



The valve automation market has demanding product requirements and specifications. ASCO is uniquely qualified to meet these needs. With our offering of direct mount NAMUR valves and valve position indicators ASCO can offer one source of supply for your valve automation solutions.

ASCO offers a complete range of 3 and 4-way valves which mount directly onto single acting and double acting actuators, including 3/2 - 5/2 combination valves that can be converted from 3-way operation to 4-way operation by simply flipping a gasket or changing a plate. These direct mount pilot valves eliminate the need for piping the valve to the actuator, and allow for fast, easy installation on the actuator. These valves are offered with RedHat II molded epoxy solenoids, along with optional features such as high temperature Class H molded coils and manual operators. Additional coil types are available.

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Features

- Mount directly to spring return actuators with NAMUR interface
- Same poppet valve performance as in standard 8320 valves
- Integral breather block prevents ingestion of contaminants or corrosives
- Variety of flow and pressure ratings
- Mountable in any position

Construction

Valve Parts in Contact with Fluids		
Body	Brass	303 Stainless Steel
Seals and Discs	NBR	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Core Springs	302 Stainless Steel	
Shading Coil	Copper	Silver
Disc-Holder	CA	
Core Guide	CA (10.1 and 17.1 watts only)	

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	10.6	6.1	16	30	238210	238310	238214	238314
F	11.6	10.1	25	50	238610	238710	238614	238714
F	22.6	17.1	40	70	238610	238710	238614	238714

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). 6, 12, 24, 120, 240 volts DC. Must be specified when ordering.
 Other voltages are available when required.

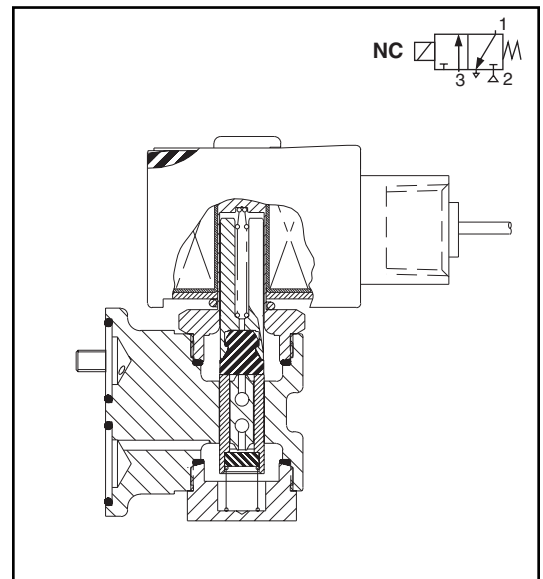
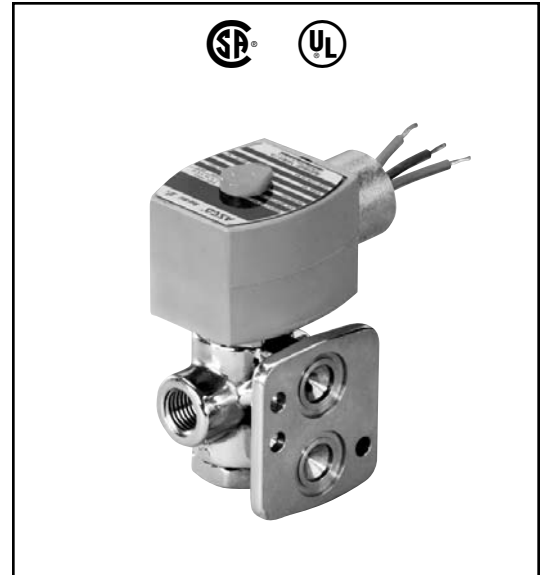
Special Construction: Dual solenoid construction for redundant controls and dribble control available. Consult your local ASCO sales office for details.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" to catalog number.)

See *Optional Features Section* for other available options.



VALVE AUTOMATION

Nominal Ambient Temp. Ranges

AC: 0°F to 125°F (-18°C to 52°C)

DC: 0°F to 104°F (-18°C to 40°C)

When used at temperatures below 32°F (0°C), media must be moisture free. Also available: -40° construction.

Please contact ASCO sales office for details.

Approvals

UL component and CSA certified.

SIL 3 capable per IEC 61508.

Third party certification provided by EXIDA.

Refer to *Engineering Section* for details.

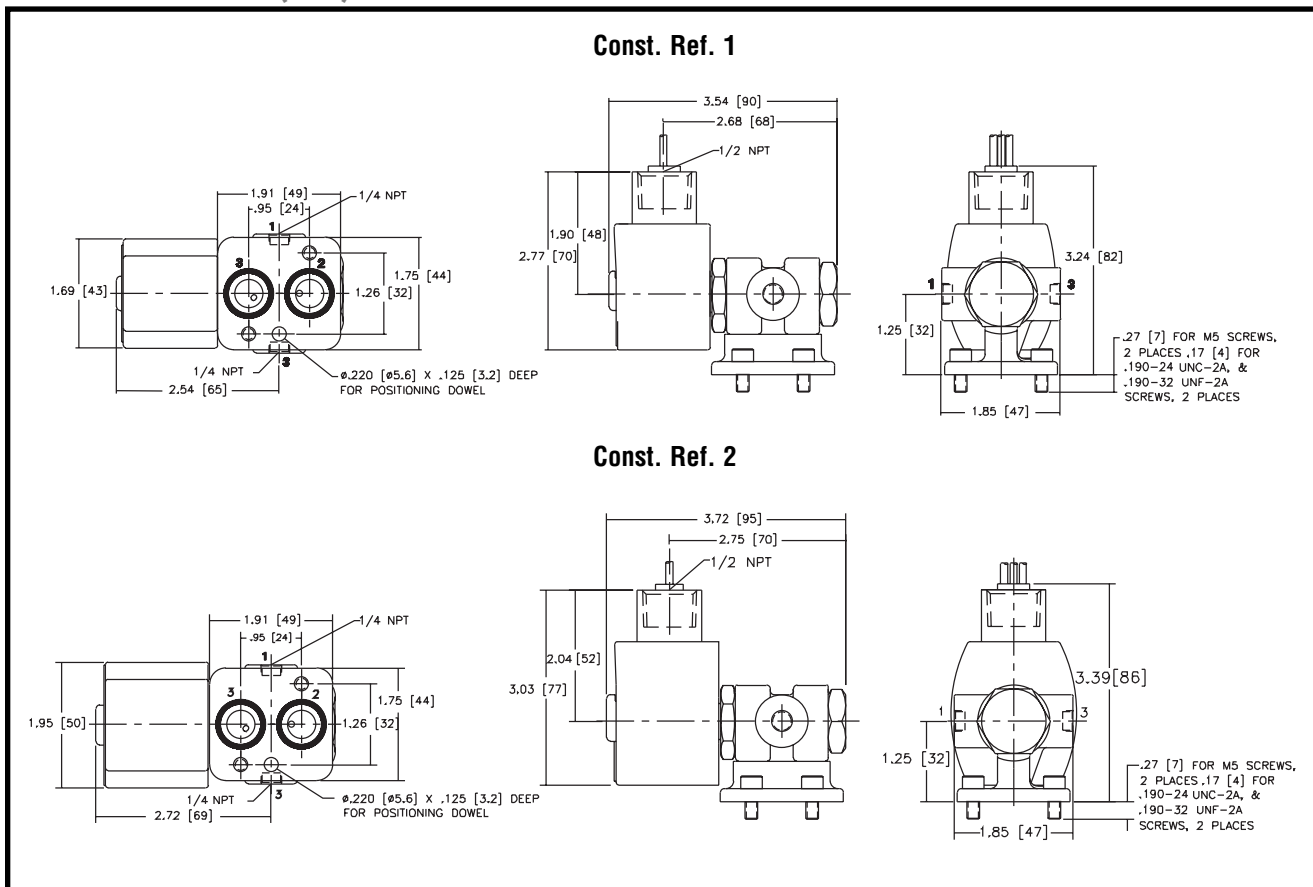
Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)		Max. Fluid Temp. °F		Brass Body Catalog Number	Stainless Steel Body Catalog Number	Const. Ref.	Watt Rating/Class of Coil Insulation	
			Air-Inert Gas		AC	DC				AC	DC
			Max. AC	Max. DC	AC	DC					
NORMALLY CLOSED (Closed when de-energized) – PFD_{AVG} = 6.81 x 10⁻⁴											
1/4	1/16	.09	150	125	180	120	8320G701	8320G711	1	6.1/F	10.6/F
1/4	3/32	.12	100	100	180	120	8320G702	8320G712	1	6.1/F	10.6/F
1/4	1/16	.09	210	160	200	150	8320G703	8320G713	2	17.1/F	11.6/F
1/4	3/32	.12	150	150	200	150	8320G704	8320G714	2	10.1/F	22.6/F
1/4	1/8	.21	100	-	200	-	8320G705	8320G715	2	17.1/F	-

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bars)		Max. Fluid Temp. °C		Brass Body Catalog Number	Stainless Steel Body Catalog Number	Const. Ref.	Watt Rating/Class of Coil Insulation	
			Air-Inert Gas		AC	DC				AC	DC
			Max. AC	Max. DC	AC	DC					
NORMALLY CLOSED (Closed when de-energized) – PFD_{AVG} = 6.81 x 10⁻⁴											
1/4	2	.08	10	9	81	48	8320G701	8320G711	1	6.1/F	10.6/F
1/4	2	.10	7	7	81	48	8320G702	8320G712	1	6.1/F	10.6/F
1/4	2	.08	14	11	92	65	8320G703	8320G713	2	17.1/F	11.6/F
1/4	2	.10	10	10	92	65	8320G704	8320G714	2	10.1/F	22.6/F
1/4	3	.18	7	-	92	-	8320G705	8320G715	2	17.1/F	-

Dimensions inches (mm)



VALVE
AUTOMATION

Features

- NAMUR direct mount construction
- Balanced Poppet construction provides high flow with low power consumption
- PTFE rider rings and graphite-filled PTFE seals reduce friction and eliminate sticking for long life
- No minimum pressure required
- Tamperproof no-voltage release manual reset provides added safety

Construction

Valve Parts in Contact with Fluids		
Body	Aluminum	316 Stainless Steel
Seals and Discs	VMQ	
	NBR	FKM
Core Tube	305 Stainless Steel	
Stem and Insert	303 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Springs	302 Stainless Steel	
Rider Rings	PTFE	

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	11.6	12	24	24	276000	238710	276002	238714

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz. 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages are available when required.

Solenoid Enclosures

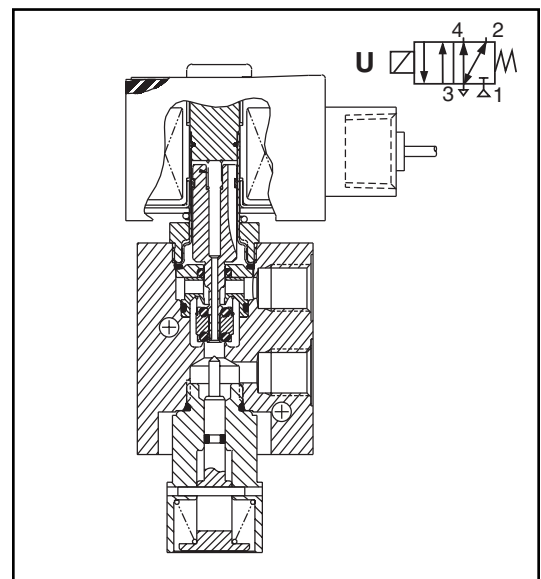
Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" or, for Explosionproof Stainless Steel trim and hub on Aluminum-Bodied valves, add "EV" to catalog number.)

See *Optional Features Section* for other available options.

SIL (Safety Integrity Level) Information:

- PFD (Probability of Failure on Demand) < 4 x 10⁻⁷ at a confidence factor of 95%.
- SFF (Safe Failure Fraction) according to IEC 61508-2 Table A1 is ≥ 0.99.
- Only constructions without manual operators apply to the above criteria.



VALVE AUTOMATION

Nominal Ambient Temp. Ranges

8327G033 and 35: -4°F to 131°F (-20°C to 55°C)
 8327G053 and 55: -40°F to 131°F (-40°C to 55°C)
 Refer to *Engineering Section* for details.

Approvals

General Purpose Solenoid:

UL recognized component, CSA certified.

Explosionproof Solenoid: (Prefix EF and EV)

UL listed solenoid.

CSA certified for use in hazardous Locations.

Meets applicable CE directives.

Refer to *Engineering Section* for details.

Specifications (English units)

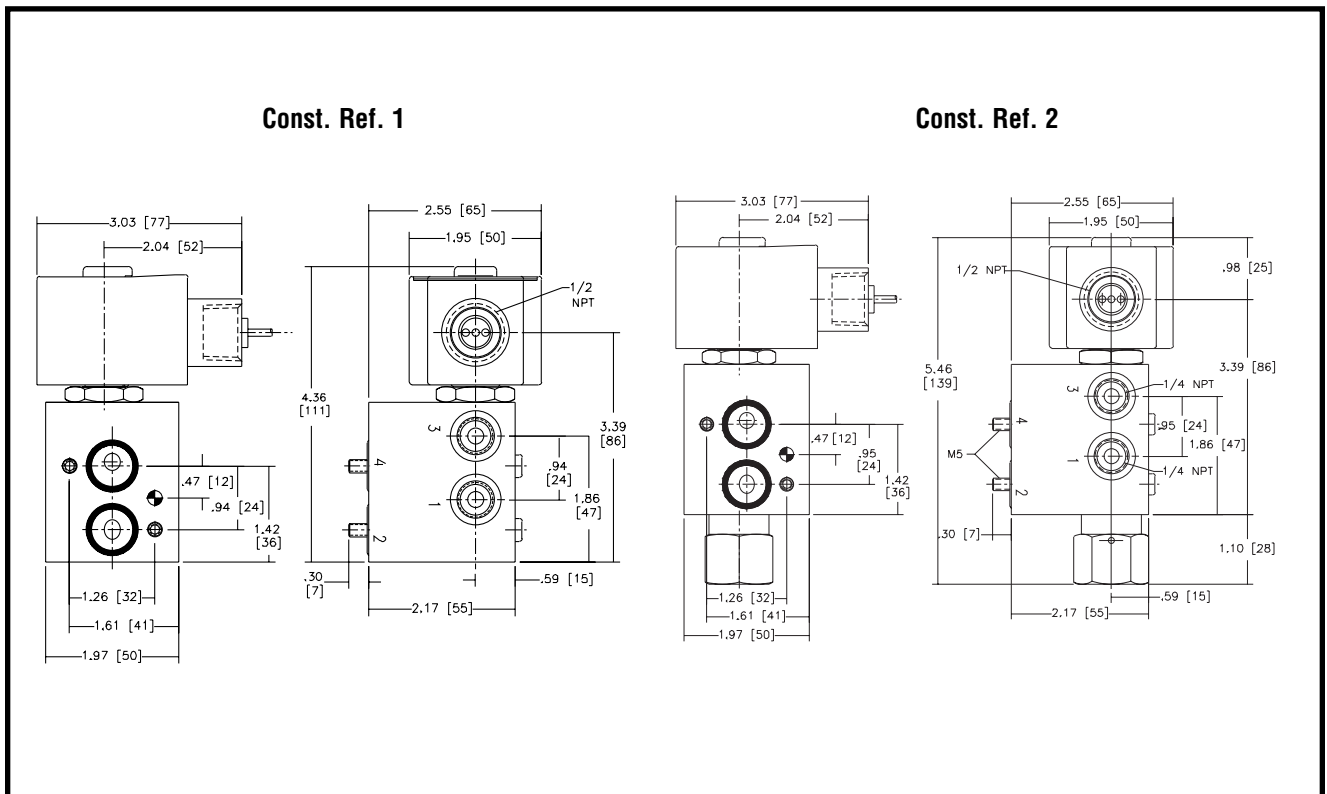
Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor		Maximum Operating Pressure Diff. (psi) Air-Inert Gas	Fluid Temp. Range °F	Aluminum Body	Stainless Steel Body	Const. Ref.	Watt Rating/ Class of Coil Insulation	
		Ports 1-2	Ports 2-3			Catalog Number	Catalog Number		AC	DC
UNIVERSAL - Low-Temperature Operation										
1/4	1/4	.52	.53	150	-40 to 131	8327G053	EV8327G055	1	12.0/F	11.6/F
UNIVERSAL MANUAL RESET - Tamperproof No-Voltage Release										
1/4	1/4	.62	.43	150	-4 to 176	8327G033	-	2	12.0/F	11.6/F
1/4	1/4	.62	.43	150	-4 to 248	-	EV8327G035	2	12.0/F	11.6/F

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)		Maximum Operating Pressure Diff. (bar) Air-Inert Gas	Fluid Temp. Range °C	Aluminum Body	Stainless Steel Body	Const. Ref.	Watt Rating/ Class of Coil Insulation	
		Ports 1-2	Ports 2-3			Catalog Number	Catalog Number		AC	DC
UNIVERSAL - Low-Temperature Operation										
1/4	6.4	.45	.45	10	-40 to 55	8327G053	EV8327G055	1	12.0/F	11.6/F
UNIVERSAL MANUAL RESET - Tamperproof No-Voltage Release										
1/4	6.4	.53	.37	10	-20 to 80	8327G033	-	2	12.0/F	11.6/F
1/4	6.4	.53	.37	10	-20 to 120	-	EV8327G035	2	12.0/F	11.6/F

VALVE
AUTOMATION

Dimensions inches (mm)



Features

- Mount directly to actuators with NAMUR, Keystone, or Worcester interfaces
- Easy conversion from AC to DC by simply changing coil
- Standard momentary/maintained manual operator
- 3/2 is normally closed poppet design for spring return actuators
- 3/2 normally closed or 4/2 operation can be selected by rotating sub-base gasket
- 3/2 normally closed or 4/2 valves have built-in linear flow device capable of controlling Cv from 0.10 to 0.50
- Breather block exhausts to spring side of actuator to prevent corrosion of the actuator
- Unique CA slide and ceramic flow plate for extra-long life

Construction

Valve Parts in Contact with Fluids	
Core Tube	305 Stainless Steel
Core and Plugnut	430F Stainless Steel
Springs	302 Stainless Steel
Seals	Low-Friction, Low-Wear NBR
Interface Plate	Molded PA
8401 Series Only	
Pressure Port	303 Stainless Steel
Main and Pilot Body	Molded PA
Spool	CA
Slide	Graphite-filled PTFE
Flow Plate	Ceramic (Alumina)
Worcester Version	
Main Body and Sub-Base	Anodized Aluminum

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number	
	DC Watts	Watts	AC		AC	AC
			VA Holding	VA Inrush		
F	6.9	6.3	8.8	12.1	266763	270008

Standard Voltages: 24, 120, 240 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz).
 6, 12, 24, 120, 240 volts DC. Must be specified when ordering.
 Other voltages available upon request.

Solenoid Enclosures

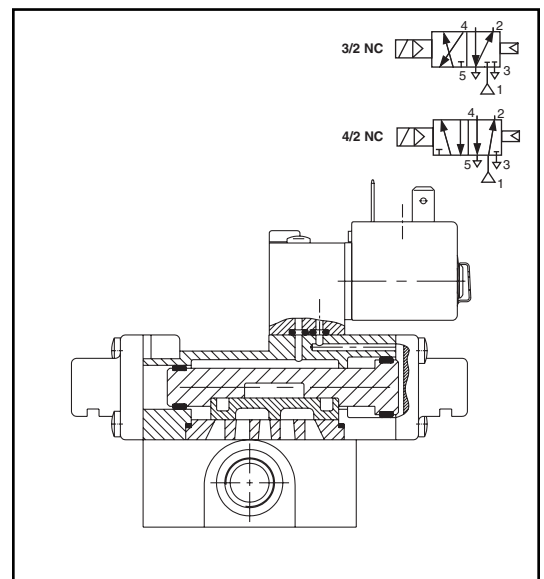
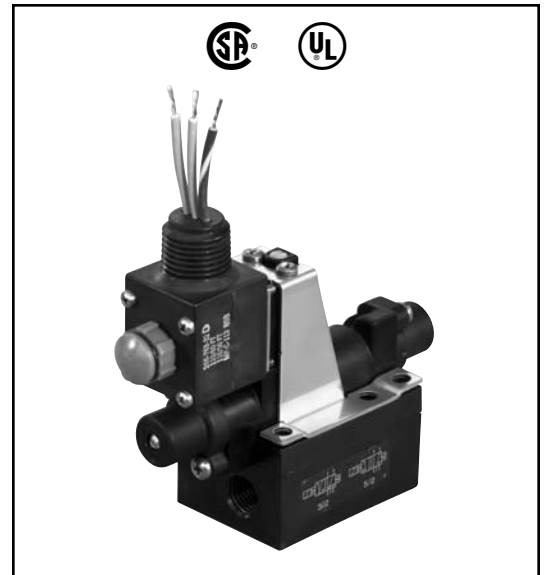
Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, change "WT" catalog number prefix to "EF".)

Molded epoxy coil per 3 x DIN 46244. (To order, change "WT" catalog number prefix to "SC".)

Molded epoxy open frame Class F coil with 18" leads. (To order, change "WT" catalog number prefix to "U".)

See *Optional Features Section* for other available options.



Nominal Ambient Temp. Ranges

AC: 0°F to 104°F (-18°C to 40°C),
 except prefixes "U" and "SC" to 135°F (57°C)
 DC: 0°F to 77°F (-18°C to 25°C)

Approvals

"WT" - UL recognized component General Purpose Valve, CSA certified.

"EF" - UL listed solenoid, CSA certified.

"U" and "SC" - UL recognized component, CSA certified.

Refer to *Engineering Section* for details.

VALVE
AUTOMATION

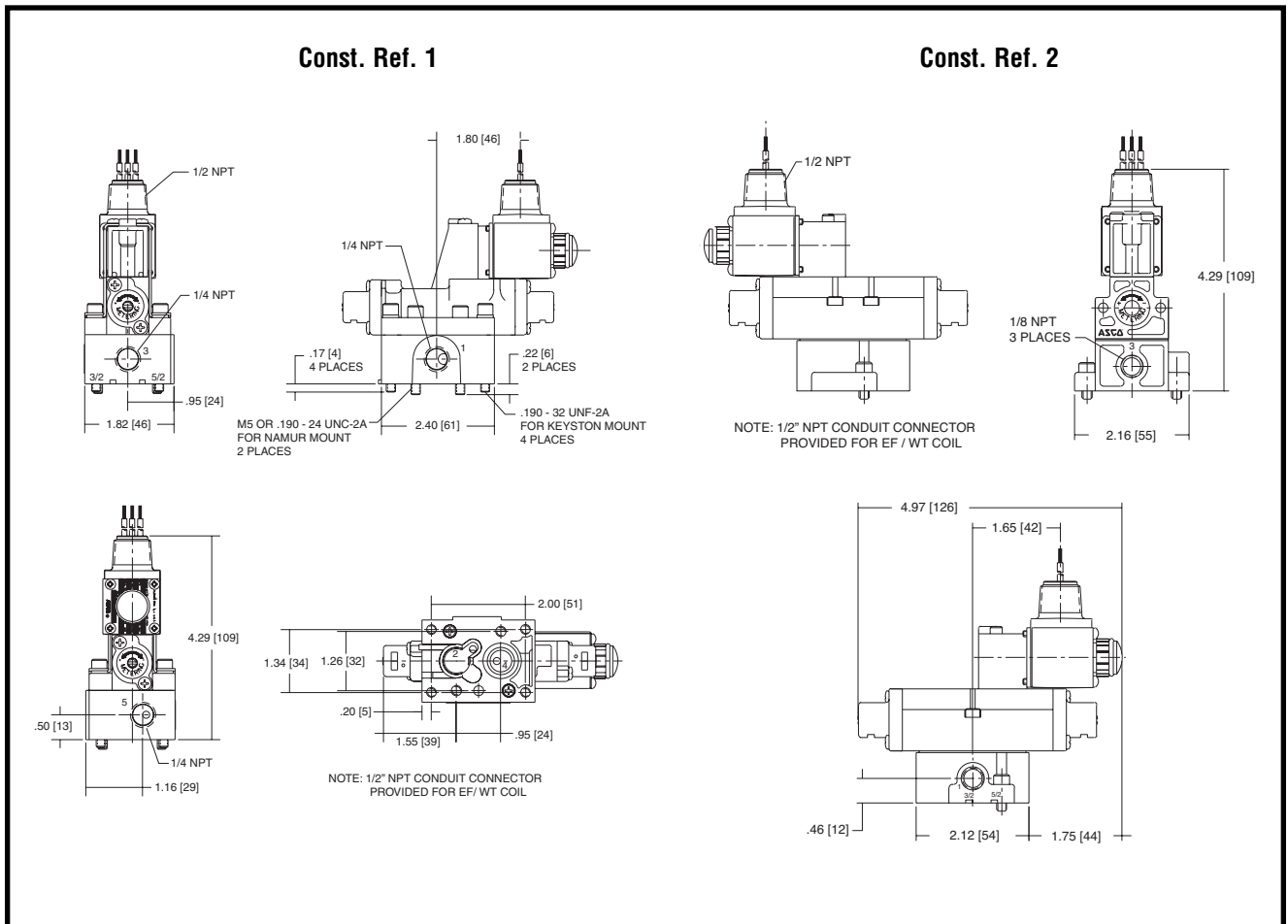
Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Main Line Supply Pressure (psi) AC and DC				Catalog Number	Const. Ref.	Interface Type	Watt Rating/ Class of Coil Insulation	
			Air-Inert Gas		Max. Fluid Temp. °F					AC	DC
			Min.	Max.	AC	DC					
3-WAY NORMALLY CLOSED OR 4-WAY											
1/4	1/4	.50	20	150	104	77	WT8401B202M	1	NAMUR	6.3/F	6.9/F
1/4	1/4	.50	20	150	104	77	WT8401B204M	1	Keystone	6.3/F	6.9/F
1/4	1/4	.40	20	150	104	77	WT8401B200M	2	Worcester	6.3/F	6.9/F

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Main Line Supply Pressure (bar) AC and DC				Catalog Number	Const. Ref.	Interface Type	Watt Rating/ Class of Coil Insulation	
			Air-Inert Gas		Max. Fluid Temp. °C					AC	DC
			Min.	Max.	AC	DC					
3-WAY NORMALLY CLOSED OR 4-WAY											
1/4	6	.43	1	10	40	25	WT8401B202M	1	NAMUR	6.3/F	6.9/F
1/4	6	.43	1	10	40	25	WT8401B204M	1	Keystone	6.3/F	6.9/F
1/4	6	.34	1	10	40	25	WT8401B200M	2	Worcester	6.3/F	6.9/F

Dimensions inches (mm)



VALVE AUTOMATION

Features

- NAMUR direct mount version of the rugged, dependable 8342 Series valves
- Direct acting, high flow slide-style valve
- No Minimum Operating Pressure Differential required to shift valve
- Available with single or dual solenoid operation
- Mechanical detent on dual solenoids holds last position, even after loss of electric power, pneumatics, or pressure

Construction

Valve Parts in Contact with Fluids		
Body	Brass	303 Stainless Steel
Seals and Discs	NBR and FKM	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Springs	302 Stainless Steel	
Shading Coil	Copper	
Sleeve	PA	
Seats	PTFE	

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption			Spare Coil Part Number	
	AC			General Purpose	Explosionproof
	Watts	VA Holding	VA Inrush	AC	AC
F	20.1	35	115	272610	272614
F	16.1	45	140	272610	272614

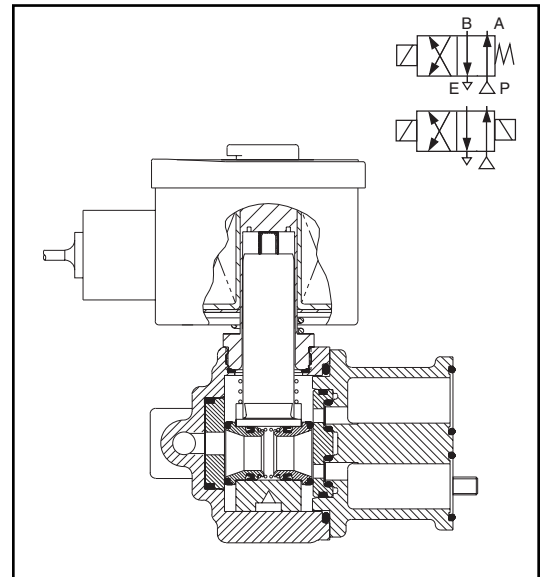
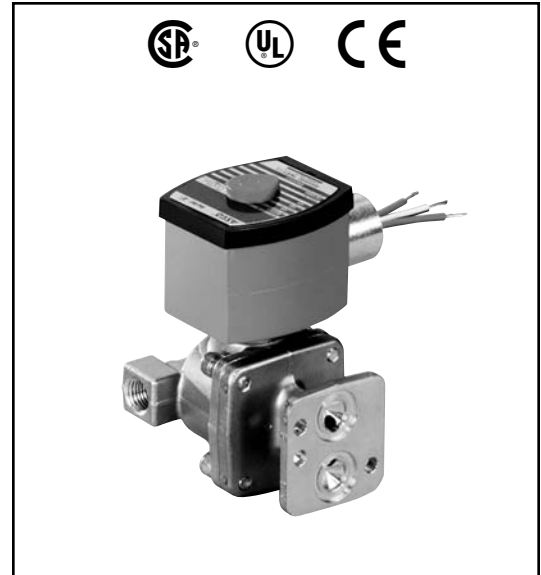
Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz).
 Must be specified when ordering. Other voltages, except combinations 120/60 and 110/50, are available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.
 (To order, add prefix "EF" to catalog number.)

See *Optional Features Section* for other available options.



VALVE AUTOMATION

Nominal Ambient Temp. Ranges

32°F to 125°F (0°C to 52°C)

Refer to *Engineering Section* for details.

Approvals

General Purpose Solenoid:

UL recognized component, CSA certified.

Explosionproof Solenoid: (EF Brass, EV S.S)

UL listed solenoid.

CSA certified for use in hazardous Locations.

Meets applicable CE directives.

Refer to *Engineering Section* for details.

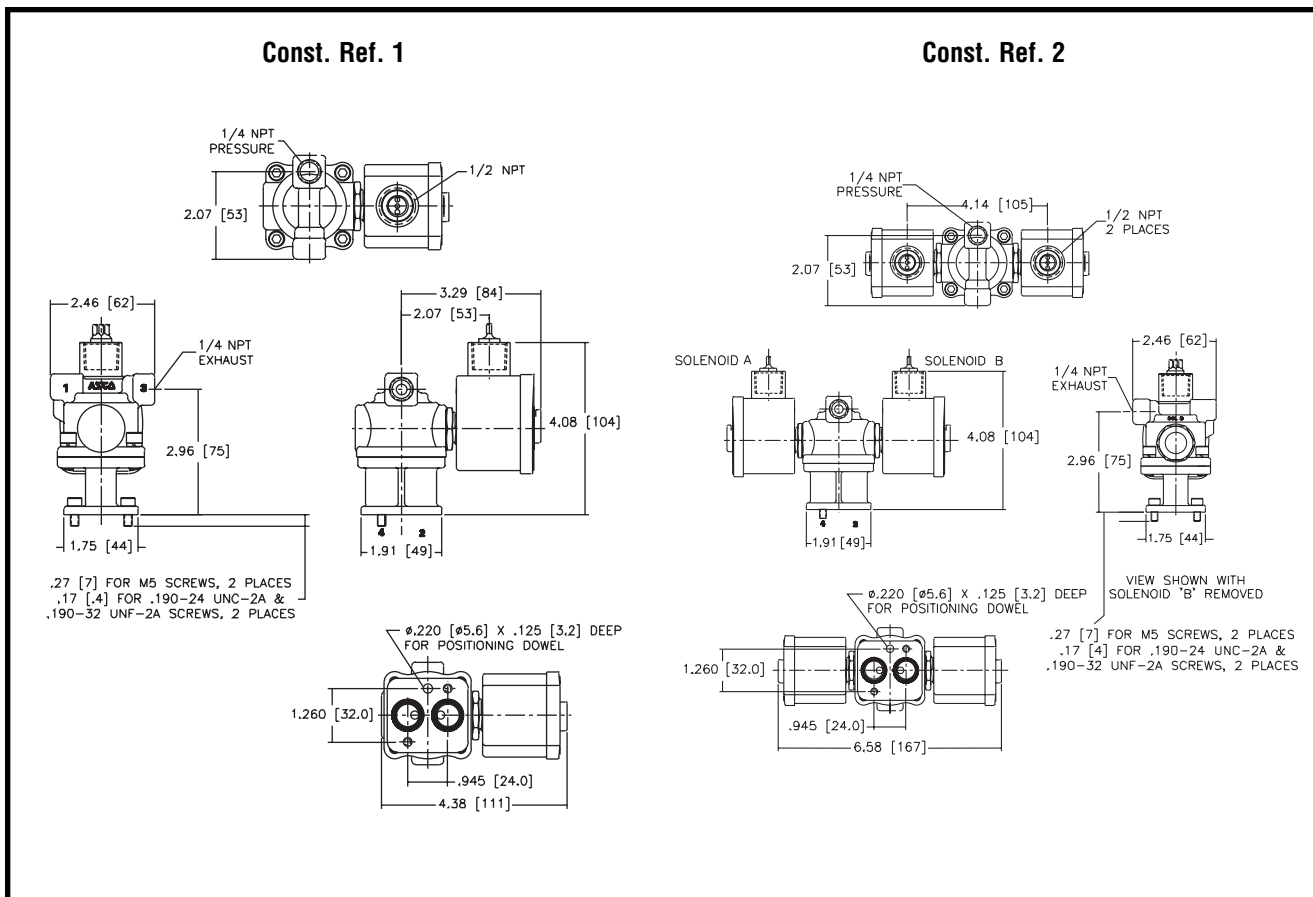
Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor Ports 1-2	Cv Flow Factor Ports 2-3	Maximum Operating Pressure Differential (psi)	Maximum Fluid Temperature Range °F	Brass Body	Stainless Steel Body	Const. Ref.	Watt Rating/ Class of Coil Insulation
						Catalog Number	Catalog Number		AC
SINGLE SOLENOID									
1/4	3/16	.7	.5	125	160	8342G501	8342G511	1	20.1/F
DUAL SOLENOID									
1/4	3/16	.7	.5	125	160	8342G502	8342G512	2	16.1/F

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor Ports 1-2 (m3/h)	Kv Flow Factor Ports 2-3 (m3/h)	Maximum Operating Pressure Differential (bar)	Maximum Fluid Temperature Range °C	Brass Body	Stainless Steel Body	Const. Ref.	Watt Rating/ Class of Coil Insulation
						Catalog Number	Catalog Number		AC
SINGLE SOLENOID									
1/4	5	.60	.43	9	71	8342G501	8342G511	1	20.1/F
DUAL SOLENOID									
1/4	5	.60	.43	9	71	8342G502	8342G512	2	16.1/F

Dimensions inches (mm)



VALVE
AUTOMATION

Features

- Compact spool valve convertible from 3/2 to 5/2
- NAMUR mount construction
- Standard manual operator
- DIN, Watertight and Explosionproof solenoids available
- Single and dual solenoid constructions
- Mountable in any position
- Vents air from spring side of actuator to prevent corrosion of actuator

Construction

Valve Parts in Contact with Fluids	
Body	Black Anodized Aluminum
Spring	Phosphate treated black steel
Shading Coil	Copper
Seals	NBR + PUR
Core and Core Tube	Stainless Steel / Brass
End Covers and Plate	6/6 glass filled PA/FV
Spool	Aluminum
Internal Parts	Zamak, Steel, CA

Electrical

Standard Coil and Class of Insulation	Enclosure Type	Watt Rating and Power Consumption				Spare Coil Part Number	
		DC Watts	AC Watts	VA Holding	VA Inrush	AC	DC
F	SC	3	2.5	3.5	6	400125	400125
F	SC	6.9	5	7	15	43004649	43004647
F	EF	6.9	6.3	7	10.1	266762	270007
F	WT	6.9	6.3	7	10.1	266763	270008

Standard Voltages: SC: 24, 120, 240 Volts AC, 50-60 Hz; 12, 24, 120 Volts DC.
 WT and EF: 24/50-60HZ, (120/60, 110-120/50)①, (240/60, 220-240/50)② Volts AC;
 6, 12, 24, 120 Volts DC.
 ① Order as 120/60, 110/50
 ② Order as 240/60, 220/50

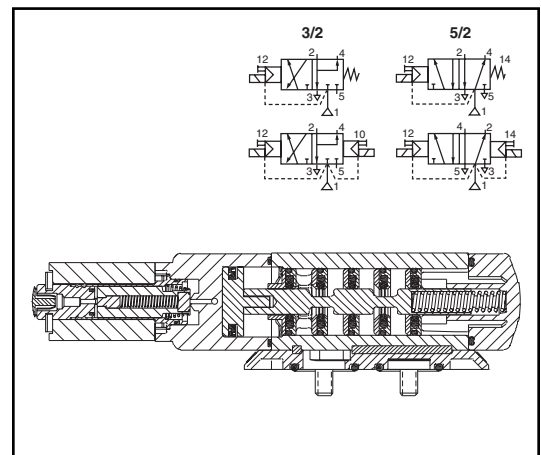
Solenoid Enclosures

Standard: - Prefix

SC = IP65 type DIN (open frame) per 46244

WT = Combination General Purpose and Watertight Types 1, 2, 3, 3S, 4, and 4X

EF = Combination Explosionproof and Watertight Types 3, 3S, 4, 4X, 6, 5P, 7, 9 Class I, Div. 1 (Groups A - D) and Class II, Div. 1 Type 9 (Groups E-G)



VALVE AUTOMATION

Nominal Ambient Temp. Ranges

SC: AC/DC: 5°F to +140°F (-15°C to 60°C)

EF: AC: 5°F to +104°F (-15°C to 40°C)

DC: 5°F to +77°F (-15°C to 25°C)

WT: AC: 5°F to +140°F (-15°C to 60°C)

DC: 5°F to +77°F (-15°C to 25°C)

Note: For temperatures below 32°F (0°C) moisture-free air must be used.

Refer to Engineering Section for details.

Approvals

SC (2.5W and 3W only) UL recognized component, CSA certified.

WT: UL recognized component, CSA certified.

EF: UL and CSA listed solenoid.

Meets applicable CE directives.

SIL 3 capable per IEC 61508 on normally closed single solenoid. Third party certification provided by EXIDA.

Refer to Engineering Section for details.

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)		Fluid Temperature °F (for single and dual solenoid)			Single Solenoid PFD _{AVG} = 3.3 x 10 ⁻³	Dual Solenoid	Const. Ref.	Watt Rating/ Class of Coil Insulation	
			Min.	Max.	Min.	Max. AC	Max. DC				Catalog Number	Catalog Number
OPEN FRAME DIN COIL												
1/4 ①	1/4	.86	30	150	5	140	140	SC8551A001MS	SC8551A002MS	1	2.5	3
1/2	1/2	3.7	30	150	-15	140	140	SC8553A001MS	SC8553A002MS	2	5	6.9
WATERTIGHT ENCLOSURE												
1/4 ①	1/4	.86	30	150	5	140	77	WT8551A001MS	WT8551A002MS	1	6.3	6.9
1/2	1/2	3.7	30	150	-15	140	77	WT8553A001MS	WT8553A002MS	2	6.3	6.9
EXPLOSIONPROOF ENCLOSURE												
1/4 ①	1/4	.86	30	150	5	104	77	EF8551A001MS	EF8551A002MS	1	6.3	6.9
1/2	1/2	3.7	30	150	-15	104	77	EF8553A001MS	EF8553A002MS	2	6.3	6.9

① 1/8 inch NPT exhausts.

Specifications (Metric units)

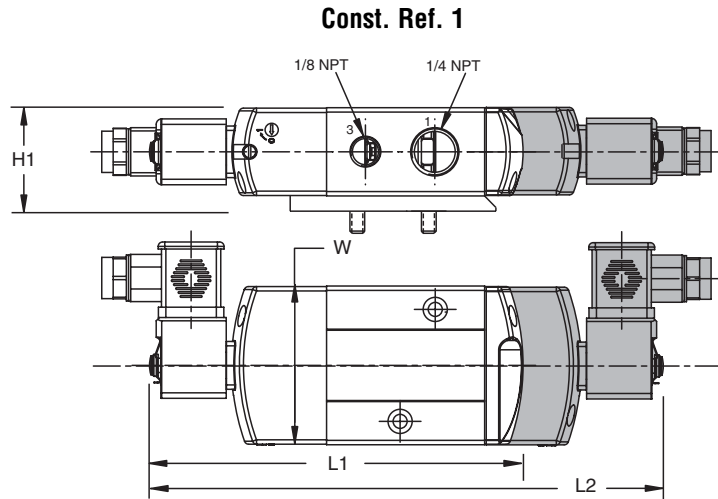
Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)		Fluid Temperature °C (for single and dual solenoid)			Single Solenoid PFD _{AVG} = 3.3 x 10 ⁻³	Dual Solenoid	Const. Ref.	Watt Rating/ Class of Coil Insulation	
			Min.	Max.	Min.	Max. AC	Max. DC				Catalog Number	Catalog Number
OPEN FRAME DIN COIL												
1/4 ①	6.4	.7	2	10	-15	60	60	SC8551A001MS	SC8551A002MS	1	2.5	3
1/2	13	3.15	2	10	-25	60	60	SC8553A001MS	SC8553A002MS	2	5	6.9
WATERTIGHT ENCLOSURE												
1/4 ①	6.4	.7	2	10	-15	60	25	WT8551A001MS	WT8551A002MS	1	6.3	6.9
1/2	13	3.15	2	10	-25	60	25	WT8553A001MS	WT8553A002MS	2	6.3	6.9
EXPLOSIONPROOF ENCLOSURE												
1/4 ①	6.4	.7	2	10	-15	40	25	EF8551A001MS	EF8551A002MS	1	6.3	6.9
1/2	13	3.15	2	10	-25	40	25	EF8553A001MS	EF8553A002MS	2	6.3	6.9

① 1/8 inch NPT exhausts.

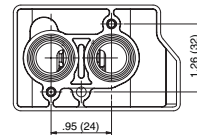
Dimensions inches (mm)

Series	8551
NPT	1/4
L1	5.47 (139)
L2	7.56 (192)
H1	1.30 (33)
W	1.77 (45)

**NOTE: Valve shown with CM22
DIN terminal coil and connector.
Connector sold separately.**

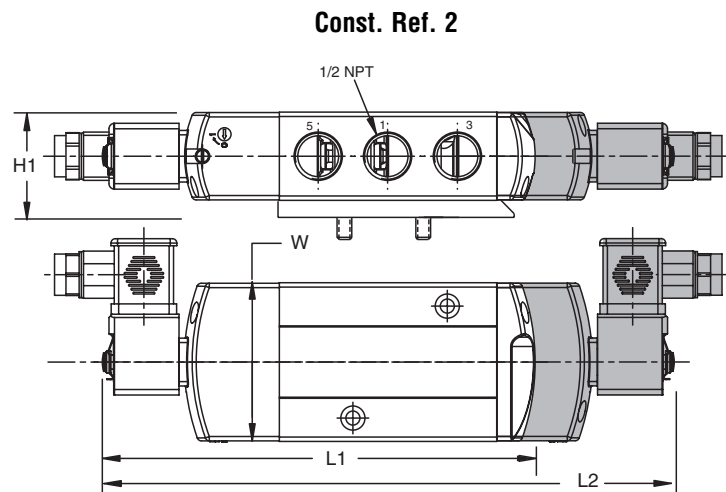


8551 NAMUR Footprint

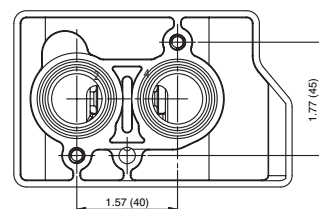


Series	8553
NPT	1/2
L1	7.76 (197)
L2	10.25 (260)
H1	1.94 (49)
W	2.85 (72)

**NOTE: Valve shown with CM22
DIN terminal coil and connector.
Connector sold separately.**



8553 NAMUR Footprint





Direct Mount RedHat II Spool Valves

Pilot Operated • High Flow
Anodized Aluminum, Brass and Stainless Steel Bodies
1/4" and 1/2" NPT

**3/2•5/2•5/3
SERIES
8551, 8553
Direct
Mount**

Features

- Compact Spool Valve convertible from 3/2 to 5/2 with flow plates
- Mount directly to actuators with NAMUR interface per VDI/VDE 3845
- Single and dual solenoid constructions available
- Integral Breather Block vents to spring side of actuator to exhaust, preventing corrosion of the actuator
- Unique design combines hard T-seals and flexible o-rings, provides bubble-tight shutoff, resistance to dirt and multimillion cycle life controlling air or inert gas
- Low Power and Intrinsically Safe construction available
See Special Service Pilot Valve Section for details

Construction

Valve Parts in Contact with Fluids			
Body	Aluminum, Black Anodized	Brass	316L Stainless Steel
End Cover (Spring end)	Glass-filled Polyamide	Brass	316L Stainless Steel
Spool Valve Internals	Zamak, Stainless Steel, Acetal (POM), Aluminum	Brass, Acetal (POM), Delrin	
Pilot End Covers	Aluminum, Black Anodized	Brass	316L Stainless Steel
Core Tube	Stainless Steel		
Core and Plugnut	Stainless Steel		
Springs	Stainless Steel		
Seals and Discs	NBR		
Top Disc	Nylon (PA)		
Core Guide	Acetal		
Seat and Seat Insert	Brass, Acetal		
Shading Coil	Copper		
Rider Ring (low power)	PTFE		

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	11.6	10.1	25	50	238610	238710	238614	238714

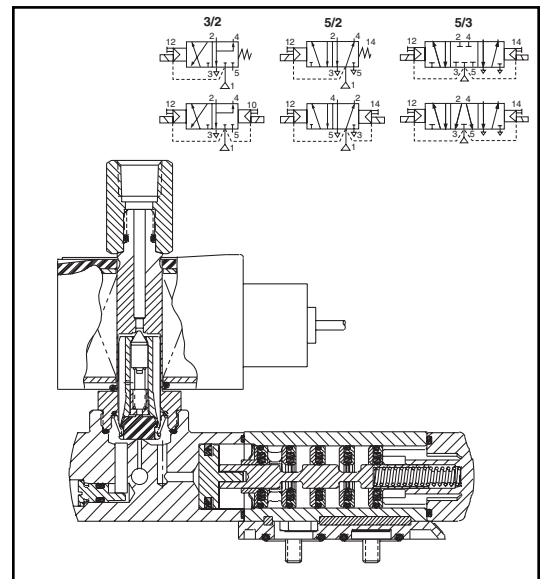
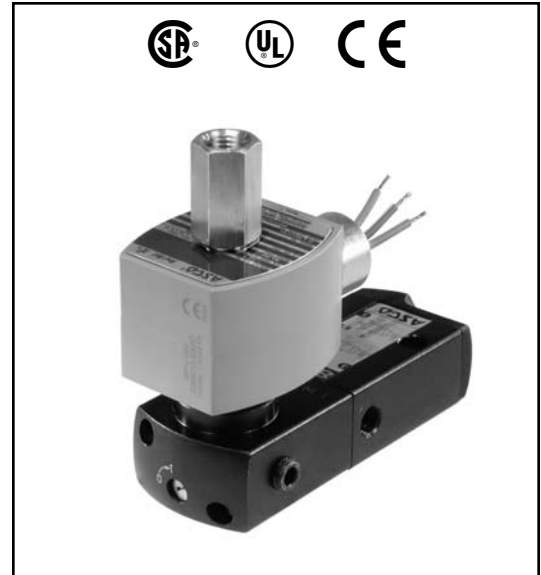
Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (110, 220 volts AC, 50 Hz).
6, 12, 24, 120, 240 volts DC. Must be specified when ordering.
Other voltages are available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.
(To order, add prefix "EF" or "EV" for stainless steel) to catalog number.)

See Optional Features Section for other available options.



Nominal Ambient Temp. Ranges

Body Material	Description
Aluminum	AC: 5°F to 125°F (-15°C to 52°C) DC: 5°F to 104°F (-15°C to 40°C)
Brass	AC: -40°F to 125°F (-40°C to 52°C)
Stainless Steel	DC: -40°F to 104°F (-40°C to 40°C)

Approvals

UL/CSA approvals for aluminum constructions pending. EF and EV are UL listed solenoids. CSA certified. Meet applicable CE directives. SIL 3 capable per IEC 61508 on normally closed single solenoid. Third party certification provided by EXIDA.

Refer to Engineering Section for details.

VALVE AUTOMATION

Specifications (English units)

Body Material	Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Single Solenoid – PFD _{AVG} = 3.3 x 10 ⁻³						Dual Solenoid											
				Operating Pressure Differential (psi)			Max. Fluid Temp. °F			Catalog Number	Const. Ref.	Operating Pressure Differential (psi)			Max. Fluid Temp. °F			Catalog Number	Const. Ref.	Watt Rating/Class of Coil Insulation	
				Air-Inert Gas			Temp. °F					Air-Inert Gas			Temp. °F					AC	DC
				Min.	Max. AC	Max. DC	AC	DC	AC	DC	Min.	Max. AC	Max. DC	AC	DC	AC	DC				
Aluminum 3/2, 5/2	1/4 ①	1/4	.86	30	150	120	140	120	8551G401	1	30	150	120	140	120	8551G402	1	10.1/F	11.6/F		
Aluminum 5/3 Center Closed									-	2						8551G465	2				
Aluminum 5/3 Center Open									-	2						8551G466	2				
Brass 3/2, 5/2									EF8551G403 ②	1						EF8551G404 ②	1				
316L Stainless Steel 3/2, 5/2									EV8551G409 ③	2						EV8551G410 ③	2				
Aluminum 3/2, 5/2									8553G401	2						8553G402	2				

① 1/8 inch NPT exhaust for aluminum and brass. ② Brass construction supplied standard with EF solenoid. ③ Stainless steel construction supplied standard with EV solenoid.

Specifications (Metric units)

Body Material	Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Single Solenoid – PFD _{AVG} = 3.3 x 10 ⁻³						Dual Solenoid											
				Operating Pressure Differential (bar)			Max. Fluid Temp. °C			Catalog Number	Const. Ref.	Operating Pressure Differential (bar)			Max. Fluid Temp. °C			Catalog Number	Const. Ref.	Watt Rating/Class of Coil Insulation	
				Air-Inert Gas			Temp. °C					Air-Inert Gas			Temp. °C					AC	DC
				Min.	Max. AC	Max. DC	AC	DC	AC	DC	Min.	Max. AC	Max. DC	AC	DC	AC	DC				
Aluminum 3/2, 5/2	1/4 ①	6.4	.7	2	10	8.2	60	48	8551G401	1	2	10	8.2	60	48	8551G402	1	10.1/F	11.6/F		
Aluminum 5/3 Center Closed									-	2						8551G465	2				
Aluminum 5/3 Center Open									-	2						8551G466	2				
Brass 3/2, 5/2									EF8551G403 ②	1						EF8551G404 ②	1				
316L Stainless Steel 3/2, 5/2									EV8551G409 ③	2						EV8551G410 ③	2				
Aluminum 3/2, 5/2									8553G401	2						8553G402	2				

① 1/8 inch NPT exhaust for aluminum and brass. ② Brass construction supplied standard with EF solenoid. ③ Stainless steel construction supplied standard with EV solenoid.

Dimensions inches (mm)

Series	8551
NPT	1/4
L1 ①	4.96 (126)
L2 ①	6.50 (165)
H2	4.38 (111)
H1	1.57 (40)
W	1.77 (45)

① Manual override option MH adds .250" (6.4),
MS option adds .468" (11.9) to each solenoid endcap.

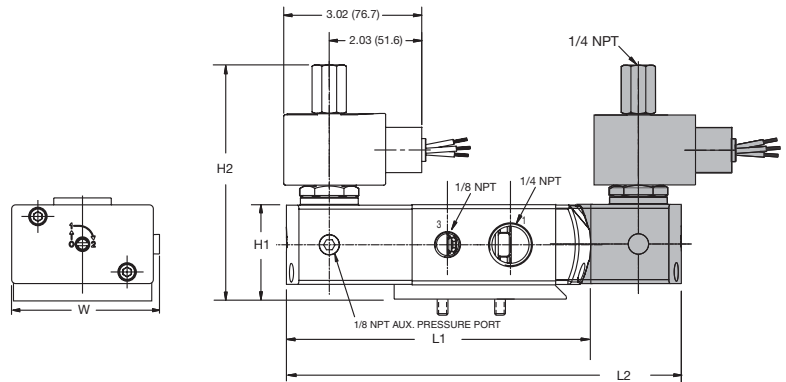
Optional Manual Operators		
Add Suffix		Description
MO		Push and turn to lock with flat head screwdriver slot
MI		Momentary push in with flat head screwdriver slot
MH		Momentary push in by hand
MS		Push and turn to lock by hand

Series	8551 (5/3)	8553
NPT	1/4	1/2
L1 ①	-	7.09 (180)
L2 ①	7.44 (189)	8.85 (225)
H2	4.38 (111)	4.77 (121)
H1	1.57 (40)	2.08 (53)
W	1.77 (45)	2.87 (73)

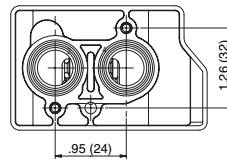
① Manual override option MH adds .250" (6.4),
MS option adds .468" (11.9) to each solenoid endcap.

Optional Manual Operators		
Add Suffix		Description
MO		Push and turn to lock with flat head screwdriver slot
MI		Momentary push in with flat head screwdriver slot
MH		Momentary push in by hand
MS		Push and turn to lock by hand

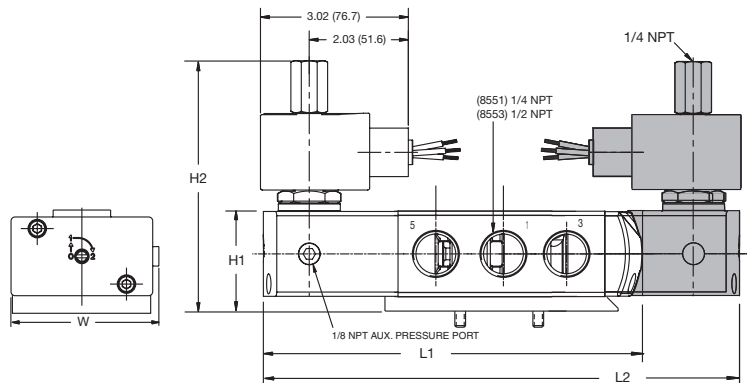
Const. Ref. 1



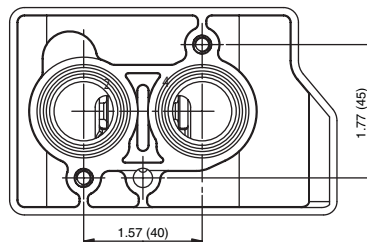
8551 NAMUR Footprint



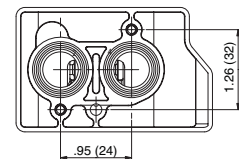
Const. Ref. 2



8553 NAMUR Footprint



8551 NAMUR Footprint



Features

- Unique 3-way design for locking quarter turn actuators in multiple positions for applications which require modulated flow
- Solenoids can be pulsed independently to bleed air into or out of actuator for fine positioning
- Direct acting on/off construction
- NAMUR mount construction reduces complex piping arrangements
- 10X32, 10X24, M5 hardware supplied

Construction

Valve Parts in Contact with Fluids		
Body	Brass	303 Stainless Steel
Seals and Discs	NBR	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Core Springs	302 Stainless Steel	
Shading Coil	Copper	Silver
Disc-Holder	CA	
Core Guide	CA	

Electrical

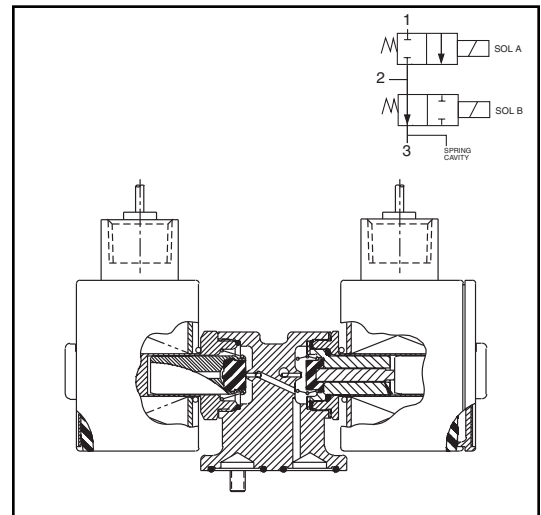
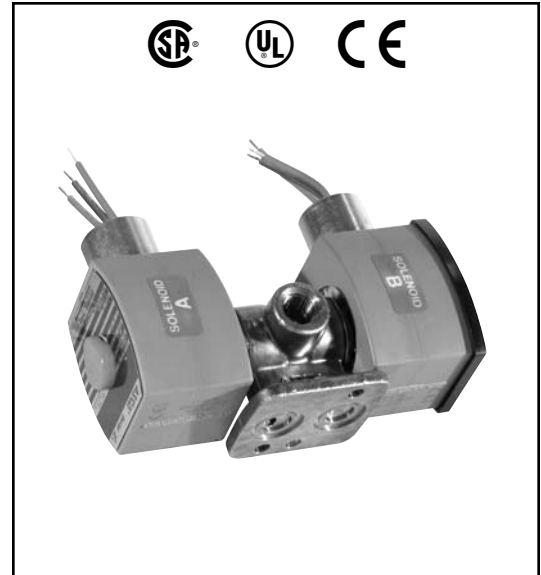
Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	11.6	10.1	25	50	238610	238710	238614	238714

Standard Voltages: 24, 120, 240, 480 volts AC, (or 100, 200 volts AC, 50 Hz)
6, 12, 24, 120, 240 volts DC. Must be specified when ordering.
Other voltages available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.



VALVE
AUTOMATION

Options

Explosionproof solenoids are available.

Prefix EF - Brass
Prefix EV - Stainless Steel

All other RedHat Solenoid options are available.

Optional elastomer contact ASCO.

Nominal Ambient Temp. Ranges

AC: 32°F to 125°F (0°C to 52°C)

DC: 32°F to 104°F (0°C to 40°C)

Refer to Engineering Section for details.

Approvals

UL recognized component. CSA certified.
Meets applicable CE directives.

Refer to Engineering Section for details.

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)		Max. Fluid Temp. °F		Brass Body	Stainless Steel Body	Watt Rating/ Class of Coil Insulation	
			Max. AC	Max. DC	AC	DC			AC	DC
1/4	1/16	.09	150	125	140	120	8320G706	8320G716	10.1/F	11.6/F
1/4	3/32	.12	120	100	140	120	8320G707	8320G717	10.1/F	11.6/F
1/4	1/8	.25	100	65	140	120	8320G708	8320G718	10.1/F	11.6/F

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)		Max. Fluid Temp. °C		Brass Body	Stainless Steel Body	Watt Rating/ Class of Coil Insulation	
			Max. AC	Max. DC	AC	DC			AC	DC
1/4	1.6	.07	10	9	60	50	8320G706	8320G716	10.1/F	11.6/F
1/4	2.4	.10	8	6.9	60	50	8320G707	8320G717	10.1/F	11.6/F
1/4	3.2	.16	6.9	4	60	50	8320G708	8320G718	10.1/F	11.6/F

Dimensions inches (mm)

