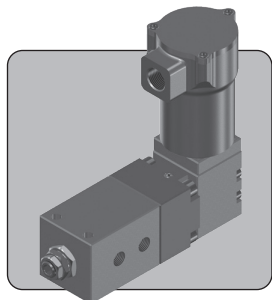


-2/3EPS25-

EXTERNAL PILOT SOLENOID VALVE

1/4" UP TO 690 BAR 10,000 PSI



The 2/3EPS25 is a 1/4" nominal bore 2 position 3 way directional control valve operated by an integral solenoid pilot valve. The pilot stage is supplied from a separate hydraulic or pneumatic source which can be a different fluid than the main stage supply.

This versatile valve utilizes a balanced spool enabling it to be used in normally closed, normally open and selector configurations. A wide range of solenoid pilot thrusters are available including ATEX and IECEx approved coils for use in hazardous areas.

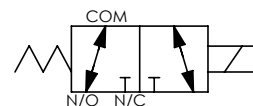
- 2 position 3 way pilot operated solenoid valve
- Stainless Steel Construction
- Balanced spool design with spring return
- Low leakage
- Available for various pilot ranges
- Efficient low power 3 watt pilot valve
- Independently certified SIL 3 capability
- Wide variety of mounting, connection, voltage, override and reset options available

Specifications

BASIC MODEL NUMBER

2/3EPS25

SYMBOL



MAX WORKING PRESSURE LIQUID

690 bar
(10,000 psi)

CV (FLOW CAPACITY)

0.44
See performance graph

FLUID

Liquids only (main ports)
Liquids and gases (pilot ports)
See materials section

TEMPERATURE RANGE

See Product Selector opposite
and Technical Data section

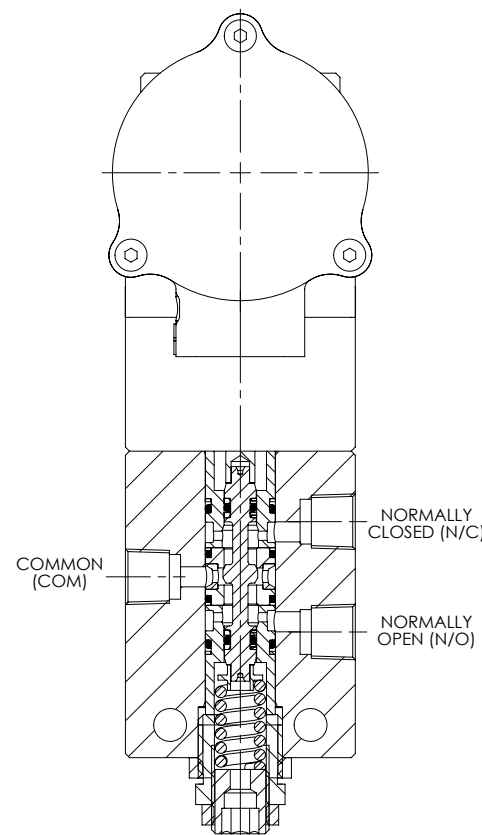
PORT SIZE

1/4"

WEIGHT

H0/H1 5.1 kg (11.2 lbs)
H3 5.9 kg (13.0 lbs)

Specifications may change without notice



Materials

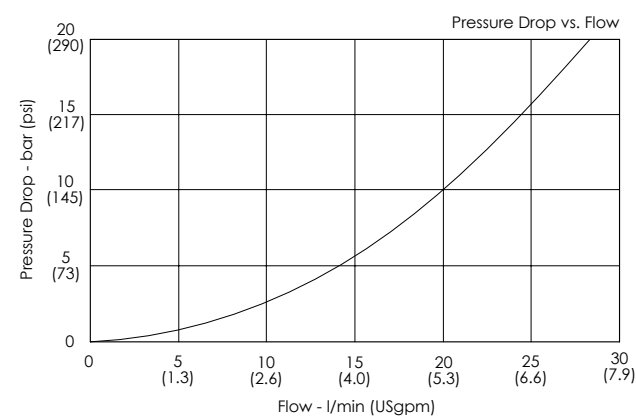
Externally Exposed Parts: 316 and 17/4 pH Stainless Steel with a 302 spring. Increased corrosion resistance options available.

Acetal push button for manual override and reset options.

Internally Wetted Parts: 316, 302, 431 and 17/4 pH Stainless Steel, Silicon Nitride, acetal and PTFE. The standard valve is designed to be used with non-corrosive liquids only such as mineral oil and water glycol. The low pressure 'H3' version is additionally suitable for use with air and nitrogen as a pilot supply medium. Materials offering improved corrosion resistance are available, contact us for advice.

⚠ The standard valve has Viton® seals. Further seal options are available via the Product Selector. Compatibility with the working fluid at the operating temperature must be considered.

Typical Performance



Valve & Thruster Options

Valve Options

As standard the valve will actuate when a suitable electrical supply and pilot pressure is applied and is returned by a spring when either the electrical supply or pilot pressure is removed.

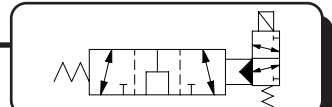
Alternative options include –

MO : Manual Override – With suitable pilot pressure applied, the valve may be temporarily switched via a push button without an electrical supply.

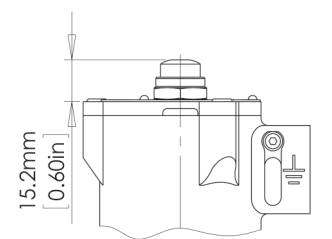
MR : Manual Reset – With suitable pilot supply and electrical supply the valve will not switch until the push button is pressed.

MOMR : Manual Override and Manual Reset – With suitable pilot pressure applied, the valve may be temporarily switched via a push button without an electrical supply, additionally the valve will not switch with an electrical and pilot supply until the push button is pressed.

Please contact us for further override, reset and latching options.



ADDITIONAL HEIGHT FOR MO, MR AND MOMR VARIANTS



Thruster & Seal Options

For use in zone 1 and 2 explosive atmospheres as defined by 1999/92/EC either the STExd or STExm thruster must be selected. It is the customer's responsibility to assess the application and to determine the zone and temperature class for their particular atmosphere. Please contact us if use in zone 0 is required.

The temperatures stated for seal options relate to the temperature of the fluid inside the valve. Maximum fluid temperature should be limited to the allowable ATEX surface temperature. The minimum allowable ambient temperature is equal to the minimum allowable seal temperature. The table below details the maximum allowable ambient temperature limits. All coils use class H insulation.

The thruster options included on this data sheet represent only a few common configurations. Please contact us where alternative options are required, such as dual coil windings, alternative electrical supplies, connections and conduits or when subsea use is required.

Thruster Type	Maximum Ambient Temperature for non-hazardous area	Maximum Ambient Temperature for T4 temperature rating	Maximum Ambient Temperature for T6 temperature rating	IP Rating
STHC	90°C	Not allowed	Not allowed	65
STKC	90°C	Not allowed	Not allowed	68
STExd	90°C	90°C*	65°C	68
STExm	90°C	80°C*	Not allowed	68

* A maximum ambient temperature of 65°C is allowed if NBR seals are selected

Voltage Option	Voltage Range	Dropout Voltage
12VDC	10.8 – 13.2V	1.2 – 3.0V
24VDC	21.6 – 26.4V	2.4 – 6.0V
48VDC	43.2 – 52.8V	4.8 – 12.0V
115VAC	100.0 – 127.0V 50/60Hz	11.5 – 29.0V
230VAC	215.0 – 253.0V 50/60Hz	23.0 – 57.5V

Product Selector

2/3EPS25 P - MO - H0 - STHC - 12VDC - NBR - 10K

VALVE TYPE	PORTING OPTIONS	VALVE OPTIONS	PILOT OPTIONS	THRUSTER OPTIONS	VOLTAGE OPTIONS	SEAL OPTIONS	MAX WORKING PRESSURE
2/3EPS25	P 1/4" BSPP female N 1/4" NPT female -56AE 3/8" OD medium pressure tube port M Manifold mount	Leave blank if none required MO Manual override MR Manual reset MOMR Manual override and manual reset	H0 High pressure pilot 28 to 241 bar (400 to 3,500 psi) Liquids only H1 High pressure pilot 97 to 960 bar (1,400 to 10,000 psi) Liquids only H3 Low pressure pilot 3 to 16 bar (44 to 232 psi) Liquids and Gases Standard pilot port connections are 1/4" NPT female. Further pilot port options are available on request	STHC Din connector STKC M20 conduit STExd Ex db approved STExm Ex emb approved	12VDC 12 volt DC 24VDC 24 volt DC 48VDC 48 volt DC 115VAC 110/120 volt AC 230VAC 230/240 volt AC 115VAC and 230VAC available only with the STExd thruster Further voltage options are available on request	Leave blank for Viton® seals -10°C to +120°C NBR Nitrile seals -20°C to +105°C HNBR Hydrogenated Nitrile seals -20°C to +120°C Further seal options are available on request. Temperature ratings relate to fluid temperature. See above for ambient temperatures	10K 690 bar (10,000 psi) Liquid



CATALOGUE ALSO AVAILABLE ON CD
VISIT OUR WEBSITE FOR A FULL ONLINE SEARCH FACILITY
www.bisvalves.co.uk

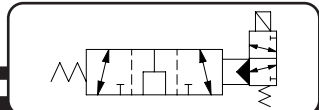


VALVES
The Specifier's Catalogue

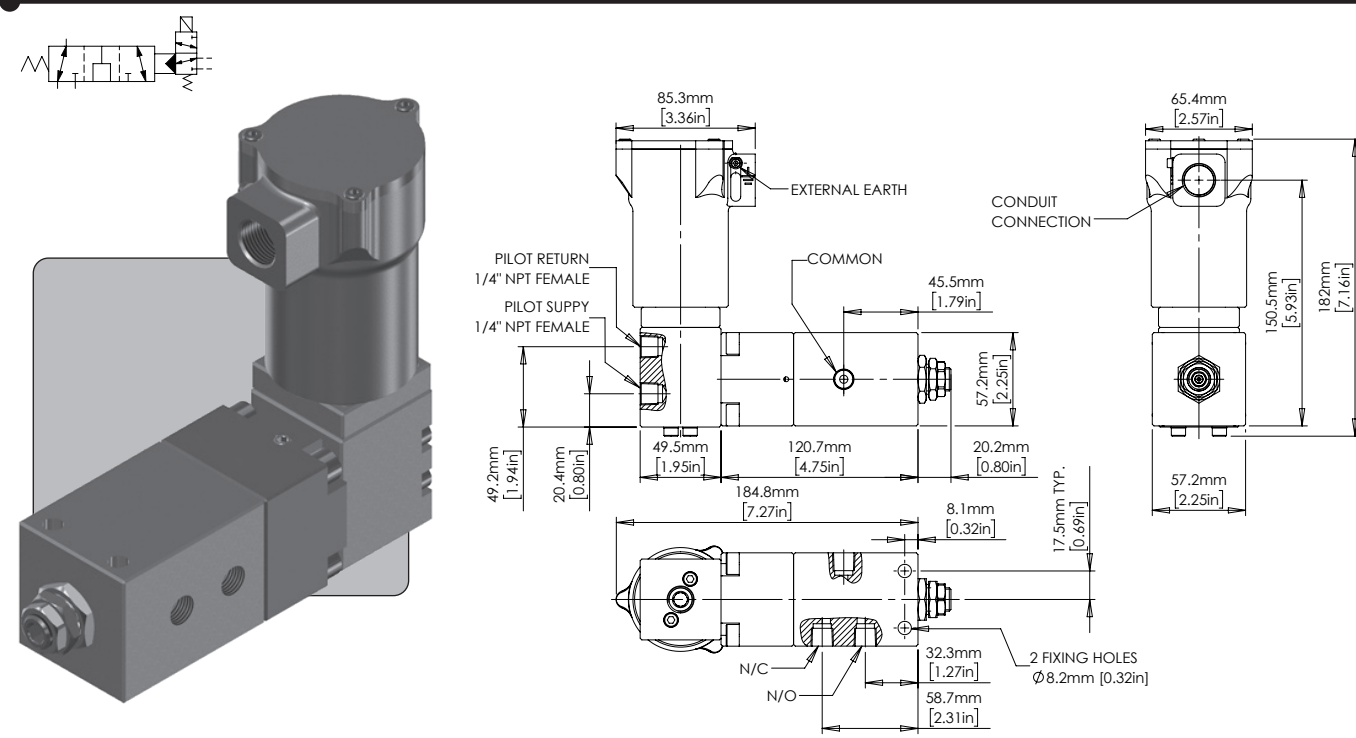
Page ???

2/3EPS25

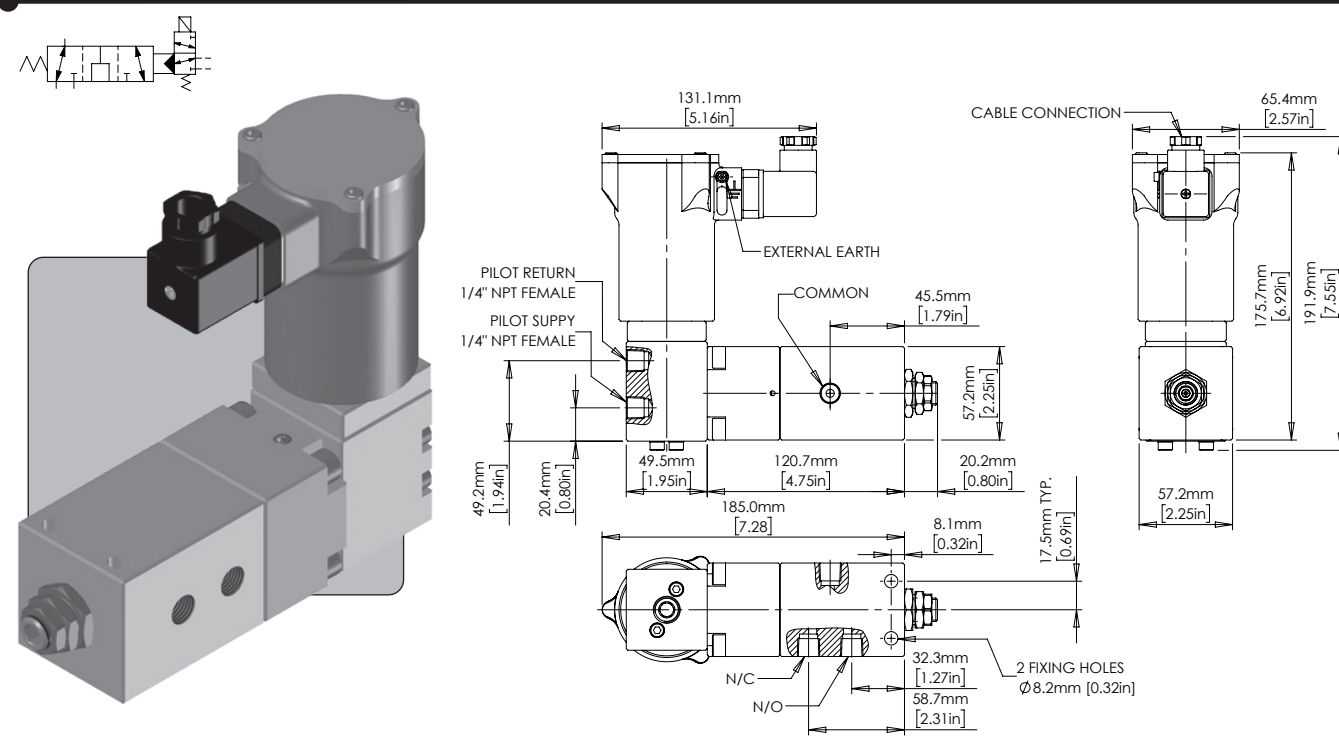
EXTERNAL PILOT SOLENOID VALVE



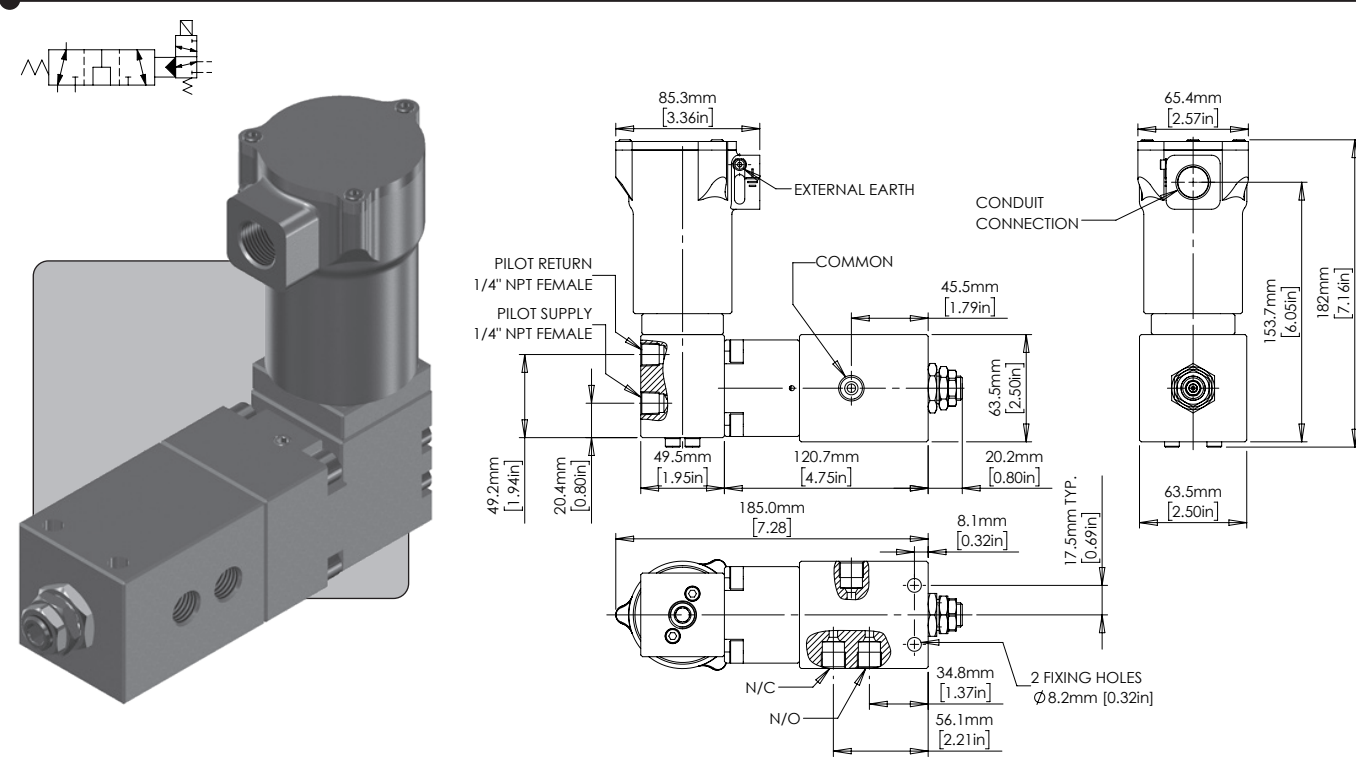
2/3EPS25-H0 and H1 Hydraulic Pilot Supply



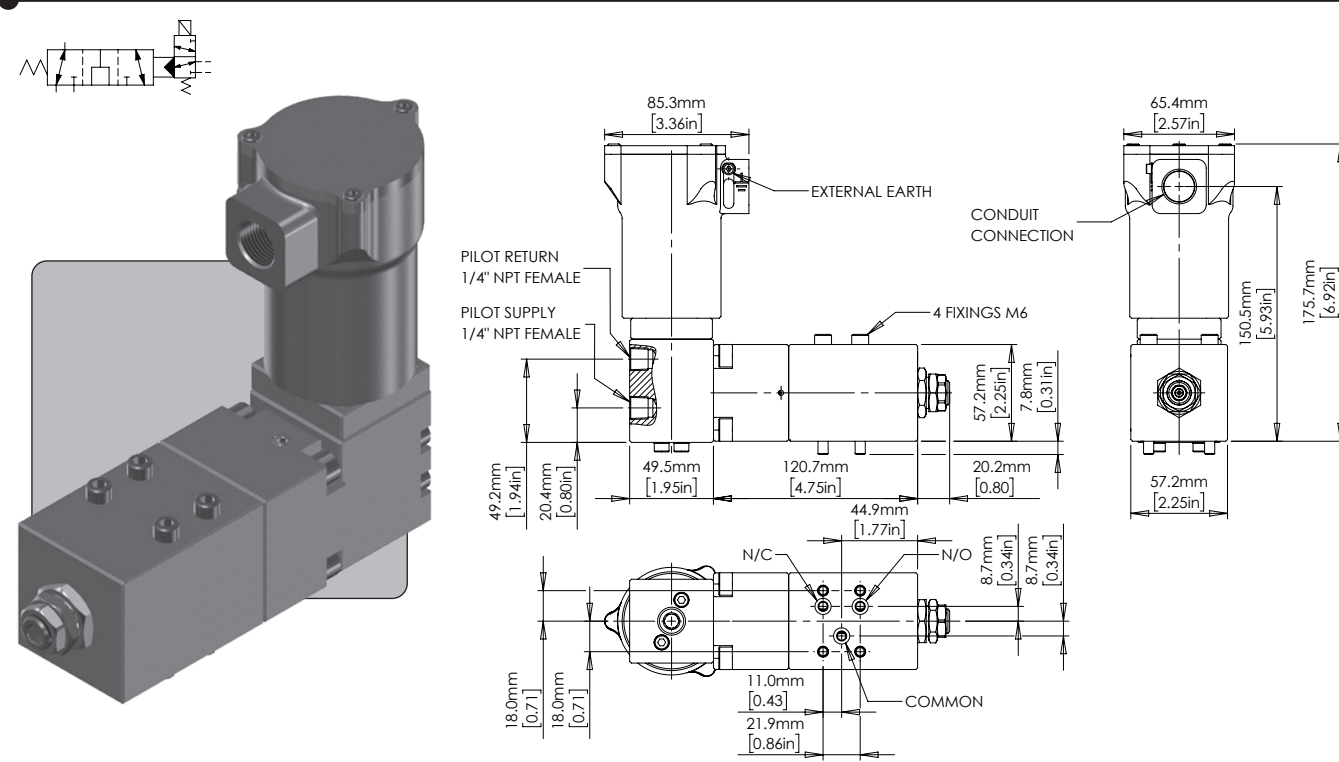
2/3EPS25-STHC Hydraulic Pilot Supply (H0 and H1 Pilot Options)



2/3EPS25-56AE Hydraulic Pilot Supply (H0 and H1 Pilot Options)



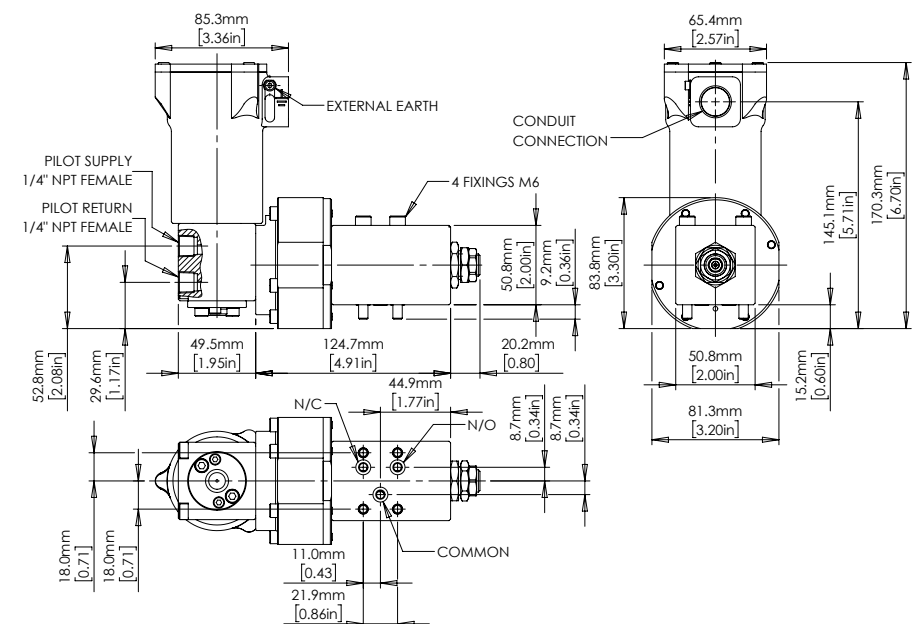
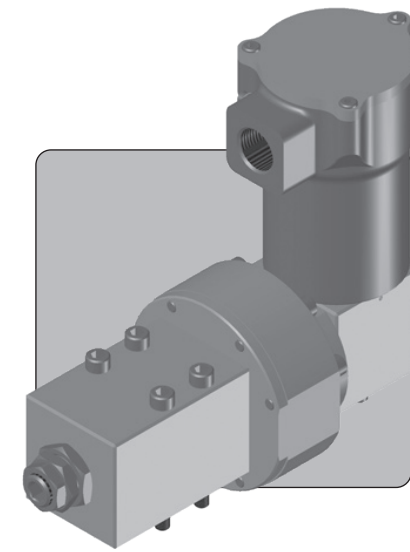
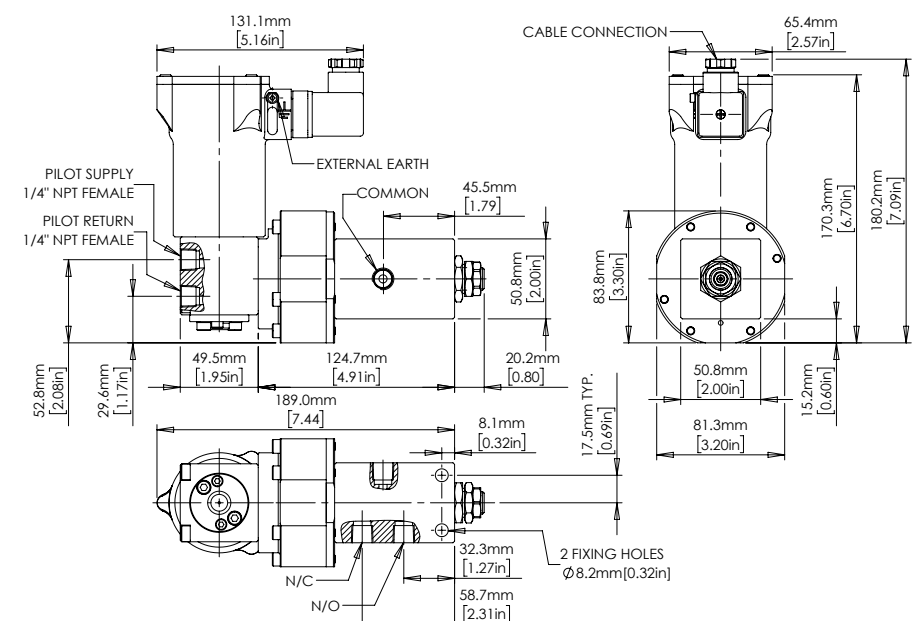
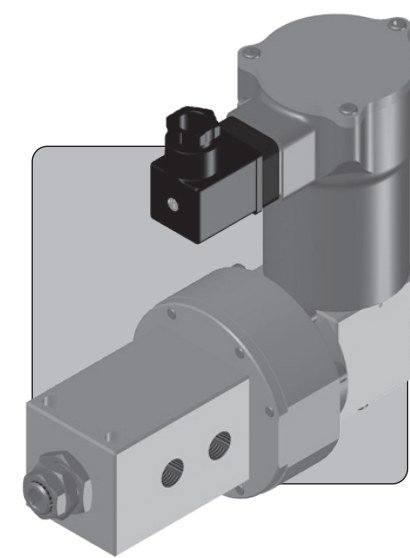
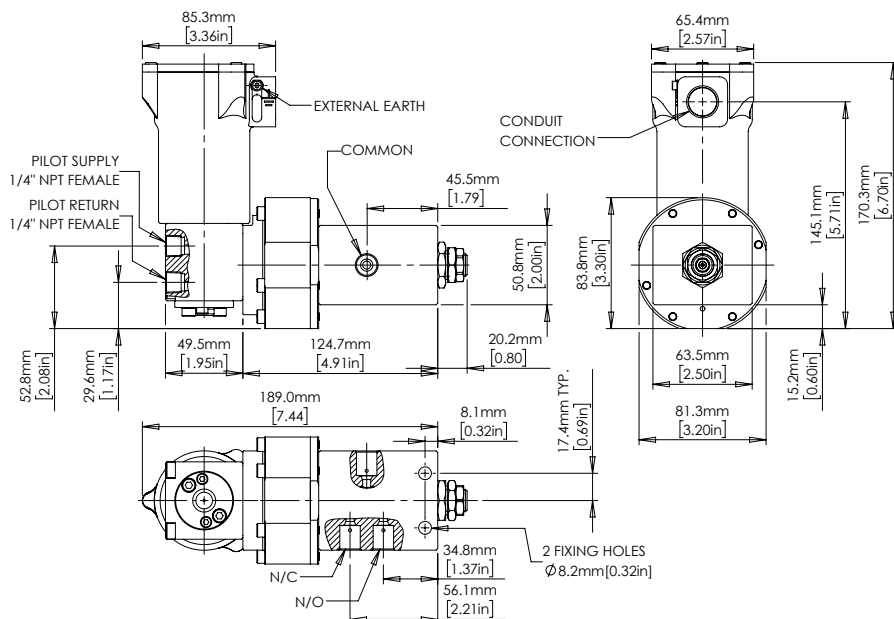
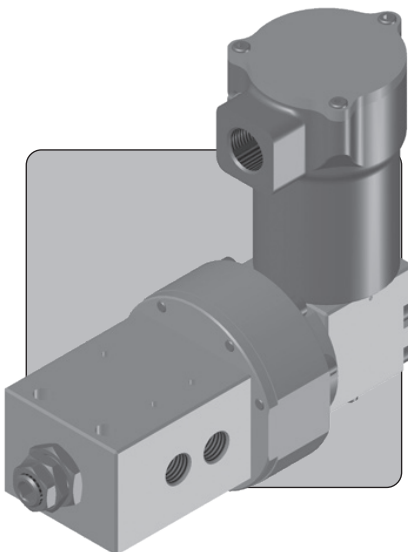
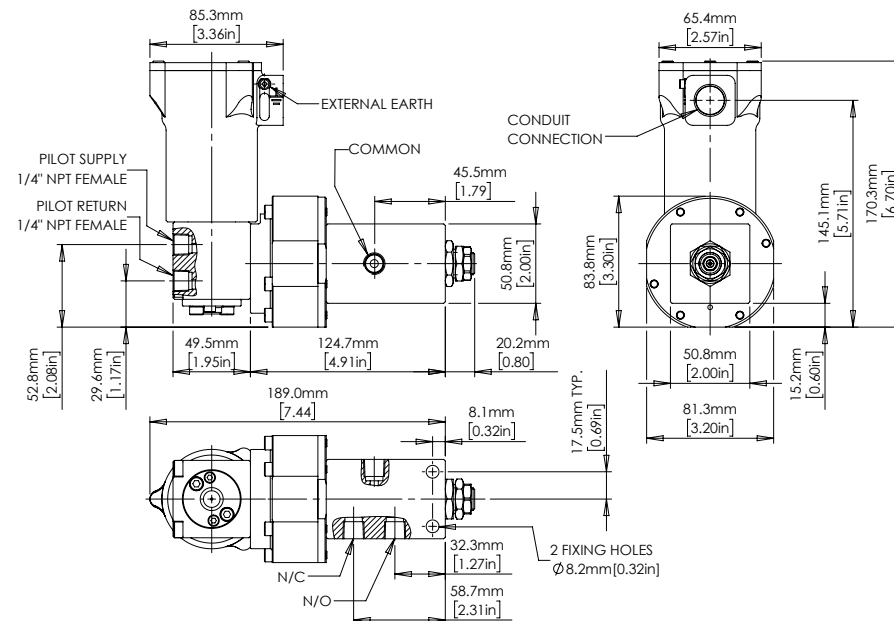
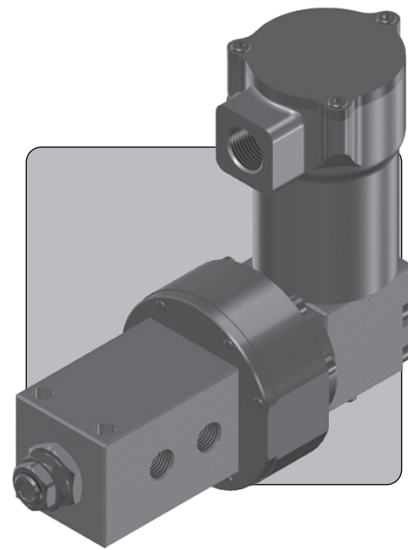
2/3EPS25M Hydraulic Pilot Supply (H0 and H1 Pilot Options)



SOLENOID
STOP AND METERING
3 PORT DIRECTIONAL CONTROL
4 PORT DIRECTIONAL CONTROL
CHECK AND SHUTTLE
PILOT OPERATED CHECK
RELIEF
EXCESS FLOW
FILTERS
PRESSURE SENSING
PUMPS
ACTUATORS
TECHNICAL DATA

The diagram shows a hydraulic circuit. On the left, a pump symbol is connected to a 4/3-way directional control valve. The valve has three positions: a center position (indicated by a dashed line) and two end positions. In the center position, the valve is closed to both the pump and the cylinder. In the right-hand position, the valve connects the pump to the cylinder's port 1 (indicated by an upward arrow) and connects the cylinder's port 2 (indicated by a downward arrow) to the tank. In the left-hand position, the valve connects the pump to the cylinder's port 2 and connects the cylinder's port 1 to the tank. The cylinder is represented by a rectangle with a dashed centerline. The tank is represented by a symbol on the right.

The diagram shows a horizontal hydraulic cylinder with a piston rod extending to the right. The piston rod is connected to a vertical valve assembly. The cylinder is divided into two chambers by the piston. The left chamber is connected to a pressure source (represented by a zigzag line) and a pressure sensor (represented by a small circle). The right chamber is connected to a pressure source (represented by a zigzag line) and a pressure sensor (represented by a small circle). The valve assembly has a handle and a pressure sensor (represented by a small circle).



TECHNICAL DATA