimum line pressure	3.0 bar	44 psi
Maximum line pressure	35.0 bar	500 psi
Valve Cv factor	13	
Net weight	6.5 - 7.2 kg	

Manual operator push button

Stroke	3mm (approximate)	
Maximum force required	11 kg (25 lbs)	

Air pilot operator

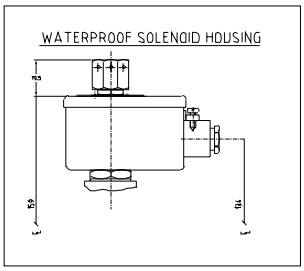
Minimum pilot pressure	3.0 bar	44 psi
Maximum pilot pressure	17.2 bar	250 psi
Maximum line pressure	35.0 bar	500 psi
Weatherproof	IP67	

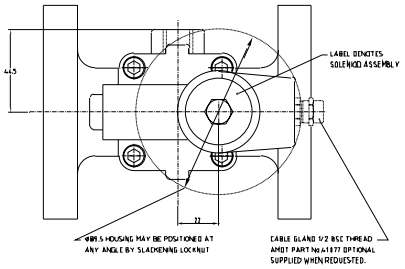
Electrical solenoid operator

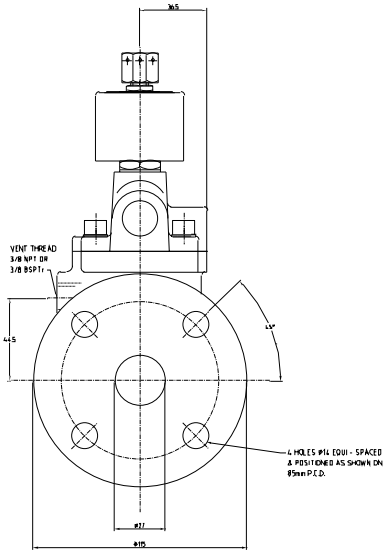
Voltage	12 or 24 volts DC	110 or 220 volts AC*
	Continuously rated, consuming 8 Watts	
Weatherproof	IP43 (standard)	IP67 (optional)
Maximum line pressure	27 bar	400 psi

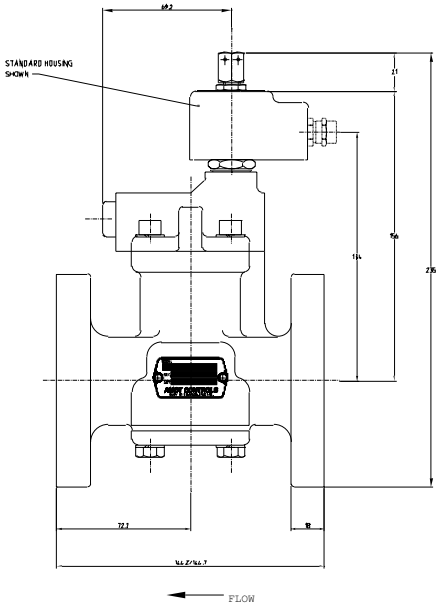
* For AC voltage operation, the valve is supplied with flying leads and terminal box containing an encapsulated rectifier and terminal block.

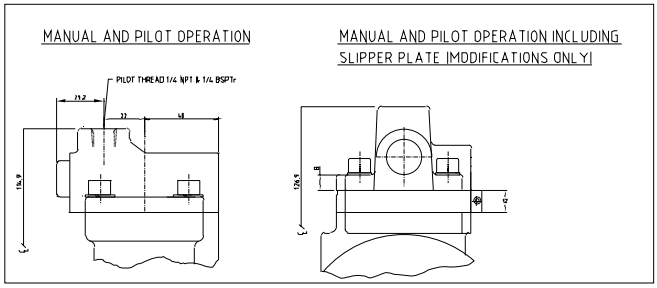
Dimensions

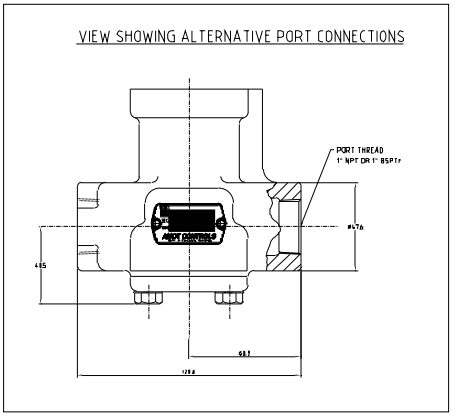

WATERPROOF SOLENOID HOUSING

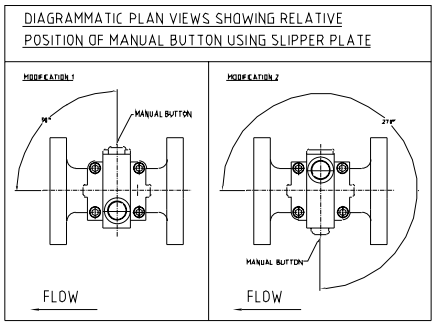

LABEL DENOTES SOLENOID ASSEMBLY
CABLE GLAND 1/2 BSC THREAD AMOT PART No A1877 OPTIONAL SUPPLIED WHEN REQUESTED.


VENT THREAD 3/8 NPT OR 3/8 BSPTr
4 HOLES Ø14 EQUI - SPACED & POSITIONED AS SHOWN ON Ø95mm P.C.D.


STANDARD HOUSING SHOWN
FLOW


MANUAL AND PILOT OPERATION
PILOT THREAD 1/4 NPT & 1/4 BSPTr
MANUAL AND PILOT OPERATION INCLUDING SLIPPER PLATE (MODIFICATIONS ONLY)


VIEW SHOWING ALTERNATIVE PORT CONNECTIONS
PORT THREAD 1" NPT OR 1" BSPTr


DIAGRAMMATIC PLAN VIEWS SHOWING RELATIVE POSITION OF MANUAL BUTTON USING SLIPPER PLATE
MODIFICATION 1
MANUAL BUTTON
FLOW
MODIFICATION 2
MANUAL BUTTON
FLOW

Flow data

$$\triangle P = \left(\frac{Q}{1360\ Cv}\right)^2 \left(\frac{G\ (T + 460)}{P_{in}}\right)$$

Pressure drop through valve can be calculated using the formula opposite.

Q = Flow-standard cubic feet per hour

P_{in} = Inlet pressure PSIA

T = Temperature in °F

G = Specific gravity of gas

How to order

Use the tables below to select the unique specification of your 4123C air start valve.

Example	4123C	1	2	1	2	N	N	AA	**Comments**
									Model
Basic Model	4123C								Bronze to BS 1400 LG2 body
									Type
Model type		1							Manual and air pilot
		2							Manual and electrical solenoid
									Connection
Valve line connection			1						Flanges to ND40: DIN 2503
			2						Threaded ports: 1 inch BSPTr
									Thread
Pilot thread: vent thread				1					1/4" BSP Tr: 3/8" BSP Tr vent thread (not on solenoid version)
									NPT - non standard, please contact AMOT
									Operator
Manual operator position					0				Standard - push button over valve exit port
					1				Push button rotated 90° clockwise
					2				Push button rotated 270° (rotated push button increases valve height by 11mm)
									Special requirements
Special requirements						A			12 Volt DC : 10.8 - 13.8 VDC
						B			24 Volt DC : 21.6 - 27.6 VDC
						G			110 Volt AC : 99 - 126.5 VAC
						H			220 Volt AC : 198 - 253 VAC
						N			Without solenoid - ie. Air Pilot models (all coils are continuously rated, consuming 8 watts)
									Solenoid Housing
Solenoid housing type							A		Standard housing to IP43
							B		Waterproof housing to IP67
							N		Without housing - ie. Air pilot models
									Coil voltage
Coil voltage (solenoid operator)								AA	Standard construction - no special requirements

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⚠ WARNING

This product can expose you to chemicals including Lead, which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

www.amot.com