

Features

- Molded one-piece solenoid with highly efficient solenoid cartridge and 0.55 W low wattage coil
- Standard ambient temperature of 149°F (65°C)
- Optional 176°F (80°C) high ambient temperature version
- Designed for use in automation of plant control systems to provide:
 - PLC and DCS® compatibility for BUS network and traditional wiring
 - Reduced temperature rise
 - Increase battery life
 - Reduce wiring cost
 - Energy savings
- Wide selection includes 2/2, 3/2 normally closed (including Quick Exhaust), 3/2 universal, 4/2, 5/2, & 5/3

Construction

| Valve Parts in Contact with Fluids | | | |
|---|----------------------|-------|-----------------|
| Body | Aluminum | Brass | Stainless Steel |
| Seals and Discs | PUR, NBR | | |
| Sleeve | 304L Stainless Steel | | |
| Core and Plugnut | 430F Stainless Steel | | |
| Core Springs | 302 Stainless Steel | | |
| Pilot Seat Insert (Series 8316 & 8344 only) | POM | | |
| Rider Rings | PTFE | | |
| Spring Retainer | POM | | |

Electrical

| Description | Wattage | Max. Ambient Temp. | T Code | Insulation Class | Prefix |
|---------------------------|---------|--------------------|--------|------------------|--------|
| Standard Ambient Version | .55 W | 149°F (65°C) | T6 | F | - |
| High Ambient Version | .70 W | 176°F (80°C) | T6 | H | HT |
| Surge Suppression Version | .75 W | 149°F (65°C) | T6 | F | MF |

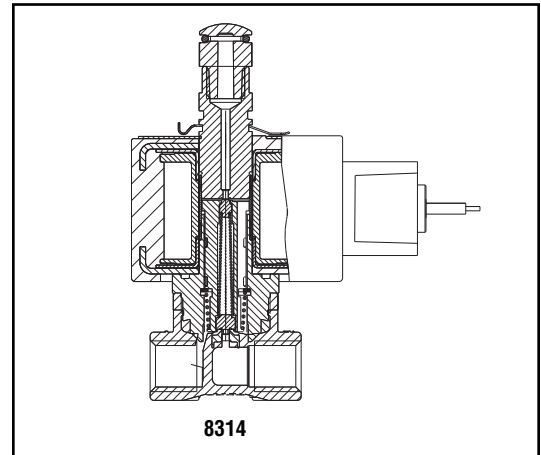
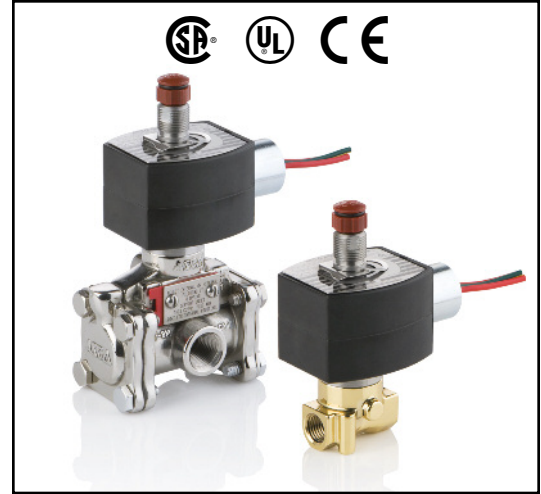
Ⓛ **IMPORTANT:** Supervisory and leakage current above the drop out current listed will cause improper operation. Consult your local ASCO sales office for additional assistance.

| Description | Wattage | Voltage (DC) | Min. Pull In (mA) | Drop Out (mA) Ⓛ | Coil Resistance @68°F (20°C) (ohms) |
|---|---------|--------------|-------------------|-----------------|-------------------------------------|
| Standard Ambient Version | .55W | 12V | 34 | 3.63 | 255 |
| | | 24V | 17 | 1.80 | 1025 |
| | | 48V | 8.5 | 0.91 | 4080 |
| | | 125V Ⓜ | 3.2 | 0.34 | 27,400 |
| High Ambient Version | .70W | 12V | 37 | 3.97 | 206 |
| | | 24V | 19 | 1.98 | 830 |
| | | 48V | 9.7 | 1.03 | 3185 |
| | | 125V Ⓜ | 3.7 | 0.39 | 21150 |
| Surge Suppression Version (Available only in Explosionproof version) | .75W | 12V | 41 | 4.41 | 165 Ⓜ |
| | | 24V | 19 | 1.98 | 830 Ⓜ |
| | | 48V | 9.7 | 1.03 | 3185 Ⓜ |
| | | 125V Ⓜ | 3.7 | 0.39 | 21150 Ⓜ |

Note: Ⓜ Not for battery applications. Ⓜ Surge suppression contains diode bridge.

| 24VDC Spare Coil P/N | Standard Ambient Temp. Version | High Ambient Temp. Version |
|---|--------------------------------|----------------------------|
| General Purpose | 238710-913-D* | 238910-906-D* |
| Explosion Proof | 238714-914-D* | 238914-906-D* |
| Explosion Proof, Corrosion Resistant | 274714-909-D* | 274914-906-D* |
| Explosion Proof, Surge Suppression | 276006-206-D* | Not Available |
| Explosion Proof, Corrosion Resistant, Surge Suppression | 276007-206-D* | Not Available |

Note: For 12VDC, 48VDC and 125VDC coil PN consult factory



SPECIAL SERVICE
PILOT

Ordering

Normal Ambient Version: EV8551H322 24VDC
High Ambient Version: EF HT 8316H301 24VDC
Surge Suppression Version: EV MF 8314H301 24VDC

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. For explosionproof with 316 Stainless Steel hub and trim, specify prefix "EV".) Surge suppression coils also available "MF" prefix.

See *Optional Features Section* for other available options.

Approvals

UL & CSA Approved for Class I Div. 1 Locations & Class I Div. 2 Non-Incendive Solenoid for Hazardous Locations. UL Listed General Purpose Valves. Meets applicable CE directives.

SIL 3 capable per IEC 61508 on 8314, 8316, 8551, and 8553 const. Third party certification provided by EXIDA. Refer to *Engineering Section* for details.

ATEX/IECEx certified with prefix "EV" as listed. Refer to *Optional Features Electrical Section* for details. 121

Nominal Ambient Temp. Ranges

| Series | Body Material | Normal Temperature Range | High Ambient Temp Version |
|----------|-------------------------|--------------------------------|---|
| 8553 | Stainless Steel | -40°F to 140°F (-40°C to 60°C) | Not Available |
| 8551 | Brass | -40°F to 140°F (-40°C to 60°C) | |
| 8553 | Aluminum | -13°F to 140°F (-25°C to 60°C) | |
| 8551 | | 5°F to 140°F (-15°C to 60°C) | |
| 8551 | Stainless Steel | -40°F to 149°F (-40°C to 65°C) | Low Limit is the same as Normal Temperature Ratings, but High Limit is 176°F (80°C) |
| 8262 | Brass / Stainless Steel | -40°F to 149°F (-40°C to 65°C) | |
| 8314 | | -40°F to 149°F (-40°C to 65°C) | |
| 8317 | | -40°F to 149°F (-40°C to 65°C) | |
| 8316* | | -20°F to 149°F (-29°C to 65°C) | |
| 8223 | Brass only | -4°F to 149°F (-20°C to 65°C) | |
| 8344 | | -4°F to 149°F (-20°C to 65°C) | |
| 8316H334 | | -4°F to 149°F (-20°C to 65°C) | |

*Does not include 8316H334; Includes 8316J374. **Note:** 8553 not available in brass

Important

These solenoid valves are intended for use on clean dry air or inert gas, filtered to 40 micrometres or better. The dew point of the media should be at least 10°C (18° F) below the minimum temperature to which any portion of the clean air/inert gas system could be exposed to prevent freezing. If lubricated air is used, the lubricants must be compatible with Nitrile elastomers. Diester oils may cause operational problems. Instrument air in compliance with ANSI/ISA Standard 7.0.01-1996 exceeds the above requirements and is, therefore, an acceptable media for these valves.

Specifications (English units)

| Pipe Size (in) | Orifice Size (in) | Cv Flow Factor | | Operating Pressure Differential (psi) | | Max. Fluid and Ambient Temp. °F | Brass Body | | Stainless Steel Body | |
|---|-------------------|----------------------|---------------------|---------------------------------------|-----------|---------------------------------|----------------|-------------|----------------------|-------------|
| | | | | Air-Inert Gas | | | Catalog Number | Const. Ref. | Catalog Number | Const. Ref. |
| | | Pressure to Cylinder | Cylinder to Exhaust | Min. | Max. | | | | | |
| 2/2 VALVES, NORMALLY CLOSED, with NBR Disc | | | | | | | | | | |
| 1/4 | 1/16 | .06 | | 0 | 130 | 149 | 8262H320 †† | 1 | 8262H386 †† ✓ | 1 |
| 3/8 | 5/16 | 1.5 | | 10 | 130 | 149 | 8223H323 | 2 | - | - |
| 1/2 | 3/8 | 3.2 | | 25 | 130 | 149 | 8223H303 | 3 | 8223H310 ⑥ | 3 |
| 3/2 VALVES, UNIVERSAL OPERATION (Normally Closed or Normally Open) with NBR Disc – SIL 3 Capable, Certified by Exida ⑩ ⑪ | | | | | | | | | | |
| 1/4 | 1/20 | .06 | .06 | 0 | 130/105 ⑦ | 149 | 8314H300 †† | 4 | 8314H301 †† ✓ | 5 |
| 3/2 VALVES, NORMALLY CLOSED (Closed when de-energized) with NBR Disc – SIL 3 Capable, Certified by Exida ⑩ | | | | | | | | | | |
| 1/4 | 5/16 | 1.5 | 1.5 | ⑤ | 130 | 149 | 8316H301 ③ ✓ | 6 | EV8316H381 ⑥ ✓ | 6 |
| 3/8 | 5/16 | 1.8 | 1.8 | ⑤ | 130 | 149 | 8316H302 ③ ✓ | 6 | EV8316H382 ⑥ ✓ | 6 |
| 3/8 | 5/8 | 4 | 4 | ⑤ | 130 | 149 | 8316H303 ③ ✓ | 6 | - | - |
| 1/2 | 5/8 | 4 | 4 | ⑤ | 130 | 149 | 8316H304 ③ ✓ | 6 | EV8316H384 ⑥ ✓ | 6 |
| 3/4 | 11/16 | 5.5 | 5.5 | 10 | 130 | 149 | 8316J374 ③ | 7 | - | - |
| 1 | 1 | 13 | 13 | 10 | 130 | 149 | 8316H334 ③③ | 8 | - | - |
| 3/2 VALVES, UNIVERSAL (Normally Closed or Normally Open) "Quick Exhaust" with NBR Diaphragm and NBR Disc | | | | | | | | | | |
| 1/4 | ② | .06 | .73 | 5 | 130 | 149 | 8317H307 ① | 9 | 8317H308 ①⑥ ✓ | 10 |
| 4/2 VALVES, Brass Body with NBR Disc | | | | | | | | | | |

| Pipe Size (in) | Orifice Size (in) | Cv Flow Factor | | Operating Pressure Differential (psi) | | Max. Fluid and Ambient Temp. °F | Single Solenoid | | Dual Solenoid | |
|----------------|-------------------|----------------------|---------------------|---------------------------------------|------|---------------------------------|-----------------|-------------|----------------|-------------|
| | | | | Air-Inert Gas | | | Catalog Number | Const. Ref. | Catalog Number | Const. Ref. |
| | | Pressure to Cylinder | Cylinder to Exhaust | Min. | Max. | | | | | |
| 1/4 | 1/4 | .80 | 1 | 10 | 130 | 149 | 8344H370 ①③ | 11 | 8344H344 ③† | 12 |
| 3/8 | 3/8 | 1.5 | 2.2 | 10 | 130 | 149 | 8344H372 ①③ ✓ | 13 | 8344H380 ③† | 14 |
| 1/2 | 3/8 | 1.5 | 2.2 | 10 | 130 | 149 | 8344H374 ①③ | 13 | 8344H382 ③† | 14 |
| 3/4 | 3/4 | 5.2 | 5.6 | 10 | 130 | 149 | 8344H376 ①③ | 15 | 8344H354 ③† | 16 |
| 1 | 3/4 | 5.2 | 5.6 | 10 | 130 | 149 | 8344H378 ①③ | 15 | 8344H356 ③† | 16 |

① There are two exhaust flows in the exhaust mode (pilot and main). The pilot exhaust must be connected to the main exhaust when the air or inert gas cannot be exhausted to atmosphere.

② For "Quick Exhaust" valves, pressure port is 1/16", exhaust port is 1/4".

③ **IMPORTANT:** A Minimum Operating Pressure Differential must be maintained between the pressure and exhaust ports. Supply and exhaust piping must be full area, unrestricted. ASCO flow controls and other similar components must be installed in the cylinder lines only.

④ Zero minimum when valve selection gasket is in external position and proper auxiliary air pressure is applied. Minimum 15 psi Operating Pressure Differential when selection gasket is in the internal position.

⑤ Can be used for **dry** natural gas service (no agency approvals) with the EF or EV prefix without manual operator.

⑦ Normally closed = 130 psi. Normally open = 105 psi.

⑧ Solenoid only approvals with EF or EV prefix, no approvals with general purpose coil (no prefix).

⑨ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.

⑩ SIL 3 Capable, Certified by Exida, only valid when used as Normally Closed.

† Dual solenoid 8344 requires minimum pressure of 20 psi. Single solenoid version has 10 psi minimum pressure requirement.

†† UL/CSA approved for use with dry natural gas or propane gas with EF or EV prefix without manual operator.

✓ ATEX/IECEx certified with prefix "EV".



2/2•3/2•4/2
5/2•5/3
SERIES
Low
Power

Specifications (English units)

| Body Material | Pipe Size (in) | Orifice Size (in) | Cv Flow Factor | Single Solenoid – SIL 3 Capable, Certified by Exida ⑨ | | | | | 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. |
| | | | | Air-Inert Gas | | | | | Air-Inert Gas | | | | |
| | | | | Min. | Max. | Min. | Max. | | | | | | |
| 3/2, 5/2, 5/3 VALVES, with NBR and PUR Seals | | | | | | | | | | | | | |
| Aluminum 3/2 | 1/4 | 1/4 | .86 | 35 | 130 | 149 | 8551H305 ⑧ | 17 | 30 | 130 | 149 | 8551H306 ⑧ | 17 |
| Aluminum 5/2 | | | | | | | 8551H317 ⑧ | 18 | | | | 8551H318 ⑧ | 18 |
| Aluminum 5/3 Center Closed | | | | | | | - | 18 | | | | 8551H367 ⑧ | 18 |
| Aluminum 5/3 Center Open | | | | | | | - | 18 | | | | 8551H368 ⑧ | 18 |
| Brass 3/2 | | | | | | | EF8551H307 ②⑧ ✓ | 17 | | | | EF8551H308 ②⑧ ✓ | 17 |
| Brass 5/2 | | | | | | | EF8551H319 ②⑧ | 18 | | | | EF8551H320 ②⑧ | 18 |
| 316L Stainless Steel 3/2 | | | | | | | EV8551H313 ③⑥⑧ ✓ | 17 | | | | EV8551H314 ③⑥⑧ ✓ | 17 |
| 316L Stainless Steel 5/2 | EV8551H321 ③⑥ ✓ | 18 | EV8551H322 ③⑥ ✓ | 18 | | | | | | | | | |
| Aluminum 3/2 | 1/2 | 1/2 | 3.7 | 35 | 130 | 149 | 8553H305 ⑧ | 17 | 30 | 130 | 149 | 8553H306 ⑧ | 17 |
| Aluminum 5/2 | | | | | | | 8553H317 ⑧ | 18 | | | | 8553H318 ⑧ | 18 |
| 316L Stainless Steel 3/2 | | | | | | | EV8553H313 ③⑥⑧ ✓ | 17 | | | | EV8553H314 ③⑥⑧ ✓ | 17 |
| 316L Stainless Steel 5/2 | | | | | | | EV8553H321 ③⑥⑧ ✓ | 18 | | | | EV8553H322 ③⑥⑧ ✓ | 18 |

② Brass construction supplied standard with EF solenoid.
 ③ Stainless steel construction supplied standard with EV solenoid.
 ⑥ Can be used for **dry** natural gas service (no agency approvals) with the EF or EV prefix without manual operator.
 ⑧ Solenoid only approvals with EF or EV prefix, no approvals with (no prefix) general purpose coil.
 ⑨ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.
 ✓ ATEX/IECEx certified with prefix "EV".

SPECIAL SERVICE
PILOT

| Body Material | Pipe Size (in) | Orifice Size (in) | Cv Flow Factor | Single Solenoid – SIL 3 Capable, Certified by Exida ⑨ | | | | | 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. |
| | | | | Air-Inert Gas | | | | | Air-Inert Gas | | | | |
| | | | | Min. | Max. | Min. | Max. | | | | | | |
| 3/2, 5/2, 5/3 VALVES, with NBR and PUR Seals, NAMUR Mount | | | | | | | | | | | | | |
| Aluminum 3/2, 5/2 | 1/4 | 1/4 | .86 | 35 | 130 | 149 | 8551H301 ① | 19 | 30 | 130 | 149 | 8551H302 ① | 19 |
| Aluminum 5/3 Center Closed | | | | | | | - | - | | | | 8551H365 ⑧ | 20 |
| Aluminum 5/3 Center Open | | | | | | | - | - | | | | 8551H366 ⑧ | 20 |
| Brass 3/2, 5/2 | | | | | | | EF8551H303 ①②⑧ | 19 | | | | EF8551H304 ①②⑧ | 19 |
| 316L Stainless Steel 3/2, 5/2 | | | | | | | EV8551H309 ③⑥ ✓ | 20 | | | | EV8551H310 ③⑥ ✓ | 20 |
| Aluminum 3/2, 5/2 | 1/2 | 1/2 | 3.7 | 35 | 130 | 149 | 8553H301 ⑧ | 20 | 30 | 130 | 149 | 8553H302 ⑧ | 20 |
| 316L Stainless Steel 3/2, 5/2 | | | | | | | EV8553H309 ③⑥⑧ ✓ | 20 | | | | EV8553H310 ③⑥⑧ ✓ | 20 |

① 1/8" NPT exhaust for 1/4" aluminum and brass.
 ② Brass construction supplied standard with EF solenoid.
 ③ Stainless steel construction supplied standard with EV solenoid.
 ⑥ Can be used for **dry** natural gas service (no agency approvals) with the EF or EV prefix without manual operator.
 ⑧ Solenoid only approvals with EF or EV prefix, no approvals with (no prefix) general purpose coil.
 ⑨ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.
 ✓ ATEX/IECEx certified with prefix "EV".

Specifications (Metric units)

| Pipe Size (in) | Orifice Size (mm) | Kv Flow Factor (m ³ /h) | | Operating Pressure Differential (bar) | | Max. Fluid and Ambient Temp. °C | Brass Body | | Stainless Steel Body | |
|---|-------------------|------------------------------------|---------------------|---------------------------------------|-------|---------------------------------|-----------------|-------------|----------------------|-------------|
| | | | | Air-Inert Gas | | | Catalog Number | Const. Ref. | Catalog Number | Const. Ref. |
| | | Pressure to Cylinder | Cylinder to Exhaust | Min. | Max. | | | | | |
| 2/2 VALVES, NORMALLY CLOSED, with NBR Disc | | | | | | | | | | |
| 1/4 | 2 | .07 | | 0 | 9 | 65 | 8262H320 †† | 1 | 8262H386 †† | 1 |
| 3/8 | 8 | 1.3 | | 0.7 | 9 | 65 | 8223H323 | 2 | - | - |
| 1/2 | 10 | 2.7 | | 1.7 | 9 | 65 | 8223H303 | 3 | 8223H310 ⑥ | 3 |
| 3/2 VALVES, UNIVERSAL OPERATION (Normally Closed or Normally Open) with NBR Disc – SIL 3 Capable, Certified by Exida ⑩ ⑪ | | | | | | | | | | |
| 1/4 | 1.3 | .05 | .05 | 0 | 9/7 ⑦ | 65 | 8314H300 †† | 4 | 8314H301 †† | 5 |
| 3/2 VALVES, NORMALLY CLOSED (Closed when de-energized) with NBR Disc – SIL 3 Capable, Certified by Exida ⑩ | | | | | | | | | | |
| 1/4 | 8 | 1.3 | 1.3 | ⑤ | 9 | 65 | 8316H301 ③ | 6 | EV8316H381 ⑥ | 6 |
| 3/8 | 8 | 1.6 | 1.6 | ⑤ | 9 | 65 | 8316H302 ③ | 6 | EV8316H382 ⑥ | 6 |
| 3/8 | 16 | 3.5 | 3.5 | ⑤ | 9 | 65 | 8316H303 ③ | 6 | - | - |
| 1/2 | 16 | 3.5 | 3.5 | ⑤ | 9 | 65 | 8316H304 ③ | 6 | EV8316H384 ⑥ | 6 |
| 3/4 | 17 | 4.7 | 4.7 | 0.7 | 9 | 65 | 8316J374 ③ | 7 | - | - |
| 1 | 25 | 11.2 | 11.2 | 0.7 | 9 | 65 | 8316H334 ③⑧ | 8 | - | - |
| 3/2 VALVES, UNIVERSAL (Normally Closed or Normally Open) "Quick Exhaust" with NBR Diaphragm and NBR Disc | | | | | | | | | | |
| 1/4 | ② | .07 | .63 | 0.3 | 9 | 65 | 8317H307 ① | 9 | 8317H308 ①⑥ | 10 |
| 4/2 VALVES, Brass Body with NBR Disc | | | | | | | | | | |
| Pipe Size (in) | Orifice Size (mm) | Kv Flow Factor (m ³ /h) | | Operating Pressure Differential (bar) | | Max. Fluid and Ambient Temp. °C | Single Solenoid | | Dual Solenoid | |
| | | | | Air-Inert Gas | | | Catalog Number | Const. Ref. | Catalog Number | Const. Ref. |
| | | Pressure to Cylinder | Cylinder to Exhaust | Min. | Max. | | | | | |
| 1/4 | 6 | .69 | .86 | 0.7 | 9 | 65 | 8344H370 ①③ | 11 | 8344H344 ③† | 12 |
| 3/8 | 10 | 1.3 | 1.9 | 0.7 | 9 | 65 | 8344H372 ①③ | 13 | 8344H380 ③† | 14 |
| 1/2 | 10 | 1.3 | 1.9 | 0.7 | 9 | 65 | 8344H374 ①③ | 13 | 8344H382 ③† | 14 |
| 3/4 | 19 | 4.5 | 4.8 | 0.7 | 9 | 65 | 8344H376 ①③ | 15 | 8344H354 ③† | 16 |
| 1 | 19 | 4.5 | 4.8 | 0.7 | 9 | 65 | 8344H378 ①③ | 15 | 8344H356 ③† | 16 |

① There are two exhaust flows in the exhaust mode (pilot and main). The pilot exhaust must be connected to the main exhaust when the air or inert gas cannot be exhausted to atmosphere.
 ② For "Quick Exhaust" valves, pressure port is 1/16", exhaust port is 1/4".
 ③ **IMPORTANT:** A Minimum Operating Pressure Differential must be maintained between the pressure and exhaust ports. Supply and exhaust piping must be full area, unrestricted. ASCO flow controls and other similar components must be installed in the cylinder lines only.
 ④ Zero minimum when valve selection gasket is in external position and proper auxiliary air pressure is applied. Minimum 1.0 bar Operating Pressure Differential when selection gasket is in the internal position.
 ⑤ Can be used for **dry** natural gas service with the EF or EV prefix.
 ⑦ Normally closed = 9 bar / Normally open = 7 bar.
 ⑧ Solenoid only approvals with EF or EV prefix, no approvals with general purpose coil (no prefix).
 ⑩ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.
 ⑪ SIL 3 Capable, Certified by Exida, only valid when used as Normally Closed.
 † Dual solenoid 8344 requires minimum pressure of 20 psi. Single solenoid version has 10 psi minimum pressure requirement.
 †† UL/CSA approved for use with dry natural gas or propane gas with EF or EV prefix without manual operator.

SPECIAL SERVICE PILOT



2/2•3/2•4/2
5/2•5/3
SERIES
Low
Power

Specifications (Metric units)

| Body Material | Pipe Size (in) | Orifice Size (mm) | Kv Flow Factor (m ² /h) | Single Solenoid – SIL 3 Capable, Certified by Exida ⑨ | | | | 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. |
| | | | | Air-Inert Gas | | | | | Air-Inert Gas | | | | |
| | | | | Min. | Max. | Min. | Max. | Min. | Max. | | | | |
| 3/2, 5/2, 5/3 VALVES, with NBR and PUR Seals | | | | | | | | | | | | | |
| Aluminum 3/2 | 1/4 | 6 | .74 | 2.4 | 9 | 65 | 8551H305 ⑥ | 17 | 2 | 9 | 65 | 8551H306 ⑥ | 17 |
| Aluminum 5/2 | | | | | | | 8551H317 ⑥ | 18 | | | | 8551H318 ⑥ | 18 |
| Aluminum 5/3 Center Closed | | | | | | | - | 18 | | | | 8551H367 ⑥ | 18 |
| Aluminum 5/3 Center Open | | | | | | | - | 18 | | | | 8551H368 ⑥ | 18 |
| Brass 3/2 | | | | | | | EF8551H307 ②⑧ | 17 | | | | EF8551H308 ②⑧ | 17 |
| Brass 5/2 | | | | | | | EF8551H319 ②⑧ | 18 | | | | EF8551H320 ②⑧ | 18 |
| 316L Stainless Steel 3/2 | | | | | | | EV8551H313 ③⑥⑧ | 17 | | | | EV8551H314 ③⑥⑧ | 17 |
| 316L Stainless Steel 5/2 | | | | | | | EV8551H321 ③⑥⑧ | 18 | | | | EV8551H322 ③⑥⑧ | 18 |
| Aluminum 3/2 | 1/2 | 13 | 3.2 | 2.4 | 9 | 65 | 8553H305 ⑥ | 17 | 2 | 9 | 65 | 8553H306 ⑥ | 17 |
| Aluminum 5/2 | | | | | | | 8553H317 ⑥ | 18 | | | | 8553H318 ⑥ | 18 |
| 316L Stainless Steel 3/2 | | | | | | | EV8553H313 ③⑥⑧ | 17 | | | | EV8553H314 ③⑥⑧ | 17 |
| 316L Stainless Steel 5/2 | | | | | | | EV8553H321 ③⑥⑧ | 18 | | | | EV8553H322 ③⑥⑧ | 18 |

② Brass construction supplied standard with EF solenoid.
 ③ Stainless steel construction supplied standard with EV solenoid.
 ⑥ Can be used for **dry** natural gas service (no agency approvals) with the EF or EV prefix without manual operator.
 ⑧ Solenoid only approvals with EF or EV prefix, no approvals with general purpose coil (no prefix).
 ⑨ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.

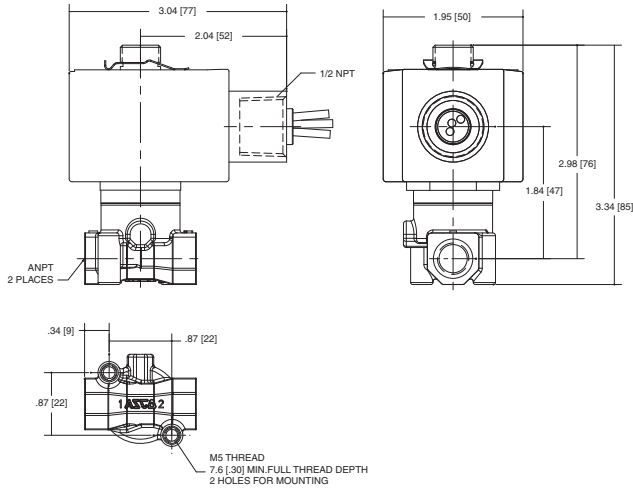
SPECIAL SERVICE
PILOT

| Body Material | Pipe Size (in) | Orifice Size (mm) | Kv Flow Factor (m ² /h) | Single Solenoid – SIL 3 Capable, Certified by Exida ⑨ | | | | 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. |
| | | | | Air-Inert Gas | | | | | Air-Inert Gas | | | | |
| | | | | Min. | Max. | Min. | Max. | | | | | | |
| 3/2, 5/2, 5/3 VALVES, with NBR and PUR Seals, NAMUR Mount | | | | | | | | | | | | | |
| Aluminum 3/2, 5/2 | 1/4 ① | 6 | .74 | 2.4 | 9 | 65 | 8551H301 ① | 19 | 2 | 9 | 65 | 8551H302 ① | 19 |
| Aluminum 5/3 Center Closed | | | | | | | - | - | | | | 8551H365 ⑥ | 20 |
| Aluminum 5/3 Center Open | | | | | | | - | - | | | | 8551H366 ⑥ | 20 |
| Brass 3/2, 5/2 | | | | | | | EF8551H303 ①②⑧ | 19 | | | | EF8551H304 ①②⑧ | 19 |
| 316L Stainless Steel 3/2, 5/2 | 1/2 | 13 | 3.2 | 2.4 | 9 | 65 | EV8551H309 ③⑥ | 20 | 2 | 9 | 65 | EV8551H310 ③⑥ | 20 |
| Aluminum 3/2, 5/2 | | | | | | | 8553H301 ⑧ | 20 | | | | 8553H302 ⑧ | 20 |
| 316L Stainless Steel 3/2, 5/2 | | | | | | | EV8553H309 ③⑥⑧ | 20 | | | | EV8553H310 ③⑥⑧ | 20 |

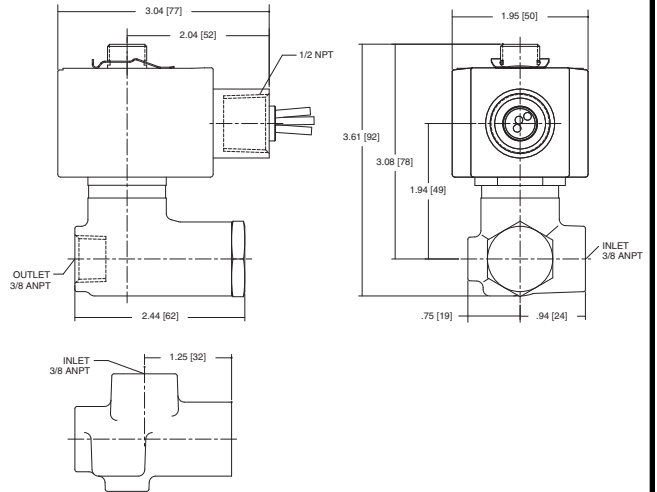
① 1/8" NPT exhaust for 1/4" aluminum and brass.
 ② Brass construction supplied standard with EF solenoid.
 ③ Stainless steel construction supplied standard with EV solenoid.
 ⑥ Can be used for **dry** natural gas service (no agency approvals) with the EF or EV prefix without manual operator.
 ⑧ Solenoid only approvals with EF or EV prefix, no approvals with general purpose coil (no prefix).
 ⑨ Safety manual and FMEDA (Failure Modes Effects and Diagnostic Analysis) report available.

Dimensions: inches (mm)

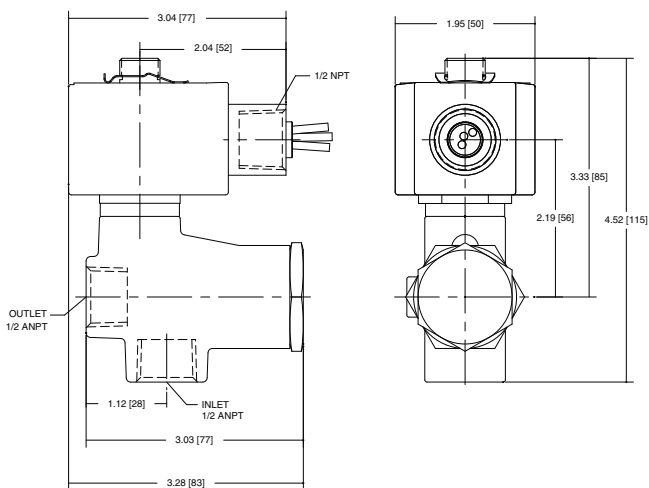
Const. Ref. 1



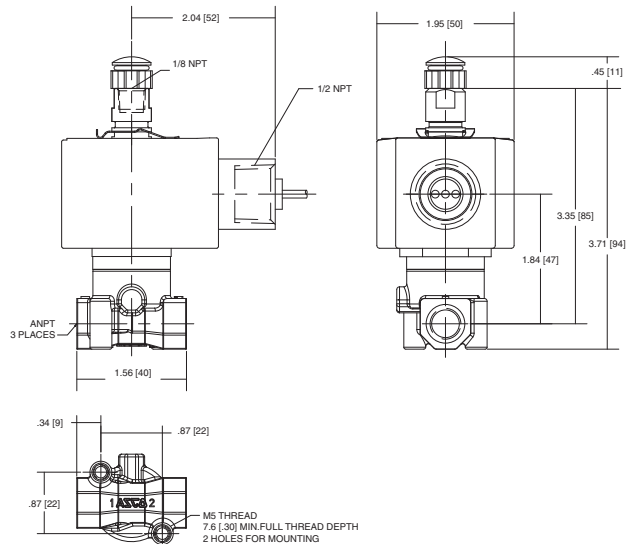
Const. Ref. 2



Const. Ref. 3



Const. Ref. 4, 5



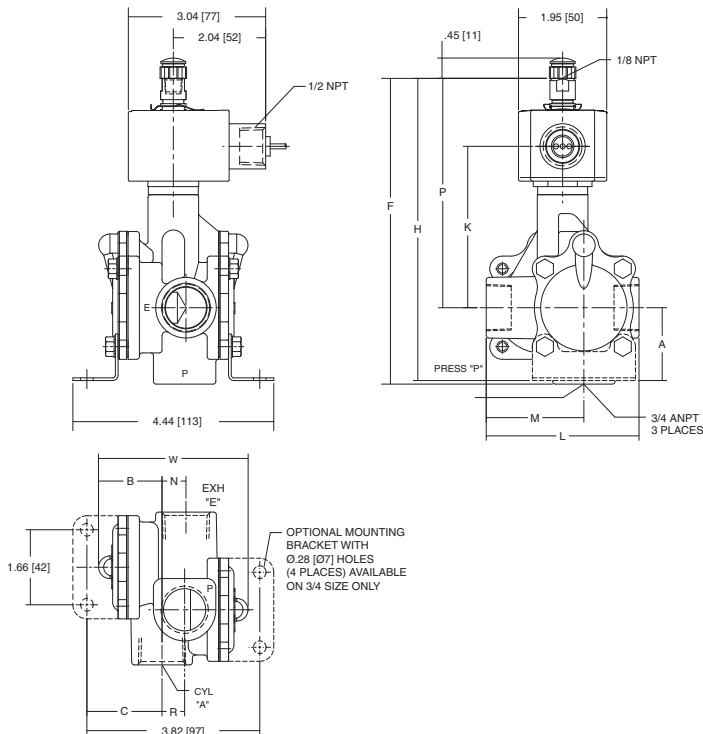
SPECIAL SERVICE
PILOT

Dimensions: inches (mm)

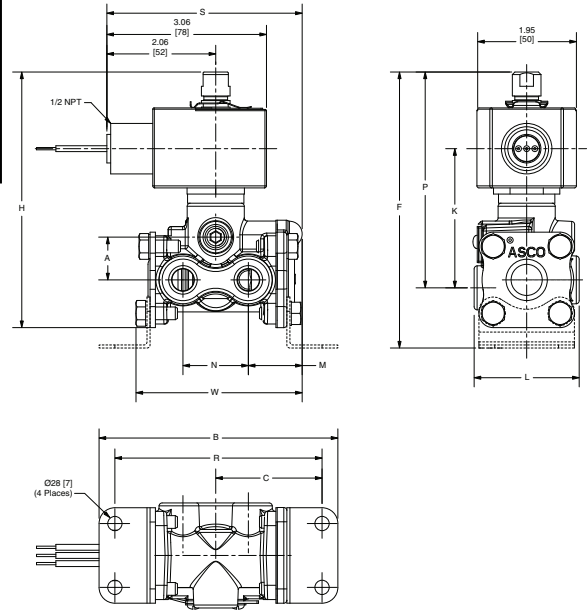
| Catalog Number | | A | B | C | F | H | K | L | M | N | P | R | S | W |
|----------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 8316H301, 302 | in | .84 | 4.68 | 2.08 | 5.41 | 5.01 | 2.73 | 2.06 | 1.06 | 1.28 | 4.23 | 4.06 | 3.83 | 3.26 |
| | mm | 21 | 119 | 53 | 137 | 127 | 69 | 52 | 27 | 33 | 107 | 103 | 97 | 83 |
| 8316H303, 304 | in | 1.19 | 4.88 | 2.18 | 5.90 | 5.40 | 2.98 | 2.72 | 1.24 | 1.32 | 4.48 | 4.26 | 4.03 | 3.59 |
| | mm | 30 | 124 | 56 | 150 | 167 | 76 | 69 | 31 | 34 | 114 | 108 | 102 | 91 |
| 8316H381, 382 | in | 1.00 | 4.71 | 2.11 | 5.57 | 5.17 | 2.73 | 2.06 | 1.08 | 1.28 | 4.24 | 4.09 | 3.86 | 3.28 |
| | mm | 25 | 120 | 54 | 141 | 131 | 69 | 52 | 27 | 33 | 108 | 104 | 98 | 83 |
| 8316H384 | in | 1.11 | 4.88 | 2.18 | 5.98 | 5.48 | 2.84 | 2.72 | 1.24 | 1.37 | 4.34 | 4.26 | 4.04 | 3.59 |
| | mm | 28 | 124 | 55 | 152 | 139 | 72 | 69 | 31 | 35 | 110 | 108 | 102 | 91 |

| Const. Ref. | | A | B | C | H | K | L | M | N | P | R | W |
|-------------|----|------|------|------|------|------|------|------|-----|------|------|------|
| 7 | in | 1.61 | 1.41 | 1.66 | 6.78 | 3.68 | 3.38 | 2.16 | .53 | 5.09 | .50 | 3.31 |
| | mm | 41 | 36 | 42 | 172 | 93 | 86 | 55 | 13 | 129 | 13 | 84 |
| 8 | in | - | 1.78 | - | 7.40 | 3.93 | 4.44 | 2.81 | .87 | 5.34 | 1.74 | 5.31 |
| | mm | - | 45 | - | 188 | 100 | 113 | 71 | 22 | 136 | 44 | 135 |

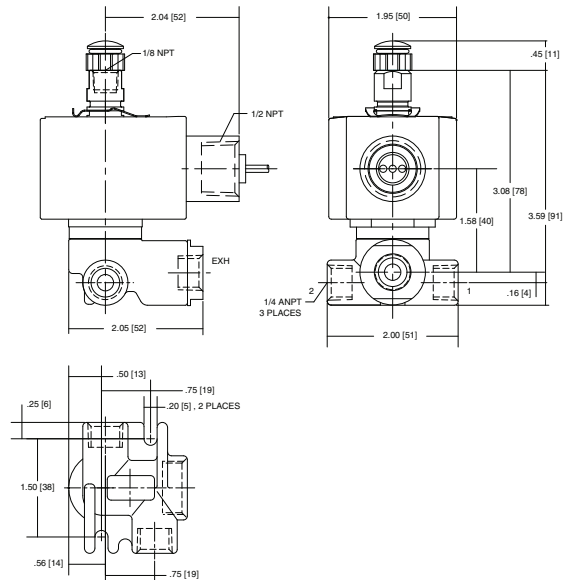
Const. Ref. 7, 8



Const. Ref. 6



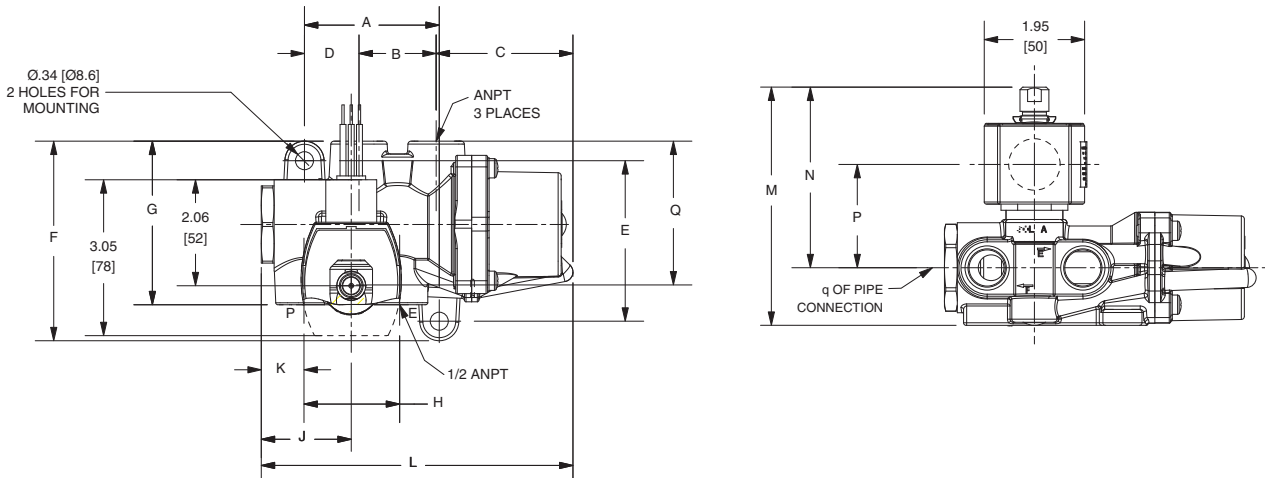
Const. Ref. 9, 10



Dimensions: inches (mm)

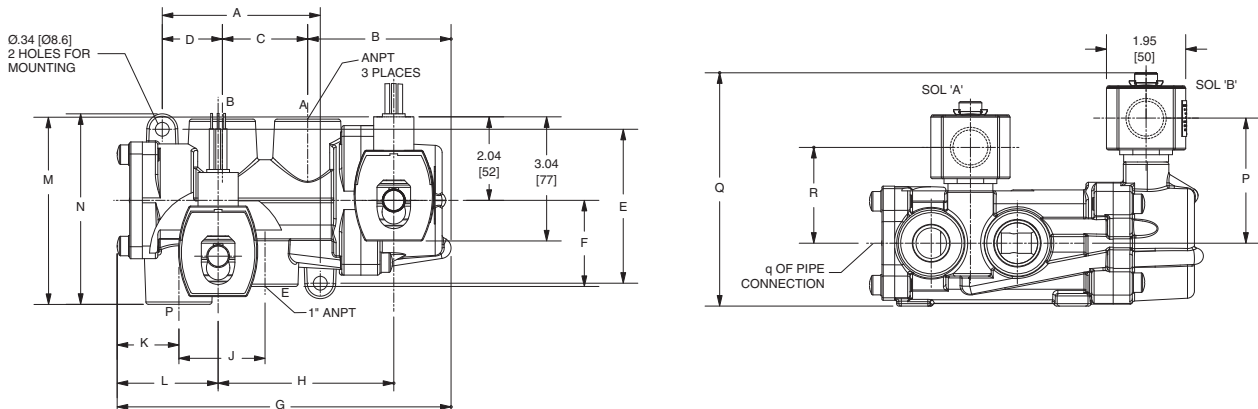
| Catalog Number | | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q |
|----------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 8344H370 | in | 1.88 | 1.03 | 2.15 | 0.72 | 2.41 | 3.21 | 3.13 | 1.41 | 1.36 | 0.72 | 4.71 | 4.65 | 3.70 | 2.19 | 2.22 |
| | mm | 48 | 26 | 55 | 18 | 61 | 82 | 80 | 36 | 35 | 18 | 120 | 118 | 94 | 56 | 57 |
| 8344H372, 374 | in | 2.62 | 1.50 | 2.66 | 1.06 | 3.12 | 3.88 | 3.18 | 1.86 | 1.75 | 0.83 | 6.06 | 4.63 | 3.51 | 2.01 | 2.81 |
| | mm | 67 | 38 | 68 | 27 | 79 | 99 | 81 | 47 | 45 | 21 | 154 | 118 | 89 | 51 | 71 |
| 8344H376, 378 | in | 3.89 | 2.10 | 3.53 | 1.48 | 3.79 | 4.69 | 4.56 | 2.12 | 2.49 | 1.52 | 8.22 | 5.41 | 3.86 | 2.36 | 3.38 |
| | mm | 99 | 53 | 90 | 38 | 96 | 119 | 116 | 54 | 63 | 39 | 209 | 137 | 98 | 60 | 86 |

Const. Ref. 11, 13, 15



| Catalog Number | | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 8344H344 | ins. | 1.88 | 2.16 | 1.03 | 0.75 | 2.41 | 1.69 | 4.91 | 2.61 | 1.41 | 0.72 | 1.36 | 3.92 | 3.13 | 2.60 | 4.70 | 2.02 |
| | mm | 48 | 55 | 26 | 19 | 61 | 43 | 125 | 66 | 36 | 18 | 35 | 100 | 80 | 51 | 119 | 51 |
| 8344H354, 356 | ins. | 3.88 | 3.53 | 2.09 | 1.47 | 3.81 | 2.12 | 8.25 | 4.34 | 2.12 | 1.55 | 2.51 | 4.60 | 4.56 | 3.07 | 5.71 | 2.38 |
| | mm | 99 | 90 | 53 | 37 | 97 | 54 | 210 | 110 | 54 | 39 | 64 | 125 | 116 | 80 | 145 | 60 |
| 8344H380, 382 | ins. | 2.62 | 2.66 | 1.50 | 1.06 | 3.12 | 1.56 | 6.06 | 3.09 | 1.86 | 0.83 | 1.75 | 4.31 | 3.18 | 2.74 | 4.89 | 2.11 |
| | mm | 67 | 68 | 38 | 27 | 79 | 40 | 154 | 78 | 47 | 21 | 45 | 109 | 81 | 70 | 124 | 54 |





Const. Ref. 12, 14, 16



Dimensions: inches (mm)





| Series | 8551 | 8553 |
|--------|------------|------------|
| NPT | 1/4 | 1/2 |
| L1 ① | 5.12 (132) | 6.00 (153) |
| L2 ① | 6.73 (171) | 7.80 (198) |
| H2 | 4.38 (111) | 4.77 (121) |
| H1 | 1.10 (28) | 1.58 (40) |
| W | 1.77 (45) | 2.85 (72) |

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

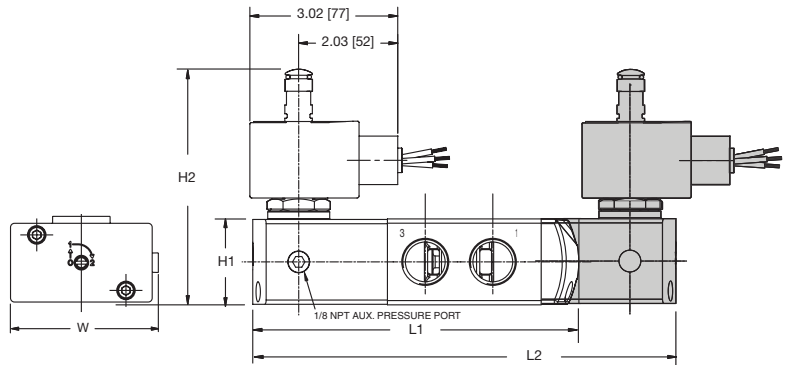
| Optional Manual Operators | | |
|---------------------------|--|---|
| Add Suffix | | Description |
| MO |  | Push and turn to lock with flat head screwdriver slot |
| MI |  | Momentary push in with flat head screwdriver slot |
| MH |  | Momentary push in by hand |
| MS |  | Push and turn to lock by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

| Series | 8551 | 8553 |
|--------|------------|------------|
| NPT | 1/4 | 1/2 |
| L1 ① | 5.63 (144) | 7.06 (180) |
| L2 ① | 7.20 (183) | 8.86 (225) |
| H2 | 4.38 (111) | 4.77 (121) |
| H1 | 1.10 (28) | 1.58 (40) |
| W | 1.77 (45) | 2.85 (72) |

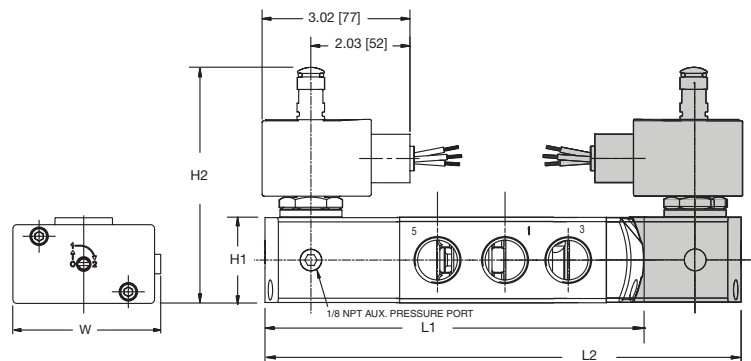
① Manual override option MH adds .250" (6.4),
MS option adds .468" (11.9) to each solenoid endcap.

| 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. 17



Const. Ref. 18



Dimensions: inches (mm)

| Series | 8551 (Aluminum, Brass) |
|--------|------------------------|
| NPT | 1/4 |
| L1 ① | 4.96 (126) |
| L2 ① | 6.49 (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.

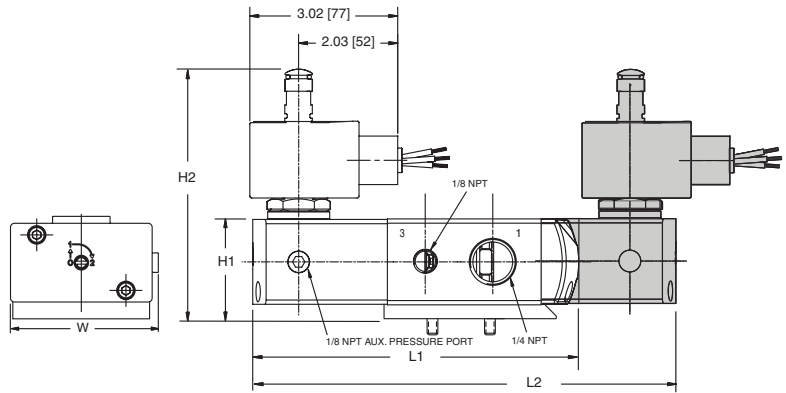
| Optional Manual Operators | |
|---------------------------|---|
| Add Suffix | Description |
| MO | Push and turn to lock with flat head screwdriver slot |
| MI | Momentary push in with flat head screwdriver slot |
| MH | Momentary push in by hand |
| MS | Push and turn to lock by hand |

| Series | 8551 (316L SS) | 8551 (5/3) | 8553 |
|--------|----------------|------------|------------|
| NPT | 1/4 | 1/4 | 1/2 |
| L1 ① | 5.20 (132) | - | 7.08 (180) |
| L2 ① | 6.73 (171) | 7.44 (189) | 8.85 (225) |
| H2 | 4.38 (111) | 4.38 (111) | 4.77 (121) |
| H1 | 1.57 (40) | 1.57 (40) | 2.08 (53) |
| W | 1.77 (45) | 1.77 (45) | 2.87 (73) |

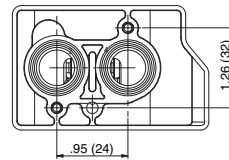
① Manual override option MH adds .250" (6.4), MS option adds .468" (11.9) to each solenoid endcap.

| 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 |

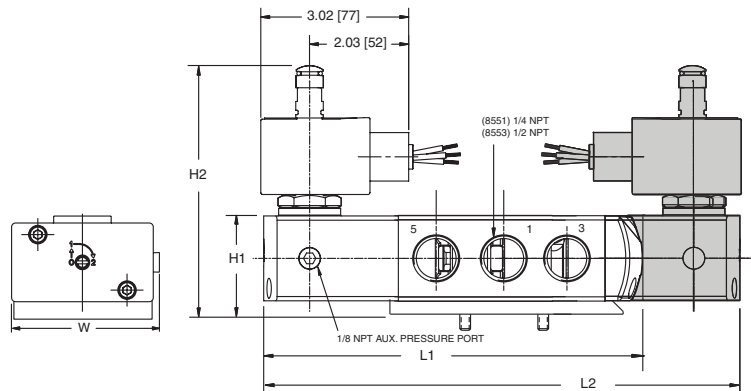
Const. Ref. 19



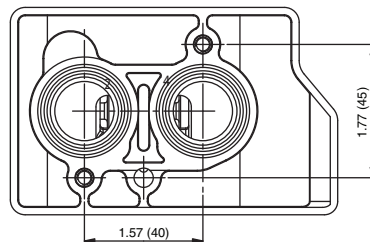
8551 NAMUR Footprint



Const. Ref. 20



8553 NAMUR Footprint



8551 NAMUR Footprint

