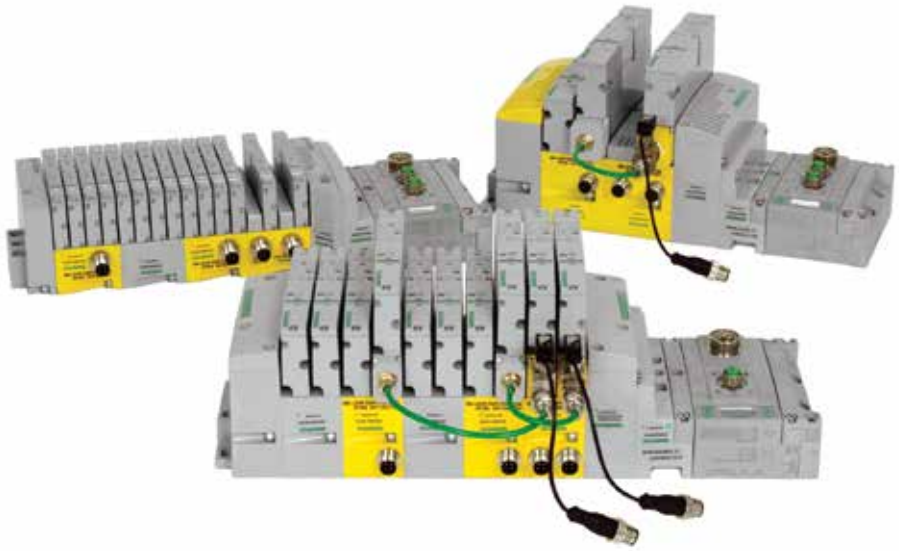
Solenoid Pilot Actuated Valves

501 Series
502 Series | Zoned Safety Manifolds
503 Series

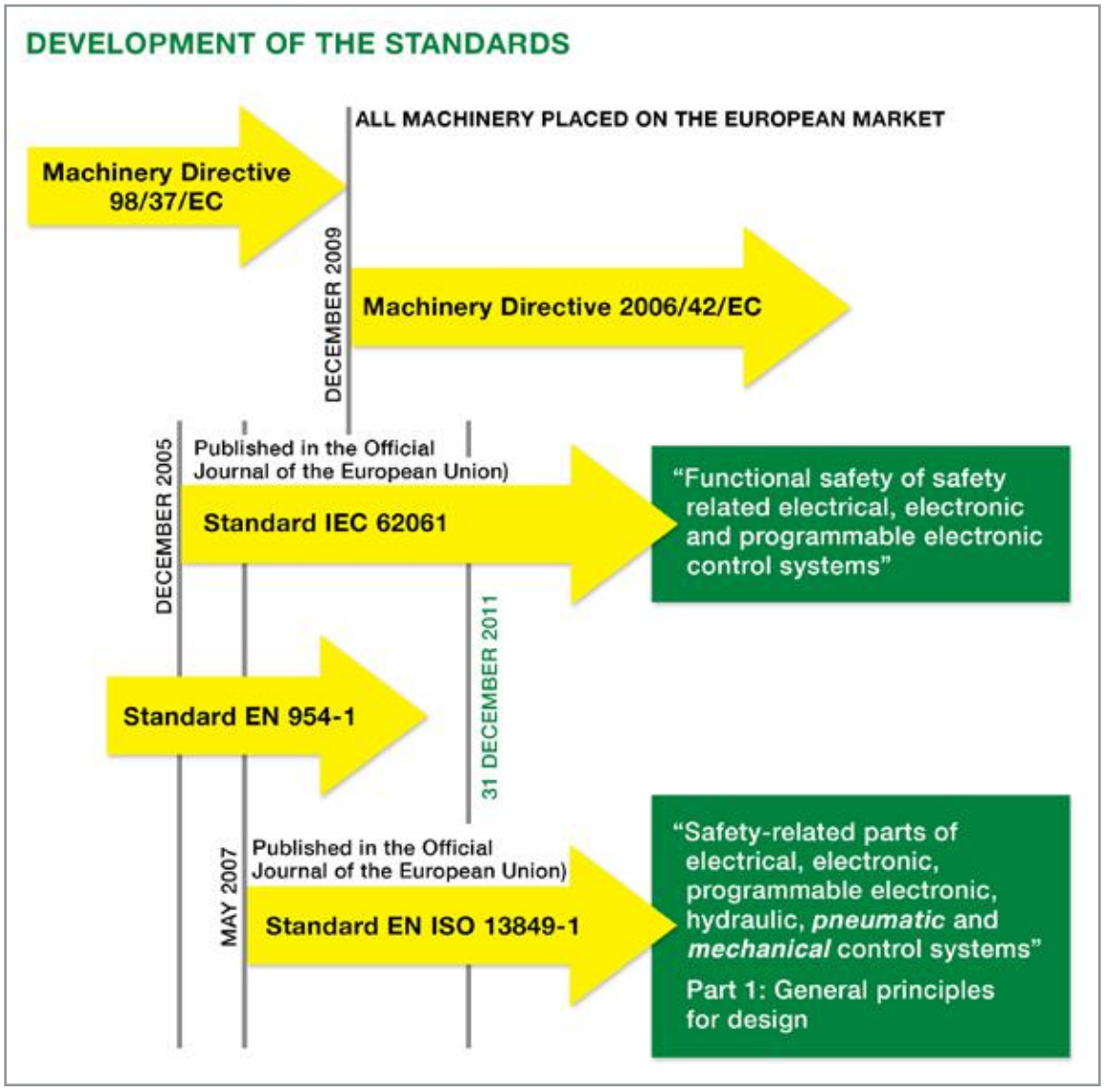


Asco™

EMERSON™

Principle of the Safety of Machinery:

To guarantee the safety and health of persons exposed to the installation, operation, adjustment and maintenance of machinery.

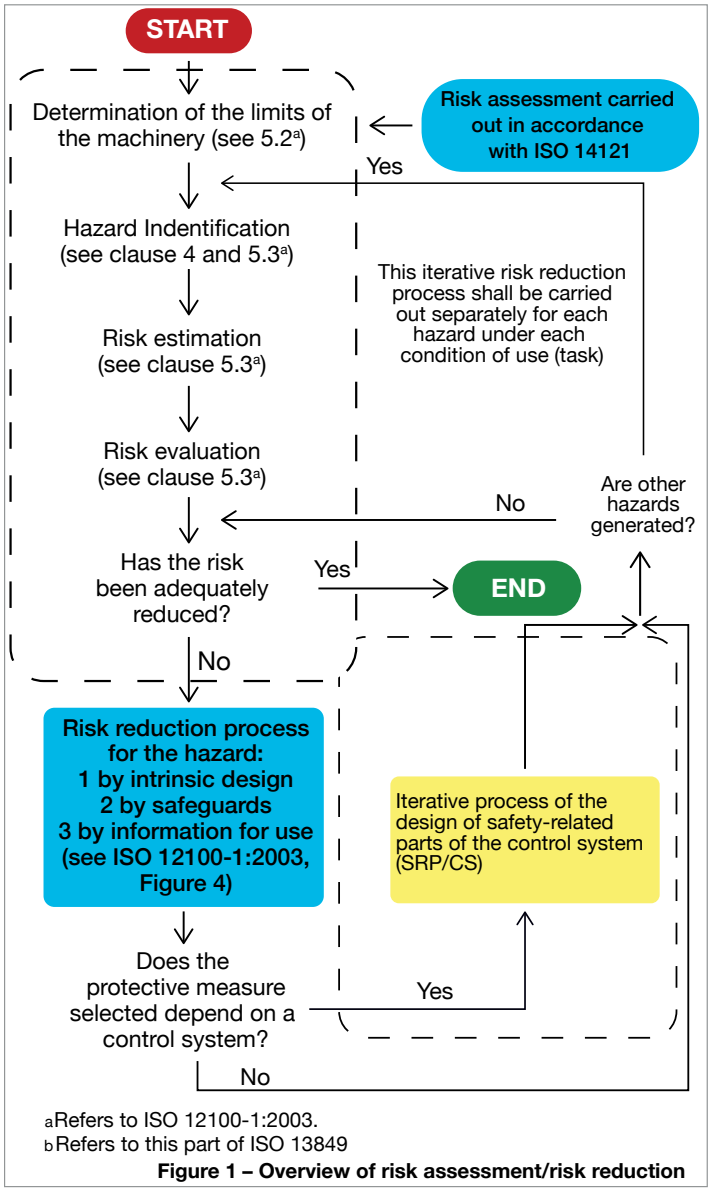


Three key concepts for the design of machinery and their safety functions have emerged from the implementation of the new Machinery Directive 2006/42/EC:

- A risk analysis prior to design
- A particular consideration of the quantitative aspect of the safety functions in addition to the qualitative approach
- The use of performance levels (PL)

Risk Evaluation:

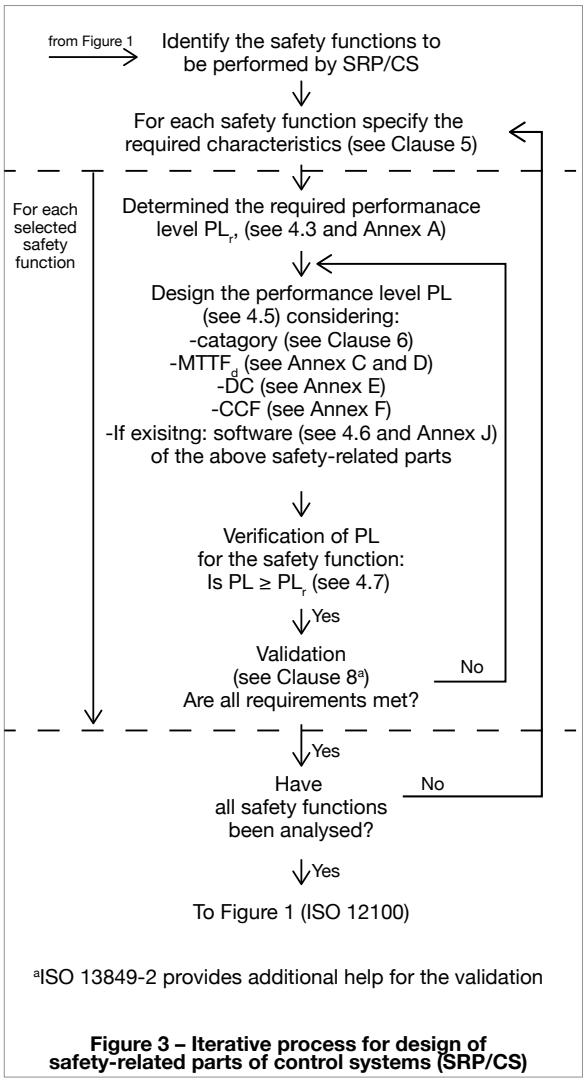
The manufacturer or supplier of a machine must see to it that a risk evaluation is conducted to determine the health and safety requirements for persons involved in its operation. The machine must then be designed and constructed in accordance with the results of the risk evaluation.



[a]Refers to ISO 12100-1:2003.
[b]Refers to this part of ISO 13849

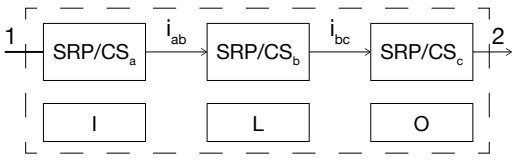
Figure 1 – Overview of risk assessment/risk reduction

Risk Assessment/Risk reduction:
Identify machine hazards, access the risks of the hazards and determine the appropriate actions to mitigate the hazards.



[a]ISO 13849-2 provides additional help for the validation

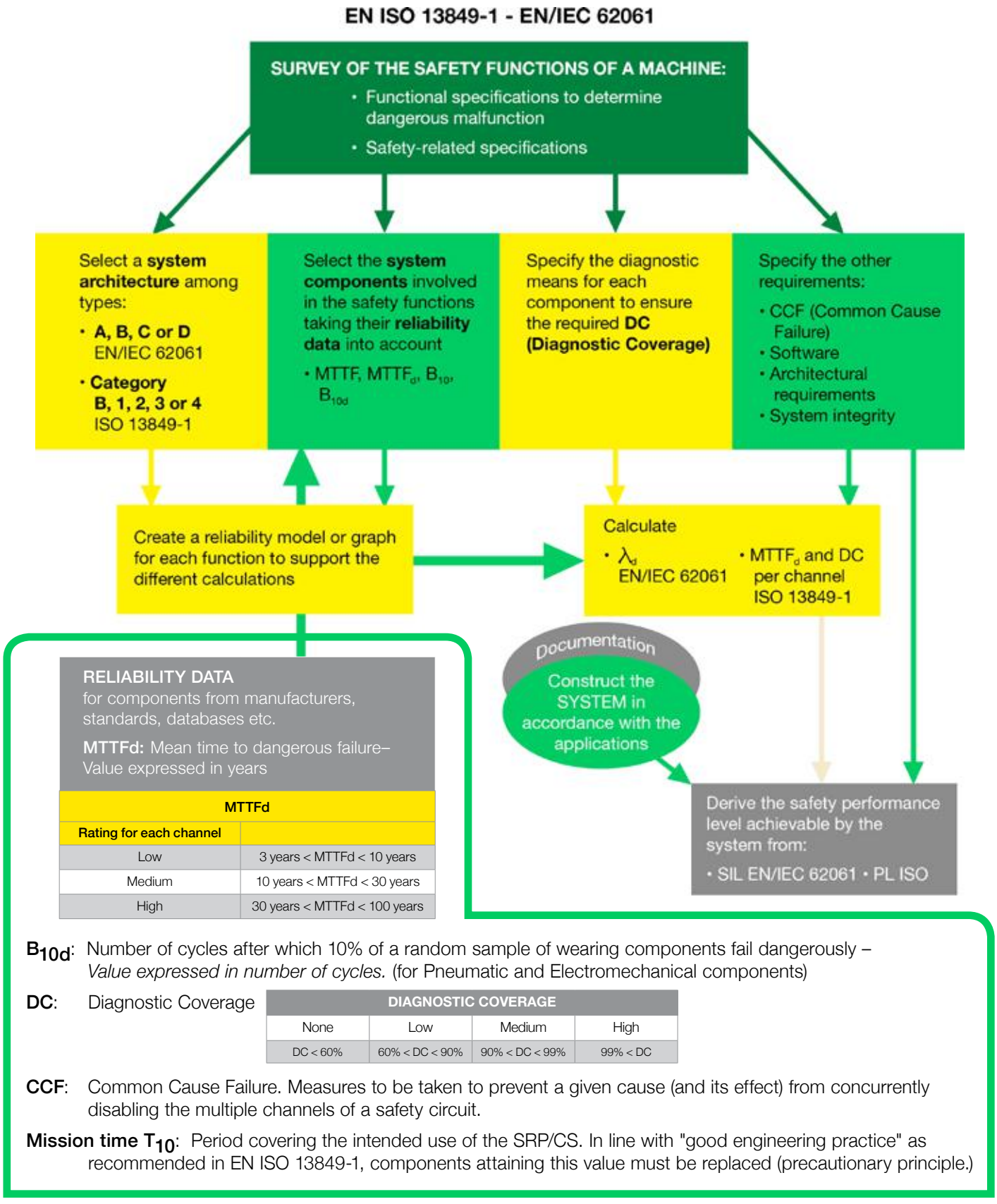
Figure 3 – Iterative process for design of safety-related parts of control systems (SRP/CS)



Key

I	imput
L	logic
O	output
1	initation event (e.g. manual actuatuion of a push button, opening of guard, interuption of beam of AOPD
2	machine actuator (e.g. motor brakes)

Figure 4 – Diagrammatic presentation of combination of safety-related parts of control systems forprocessing typical safety function



MTTFd	
Rating for each channel	
Low	3 years < MTTFd < 10 years
Medium	10 years < MTTFd < 30 years
High	30 years < MTTFd < 100 years

B_{10d}: Number of cycles after which 10% of a random sample of wearing components fail dangerously – *Value expressed in number of cycles.* (for Pneumatic and Electromechanical components)

DC: Diagnostic Coverage

DIAGNOSTIC COVERAGE			
None	Low	Medium	High
DC < 60%	60% < DC < 90%	90% < DC < 99%	99% < DC

CCF: Common Cause Failure. Measures to be taken to prevent a given cause (and its effect) from concurrently disabling the multiple channels of a safety circuit.

Mission time T_{10}: Period covering the intended use of the SRP/CS. In line with "good engineering practice" as recommended in EN ISO 13849-1, components attaining this value must be replaced (precautionary principle.)

The circuit analysis example identified on this and the preceding pages is specific to the Zoned Safety Manifold and represents the evaluation of only the Pneumatic Subsystem, which is part of the complete SRP/CS. It is meant to show the capabilities that can be achieved with the Numatics Zoned Safety Manifolds, when common pneumatic safety circuitry is utilized.

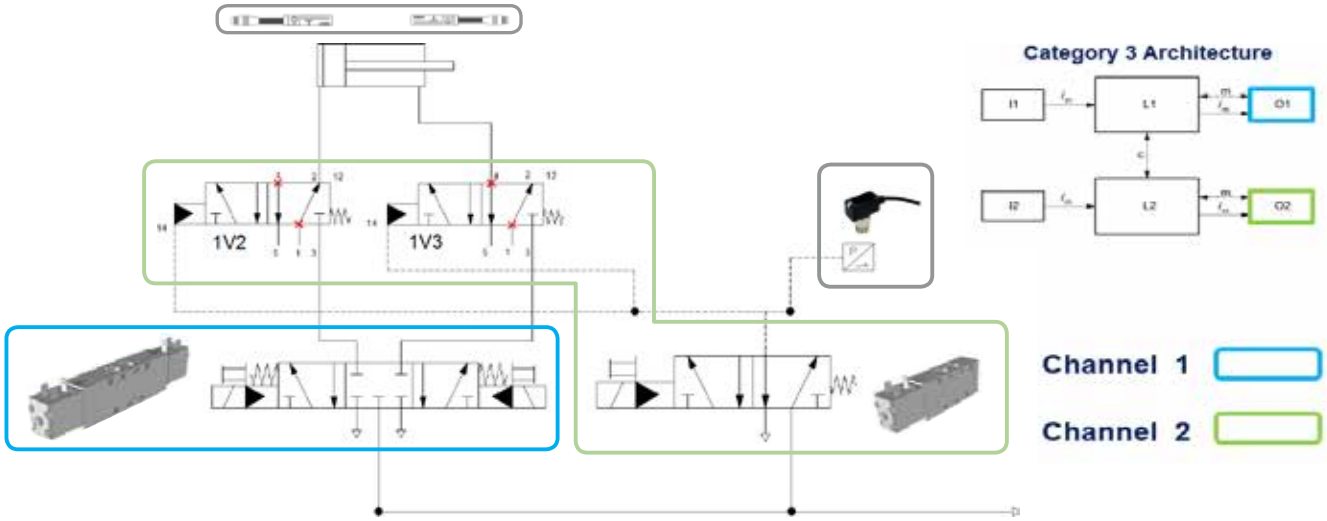


Fig. 1 Typical pneumatic circuit implementation, Stopping of Motion

The individual components used to render the pneumatic safety circuit in Fig. 1, can be rendered in the Zoned Safety Manifold in the same manner. In this example, the representative Safety Function is: Stopping of Motion.

Safety Function: Safety Related Stop and Unexpected Startup

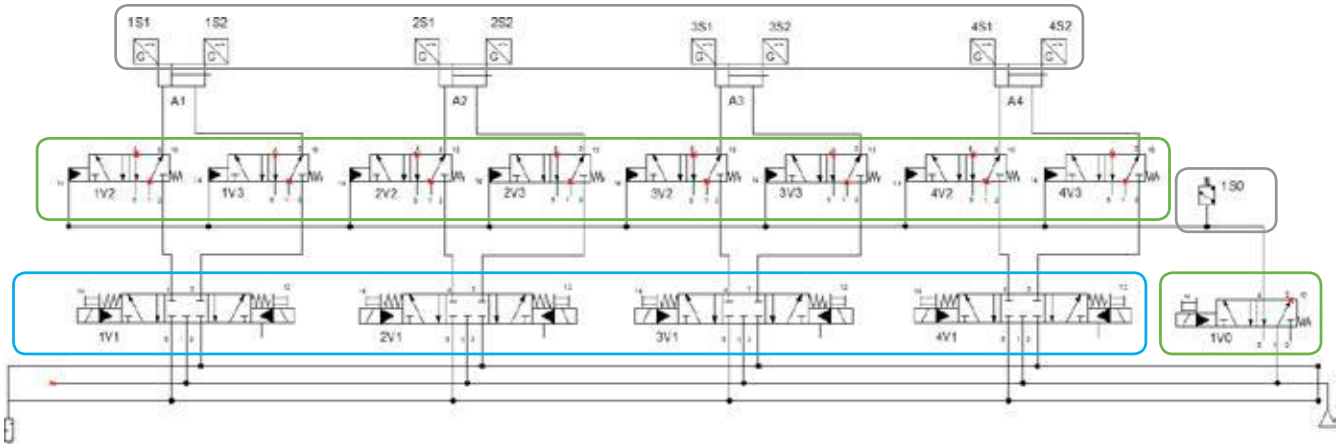


Fig. 2 Multiple Safety Circuit Rendering

Because the Safety Function of each Actuator is the same and will be rendered simultaneously, the evaluation can be approached as a single circuit rendering as in Figure 1. Fig. 3 represents this in diagrammatic form.

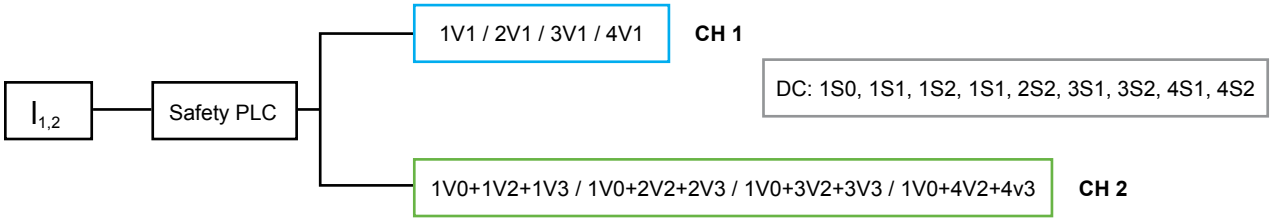


Fig. 3 Diagrammatic Representation – Zoned Safety Manifold – SRP/CS (pneumatic components as a sub-system)

The following example calculations validate the Performance Level (PL) for the SRP/CS, as a single circuit rendering, as identified above. The following validation summarizes the calculations. Complete calculations for this Safety Function rendering and others can be found in the 503 Zoned Safety Technical Manual on the ASCO.com website.

The Performance Level (PL) is derived from the Category adherence, Mean Time to Failure Dangerous (MTTFd), Common Cause Failure (CCF) and Diagnostic Coverage (DC). Below are the representative equations used, as well as the machine parameters for this example. Mission Time (Tm), determines the life of the SRP.

Equations:

$$MTTF_d = \frac{B_{10d}}{0{,}1 \times n_{op}} \qquad n_{op} = \frac{d_{op} \times h_{op} \times 3600\ s/h}{t_{cycle}}$$

$$DC_{avg} = \frac{\frac{DC_1}{MTTF_{d1}} + \frac{DC_2}{MTTF_{d2}} + ... + \frac{DC_N}{MTTF_{dN}}}{\frac{1}{MTTF_{d1}} + \frac{1}{MTTF_{d2}} + ... + \frac{1}{MTTF_{dN}}} \qquad T_M = \frac{B_{10d}}{n_{op}}$$

Machine Parameters:

Working Hours h_{op} = 16 hours

Working days d_{op} = 240 days

Cycle Time t_{cycle} = 10 seconds

The summarized values for MTTFd, DC, CCF and Tm on the following pages are a result of applying the machine parameters, B10d component values, etc. to the identified equations.

MTTFd Calculation Results:

B_{10d} of 1V1 thru 4V1 = 20,000,000 cycles (R503A2B60MA00F1)

CHANNEL 1

B_{10d} of 1V0 = 20,000,000 cycles (R503A2B10M11MF1)

B_{10d} of 1V2 thru 4V3 = 60,000,000 cycles (L12PA452O000000)

CHANNEL 2

$MTTF_d$ for **Channel 1** yields: **HIGH**

DC, Indirect Monitoring, Position Sensing, 60%

$MTTF_d$ for **Channel 2** yields: **HIGH**

DC, Indirect Monitoring, position & Pressure Sensing, 60% & 90% respectively

DC Average realized, 70%

Diagnostic Coverage Average (DC_{avg}) Calculation Results:

DC_{avg} = 71% = LOW

Common Cause Failure Estimation: Calculation Results:

CCF = 75 = Satisfied

Mission Time Calculation Results:

T_M (R503A2B60MA00F1)= 20,000,000 cycles **/ 1,382,400** cycles/year **= 14.5** years (replace component after 14.5 years)

T_M (R503A2B10M11MF1)= 20,000,000 cycles **/ 1,382,400** cycles/year **= 14.5** years (replace component after 14.5 years)

T_M (L12PA452O000000)= 60,000,000 cycles **/ 1,382,400** cycles/year **= 43** years (replace component after 43 years)

Based on the previous calculation of MTTFd, CCF and DC, as well as the adherence to a Category 3 architecture for this example, the components utilized will satisfy a Category 3 PLd requirement.

Table 7 – Simplified procedure for evaluatin PL achieved by SRP/CS

Category	~~B~~	~~1~~	~~2~~	~~2~~	**3**	**3**	**4**	
DC_{avg}	**none**	**none**	**low**	**medium**	**low**	**medium**	**high**	
$MTTF_{avg}$ of each channel								
Low	a	Not Covered	a	b	b	c	Not Covered	Performance
Medium	b	Not Covered	b	c	c	d	Not Covered	
High	Not Covered	c	c	d	d	d	e	

Table of Contents

501 Series – Directional Control Valve Platform

Featuring Higher Flow in a Compact Valve Package

CE

Features

- Solenoid air pilot actuated
- Low wattage 0.8 Watt for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to external pilot
- IP65 Certified

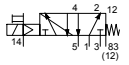
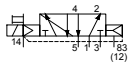
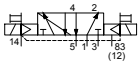
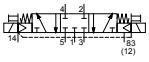
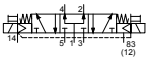
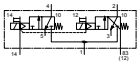
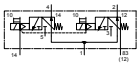
Sandwich and Manifold Accessories

- Pressure Regulators for supply pressure control at individual valve
- Speed control to control exhaust flow allows for control of actuator extend or retract speed
- Shut off block for individual valve to be isolated from pressure supply during operation and repair
- Mid Station Supply Manifold block allows for multiple pressure zones (with blocking discs) or additional air supply to a manifold

Fieldbus Electronics Compatible

- G3 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - Easy distribution of additional manifolds through Sub-bus communication
  - One Node supports up to 16 I/O modules
  - Available with Auto Recovery Module (ARM) which allows configuration information to be saved and reloaded to replacement module automatically

Performance Data

Function Type	Function Code	ISO Symbol Pilot (14) Return (12)	Interface	Rated Flow at 90 PSI Cv (l/min (ANR)) 1 ➡ 2 1 ➡ 4	Rated Flow at 90 PSI Cv (l/min (ANR)) 2 ➡ 3 4 ➡ 5	Response Time (ms) Energize/ De-Energize	Pilot Pressure at 73°F/23°C PSI (bar) min.	Pilot Pressure at 73°F/23°C PSI (bar) max	Operating Pressure Port 1 PSI (bar)/inHg (-bar) min.	Operating Pressure Port 1 PSI (bar)/inHg (-bar) max	 Part Number
Rubber Packed Technology, with Manual Override											
5/2	B1	 Spring Return	Proprietary	0.460 (460)	0.465 (465)	14/29	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B10MA00F1
	BN	 Differential Air Return		0.460 (460)	0.465 (465)	25/21	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2BN0MA00F1
	B4	 Solenoid Air Return		0.460 (460)	0.465 (465)	11/11	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B40MA00F1
5/3	B5	 Center Open to Exhaust		0.420 (420)	0.470 (470)	27/12	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B50MA00F1
	B6	 Center Closed		0.460 (460)	0.465 (465)	13/12	29 (2)	115 (8)	28 (-0.95)	115 (8)	R501A2B60MA00F1
	B7	 Center Open to Pressure		0.460 (460)	0.411 (411)	17/38	36 (2.5)	115 (8)	28 (-0.95)	115 (8)	R501A2B70MA00F1
2 x 3/2 NO	BA	 Normally Open		0.450 (450)	0.450 (450)	18/18	0.3 x Operating Pressure + 13 PSI	115 (8)	30 (2)	115 (8)	R501A2BA0MA00F1
2 x 3/2 NC	BD	 Normally Closed		0.460 (460)	0.470 (470)	18/18	0.09 x Operating Pressure + 33.5 PSI	115 (8)	30 (2)	115 (8)	R501A2BD0MA00F1

Construction

Materials in Contact w/Fluid	
Body	Aluminum, E-Coating treatment
Spool	Aluminum or Stainless Steel
Piston	POM
Spring	Steel
Spool Seals	NBR + PUR
Other Seals	NBR + FKM
Other materials	PAM (Polyarylamide) 50% Glass Fiber Reinforced
Valve to Subbase Gasket	NBR
Subbases	Aluminum, E-Coating treatment

Operating Data

All Solenoids Are Continuous Duty Rated	24 VDC
Power (Watts)	0.8
Holding Current (Amps)	0.025
Ambient Temperature Range Min/Max °F (°C)	-14° F (-10° C)/122° F (50° C)

How to Order

Valve

R 501 A 2 B 4 0 M A00 F1

Product Series
501 = 11mm Valve

Revision
A = Initial Release

Actuation
2 = Rubber Packed

Valve Type
B = Solenoid Pilot w/ Flush Non-Locking Override

Function
1 = 2 Position 4-Way (5/2), Spring Return
4 = 2 Position 4-Way (5/2), Dual Solenoid
5 = 3 Position 4-Way (5/3), Open Center, Dual Pressure
6 = 3 Position 4-Way (5/3), Blocked Center
7 = 3 Position 4-way (5/3), Open to 2 & 4 in Center
A = Dual 3-Way, 14 Normally Open – 12 Normally Closed
D = Dual 3-Way, 14 Normally Closed – 12 Normally Closed
N = 2 Position 4-Way (5/2), Differential Air Return w/o Spring

Port Size
0 = No Port Size

Electrical
M = Plug-in, w/ Light, VDC

Options
A00 = Standard (No Options)
11B = Flush Locking Manual Override
11M = Without Manual Override

Voltage
F1 = 24 DC

How to Order

Regulator

R 501 A R S 5 1 J A00 1 0

Product Series
501 = 11mm Valve

Revision
A = Initial Release

Product Type
R = Regulator

Regulator Type
S = Single Reg. - Pressure to Port 1

Pressure Range
5 = 10 – 115 PSIG (0.7 – 8 bar)

Interface
1 = Proprietary

Options
A00 = Standard (No Options)
* 18V = Regulator with Gauge in Offset Port

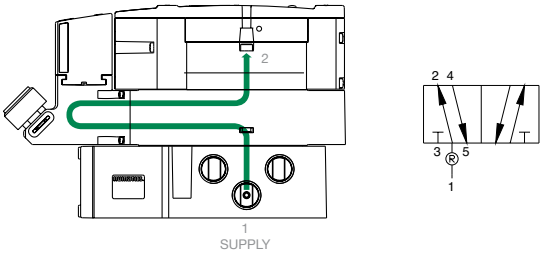
Wiring Option
J = Plug-in, Receptacle Assembly

Gauge Type
0 = Less Gauge (plugged)
1 = PSI
2 = bar

* Regulator gauges must be offset with 18V option on alternating stations to prevent interference.

Sandwich Pressure Regulator Block

Type: RS



Single pressure from a single supply.

How to Order

Mounting

K 501 A M S4 2 M A00 1 0

Port Type
H = Metric Thread
K = Push-in Fittings

Product Series
501 = 11mm Valve

Revision
A = Initial Release

Product Type
M = Manifold Subbase
[1] Z = Mid Station Supply

Mounting
S4 = Manifold Subbase, 4 Stations, Side Ports, Single Z-Board
M4 = Manifold Subbase, 4 Stations, Side Ports, Double Z-Board

Port Size (Working Ports 2 & 4)
B = M7 (Threaded only)
D = 4mm (5/32) (Push-in Fittings only)
F = 6mm (Push-in Fittings only)
2 = 1/4 (Push-in Fittings only)

Wiring Option
M = Plug-in, Receptacle Assembly
[2] U = M12 Connectors w/Pass Thru Communication Pin 1 = Coil 14, Pin 2 = Not used, Pin 3 = Common, Pin 4 = Not Used
[3] X = 0 & 24 VDC Separation at First Station of a Safety Zone

Options
A00 = Standard (No Options)

Interface
1 = Proprietary

[1] Available with M4 mounting only
[2] Only available with Product Type 'M' and 'S4 Mounting'
[3] Only available with Product Type 'M' and 'M4' Mounting

How to Order

Manifold Assembly

K 501 A V 3 H 2 0 0 V A00

Port Type
[1] 8 = NPTF
[1] G = ISO228/1-G
K = Push-in Fittings

Product Series
501 = 11mm Valve

Revision
A = Initial Release

Product Type
V = Valve Manifold Assembly

Electrical Interface
3 = G3 Series Fieldbus Interface

Number of Valve Stations
D = 4
H = 8
L = 12
P = 16
T = 20
X = 24
3 = 28
7 = 32

Options
A00 = Standard (No Options)
MUF = Muffler in End Plates
DRM = DIN Rail Mount
DWM = DIN Rail with MUF
14X = External Pilot Supply from Port #14
D12 = (14X) External Pilot Supply from Port #14 and (MUF) Muffler in End Plates
D14 = (14X) External Pilot Supply from Port #14 and (DRM) DIN Rail Mount
F06 = (14X) External Pilot Supply from Port #14, (MUF) Muffler in End Plates and (DRM) DIN Rail Mount

End Plate Style
V = Vertical

Second Valve Series
0 = No Second Valve Series

End Plate Port Size (Supply Ports 1, 3/5)
1 = 1/8
2 = 1/4
G = 5/16
H = 8mm

[1] Port Type 8 & G available in Port Size 1/8

NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

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ISO 15407-2 (18mm)
ISO 15407-1 (18mm)

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Fieldbus Electronics Compatible

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  - One Node supports up to 16 I/O modules
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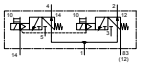
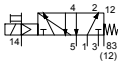
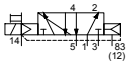
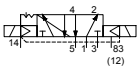
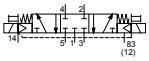
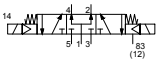
Performance Data

Function Type	Function Code	ISO Symbol Pilot (14) Return (12)	Interface	Rated Flow at 90 PSI Cv (l/min (ANR)) 1 ➡ 2 1 ➡ 4	Rated Flow at 90 PSI Cv (l/min (ANR)) 2 ➡ 3 4 ➡ 5	Response Time (ms) Energize/ De-Energize	Pilot Pressure at 73°F/23°C PSI (bar) min.	Pilot Pressure at 73°F/23°C PSI (bar) max	Operating Pressure Port 1 PSI (bar)/inHg (-bar) min.	Operating Pressure Port 1 PSI (bar)/inHg (-bar) max	 Part Number
Rubber Packed Technology, with Manual Override											
2 x 3/2 NC	BD	 Normally Closed	Proprietary	0.650 (650)	0.600 (600)	36/15	58 (4.0)	115 (8)	36* (2)	115 (8)	R502A2BD0MA00F1
			ISO	0.500 (500)	0.440 (440)						
Spool and Sleeve Technology, with Manual Override											
5/2	B1	 Spring Return	Proprietary	0.470 (470)	0.530 (530)	16/49	29 (2)	115 (8)	28 (-0.95)	115 (8)	R502A1B10MA00F1
			ISO	0.410 (410)	0.390 (390)						
	BN	 Differential Air Return	Proprietary	0.470 (470)	0.530 (530)	11/26	22 (1.5)	115 (8)	28 (-0.95)	115 (8)	R502A1BN0MA00F1
			ISO	0.410 (410)	0.390 (390)						
	B4	 Solenoid Air Return	Proprietary	0.470 (470)	0.530 (530)	12/15	29 (2)	115 (8)	28 (-0.95)	115 (8)	R502A1B40MA00F1
			ISO	0.410 (410)	0.390 (390)						
5/3	B5	 Center Open to Exhaust	Proprietary	0.380 (380)	0.500 (500)	23/13	22 (1.5)	115 (8)	28 (-0.95)	115 (8)	R502A1B50MA00F1
			ISO	0.340 (340)	0.350 (350)						
	B6	 Center Closed	Proprietary	0.420 (420)	0.440 (440)	12/12	22 (1.5)	115 (8)	28 (-0.95)	115 (8)	R502A1B60MA00F1
			ISO	0.360 (360)	0.350 (350)						
	B7	 Center Open to Pressure	Proprietary	0.420 (420)	0.430 (430)	13/23	22 (1.5)	115 (8)	28 (-0.95)	115 (8)	R502A1B70MA00F1
			ISO	0.370 (370)	0.350 (350)						

* Minimum pressure with external piloting

Construction

Materials in Contact w/Fluid	
Body	Aluminum, E-Coating treatment
Spool	Aluminum or Stainless Steel
Piston	POM
Spring	Steel
Spool Seals	NBR + PUR
Other Seals	NBR + FKM
Other materials	PAM (Polyarylamide) 50% Glass Fiber Reinforced
Valve to Subbase Gasket	NBR
Subbases	Aluminum, E-Coating treatment

Operating Data

All Solenoids Are Continuous Duty Rated	24 VDC
Power (Watts)	1.3
Holding Current (Amps)	0.054
Ambient Temperature Range Min/Max °F (°C)	-14 °F (-10 °C)/122 °F (50 °C)

How to Order: **Valve**

R 502 A 1 B 4 0 M A00 F1

Product Series
502 = 18mm Valve

Revision
A = Initial Release

Actuation
[1] 1 = Spool and Sleeve
[2] 2 = Rubber Packed

Valve Type
B = Solenoid Pilot with Flush Non-Locking Override

Function
1 = 2 Position 4-Way (5/2), Spring Return
4 = 2 Position 4-Way (5/2), Dual Solenoid
5 = 3 Position 4-Way (5/3), Open Center, Dual Pressure
6 = 3 Position 4-Way (5/3), Blocked Center
7 = 3 Position 4-way (5/3), Open to 2 & 4 in Center
D = Dual 3-way, 2 Normally Closed - 4 Normally Closed

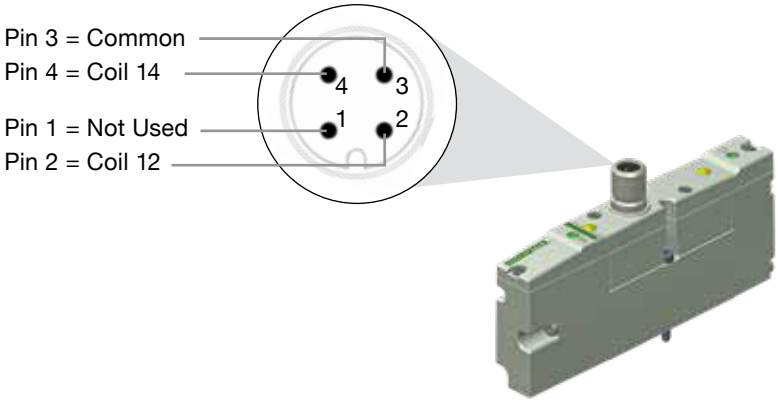
Port Size
0 = No Port Size

Electrical
M = Plug-in, w/Light, VDC
[3] N = M12 Connector
Pin 1 = Not Used; Pin 2 = Coil 12;
Pin 3 = Common; Pin 4 = Coil 14

Options
A00 = Standard (No Options)
11B = Flush Locking Manual Override
11M = Without Manual Override

Voltage
F1 = 24 DC

[1] Not available with Function D
[2] Available with Function D only
[3] See diagram:



How to Order: **Regulator**

R 502 A R S 1 1 J A00 1 0

Product Series
502 = 18mm Valve

Revision
A = Initial Release

Product Type
R = Regulator

Regulator Type
S = Single Reg. - Pressure to Port 1
D = Double Reg. - Pressure to Ports 5 & 3
E = Double Reg. - Pressure to Ports 4 & 2, w/o Valve
T = Double Reg. - Pressure to Ports 1 & 3, 2 Pressure Selector

Pressure Range
1 = 10 - 130 PSIG (0.7 - 9 bar)
3 = 3 - 30 PSIG (0.2 - 2 bar)
4 = 5 - 60 PSIG (0.3 - 4.1 bar)

Gauge Type
1 = PSI
2 = bar
8 = with 1/8" NPTF adaptor for external gauge
G = with 1/8" G tap adaptor for external gauge

Wiring Option
J = Plug-in, Receptacle Assembly
0 = Non Plug-in

Options
A00 = Standard (No Options)
14M = Temperproof Needle Cartridge Assembly or Regulator
16N = Jumper for Supply Pressure to Valve, 14 End
16P = Jumper for Supply Pressure to Valve, 12 End
* 61Y = Regulator with Gauge Extension Fitting

Interface
1 = Proprietary
2 = ISO 15407-2
3 = ISO 15407-1

* Regulator gauges must be offset with 61Y option on alternating stations to prevent interference.

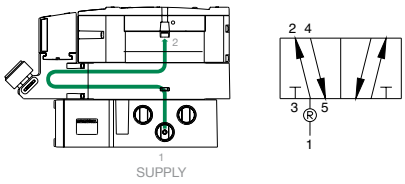
Sandwich Pressure Regulator Block

Types: RS / RD / RE / RT

ISO 15407-2/15407-1 Interface

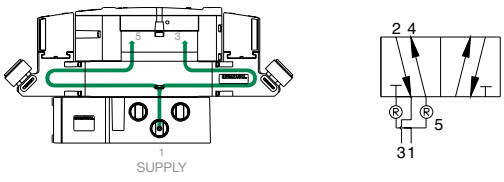
Proprietary Interface

Type RS



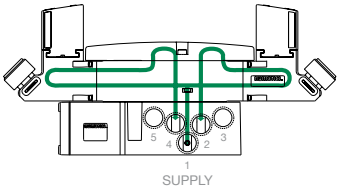
Single pressure from a single supply.

Type RD



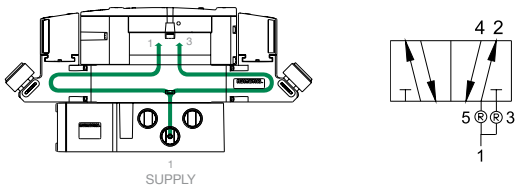
Dual pressure from a single supply.

Type RE



External outlet regulator used with jumper plate for single or dual pressure.

Type RT



Two-pressure selector used for multi-pressure applications.

How to Order: **Mounting**

8 502 A M S2 1 M A00 1 0

Port Type
[1] 8 = NPTF
[1] G = ISO228/1-G
K = Push-in Fittings

Product Series
502 = 18mm Valve

Revision
A = Initial Release

Product Type
M = Manifold Subbase
[2] Z = Mid Station Supply

Mounting
S2 = Manifold Subbase, 2 Stations, Side Ports, Single Z-Board
M2 = Manifold Subbase, 2 Stations, Side Ports, Double Z-Board

Port Size (Working Ports 2 & 4 Size)
1 = 1/8
2 = 1/4 (Push-in Fittings Only)
G = 5/16 (Push-in Fittings Only)
F = 6mm (Push-in Fittings Only)
H = 8mm (Push-in Fittings Only)

Wiring Option
M = Plug-in, Receptacle Assembly
[4] U = M12 Connectors w/Pass Thru Communication Pin 1 = Coil 14, Pin 2 = Not used, Pin 3 = Common, Pin 4 = Not Used
[5] X = 0 & 24 VDC Separation at First Station of a Safety Zone

Options
A00 = Standard (No Options)
[3] 83H = Pilot Separation for Station 1

Interface
1 = Proprietary
2 = ISO 15407-2

[1] Port Type 8 & G available in 1/8 size for Product Type M and Z
[2] Only available with M2 mounting
[3] Only available with 'X' Wiring
[4] Only available with Product Type 'M' and 'S2 Mounting'
[5] Only available with Product Type 'M' and 'M2' Mounting

How to Order: **Manifold Assembly**

8 502 A V 3 B 3 0 0 V A00

Port Type
[1] 8 = NPTF
[1] G = ISO228/1-G
K = Push-in Fittings

Product Series
502 = 18mm Valve

Revision
A = Initial Release

Product Type
V = Valve Manifold Assembly

Electrical Interface
3 = G3 Series Fieldbus Interface

Number of Valve Stations

B = 2	N = 14	Z = 26
D = 4	P = 16	3 = 28
F = 6	R = 18	5 = 30
H = 8	T = 20	7 = 32
J = 10	V = 22	
L = 12	X = 24	

Options
A00 = Standard (No Options)
MUF = Muffler in End Plates
DRM = DIN Rail Mount
DWM = DIN Rail with (MUF) Muffler in End Plates
14X = External Pilot Supply from Port # 14
D12 = (14X) External Pilot Supply from Port #14 and (MUF) Muffler in End Plates
D14 = (14X) External Pilot Supply from Port #14 and (DRM) DIN Rail Mount
F06 = (14X) External Pilot Supply from Port # 14, (MUF) Muffler in End Plates, and (DRM) DIN Rail Mount

End Plate Style
V = Vertical

Second Valve Series
0 = No Second Valve Series

End Plate Port Size (Supply Ports 1, 3/5)
3 = 3/8
4 = 1/2
K = 10mm
M = 12mm

[1] Port Type 8 & G available in Port Size 3/8

NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

503 Series – Directional Control Valve Platform

Featuring Higher Flow in a Compact Valve Package

ISO 15407-2 (26mm)
ISO 15407-1 (26mm)

Features

- 5 Ported, 2 and 3 position, 4-way, Spool & Sleeve and Rubber Seal, Cv: 1.2 - 1.4
- Solenoid air pilot actuated
- Low wattage 1.7 Watt for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to external pilot
- G3 Fieldbus Electronics
- IP65 Certified

Sandwich and Manifold Accessories

- Pressure Regulators for supply pressure control at individual valve
- Speed control to control exhaust flow allows for control of actuator extend or retract speed
- Shut off block for individual valve to be isolated from pressure supply during operation and repair
- Mid Station Supply Manifold block allows for multiple pressure zones (with blocking discs) or additional air supply to a manifold

Fieldbus Electronics Compatible

- G3 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - One Node supports up to 16 I/O modules
  - Available with Auto Recovery Module (ARM) which allows configuration information to be saved and reloaded to replacement module automatically

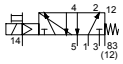
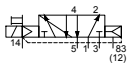
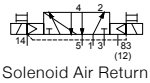
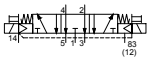
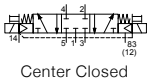
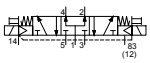
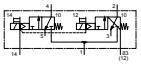
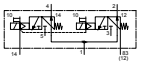
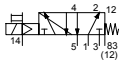
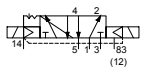
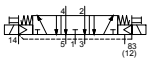
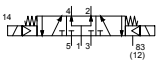
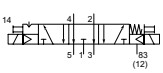
Construction

Materials in Contact w/Fluid	
Body	Aluminum, E-Coating treatment
Spool	Aluminum or Stainless Steel
Piston	POM
Spring	Steel
Spool Seals	NBR + PUR
Other Seals	NBR + FKM
Other materials	PAM (Polyarylamide) 50% Glass Fiber Reinforced
Valve to Subbase Gasket	NBR
Subbases	Aluminum, E-Coating treatment

Operating Data

All Solenoids Are Continuous Duty Rated	24 VDC
Power (Watts)	1.7
Holding Current (Amps)	0.071
Ambient Temperature Range Min/Max °F (°C)	-14° F (-10° C)/122° F (50° C)

Performance Data

Function Type	Function Code	ISO Symbol Pilot (14) Return (12)	Interface	Rated Flow at 90 PSI Cv (l/min (ANR)) 1 ➡ 2, 1 ➡ 4	Rated Flow at 90 PSI Cv (l/min (ANR)) 2 ➡ 3, 4 ➡ 5	Response Time (ms) Energize/ De-Energize	Pilot Pressure at 73°F/23°C PSI (bar) min.	Pilot Pressure at 73°F/23°C PSI (bar) max	Operating Pressure Port 1 PSI (bar)/inHg (-bar) min.	Operating Pressure Port 1 PSI (bar)/inHg (-bar) max	 Part Number
Rubber Packed Technology, with Manual Override											
5/2	B1	 Spring Return	Proprietary	1.422 (1400)	1.321 (1300)	20/60	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A2B10MA00F1
			ISO	1.220 (1200)	1.118 (1100)						
	BN	 Differential Air Return	Proprietary	1.422 (1400)	1.321 (1300)	28/40	44 (3)	115 (8)	28 (-0.95)	115 (8)	R503A2BN0MA00F1
			ISO	1.220 (1200)	1.118 (1100)						
	B4	 Solenoid Air Return	Proprietary	1.422 (1400)	1.321 (1300)	20/20	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A2B40MA00F1
			ISO	1.220 (1200)	1.118 (1100)						
5/3	B5	 Center Open to Exhaust	Proprietary	0.610 (600)	1.321 (1300)	18/45	44 (3)	115 (8)	28 (-0.95)	115 (8)	R503A2B50MA00F1
			ISO	0.610 (600)	1.118 (1100)						
	B6	 Center Closed	Proprietary	1.422 (1400)	1.321 (1300)	15/20	58 (4)	115 (8)	28 (-0.95)	115 (8)	R503A2B60MA00F1
			ISO	1.220 (1200)	1.118 (1100)						
	B7	 Center Open to Pressure	Proprietary	1.321 (1300)	0.610 (600)	18/45	44 (3)	115 (8)	28 (-0.95)	115 (8)	R503A2B70MA00F1
			ISO	1.118 (1100)	0.610 (600)						
2 x 3/2 NO	BA	 Normally Open	Proprietary	0.965 (950)	0.965 (950)	15/20	51 (3.5)	115 (8)	51* (3.5)	115 (8)	R503A2BA0MA00F1
			ISO	0.915 (900)	0.915 (900)						
2 x 3/2 NC	BD	 Normally Closed	Proprietary	1.016 (1000)	0.813 (800)	15/20	51 (3.5)	115 (8)	51* (3.5)	115 (8)	R503A2BD0MA00F1
			ISO	0.915 (900)	0.813 (800)						
Spool and Sleeve Technology, with Manual Override											
5/2	B1	 Spring Return	Proprietary	1.220 (1200)	1.220 (1200)	20/60	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A1B10MA00F1
			ISO	1.118 (1100)	1.016 (1000)						
	B4	 Solenoid Air Return	Proprietary	1.220 (1200)	1.220 (1200)	15/15	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A1B40MA00F1
			ISO	1.118 (1100)	1.016 (1000)						
5/3	B5	 Center Open to Exhaust	Proprietary	1.016 (1000)	1.016 (1000)	20/60	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A1B50MA00F1
			ISO	0.813 (800)	0.813 (800)						
	B7	 Center Open to Pressure	Proprietary	1.016 (1000)	1.016 (1000)	20/60	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A1B70MA00F1
			ISO	0.813 (800)	0.813 (800)						
	BT	 Open Center, Spring and Detent	Proprietary	1.016 (1000)	1.016 (1000)	Spring: 20/60 Detent: 15/NA	29 (2)	115 (8)	28 (-0.95)	115 (8)	R503A1BT0MA00F1
			ISO	0.813 (800)	0.813 (800)						

* 51 PSI for a pressure supply (P1) ≤ 109 PSI (if > 109 PSI, Pmin. = P1-58 PSI)

How to Order: **Valve**

R 503 A 2 B 4 0 M A00 F1

Product Series
503 = 26mm Valve

Revision
A = Initial Release

Valve Type
[1] 1 = Spool and Sleeve
2 = Rubber Packed

Actuation
B = Solenoid Pilot w/ Flush Non-Locking Override

Function
1 = 2 Position 4-Way (5/2), Spring Return
4 = 2 Position 4-Way (5/2), Dual Solenoid
5 = 3 Position 4-Way (5/3), Open Center, Dual Pressure
6 = 3 Position 4-Way (5/3), Blocked Center
7 = 3 Position 4-way (5/3), Open to 4 & 2 in Center
A = Dual 3-way (2 x 3/2), 14 Normally Open - 12 Normally Open
D = Dual 3-way (2 x 3/2), 14 Normally Closed - 12 Normally Closed
N = 2 Position 4-Way (5/2), Differential Air Return w/o Spring
T = 5/3 Open to Exhaust, Spring vs Detent,
14 Momentary - 12 Maintain (Operator Shared Station Valve)

Port Size
0 = No Port Size

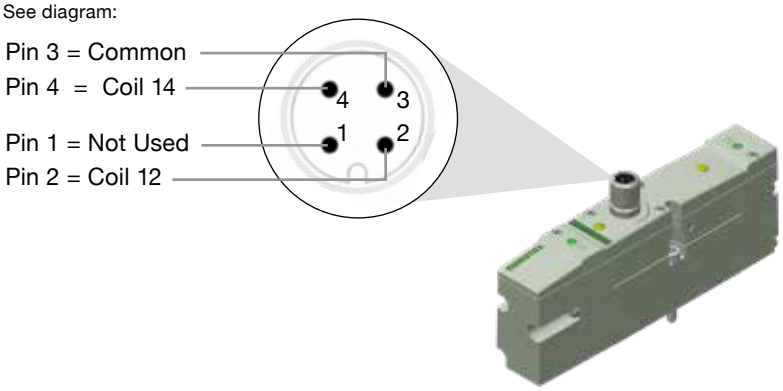
Electrical
M = Plug-in, w/ Light, VDC
[2] N = M12 Connector
Pin 1 = Not Used; Pin 2 = Coil 12;
Pin 3 = Common; Pin 4 = Coil 14

Options
A00 = Standard (No Options)
11B = Flush Locking Manual Override
11M = Without Manual Override

Voltage
F1 = 24 VDC

[1] Available with Functions 1, 4, 5 & 7

[2] See diagram:



How to Order: **Regulator**

R 503 A R S 1 1 J A00 1 0

Product Series
503 = 26mm Valve

Revision
A = Initial Release

Product Type
R = Regulator

Regulator Type
S = Single Reg. - Pressure to Port 1
D = Double Reg. - Pressure to Ports 5 & 3
* E = Double Reg. - Pressure to Ports 4 & 2, w/o Valve
T = Double Reg. - Pressure to Ports 1 & 3, 2 Pressure Selector

Pressure Range
1 = 10 - 130 PSIG (0.7 – 9 bar)
3 = 3 - 30 PSIG (0.2 – 2 bar)
4 = 5 - 60 PSIG (0.3 – 4.1 bar)

Gauge Type
1 = PSI
2 = bar
8 = with 1/8" NPTF adaptor for external gauge
G = with 1/8" G tap adaptor for external gauge

Wiring Option
J = Plug-in, Receptacle Assembly
* 0 = Non Plug-in

Options
A00 = Standard (No Options)
16N = Jumper for Supply Pressure to Valve, 14 End
16P = Jumper for Supply Pressure to Valve, 12 End
** 14M = Tamperproof Needle Cartridge Assembly or Regulator

Interface
* 0 = No Valve Interface
1 = Proprietary
2 = ISO 15407-2
3 = ISO 15407-1

* For Regulator Type E must select 0 Wiring Option and 0 Interface
** Key lock device not included - M699AY438663001 sold separately

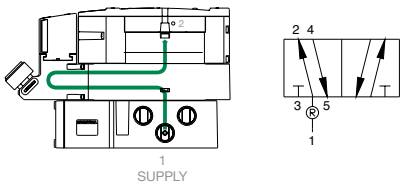
Sandwich Pressure Regulator Block

Types: RS / RD / RE / RT

ISO 15407-2/15407-1 Interface

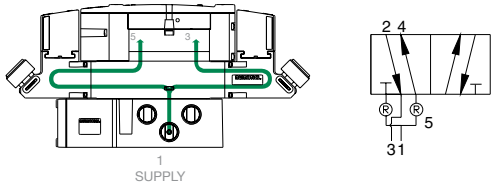
Proprietary Interface

Type RS



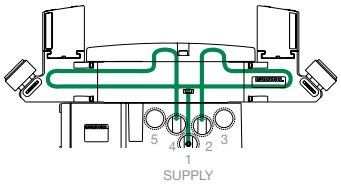
Single pressure from a single supply.

Type RD



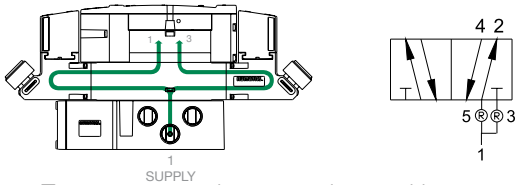
Dual pressure from a single supply.

Type RE



External outlet regulator used with jumper plate for single or dual pressure.

Type RT



Two-pressure selector used for multi-pressure applications.

How to Order: **Mounting**

8 503 A M S2 3 M A00 1 0

Port Type
[1] 8 = NPTF
[1] G = ISO228/1-G
K = Push-in Fittings

Product Series
503 = 26mm Valve

Revision
A = Initial Release

Product Type
M = Manifold Subbase
A = Individual Subbase
[2] Z = Mid-Station Supply

Mounting
S2 = Manifold Subbase, 2 Stations, Side Ports, Single Z-Board
M2 = Manifold Subbase, 2 Stations, Side Ports, Double Z-Board

Port Size (Working Ports 2, 4)
2 = 1/4
3 = 3/8 (Push-in Fittings Only)
H = 8mm (Push-in Fittings Only)
K = 10mm (Push-in Fittings Only)

Wiring Option
M = Plug-in, Receptacle Assembly
[4] U = M12 Connectors w/Pass Thru Communication Pin 1 = Coil 14, Pin 2 = Not used, Pin 3 = Common, Pin 4 = Not Used
[5] X = 0 & 24 VDC Separation at First Station of a Safety Zone

Options
A00 = Standard (No Options)
[3] 83H = Pilot Separation for Station 1

Interface
1 = Proprietary
2 = ISO 15407-2

[1] Port Type 8 & G available in Port Size 1/4 only
[2] Available with M2 Mountings only
[3] Only available with 'X' Wiring
[4] Only available with Product Type 'M' and 'S2 Mounting'
[5] Only available with Product Type 'M' and 'M2' Mounting

How to Order: **Manifold Assembly**

8 503 A V 3 B 3 0 0 V A00

Port Type
[1] 8 = NPTF
[1] G = ISO228/1-G
K = Push-in Fittings

Product Series
503 = 26mm Valve

Revision
A = Initial Release

Product Type
V = Valve Manifold Assembly

Electrical Interface
3 = G3 Series Fieldbus Interface

Number of Valve Stations

B = 2	J = 10	R = 18	Z = 26
D = 4	L = 12	T = 20	3 = 28
F = 6	N = 14	V = 22	5 = 30
H = 8	P = 16	X = 24	7 = 32

[1] Port Type 8 & G available in Port Size 3/8 only

Options
A00 = Standard (No Options)
MUF = Muffler in End Plates
DRM = DIN Rail Mount
DWM = DIN Rail with MUF
14X = External Pilot Supply from Port #14
D12 = (14X) External Pilot Supply from Port #14 and (MUF) Muffler in End Plates
D14 = (14X) External Pilot Supply from Port #14 and (DRM) DIN Rail Mount
F06 = (14X) External Pilot Supply from Port #14, (MUF) Muffler in End Plates and (DRM) DIN Rail Mount
A45 = Zoned Pilot for End Plate Assembly Kit
D47 = A45 + MUF
D48 = A45 + DRM
D49 = 14X
F21 = A45 + DRM + MUF
F22 = A45 + 14X + MUF
F23 = A45 + 14X + DRM
K30 = A45 + 114X + DRM + MUF

End Plate Style
V = Vertical

Second Valve Series
0 = No Second Valve Series

End Plate Port Size (Supply Ports 1, 3/5)
3 = 3/8
4 = 1/2
K = 10mm
M = 12mm

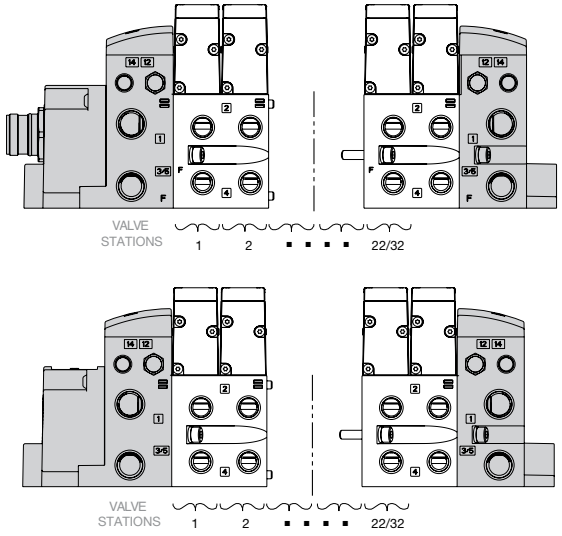
NOTE: See the Multipin Electrical Interface table for Max Solenoid Outputs.

Sub-D, Terminal Strip, Round Interface, and End Effector Interface

- Shaded components described by Assembly Kit model number designation
- Each valve manifold station is listed in sequential order from left to right when facing the port side of the manifold as indicated

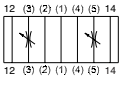
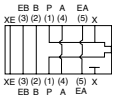
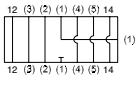
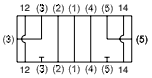
Example Order - 503 Shown

25 Pin Sub-D	8503AVJF300VA00
Valve Station #1	R503A2B40MA00F1
Valve Station #2	R503A2B40MA00F1
Mounting #1	8503AMM22MA0010
Valve Station #5	R503A2B60MA00F1
Valve Station #6	R503A2B60MA00F1
Mounting #2	8503AMM22MA0010
Valve Station #5	R503A2B40MA00F1
Valve Station #6	R503A2B40MA00F1
Mounting #3	8503AMM22MA0010
	Assembled



NOTE: Example order for Fieldbus electronics see 580 or G3 Fieldbus catalog.

Sandwich Option Kit

Valve Series	Type	Speed Control Kit	Shut Off Block Kit	Pressure Block Kit				Exhaust Block Kit	
									
		Inserted between the valve and the mounting. It allows the user to adjust the flow out of the 3 & 5 ports of the valve. This will allow them to adjust the speed of the extend and retract of the cylinder.	Used to shut-off pressure when mounted below valve. It allows for easy maintenance without the need to shut-off pressure to the entire manifold.	Used to supply a separate pressure to a single valve station without needing blocking discs.				Used to isolate the exhaust of a single valve station from the manifold. It allows for faster exhaust response by re-routing exhaust externally from the manifold.	
									
				4mm Push-in	**6mm Push-in**	**1/4 Push-in**	**M7**		
501 Series (11mm)	Proprietary	R501AS428500001	R501AY428501001	K501AW517220004	K501AW517220003	K501AW517220002	H501AW517220001	–	–
				1/8 NPTF		**1/8 G**		**1/8 NPTF**	**1/8 G**
502 Series (18mm)	Proprietary	R502AS429395002	R502AY429409002	8502AW428685004		G502AW428685004		8502AX428685002	G502AX428685002
	ISO 15407-2	R502AS429395001	R502AY429409001	8502AW428685003		G502AW428685003		8502AX428685001	G502AX428685001
	ISO 15407-1	–	–	–		–		–	–
				1/4 NPTF		**1/4 G**		**1/4 NPTF**	**1/4 G**
503 Series (26mm)	Proprietary	R503AS425575002	R503AY426707002	8503AW428300004		G503AW428300004		8503AX428300002	G503AX428300002
	ISO 15407-2	R503AS425575001	R503AY426707001	8503AW428300003		G503AW428300003		8503AX428300001	G503AX428300001
	ISO 15407-1	R503AS432940001	–	–		–		–	–

End Plate Kit

End Plate Kit is used to stack multiple blocks together into a manifold assembly.

Vertical End Plates w/o DIN, w/o Muffler

Vertical End Plates w/o DIN, w/Muffler

Valve Series	Orientation	Port Type	NPTF			G			Push In								
		Port Number	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12
		Port Size	1/8	1/8	M7	1/8	1/8	M7	1/4			5/16	5/16	1/4	8mm	8mm	6 mm
501 Series (11mm)	Vertical	w/Muffler, w/DIN	8501AK429465006			G501AK429465014			K501AK429465032			K501AK429465008			K501AK429465016		
		w/Muffler, w/o DIN	8501AK429465005			G501AK429465013			K501AK429465031			K501AK429465007			K501AK429465015		
		w/o Muffler, w/DIN	8501AK429465002			G501AK429465010			K501AK429465030			K501AK429465004			K501AK429465012		
		w/o Muffler, w/o DIN	8501AK429465001			G501AK429465009			K501AK429465029			K501AK429465003			K501AK429465011		

Vertical End Plates w/o DIN w/o Muffler w/ Pilot Separation (503 only)

Vertical End Plates w/o DIN w/ Muffler w/ Pilot Separation (503 only)

Vertical End Plates w/o DIN, w/o Muffler

Vertical End Plates w/o DIN, w/Muffler

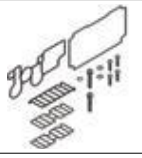
Valve Series	Orientation	Port Type	NPTF			G			Push In												
		Port Number	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12	1	3/5	14, 12
		Port Size	3/8	3/8	1/8	3/8	3/8	1/8	3/8	3/8	1/8	1/2	1/2	1/8	10mm	10mm	6 mm	12mm	12mm	6 mm
502 Series (18mm)	Vertical With or Without Pilot Separation	w/Muffler, w/DIN	8502AK431477008			G502AK431477020			K502AK431477012			K502AK431477010			K502AK431477024			K502AK431477022		
		w/Muffler, w/o DIN	8502AK431477007			G502AK431477019			K502AK431477011			K502AK431477009			K502AK431477023			K502AK431477021		
		w/o Muffler, w/DIN	8502AK431477002			G502AK431477014			K502AK431477006			K502AK431477004			K502AK431477018			K502AK431477016		
		w/o Muffler, w/o DIN	8502AK431477001			G502AK431477013			K502AK431477005			K502AK431477003			K502AK431477017			K502AK431477015		
503 Series (26mm)	Vertical Without Pilot Separation	w/Muffler, w/DIN	8503AK428327008			G503AK428327020			K503AK428327010			K503AK428327012			K503AK428327022			K503AK428327024		
		w/Muffler, w/o DIN	8503AK428327007			G503AK428327019			K503AK428327009			K503AK428327011			K503AK428327021			K503AK428327023		
		w/o Muffler, w/DIN	8503AK428327002			G503AK428327014			K503AK428327004			K503AK428327006			K503AK428327016			K503AK428327018		
		w/o Muffler, w/o DIN	8503AK428327001			G503AK428327013			K503AK428327003			K503AK428327005			K503AK428327015			K503AK428327017		
	Vertical With Pilot Separation	w/Muffler, w/DIN	8503AK428327032			G503AK428327044			K503AK428327034			K503AK428327036			K503AK428327046			K503AK428327048		
		w/Muffler, w/o DIN	8503AK428327031			G503AK428327043			K503AK428327033			K503AK428327035			K503AK428327045			K503AK428327047		
		w/o Muffler, w/DIN	8503AK428327026			G503AK428327038			K503AK428327028			K503AK428327030			K503AK428327040			K503AK428327042		
		w/o Muffler, w/o DIN	8503AK428327025			G503AK428327037			K503AK428327027			K503AK428327029			K503AK428327039			K503AK428327041		

Accessories Kit

Accessories Kit	Product Image (Example Only)	Description	Port Number	Part Number		
				501 Series (11mm)	**502 Series** (18mm)	**503 Series** (26mm)
Blank Station Plate Kit		Used to block off a manifold station for future use.	–	P501AB429685001	P502AB431813001	P503AB428359001
DIN Rail Clamp Kit		Used to mount manifold assembly to a machine via DIN Rail. Kit includes hardware for each end of the manifold. NOTE: DIN Rail not included.	–	239-980		
Blocking Disc Kit		Used to isolate 1, 3 & 5 galleries of the manifold internally. NOTE: Includes tag to label ports blocked.	1	P501AD431915001	P502AD431914001	P503AD431191001
			3	P501AD431915002	P502AD431914002	P503AD431191002
			5	P501AD431915003	P502AD431914003	P503AD431191003
			1 + 3	P501AD431915004	P502AD431914004	P503AD431191004
			1 + 5	P501AD431915005	P502AD431914005	P503AD431191005
			3 + 5	P501AD431915006	P502AD431914006	P503AD431191006
			1, 3, 5	P501AD431915007	P502AD431914007	P503AD431191007
Internal Muffler Element		Muffler element	–	427991-001	429372-001	426186-001
External Gauge Adaptor Kit		1/8" NPTF and G adaptor for external gauge	–	–	239-1561	

		Thread Type	Tube Size	Quantity	**501 Series** (11mm)	**502 Series** (18mm)	**503 Series** (26mm)
Fittings		M7	4mm	10	H850A104B004B10	See Fittings Catalog	See Fittings Catalog
		M7	6mm	10	H850A104B006B10		
		M7	1/4	10	H850A104B104B10		

Replacement Parts Kit

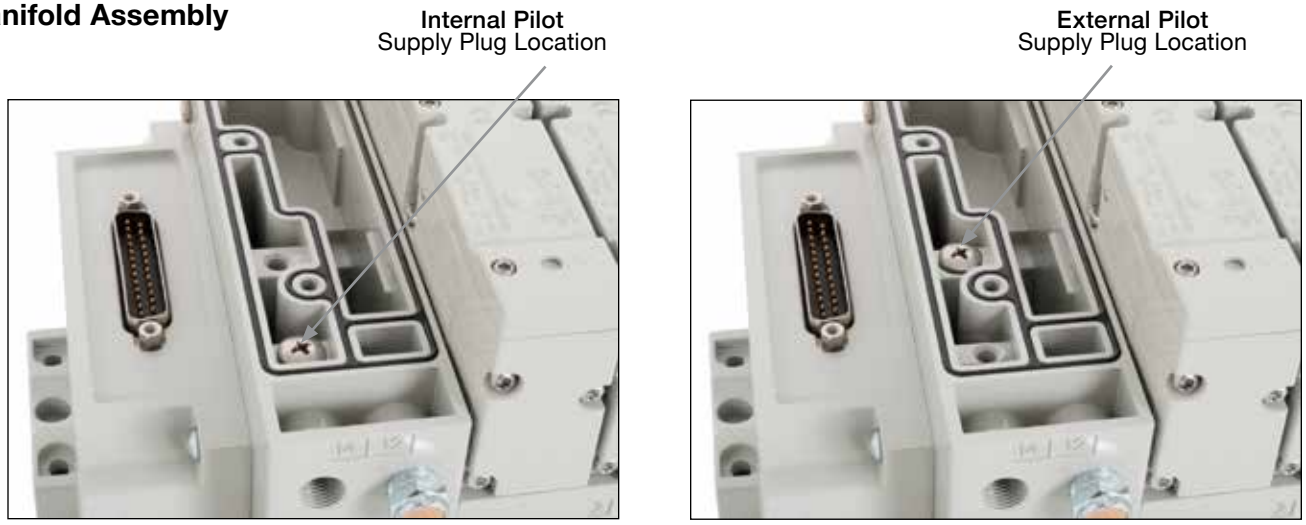
Replacement Parts Kit	Product Image (Example Only)	Description	Parts Included	Part Number		
				501 Series (11mm)	**502 Series** (18mm)	**503 Series** (26mm)
Interface Mounting Kit		Includes Mounting Gaskets {(1) valve to base, (2) Accessories to valve or base, (1) Manifold block, (1) End-Plate to electrical housing}, (1) Body to base O-ring, (2) Manifold block mounting screws and lock washers, (4) Electrical housing mounting screws		M501AU521771001	M502AU521772001	M503AU521773001
Regulator Replacement Kit		3 – 30 PSIG Regulator Kit	Includes regulator assembly, gaskets, screws.	–	M502AR427995001	M503AR428759001
		5 – 60 PSIG Regulator Kit		–	M502AR427995002	M503AR428759002
		10 – 130 PSIG Regulator Kit		–	M502AR427995003	M503AR428759003
		0.2 – 2.0 bar Regulator Kit		–	M502AR427995004	M503AR428759004
		0.3 – 4.0 bar Regulator Kit		–	M502AR427995005	M503AR428759005
		0.7 – 9.0 bar Regulator Kit		–	M502AR427995006	M503AR428759006
Regulator Gauge Replacement Kit		0 – 160 PSIG Regulator Gauge Head Extended	Includes gauge head, o-ring, and hitch-pin.	–	M502AG521734001	–
		0 – 160 PSIG Regulator Gauge Head		M501AG504541001	M502AG521734002	M503AG521734009
		0 – 60 PSIG Regulator Gauge Head Extended		–	M502AG521734003	–
		0 – 60 PSIG Regulator Gauge Head		–	M502AG521734004	M503AG521734010
		0 – 11 bar Regulator Gauge Head Extended		–	M502AG521734005	–
		0 – 11 bar Regulator Gauge Head		M501AG550540001	M502AG521734006	M503AG521734011
		0 – 4 bar Regulator Gauge Head Extended		–	M502AG521734007	–
		0 – 4 bar Regulator Gauge Head		–	M502AG521734008	M503AG521734012

Mid-Station Supply Manifold Block Kit

Valve Series	Product Image (Example Only)	Description	Interface	Thread Type	Supply Port 1 Size	Part Number
501 Series (11mm)		Add additional supply and exhaust capacity to large manifold assemblies.	Proprietary	Metric Thread	M7	H501AZM8BTA0010
					M7	H501AZM4BMA0010
				Push-in Fittings	1/4	K501AZM82TA0010
					6mm	K501AZM8FTA0010
					1/4	K501AZM42MA0010
					6mm	K501AZM4FMA0010
					4mm (5/32)	K501AZM4DMA0010
502 Series (18mm)			ISO 15407-2	NPTF	1/8	8502AZM41TA0020
				G Tap	1/8	G502AZM41TA0020
			Proprietary	NPTF	1/8	8502AZM41TA0010
				G Tap	1/8	G502AZM41TA0010
			ISO 15407-2	Push-in Fittings	1/4	K502AZM42TA0020
					5/16	K502AZM4GTA0020
					6mm	K502AZM4FTA0020
					8mm	K502AZM4HTA0020
			Proprietary		1/4	K502AZM42TA0010
					5/16	K502AZM4GTA0010
					6mm	K502AZM4FTA0010
					8mm	K502AZM4HTA0010
503 Series (26mm)			ISO 15407-2	NPTF	1/4	8503AZM42TA0020
				G Tap	1/4	G503AZM42TA0020
			Proprietary	NPTF	1/4	8503AZM42TA0010
				G Tap	1/4	G503AZM42TA0010
			ISO 15407-2	Push-in Fittings	1/4	K503AZM42TA0020
					3/8	K503AZM43TA0020
					8mm	K503AZM4HTA0020
					10mm	K503AZM4KTA0020
			Proprietary		1/4	K503AZM42TA0010
					3/8	K503AZM43TA0010
					8mm	K503AZM4HTA0010
					10mm	K503AZM4KTA0010

Internal/External Pilot Selection

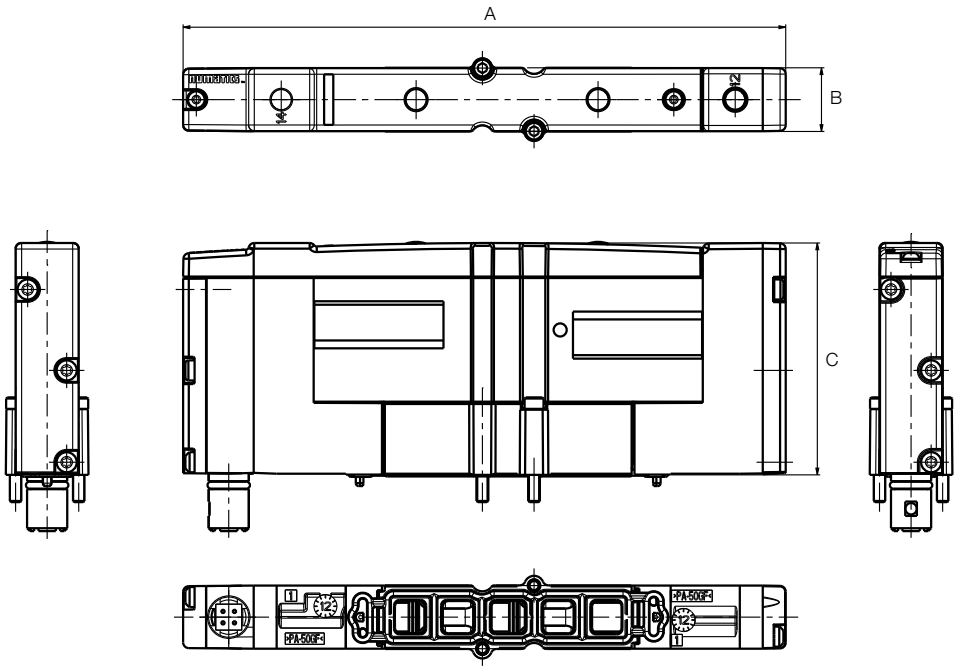
Manifold Assembly



NOTE: Manifold Assemblies are factory set for internal pilot supply. To convert to external pilot supply install pilot supply seal screws 501 Series: 127-803, 502 & 503 Series: 426188-001, as shown in the pictures.

Dimensions: mm (inches)

501 Series Plug-in Valve

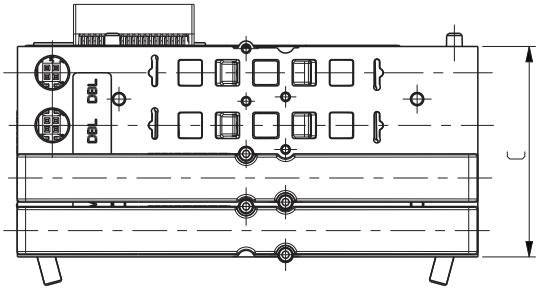


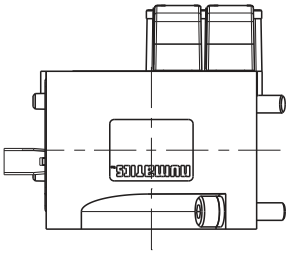
Weight	Valve Body	Manifold Block		End Plates
		3-Station	4-Station	
lbs (kg)	0.205 (0.093)	0.50 (0.23)	0.60 (0.27)	1.20 (0.54)

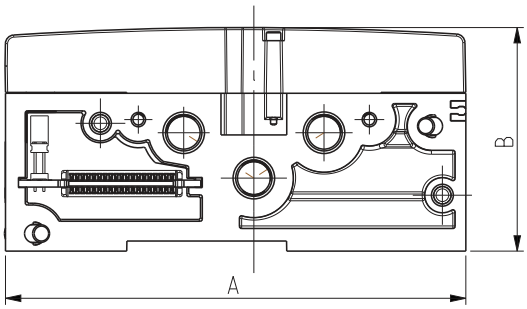
A	B	C
105 (4.13)	11 (0.43)	40.4 (1.59)

Dimensions: mm (inches)

501 Series Mid-Station Supply Block





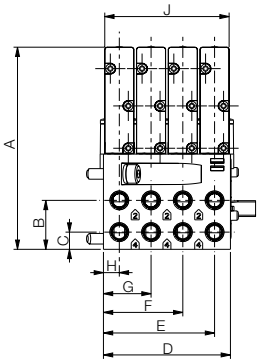


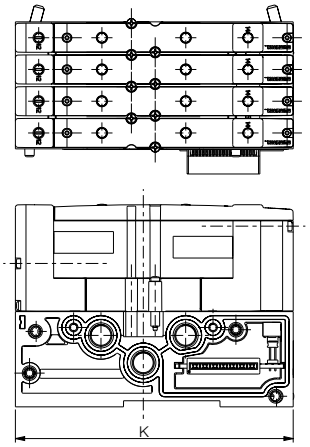
A	B	C
105 (4.13)	51 (2.01)	48 (1.89)

Dimensions: mm (inches)

Plug-in Valve Mounted

4-Station Manifold Block



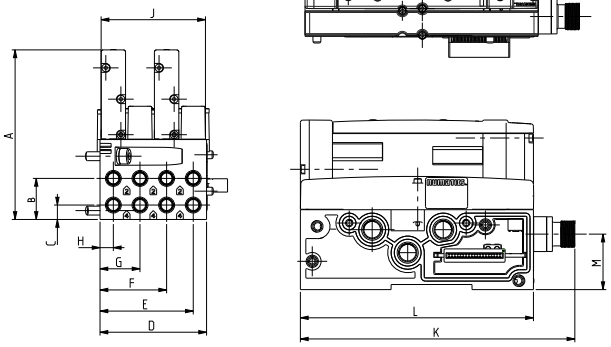


A	B	C	D	E	F	G	H	J	K
76.4 (3.008)	18.5 (0.728)	6.5 (0.256)	48 (1.890)	42 (1.653)	30 (1.181)	18 (0.709)	6 (0.236)	47 (1.850)	105 (4.134)

Dimensions: mm (inches)

Plug-in Valve Mounted

U-Wiring Option



U-Wiring Manifold Block

A	B	C	D	E	F	G	H	J	K	L	M
76.4 (3.01)	18.5 (0.73)	6.5 (0.26)	48.0 (1.89)	42.0 (1.65)	30.0 (1.18)	18.0 (0.71)	6.0 (0.24)	47.0 (1.85)	123.6 (4.87)	105.0 (4.13)	25.0 (0.98)

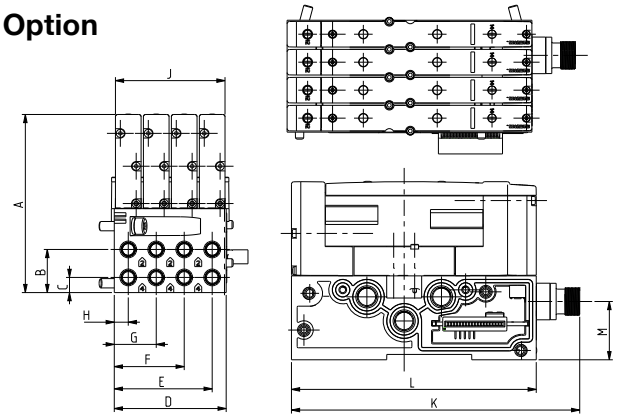
Zoned Safety - Pilot Valve Manifold Base ("U" Wiring)

- The mounted pilot valves are electrically controlled via the M12 connector; power and communication are isolated from the G3 node
- Mounted pilot valves supply Pilot Operated Check Valves, Rod-Locks, Pilot Operated Spring Return Valves, etc.
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the pilot valves become one of the redundant channels required for Category 3 & 4 circuits

Dimensions: mm (inches)

Plug-in Valve Mounted

X-Wiring Option



X-Wiring Manifold Block

A	B	C	D	E	F	G	H	J	K	L	M
76.4 (3.01)	18.5 (0.73)	6.5 (0.26)	48.0 (1.89)	42.0 (1.65)	30.0 (1.18)	18.0 (0.71)	6.0 (0.24)	47.0 (1.85)	123.6 (4.87)	105.0 (4.13)	25.0 (0.98)

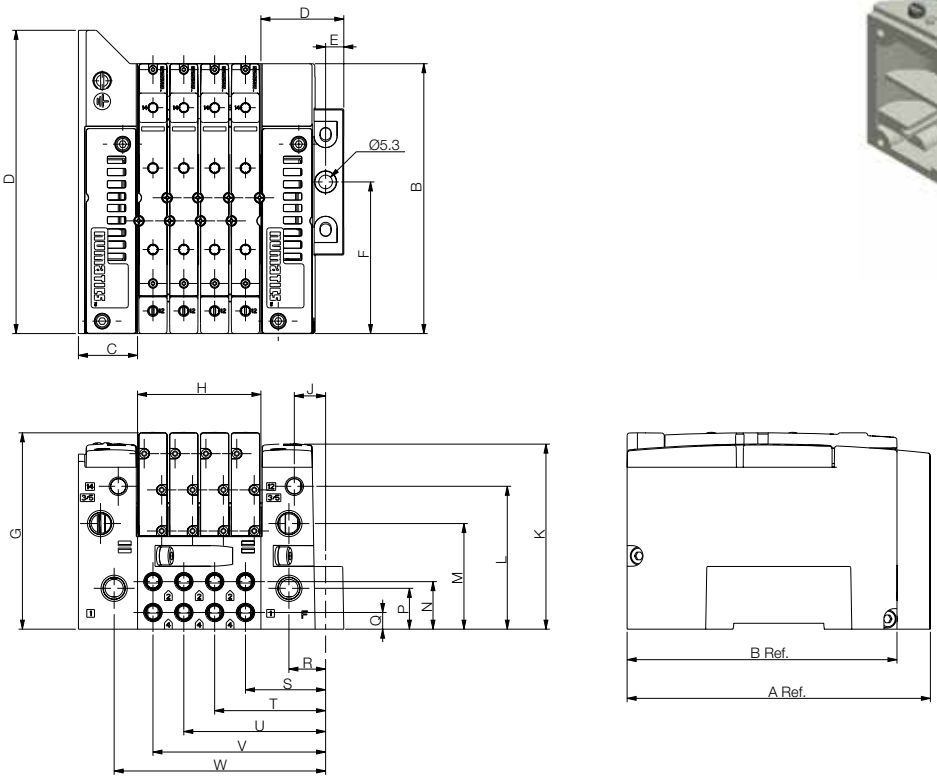
Zoned Safety - Zoned Power Manifold Base ("X" Wiring)

- The M12 Connector supplies power to up to 16 valve solenoid coils
- The G3 node provides communication to these valve solenoid coils
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the valves within the Safety Zone become one of the redundant channels of a Category 3 or 4 circuit

Dimensions: mm (inches)

Plug-in Valve Mounted

4-Station Manifold Assembly

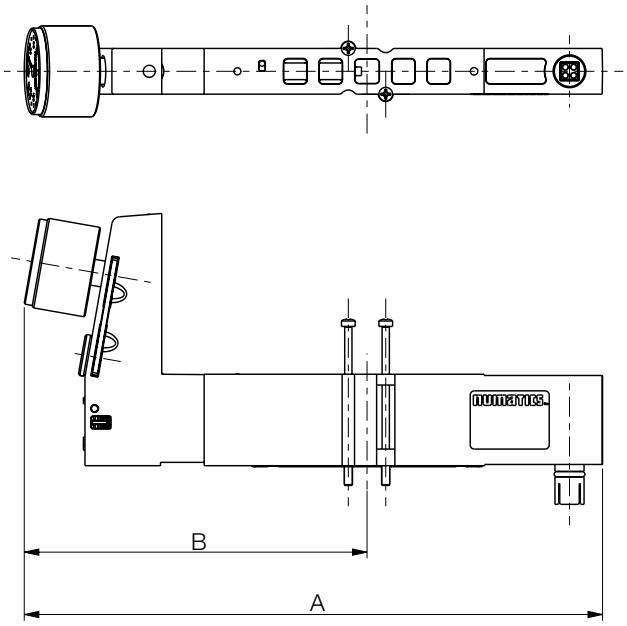


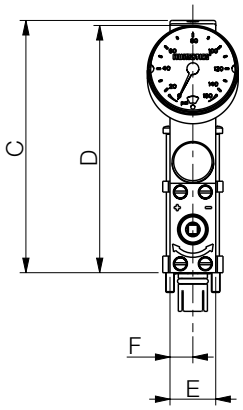
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
118 (4.65)	105 (4.13)	23 (0.90)	32.3 (1.27)	7.1 (0.28)	59 (2.32)	76.4 (3.01)	48 (1.89)	12.2 (0.48)	72 (2.83)	55.6 (2.19)	41.1 (1.62)	18.5 (0.73)	15.9 (0.63)	6.5 (0.26)	14.3 (0.56)	31.2 (1.23)	43.2 (1.70)	55.2 (2.17)	67.2 (2.65)	82.3 (3.24)

Dimensions: mm (inches)

Sandwich Pressure Regulator

Single Regulator



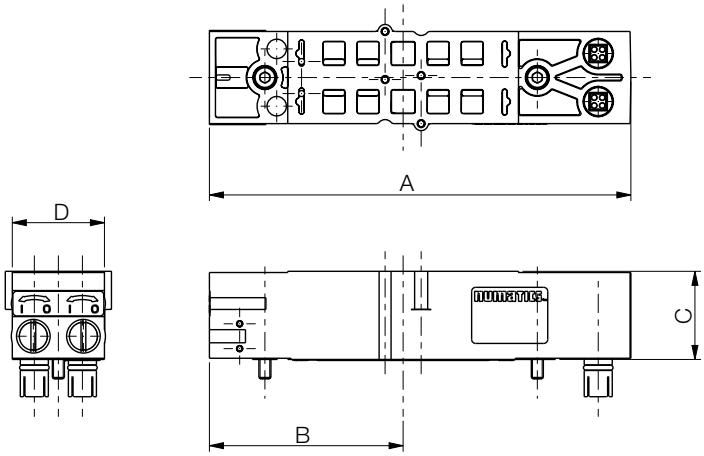


Weight
lbs (kg)
0.20 (0.09)

A	B	C	D	E	F
139.1 (5.476)	82.5 (3.248)	60.7 (2.390)	59.5 (2.342)	11 (0.433)	5.5 (0.216)

Dimensions: mm (inches)

Sandwich Shut Off Block Kit

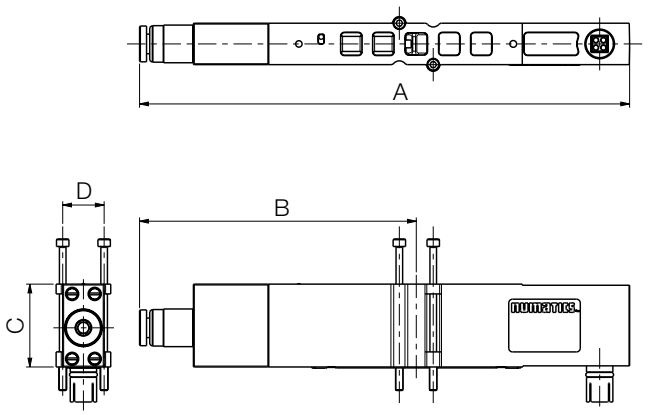


Weight
lbs (kg)
0.25 (0.11)

A	B	C	D
105.2 (4.142)	48.4 (1.905)	22 (0.866)	23 (0.905)

Dimensions: mm (inches)

Sandwich Pressure Block Kit

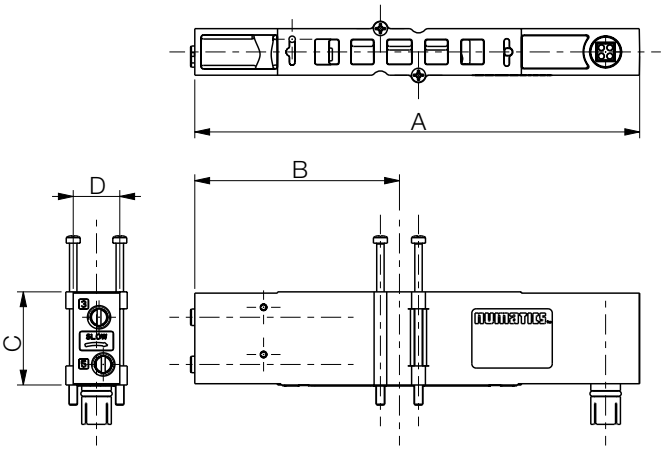


Weight
lbs (kg)
0.15 (0.07)

A	B	C	D
130.1 (5.12)	73.5 (2.89)	22.0 (0.87)	11.0 (0.43)

Dimensions: mm (inches)

Sandwich Speed Control Kit

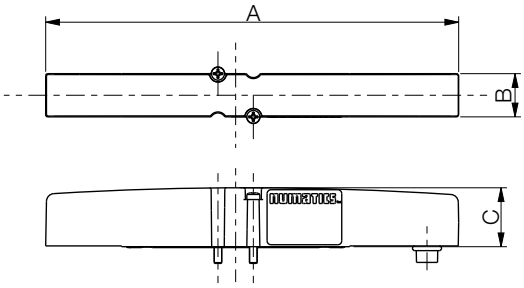


Weight
lbs (kg)
0.15 (0.07)

A	B	C	D
105.1 (4.137)	48.4 (1.905)	22 (0.866)	11 (0.433)

Dimensions: mm (inches)

Blank Station Plate Kit

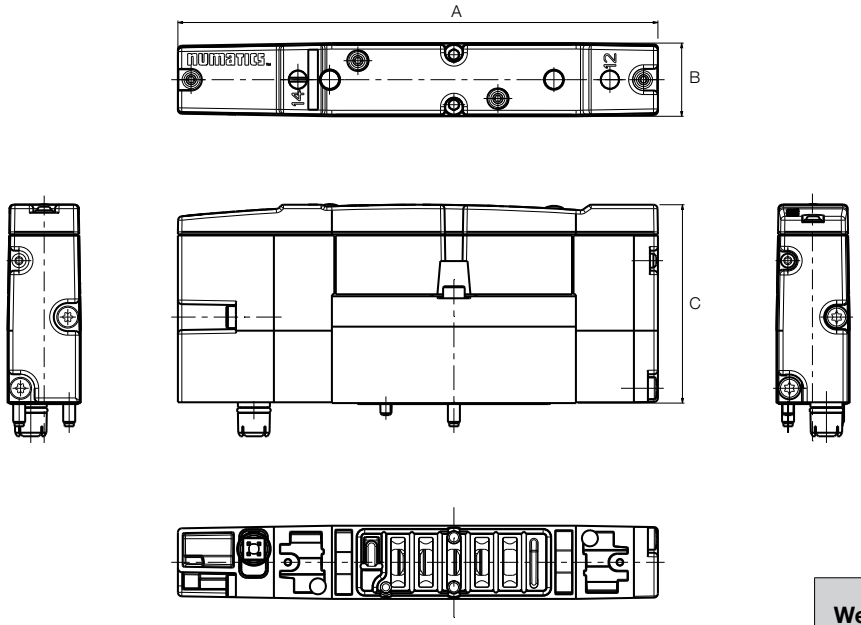


Weight
lbs (kg)
0.10 (0.05)

A	B	C
105.1 (4.138)	11 (0.433)	15 (0.591)

Dimensions: mm (inches)

502 Series Plug-in Valve



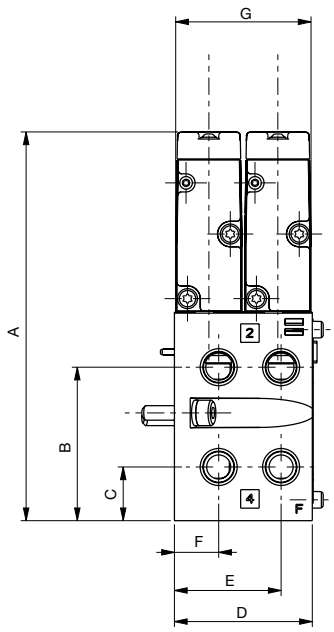
Weight	Valve Body	Manifold Block	End Plates
lbs (kg)	0.372 (0.169)	0.75 (0.34)	3.30 (0.45)

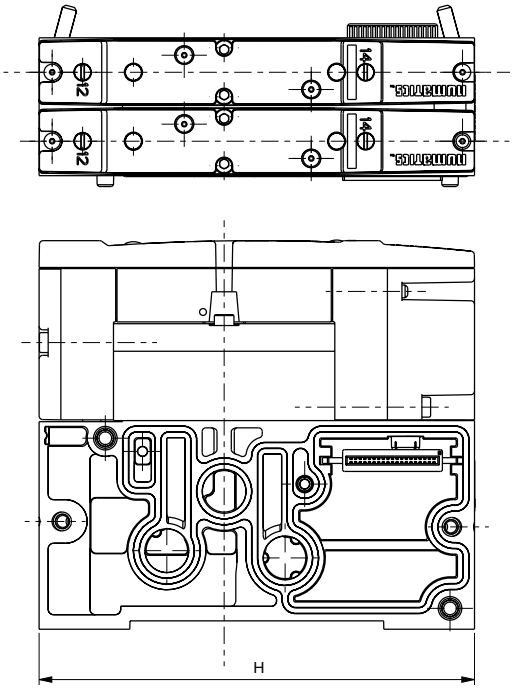
A	B	C
120 (4.72)	18 (0.71)	49.6 (1.95)

Dimensions: mm (inches)

Plug-in Valve Mounted

Plug-in Manifold Block



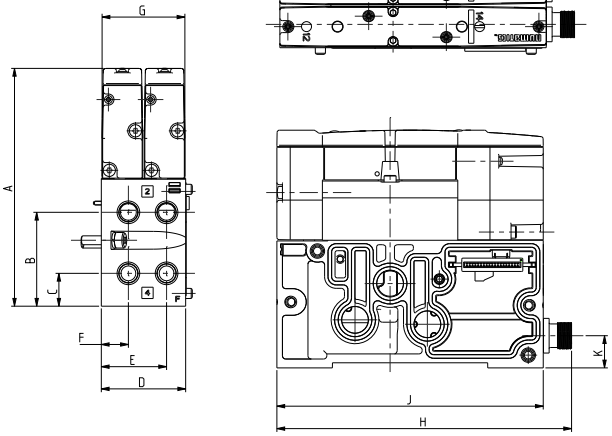


A	B	C	D	E	F	G	H
107.1 (4.217)	42.3 (1.665)	14.8 (0.583)	38 (1.496)	29.4 (1.157)	12.2 (0.48)	37.3 (1.469)	120 (4.724)

Dimensions: mm (inches)

Plug-in Manifold Block

U-Wiring Option



U-Wiring Manifold Block

A	B	C	D	E	F	G	H	J	K
107.1 (4.22)	42.3 (1.67)	14.8 (0.58)	38.0 (1.50)	29.4 (1.16)	12.2 (0.48)	37.3 (1.47)	132.8 (5.23)	120.0 (4.72)	14.5 (0.57)

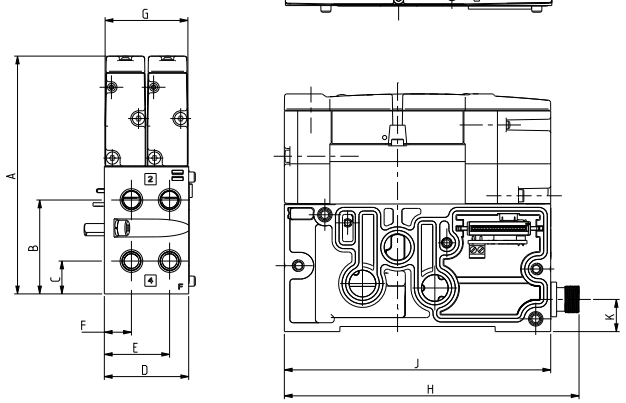
Zoned Safety - Pilot Valve Manifold Base ("U" Wiring)

- The mounted pilot valves are electrically controlled via the M12 connector; power and communication are isolated from the G3 node
- Mounted pilot valves supply Pilot Operated Check Valves, Rod-Locks, Pilot Operated Spring Return Valves, etc.
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the pilot valves become one of the redundant channels required for Category 3 & 4 circuits

Dimensions: mm (inches)

Plug-in Manifold Block

X-Wiring Option



X-Wiring Manifold Block

A	B	C	D	E	F	G	H	J	K
107.1 (4.22)	42.3 (1.67)	14.8 (0.58)	38.0 (1.50)	29.4 (1.16)	12.2 (0.48)	37.3 (1.47)	132.8 (5.23)	120.0 (4.72)	14.5 (0.57)

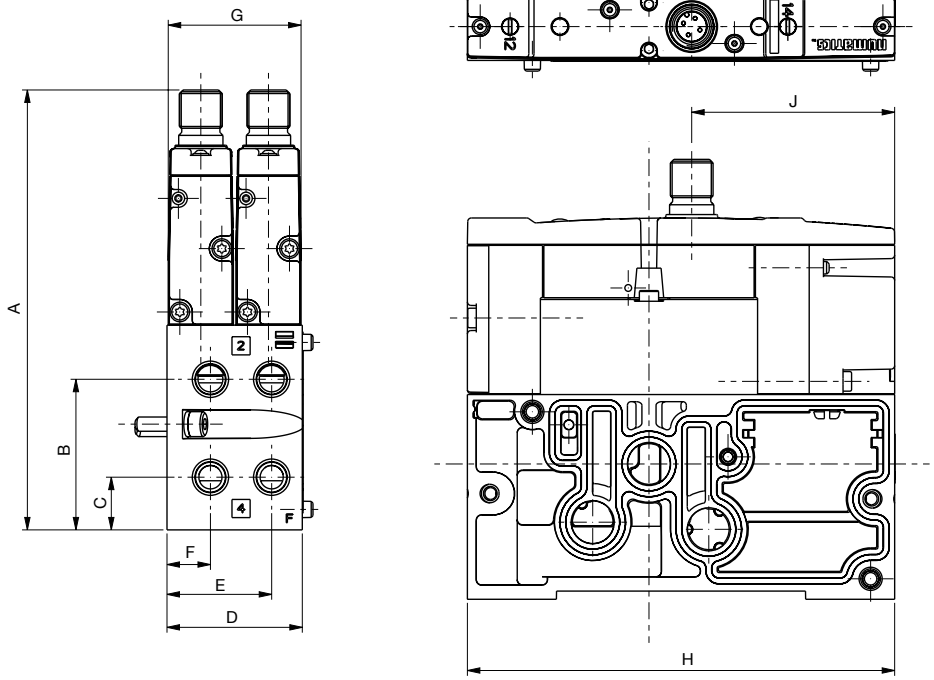
Zoned Safety - Zoned Power Manifold Base ("X" Wiring)

- The M12 Connector supplies power to up to 16 valve solenoid coils
- The G3 node provides communication to these valve solenoid coils
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the valves within the Safety Zone become one of the redundant channels of a Category 3 or 4 circuit

Dimensions: mm (inches)

M12 Valve Mounted

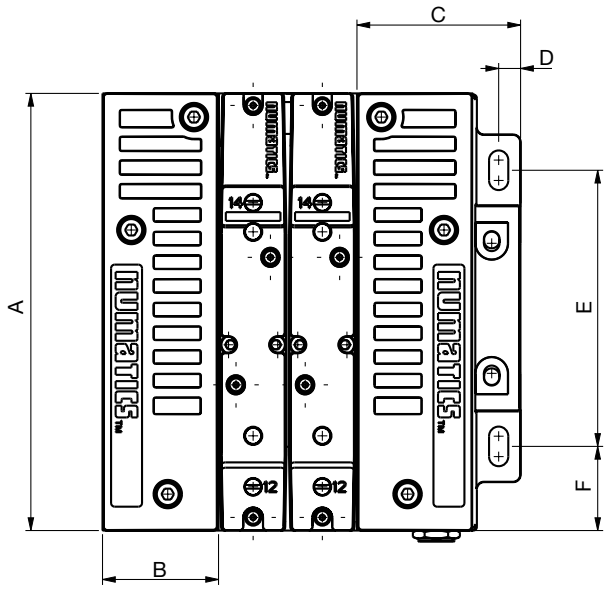
Non Plug-in Manifold Block (ISO 15407-1)

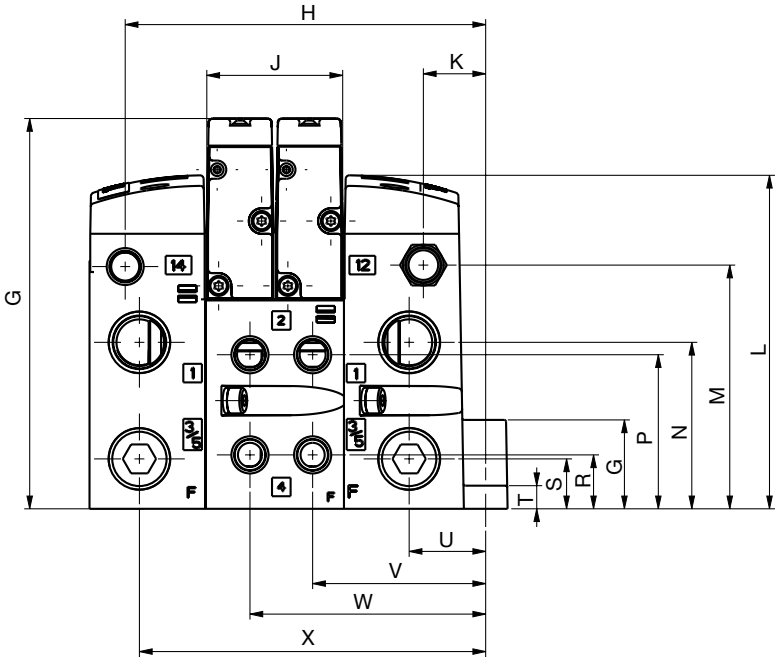


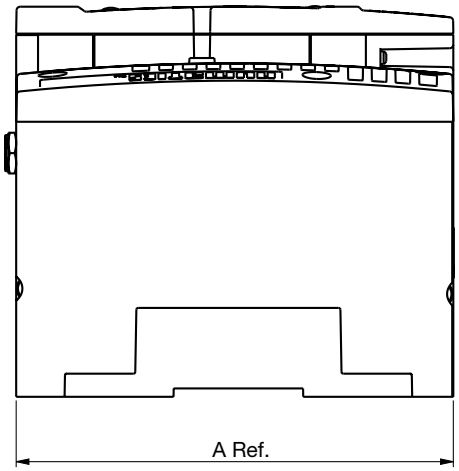
A	B	C	D	E	F	G	H	J
123.6 (4.866)	42.3 (1.665)	14.8 (0.583)	38 (1.496)	29.4 (1.157)	12.2 (0.48)	37.3 (1.469)	120 (4.724)	57 (2.244)

Dimensions: mm (inches)

Manifold Assembly with Vertical End Plates





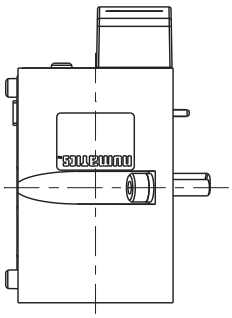


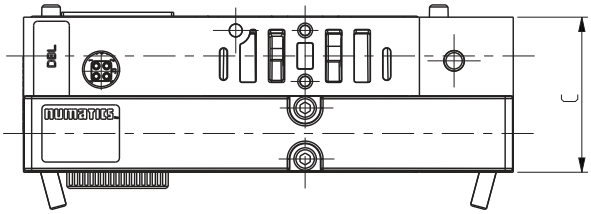
A	B	C	D	E	F	G	H	J	K	L
120 (4.724)	31.9 (1.256)	44.9 (1.768)	6 (0.236)	75.8 (2.984)	23.1 (0.909)	107.1 (4.217)	98.9 (3.894)	37.3 (1.469)	17.1 (0.673)	91.6 (3.606)

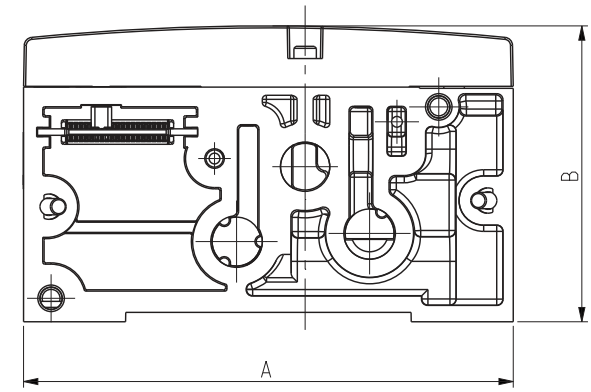
M	N	P	Q	R	S	T	U	V	W	X
66.9 (2.634)	45.7 (1.799)	42.3 (1.665)	24.4 (0.961)	14.8 (0.583)	13.7 (0.539)	6.35 (0.25)	21 (0.827)	47.5 (1.87)	64.7 (2.547)	95 (3.74)

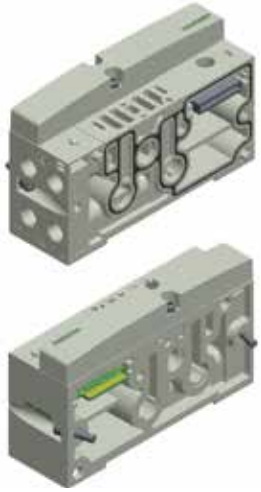
Dimensions: mm (inches)

502 Series Mid-Station Supply Block







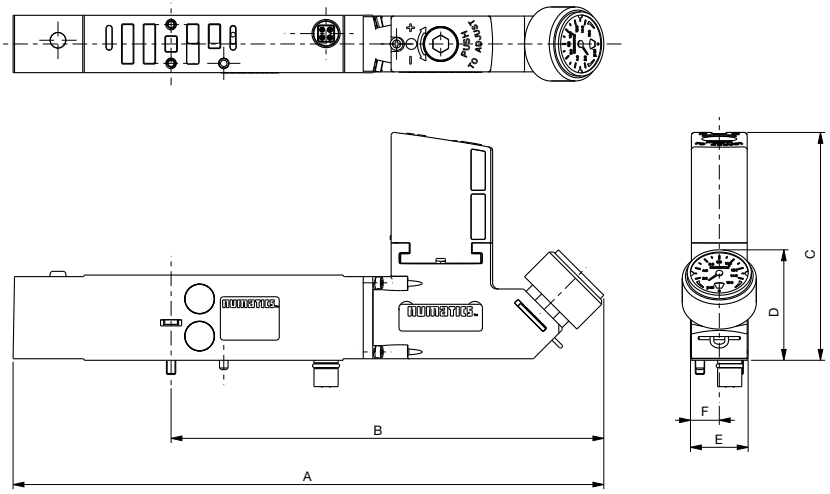


A	B	C
120 (4.72)	72.5 (2.85)	38 (1.50)

Dimensions: mm (inches)

Sandwich Pressure Regulator

Single Regulator

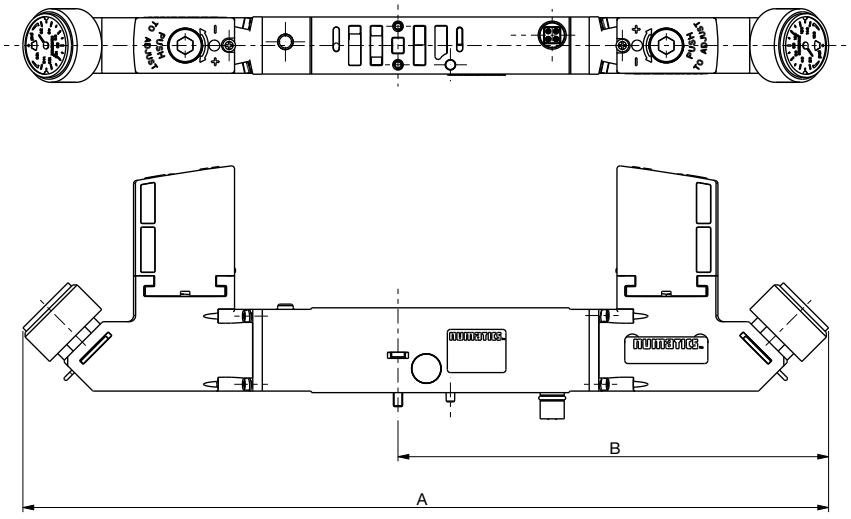


Weight
lbs (kg)
0.65 (0.30)

A	B	C	D	E	F
190.6 (7.504)	139.6 (5.496)	73.5 (2.894)	35.6 (1.402)	18.6 (0.732)	9.3 (0.366)

Dimensions: mm (inches)

Double Regulator

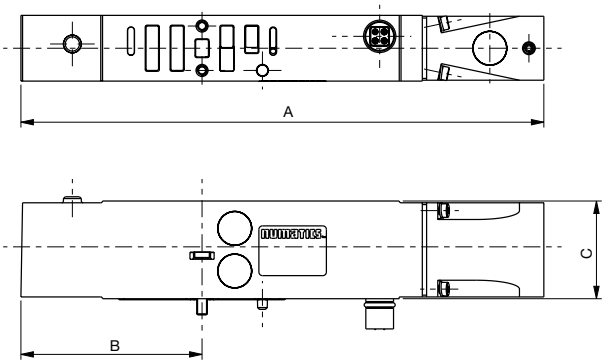


Weight
lbs (kg)
1.05 (0.48)

A	B	C	D	E	F
261.2 (10.283)	139.6 (5.496)	73.5 (2.894)	35.6 (1.402)	18.6 (0.732)	9.3 (0.366)

Dimensions: mm (inches)

Sandwich Shut Off Block Kit

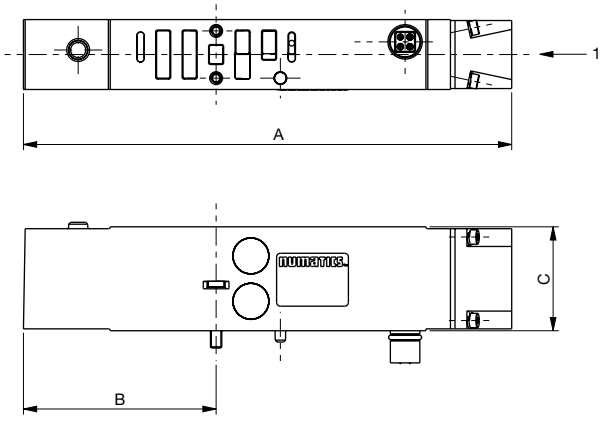


Weight
lbs (kg)
0.30 (0.14)

A	B	C	D
147.2 (5.795)	51 (2.008)	27.5 (1.083)	18.5 (0.728)

Dimensions: mm (inches)

Sandwich Pressure Block Kit

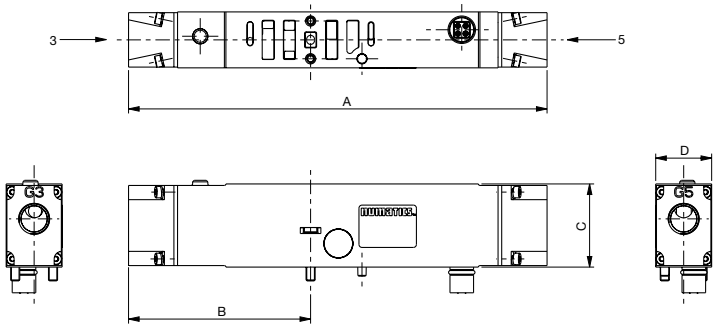


Weight
lbs (kg)
0.50 (0.23)

A	B	C	D
129.2 (5.087)	51 (2.008)	27.5 (1.083)	18.5 (0.728)

Dimensions: mm (inches)

Sandwich Exhaust Block Kit

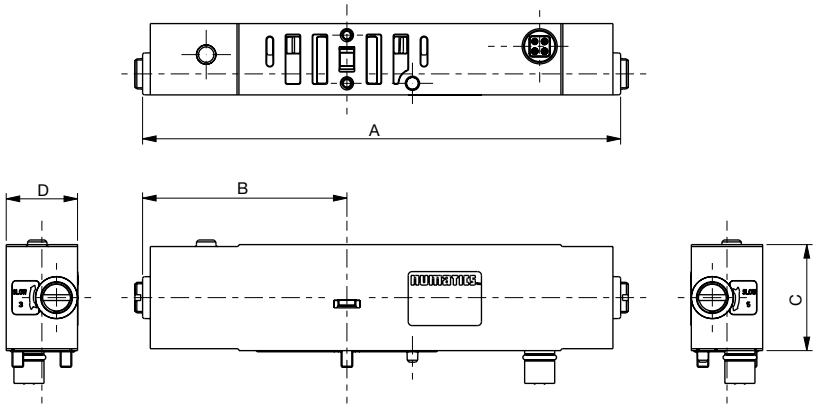


Weight
lbs (kg)
0.30 (0.14)

A	B	C	D
138.4 (5.449)	60.2 (2.37)	27.5 (1.083)	18.5 (0.728)

Dimensions: mm (inches)

Sandwich Speed Control Kit

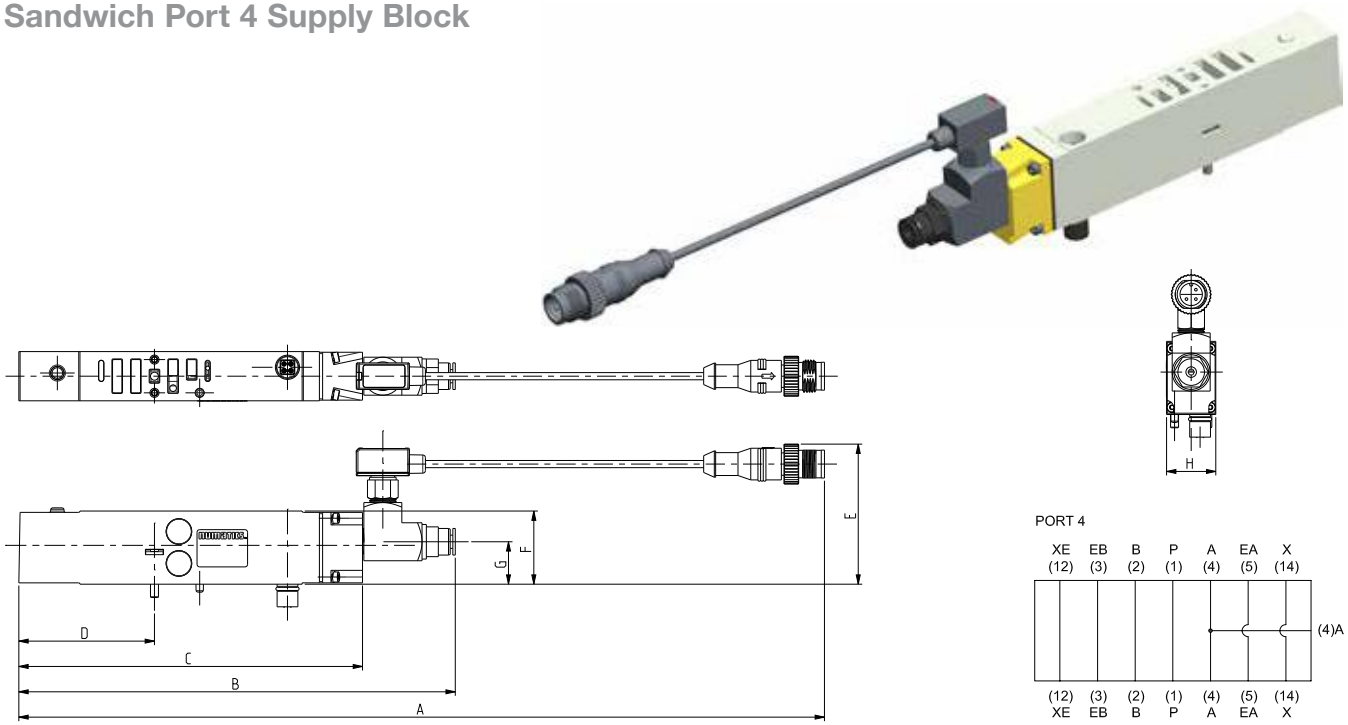


Weight
lbs (kg)
0.30 (0.14)

A	B	C	D
124 (4.882)	53 (2.087)	27.5 (1.083)	18.5 (0.728)

Dimensions: mm (inches)

Sandwich Port 4 Supply Block



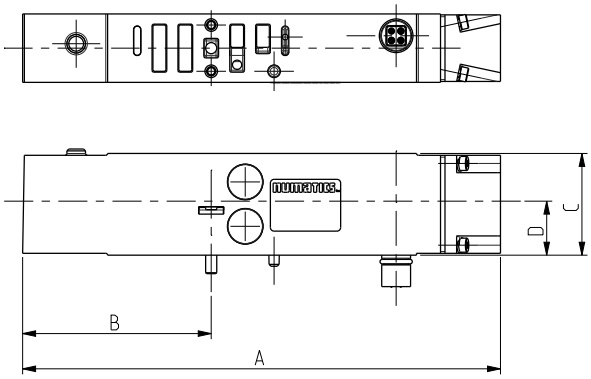
A	B	C	D	E	F	G	H
302.8 (11.92)	164.1 (6.46)	129.2 (5.09)	51.0 (2.01)	52.7 (2.07)	27.5 (1.08)	16.0 (0.63)	18.5 (0.73)

Part Number	Port for Pilot Supply	Description
K502AU514279014	5/32 (4mm) Push-in Fitting	Proprietary Port 4 supply block with AP10
8502AU514279013	Plugged	Proprietary Port 4 supply block with AP10
K502AU514279012	5/32 (4mm) Push-in Fitting	ISO15407-2 Port 4 supply block with AP10
8502AU514279011	Plugged	ISO15407-2 Port 4 supply block with AP10

- Monitors pressure to external devices by AP10 Pressure Switch
- Can be used to supply pressure from Port 4 of valve to pilot Safety zone of manifold via Pilot Separation Pilot block

Dimensions: mm (inches)

Sandwich Port 4 Supply Block



A	B	C	D	E
129.2 (5.09)	51.0 (2.01)	27.5 (1.08)	14.6 (0.57)	18.5 (0.73)

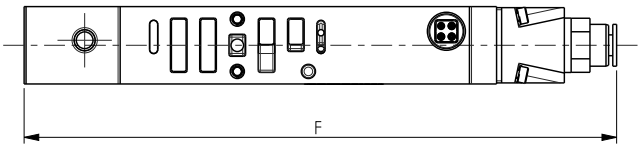
Part Number	Port for Pilot Supply	Description
8502AU514279002	1/4 NPT	Proprietary Port 4 supply block without pressure switch
G502AU514279016	G1/4 (BSPP)	Proprietary Port 4 supply block without pressure switch
8502AU514279001	1/4 NPT	ISO15407-2 Port 4 supply block without pressure switch
G502AU514279015	G1/4 (BSPP)	ISO15407-2 Port 4 supply block without pressure switch

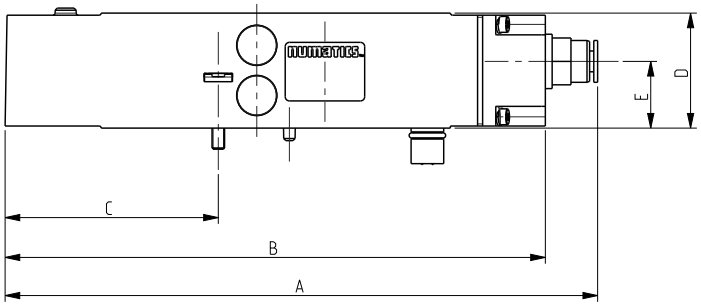
- Customer must integrate pressure feedback on this port in order to meet diagnostic coverage requirements for ISO 13849-1
- Can be used to supply pressure from Port 4 of valve to pilot Safety zone of manifold via Pilot Separation Pilot block

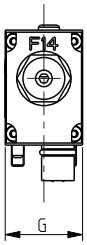
Dimensions: mm (inches)

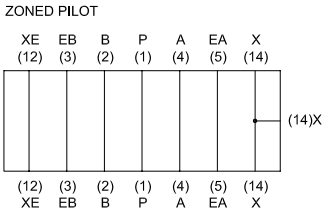
Sandwich Pilot Supply Block

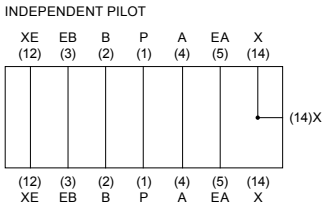
- Allows for introduction of secondary pilot supply to either an individual valve or zone of valves on manifold.
- Pilot Supply air can be from either an external valve or integrated into the manifold via the Port 4 Supply Block









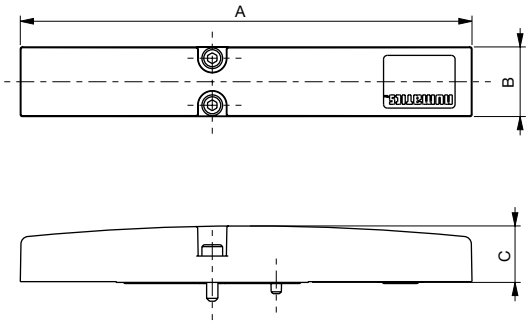


Part Number	Port for Pilot Supply	Description
8502AP428685008	1/8 NPTF	Proprietary Zoned Pilot Supply Block
G502AP428685008	G 1/8	Proprietary Zoned Pilot Supply Block
K502AP428685014	5/32 (4mm) Push-In Fitting	Proprietary Zoned Pilot Supply Block
8502AP428685007	1/8 NPTF	ISO15407-2 Zoned Pilot Supply Block
G502AP428685007	G 1/8	ISO15407-2 Zoned Pilot Supply Block
K502AP428685013	5/32 (4mm) Push-In Fitting	ISO15407-2 Zoned Pilot Supply Block
8502AP428685006	1/8 NPTF	Proprietary Independent Pilot Supply Block
G502AP428685006	G 1/8	Proprietary Independent Pilot Supply Block
8502AP428685005	1/8 NPTF	ISO15407-2 Independent Pilot Supply Block
G502AP428685005	G 1/8	ISO15407-2 Independent Pilot Supply Block

A	B	C	D	E	F	G
141.7 (5.58)	129.2 (5.09)	51.0 (2.01)	27.5 (1.08)	16.0 (0.63)	141.7 (5.58)	18.5 (0.73)

Dimensions: mm (inches)

Blank Station Plate Kit

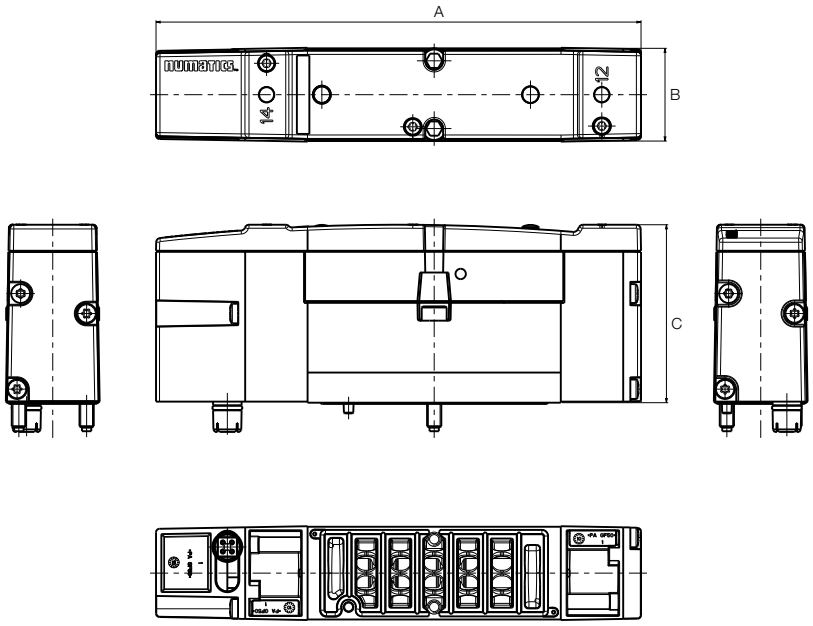


Weight
lbs (kg)
0.10 (0.05)

A	B	C
120 (4.724)	18.5 (0.728)	15 (0.591)

Dimensions: mm (inches)

503 Series Plug-in Valve



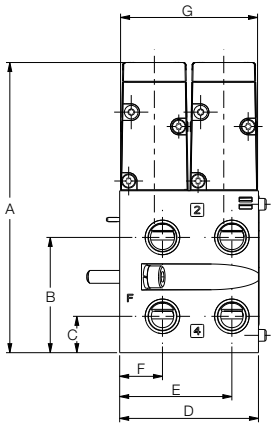
Weight	Valve Body	Manifold Block	End Plates
lbs (kg)	0.520 (0.236)	3.00 (1.36)	1.15 (0.52)

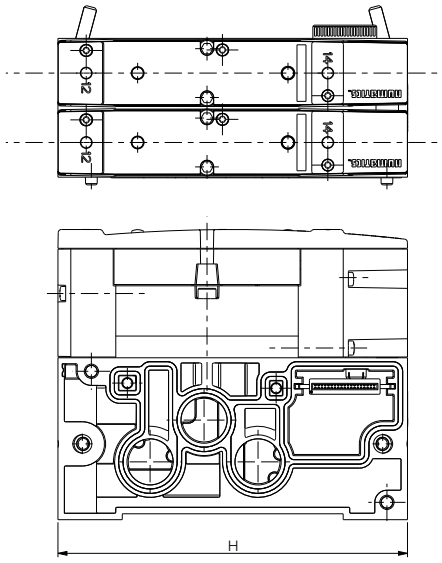
A	B	C
136 (5.35)	26 (1.02)	50 (1.97)

Dimensions: mm (inches)

Plug-in Valve Mounted

Plug-in Manifold Block



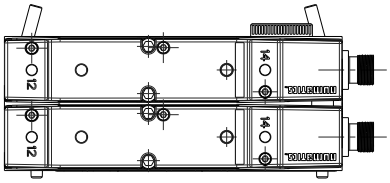


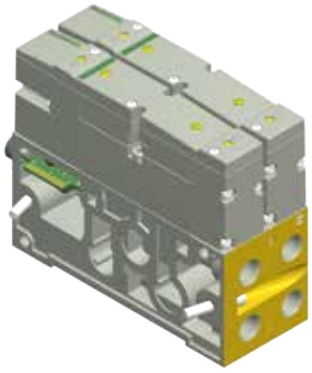
A	B	C	D	E	F	G	H
112.9 (4.445)	44.9 (1.768)	14.2 (0.56)	54 (2.13)	43.7 (1.72)	16.7 (0.66)	53.3 (2.098)	136 (5.35)

Dimensions: mm (inches)

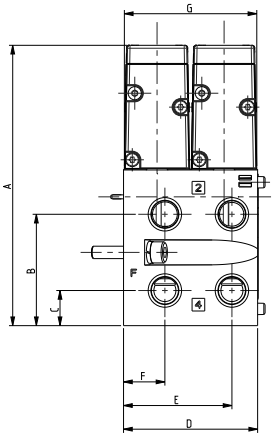
Plug-in Manifold Block

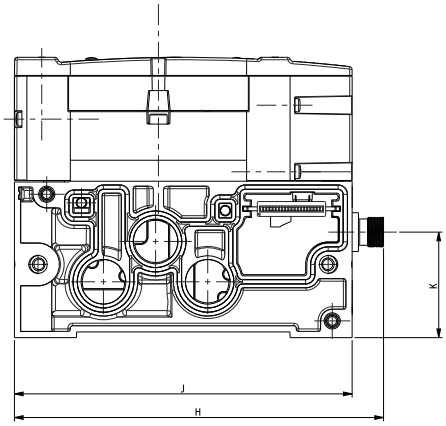
U-Wiring Option





U-Wiring Manifold Block





A	B	C	D	E	F	G	H	J	K
112.9 (4.44)	44.9 (1.77)	14.2 (0.56)	54.0 (2.13)	43.7 (1.72)	16.7 (0.66)	53.3 (2.10)	148.7 (5.85)	136.0 (5.35)	42.5 (1.67)

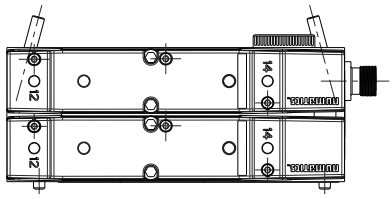
Zoned Safety - Pilot Valve Manifold Base ("U" Wiring)

- The mounted pilot valves are electrically controlled via the M12 connector; power and communication are isolated from the G3 node
- Mounted pilot valves supply Pilot Operated Check Valves, Rod-Locks, Pilot Operated Spring Return Valves, etc.
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the pilot valves become one of the redundant channels required for Category 3 & 4 circuits

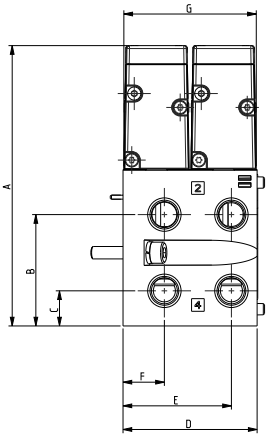
Dimensions: mm (inches)

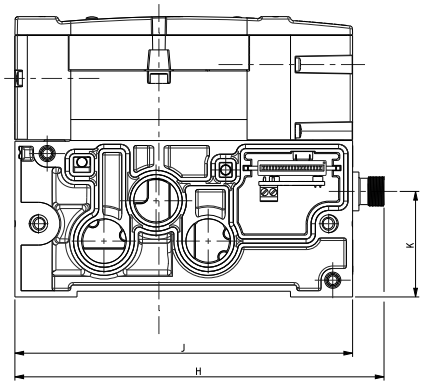
Plug-in Manifold Block

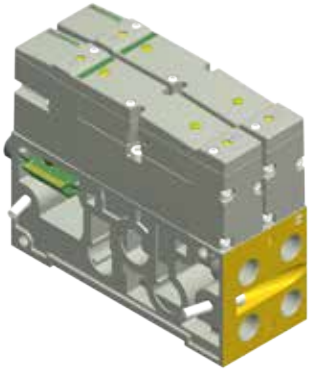
X-Wiring Option



X-Wiring Manifold Block







A	B	C	D	E	F	G	H	J	K
112.9 (4.44)	44.9 (1.77)	14.2 (0.56)	54.0 (2.13)	43.7 (1.72)	16.7 (0.66)	53.3 (2.10)	148.7 (5.85)	136.0 (5.35)	42.5 (1.67)

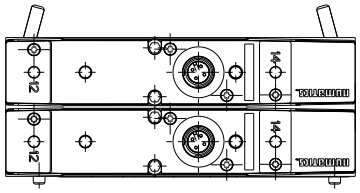
Zoned Safety - Zoned Power Manifold Base ("X" Wiring)

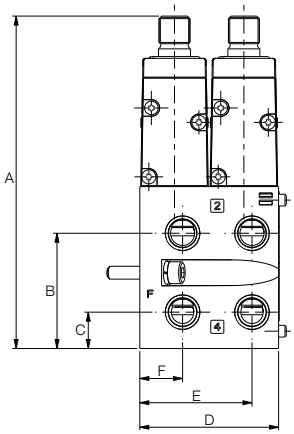
- The M12 Connector supplies power to up to 16 valve solenoid coils
- The G3 node provides communication to these valve solenoid coils
- When the M12 connector is externally supplied by a Safety Relay or Safety Output via a Safety PLC, the valves within the Safety Zone become one of the redundant channels of a Category 3 or 4 circuit

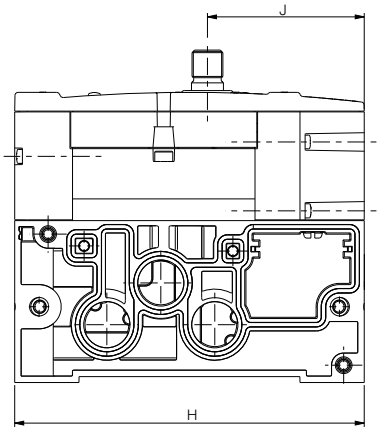
Dimensions: mm (inches)

M12 Valve Mounted (ISO 15407-1)

2-Station Plug-in Manifold Block



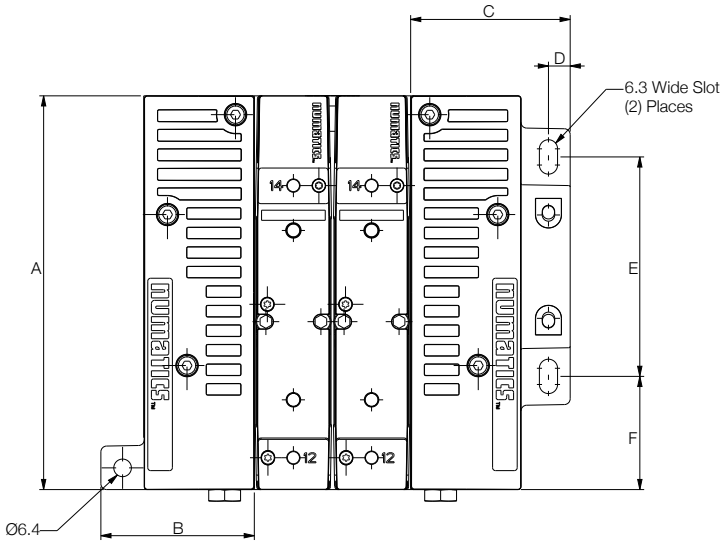


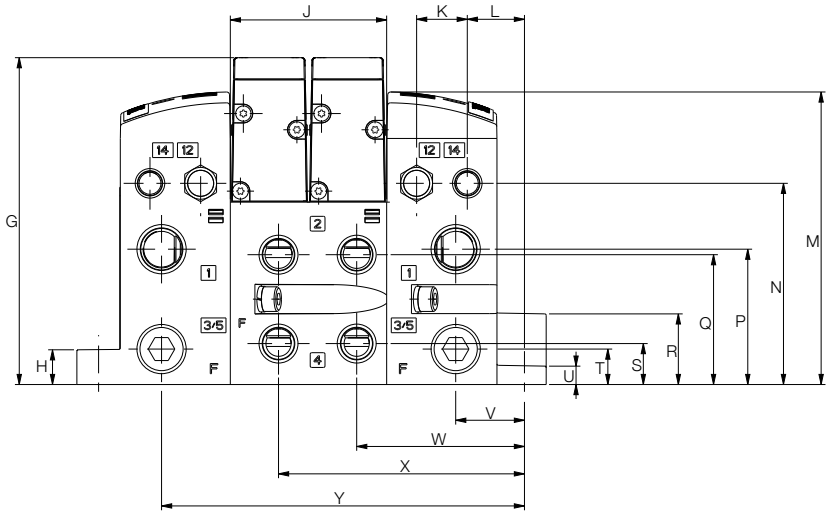


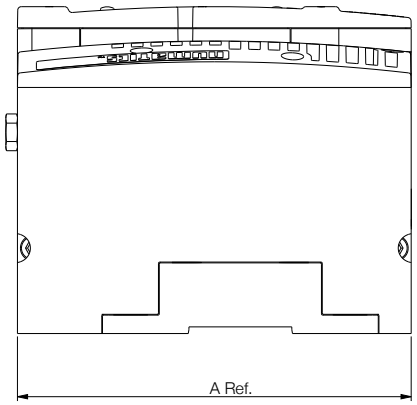
A	B	C	D	E	F	G	H	J
129.4 (5.094)	44.9 (1.768)	14.2 (0.56)	54 (2.13)	43.7 (1.72)	16.7 (0.66)	53.3 (2.098)	136 (5.35)	61 (2.4)

Dimensions: mm (inches)

Manifold Assembly with Vertical End Plates





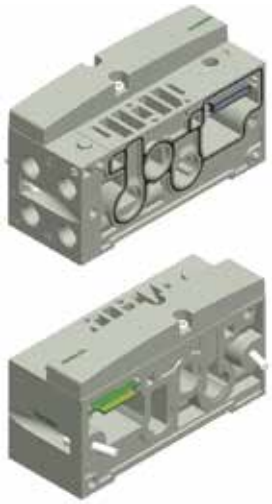


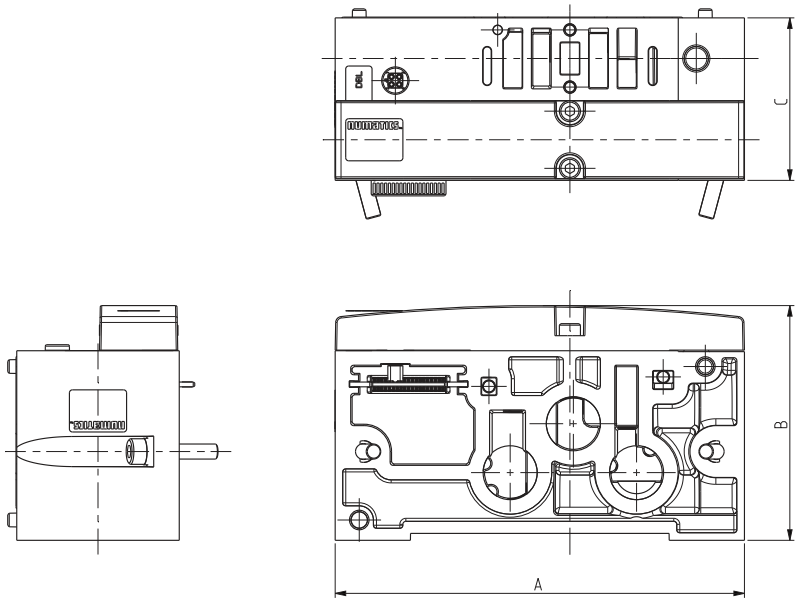
A	B	C	D	E	F	G	H	J	K	L	M
136 (5.354)	53 (2.087)	55.1 (2.17)	7.5 (0.3)	75.8 (2.98)	39.1 (1.54)	112.9 (4.445)	12 (0.47)	54 (2.13)	17.5 (0.69)	19.8 (0.78)	101.1 (3.98)

N	P	Q	R	S	T	U	V	W	X	Y
69.5 (2.74)	46.8 (1.843)	44.9 (1.77)	24.4 (0.96)	14.2 (0.56)	12.3 (0.48)	6.4 (0.25)	23.8 (0.94)	58 (2.28)	85 (3.346)	125.4 (4.937)

Dimensions: mm (inches)

503 Series Mid-Station Supply Block



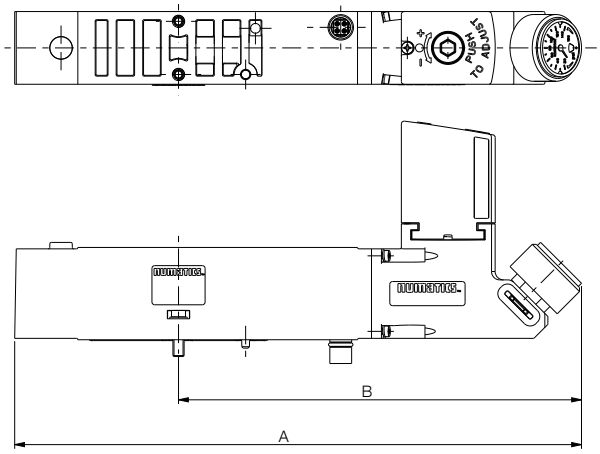


A	B	C
136 (5.35)	78 (3.07)	54 (2.13)

Dimensions: mm (inches)

Sandwich Pressure Regulator

Single Regulator

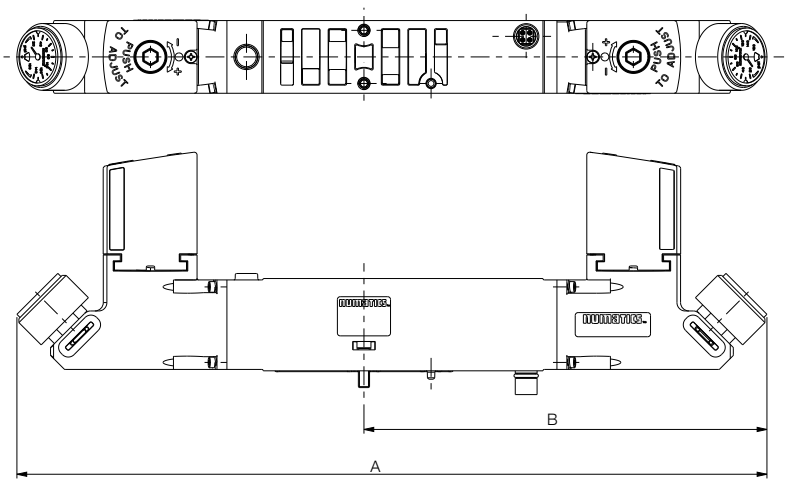


Weight
lbs (kg)
0.95 (0.43)

A	B	C	D	E	F
202.7 (7.98)	144.1 (5.673)	78.2 (3.08)	34.8 (1.37)	26 (1.02)	13 (0.51)

Dimensions: mm (inches)

Double Regulator

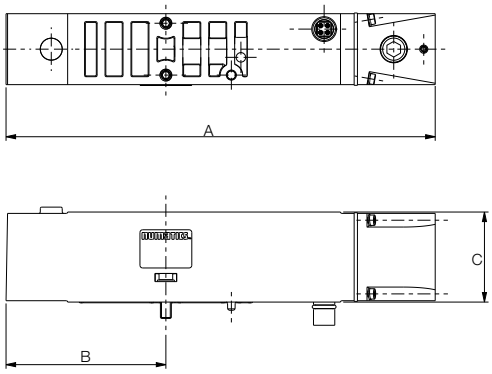


Weight
lbs (kg)
1.45 (0.66)

A	B	C	D	E	F
268.2 (10.56)	144.1 (5.673)	78.2 (3.08)	34.8 (1.37)	26 (1.02)	13 (0.51)

Dimensions: mm (inches)

Sandwich Shut Off Block Kit

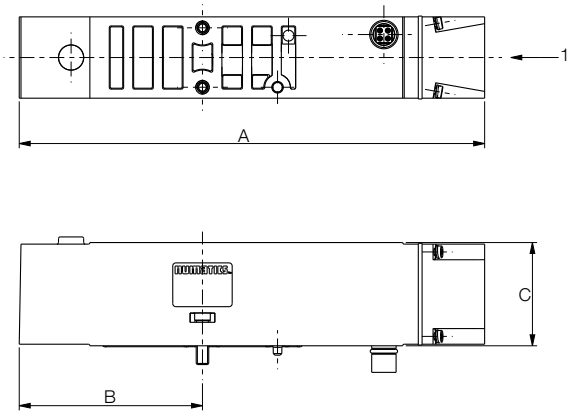


Weight
lbs (kg)
0.45 (0.20)

A	B	C	D
157.3 (6.193)	58.6 (2.307)	33 (1.3)	26.5 (1.04)

Dimensions: mm (inches)

Sandwich Pressure Block Kit

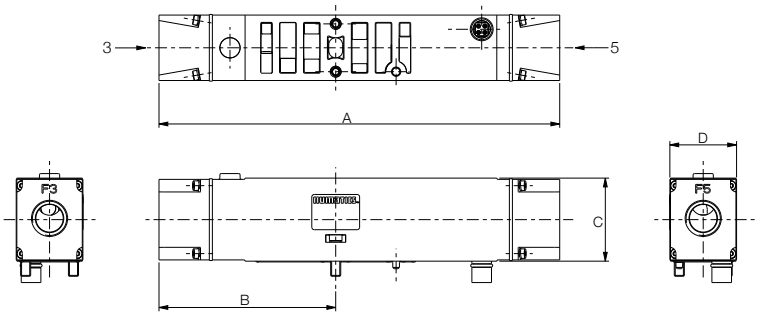


Weight
lbs (kg)
0.45 (0.20)

A	B	C	D
148.8 (5.858)	58.6 (2.307)	33 (1.3)	26.5 (1.04)

Dimensions: mm (inches)

Sandwich Exhaust Block Kit

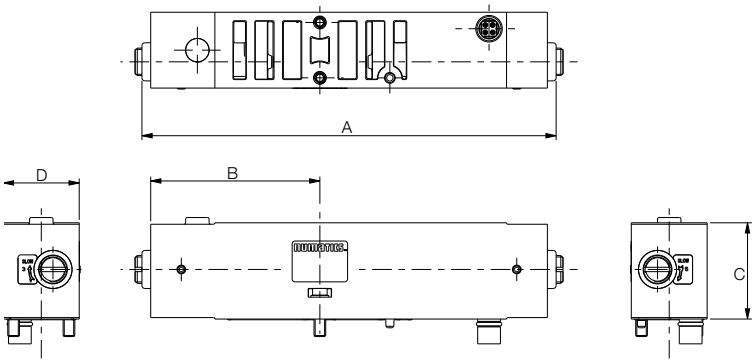


Weight
lbs (kg)
0.50 (0.23)

A	B	C	D
159.2 (6.268)	70.2 (2.764)	33 (1.3)	26.5 (1.04)

Dimensions: mm (inches)

Sandwich Speed Control Kit

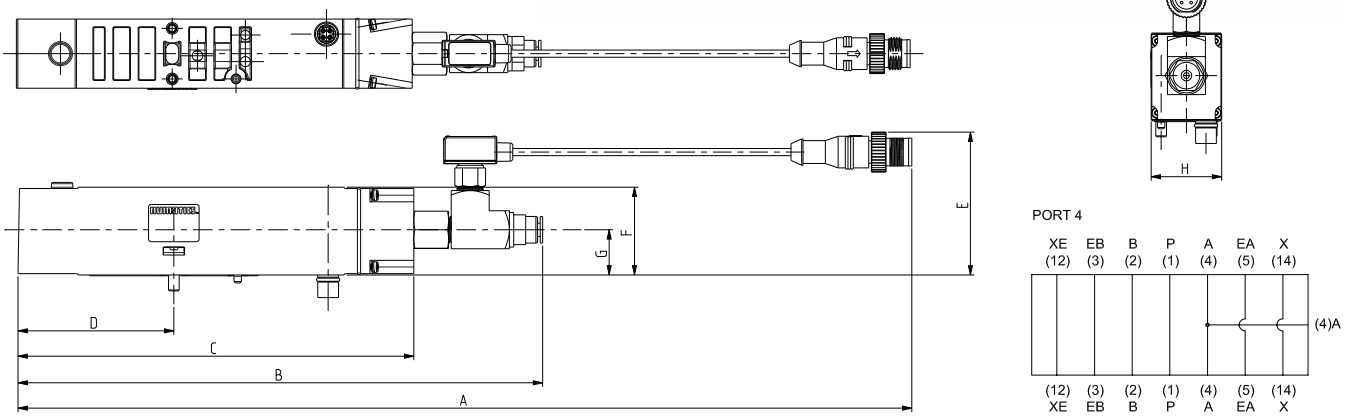


Weight
lbs (kg)
0.55 (0.25)

A	B	C	D
142 (5.591)	58 (2.283)	33 (1.3)	26 (1.02)

Dimensions: mm (inches)

Sandwich Port 4 Supply Block



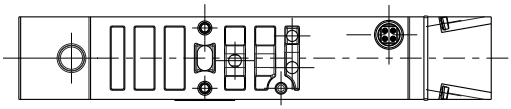
A	B	C	D	E	F	G	H
336.0 (13.23)	197.2 (7.76)	148.8 (5.86)	58.6 (2.31)	53.7 (2.11)	33.0 (1.30)	17.0 (0.67)	26.5 (1.04)

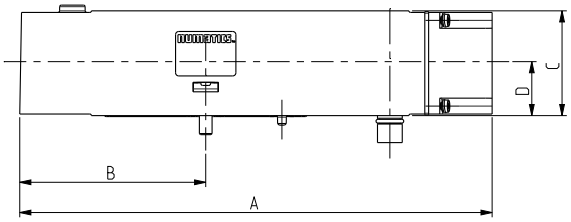
Part Number	Port for Pilot Supply	Description
K503AU516663014	5/32 (4mm) Push-in Fitting	Proprietary Port 4 supply block with AP10
8503AU516663013	Plugged	Proprietary Port 4 supply block with AP10
K503AU516663012	5/32 (4mm) Push-in Fitting	ISO15407-2 Port 4 supply block with AP10
8503AU516663011	Plugged	ISO15407-2 Port 4 supply block with AP10

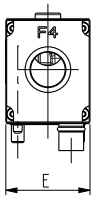
- Monitors pressure to external devices by AP10 Pressure Switch
- Can be used to supply pressure from Port 4 of valve to pilot Safety zone of manifold via Pilot Separation Pilot block
- Allows for introduction of secondary pilot supply to either an individual valve or zone of valves on manifold. Supply to zone of manifold requires selection of Manifold Block and End Plates with Pilot Separation option
- Pilot Supply air can be from either an external valve or integrated into the manifold via the Port 4 Supply Block

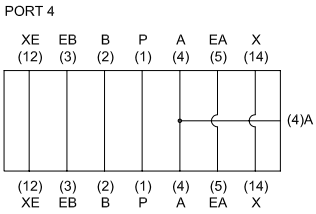
Dimensions: mm (inches)

Sandwich Port 4 Supply Block









A	B	C	D	E
148.8 (5.86)	58.6 (2.31)	33.0 (1.30)	17.0 (0.67)	26.5 (1.04)

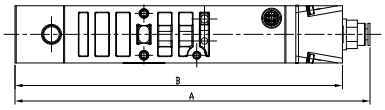
Part Number	Port for Pilot Supply	Description
8503AU516663002	1/4 NPT	Proprietary Port 4 supply block without pressure switch
G503AU516663016	G1/4 (BSPP)	Proprietary Port 4 supply block without pressure switch
8503AU516663001	1/4 NPT	ISO15407-2 Port 4 supply block without pressure switch
G503AU516663015	G1/4 (BSPP)	ISO15407-2 Port 4 supply block without pressure switch

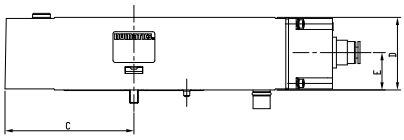
- Customer must integrate pressure feedback on this port in order to meet diagnostic coverage requirements for ISO 13849-1
- Can be used to supply pressure from Port 4 of valve to pilot Safety zone of manifold via Pilot Separation Pilot block
- Allows for introduction of secondary pilot supply to either an individual valve or zone of valves on manifold. Supply to zone of manifold requires selection of Manifold Block and End Plates with Pilot Separation option
- Pilot Supply air can be from either an external valve or integrated into the manifold viathe Port 4 Supply Block

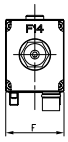
Dimensions: mm (inches)

Sandwich Pilot Supply Block

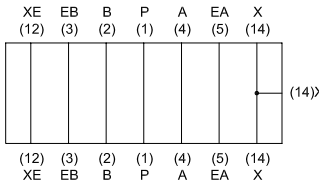
- Allows for introduction of secondary pilot supply to either an individual valve or zone of valves on manifold. Supply to zone of manifold requires selection of Manifold Block and End Plates with Pilot Separation option
- Pilot Supply air can be from either an external valve or integrated into the manifold via the Port 4 Supply Block



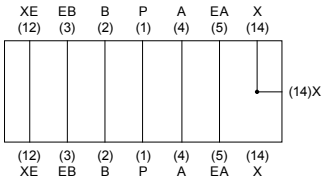




ZONED PILOT



INDEPENDENT PILOT

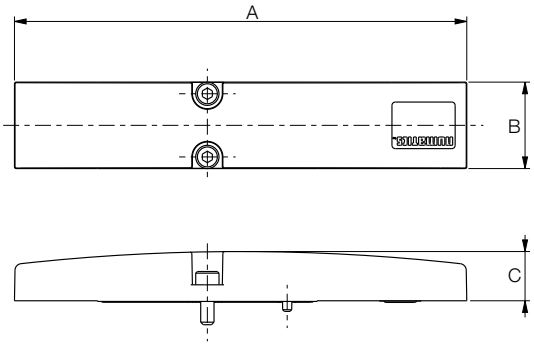


Part Number	Port for Pilot Supply	Description
8503AP428300008	1/4 NPTF	Proprietary Zoned Pilot Supply Block
G503AP428300008	G 1/4	Proprietary Zoned Pilot Supply Block
K503AP428300010	5/32 (4mm) Push-In Fitting	Proprietary Zoned Pilot Supply Block
8503AP428300007	1/4 NPTF	ISO15407-2 Zoned Pilot Supply Block
G503AP428300007	G 1/4	ISO15407-2 Zoned Pilot Supply Block
K503AP428300009	5/32 (4mm) Push-In Fitting	ISO15407-2 Zoned Pilot Supply Block
8503AP428300006	1/4 NPTF	Proprietary Independent Pilot Supply Block
G503AP428300006	G 1/4	Proprietary Independent Pilot Supply Block
8503AP428300005	1/4 NPTF	ISO15407-2 Independent Pilot Supply Block
G503AP428300005	G 1/4	ISO15407-2 Independent Pilot Supply Block

A	B	C	D	E	F
161 (6.350)	148.78 (5.857)	58.58 (2.306)	33 (1.299)	17 (0.669)	26.5 (1.043)

Dimensions: mm (inches)

Blank Station Plate Kit



Weight
lbs (kg)
0.20 (0.09)

A	B	C
136 (5.354)	26 (1.024)	14.8 (0.58)

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