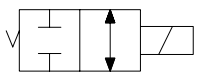
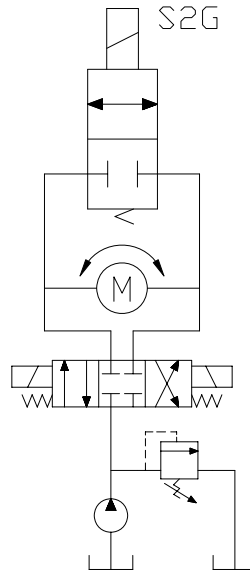


2 Way 2 Position Normally Closed Spool Valves

	GPM	PSI	LPM	BAR	MODEL	CAVITY	PAGE
	1.5	3000	6	207	MA-S2G	5/8"-18	48
	4	4000	15	276	HA-S2G	5/8"-18	50
	8	3000	30	207	PB-S2G	3/4"-16	52
	8	3000	30	207	DE-S2G	7/8"-14	54
	15	4000	57	276	HE-S2G	7/8"-14	56

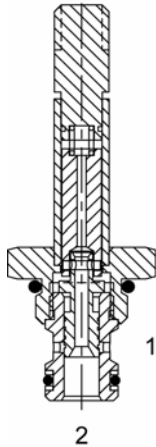
Typical Schematic

Typical application for the S2G is locking or braking of a fluid motor.



WARNING: The specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

MA-S2G Direct Acting Spool, 2 Way, Normally Closed



DESCRIPTION

7 size, 5/8-18 thread, "Mini" series, solenoid operated, 2 way normally closed, spool valve.

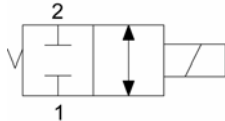
OPERATION

When de-energized the MA-S2G blocks flow from (1) to (2) and (2) to (1). When energized the valve allows flow from (1) to (2) and (2) to (1).

FEATURES

- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Industry common cavity.
- Unitized, molded coil design.
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.

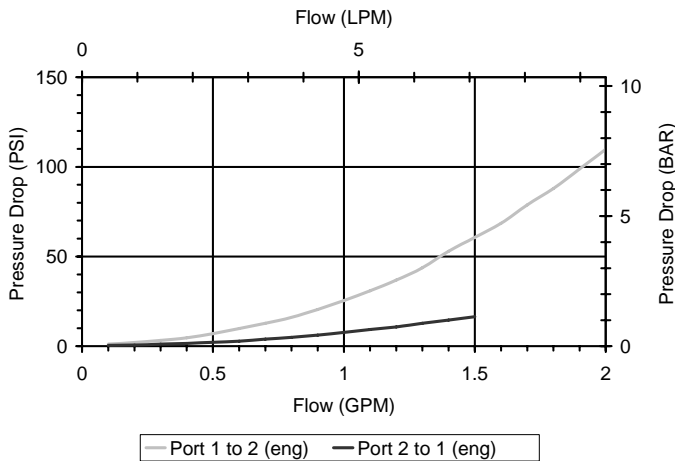
HYDRAULIC SYMBOL



For higher flow or pressure see HA-S2G.

PERFORMANCE

Actual Test Data (Cartridge Only)

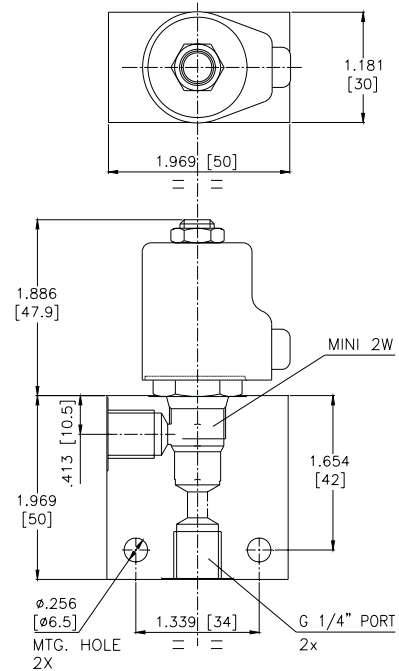
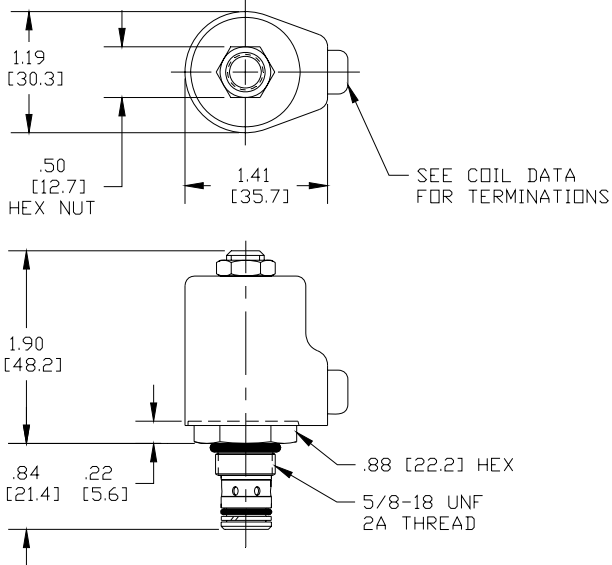


VALVE SPECIFICATIONS

Nominal Flow	1.5 GPM (5.7 LPM)
Rated Operating Pressure	3000 PSI (207 bar)
Typical Internal Leakage (150 SSU)	5 cu in/min (82 ml/min)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.12 lbs. (.05 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	15 ft-lbs (20.3 Nm)
Coil Nut Torque Requirements	3-5 ft-lbs (6.8 Nm)
Cavity	MINI 2W
Cavity Tools kit (form tool, reamer, tap)	40500003
Seal Kit	21191002

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



ORDERING INFORMATION

MA-S2G - - - - -

- OPTIONS**
 Buna Standard **00**
 Viton Standard **V0**
 Buna, Screen **A0**
 Viton, Screen **W0**

- BODIES**
 Without Body **Blank**
 1/4" BSP Ports **N**
 #6 SAE Ports **S**

Note: Use screen only if flow direction is from (1) to (2).

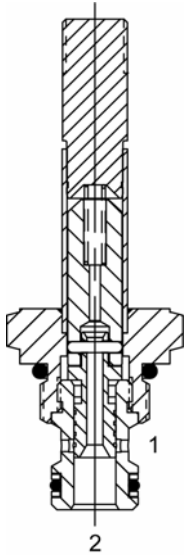
- VOLTAGE** (*other voltages available on request)
 12 **12** VDC
 24 **24** VDC
 22 **22** 220 VAC with molded full wave rectifier

- "M" COIL TERMINATION**
 Double Lead **DL**
 (* several types of termination can be attached on leads on request)
 DIN 43650 (Hirschman) - (AC&DC) **HC**

Approximate Coil Weight: .30 lbs/.14 kg.

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

HA-S2G Direct Acting Spool, 2 Way, Normally Closed



DESCRIPTION

“High Pressure” 7 size, 5/8-18 thread, “Mini” series, solenoid operated, 2 way normally closed, spool valve with free reverse.

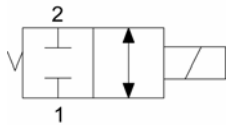
OPERATION

When de-energized the HA-S2G blocks flow from (1) to (2) and (2) to (1). When energized the valve allows flow from (1) to (2) and (2) to (1).

FEATURES

- Hardened parts for long life.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Industry common cavity.
- Unitized, molded coil design (for most common terminations, see coil page).
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.

HYDRAULIC SYMBOL

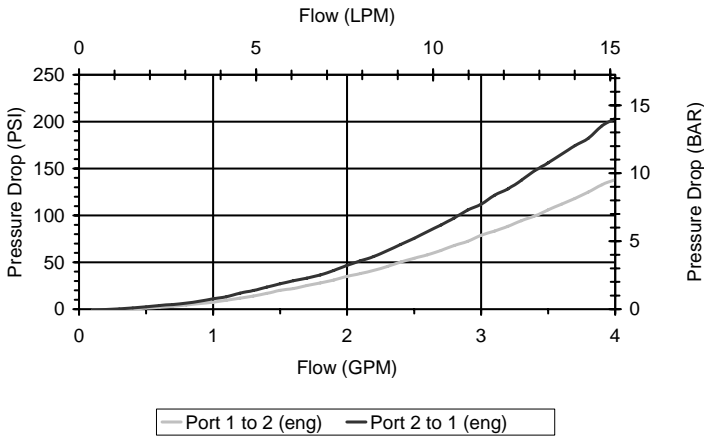


Operation shift limit 2 GPM (8 LPM).

For shifted performance consult chart.

PERFORMANCE

Actual Test Data (Cartridge Only)

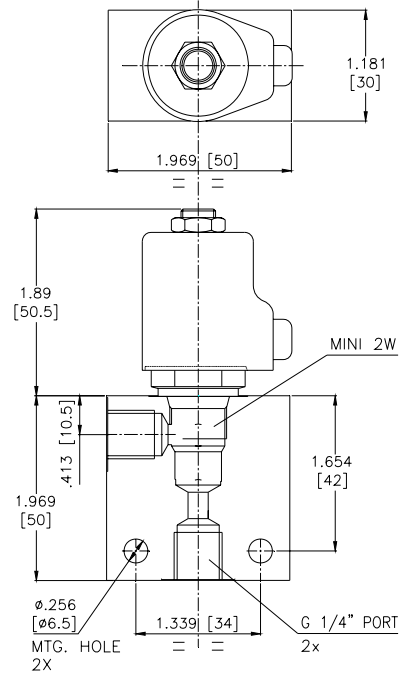
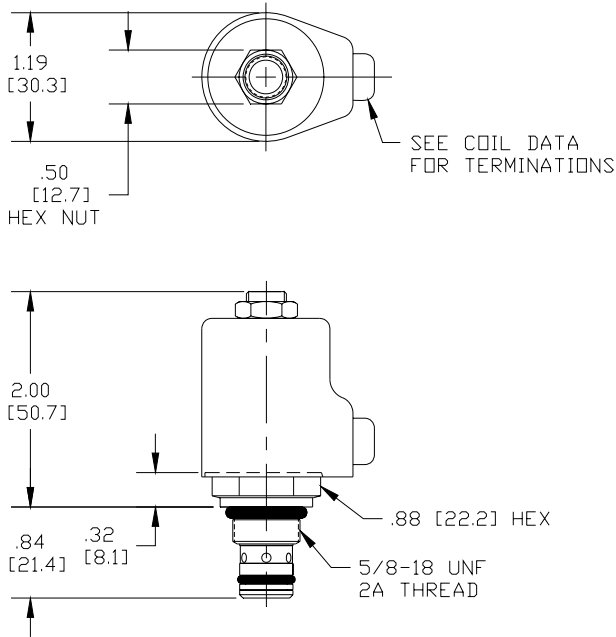


VALVE SPECIFICATIONS

Maximum Flow	4 GPM (15 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Typical Internal Leakage (150 SSU)	8 cu in/min (131 ml/min)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.14 lbs. (.06 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Coil Nut Torque Requirements	3-5 ft-lbs (4.1-6.8 Nm)
Cavity	MINI 2W
Cavity Tools kit (form tool, reamer, tap)	40500003
Seal Kit	21191002

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DIMENSIONS



ORDERING INFORMATION

HA-S2G - - - -

OPTIONS
 Buna Standard **00**
 Viton Standard **V0**

BODIES
 Without Body
 1/4" BSP Ports
 #6 SAE Ports

Note: Aluminum, NOT durability rated for 4000 PSI. Consult factory for body options.

VOLTAGE (*other voltages available on request)
 12 VDC
 24 VDC
 220 VAC with molded full wave rectifier

"M" COIL TERMINATION

Double Lead **DL**
 (* several types of termination can be attached on leads on request)
 DIN 43650 (Hirschman) – (AC&DC) **HC**

Approximate Coil Weight: .30 lbs/.14 kg.

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

PB-S2G Direct Acting Spool, 2 Way, Normally Closed

DESCRIPTION

8 size, 3/4-16 thread, "Power" series, solenoid operated, 2 way normally closed, spool valve.

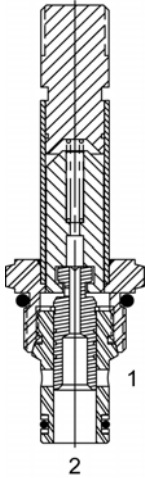
OPERATION

When de-energized the PB-S2G blocks flow from (1) to (2) and (2) to (1). When energized the valve allows flow from (1) to (2) and (2) to (1).

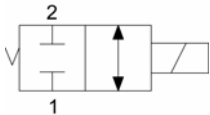
OPERATION OF MANUAL OVERRIDE OPTION: To override, pull knob out. On the detented version, after pulling knob out twist 180 degrees and release. The valve will remain in that position.

FEATURES

- Hardened parts for long life.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual override option.
- Industry common cavity.
- Unitized, molded coil design.
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.
- Optional "I" Coil: Weatherproof, Thermal Shock, Immersion Safe.



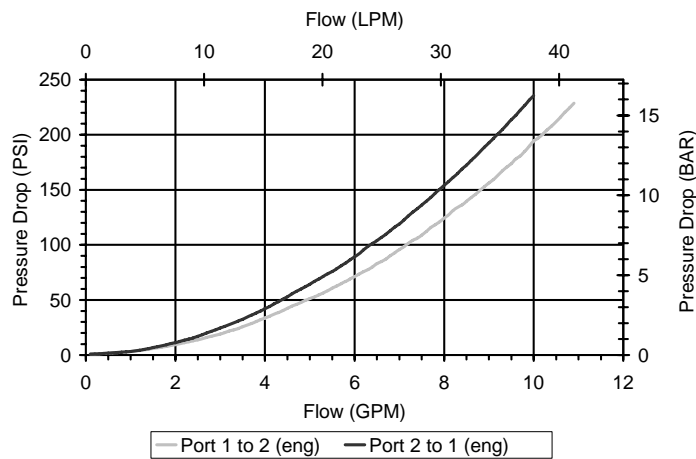
HYDRAULIC SYMBOL



Operational shift limit in 2 to 1 direction is 4 GPM. For shifted flow performance consult chart.

PERFORMANCE

Actual Test Data (Cartridge Only)

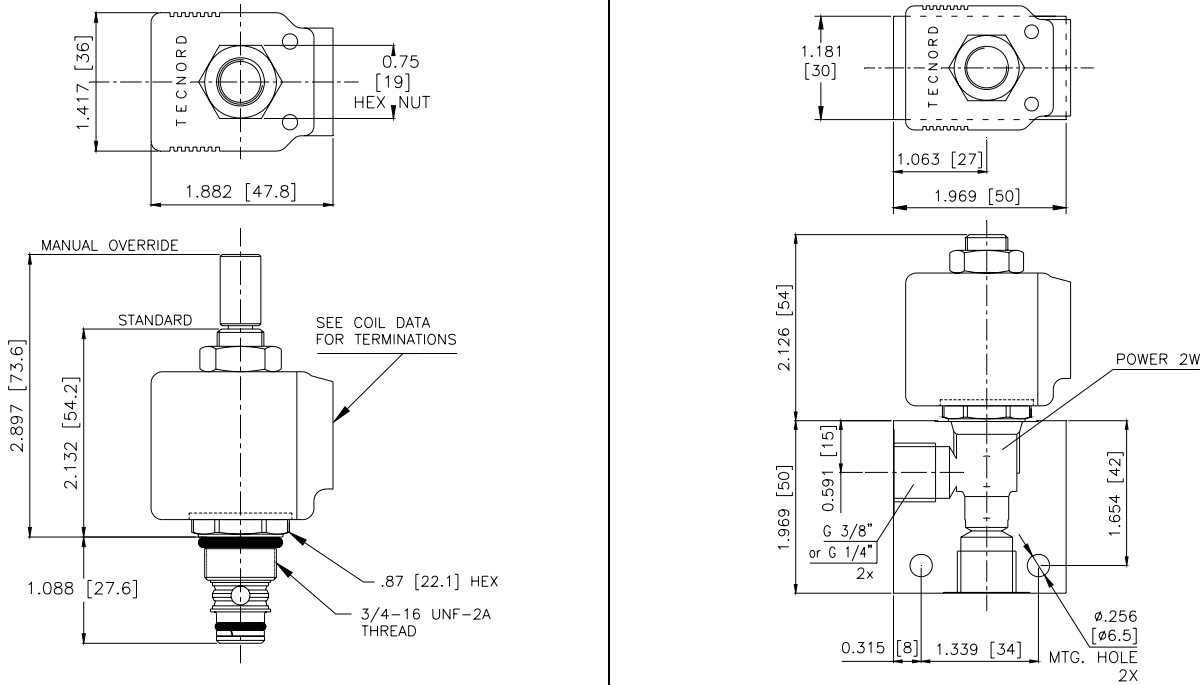


VALVE SPECIFICATIONS

Nominal Flow	8 GPM (30 LPM) from (1) to (2) 4 GPM (15 LPM) from (2) to (1)
Rated Operating Pressure	3000 PSI (207 bar)
Typical Internal Leakage (150 SSU)	5 cu in/min (82 ml/min)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.19 lbs. (.09 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	25 ft-lbs (34 Nm)
Coil Nut Torque Requirements	4-6 ft-lbs (5.4-8.1 Nm)
Cavity	POWER 2W
Cavity Tools kit (form tool, reamer, tap)	40500005
Seal Kit	21191102

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



ORDERING INFORMATION

PB-S2G

OPTIONS

- Buna Standard **00**
- Viton Standard **V0**
- Buna, Override, Detent **0M**
- Viton, Override, Detent **VM**
- Buna, Screen **A0**
- Viton, Screen **W0**
- Buna, Override, Nondetent **B1**
- Viton, Override, Nondetent **V1**
- Buna, Screen, Override, Nondetent **B3**
- Buna, Screen, Override, Detent **B4**
- Viton, Screen, Override, Non-detent **V3**
- Viton, Screen, Override, Detent **V4**

Note: Use screen only if flow direction is from (1) to (2).

"K" COIL TERMINATION

(All DC Except as Noted)

- DL** Double Lead
(*several types of termination can be attached on leads on request)

- HC** DIN 43650 (Hirschman) – (AC & DC)
- DI** Deutsch – Integral DT04-2P

- PIA**
- PID**
- PIJ**
- PIM**

IMMERSION PROOF "P" TYPE

- "I" Coil AMP Superseal - Integral
- "I" Coil Deutsch – Integral DT04-2P
- "I" Coil AMP Jr. Timer - Integral
- "I" Coil Metri-Pack – Integral

BODIES

- Blank
- N** 1/4" BSP Ports
- N1** 3/8" BSP Ports
- S** #6 SAE Ports

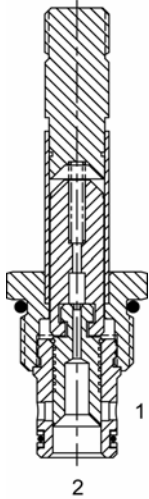
VOLTAGE (*other voltages available on request)

- 12** 12 VDC
- 24** 24 VDC
- 22** 220 VAC without internal rectifier

Approximate Coil Weight: .42 lbs (.19 kg.)

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DE-S2G Direct Acting Spool, 2 Way Normally Closed



DESCRIPTION

10 size, 7/8-14 thread, "Delta" series, solenoid operated, 2 way normally closed, spool valve.

OPERATION

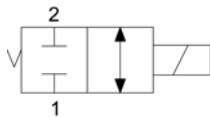
When de-energized the DE-S2G blocks flow from (1) to (2) and (2) to (1). When energized the valve allows flow from (1) to (2) and (2) to (1).

OPERATION OF MANUAL OVERRIDE OPTION: To override, turn the manual override screw counter-clockwise. To release turn the manual override screw clockwise

FEATURES

- Hardened parts for long life.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual override option.
- Industry common cavity.
- Unitized, molded coil design.
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.
- Optional "I" Coil: Weatherproof, Thermal Shock, Immersion Safe.

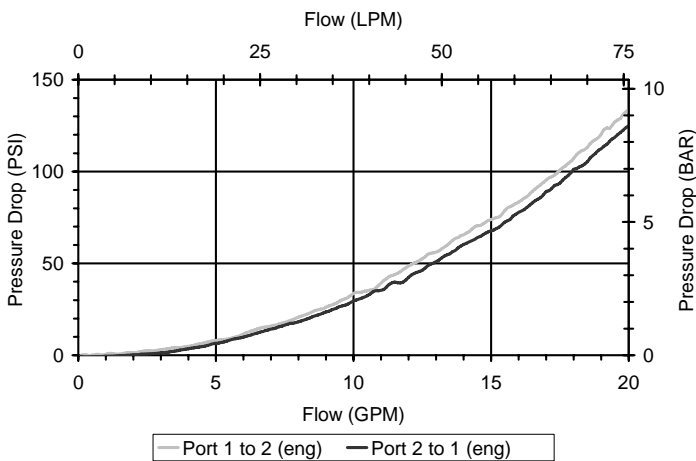
HYDRAULIC SYMBOL



Operational shift limit 8 GPM (30 LPM) and 5 GPM (19 LPM).
For shifted flow performance consult chart.
For higher flow or pressure see HE-S2G.

PERFORMANCE

Actual Test Data (Cartridge Only)

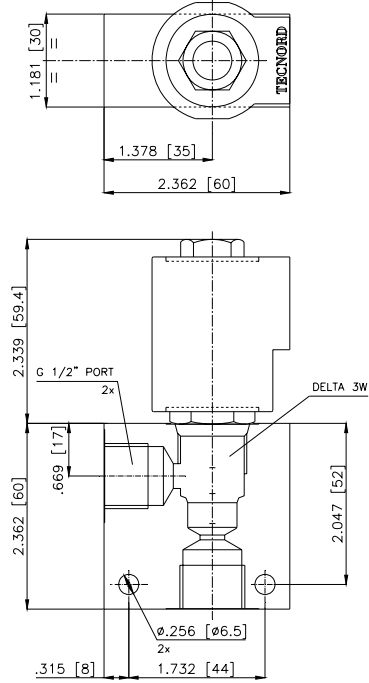
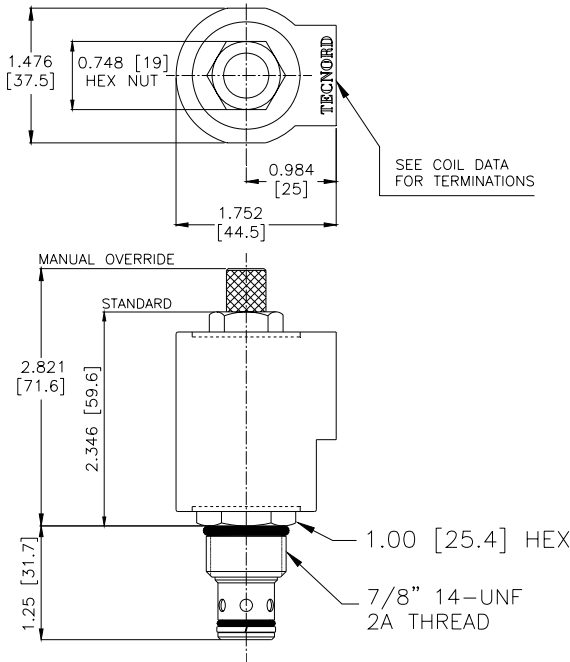


VALVE SPECIFICATIONS

Nominal Flow	8 GPM (30 LPM) from (1) to (2) 5 GPM (19 LPM) from (2) to (1)
Rated Operating Pressure	3000 PSI (207 bar)
Typical Internal Leakage (150 SSU)	5 cu in/min (82 ml/min)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.26 lbs. (.12 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Coil Nut Torque Requirements	4-6 ft-lbs (5.4-8.1 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191202

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DIMENSIONS



ORDERING INFORMATION

DE-S2G - - - -

- OPTIONS**
- Buna Standard **00**
 - Viton Standard **V0**
 - Buna, Override **0M**
 - Viton, Override **VM**
 - Buna, Screen **A0**
 - Viton, Screen **W0**
 - Buna, Screen, Override **B3**
 - Viton, Screen, Override **V3**

- BODIES**
- Blank
 - N** 1/2" BSP Ports
 - S** #8 SAE Ports

- VOLTAGE** (*other voltages available on request)
- 12** 12 VDC
 - 24** 24 VDC
 - 22** 220 VAC without internal rectifier

Note: Use screen only if flow direction is from (1) to (2).

"V" COIL TERMINATION
(All DC Except as Noted)

- | | |
|---|---|
| <p>DL Double Lead
(* several types of termination can be attached on leads on request)</p> | <p>HC DIN 43650 (Hirschman) – (AC & DC)
DI Deutsch – Integral DT04-2P</p> |
|---|---|

- IMMERSION PROOF "D" TYPE**
- "I"** Coil AMP Superseal - Integral
 - "1"** Coil Deutsch – Integral DT04-2P
 - "T"** Coil AMP Jr. Timer - Integral
 - "I"** Coil Metri-Pack – Integral

Approximate Coil Weight: .56 lbs (.25 kg.)

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TECNORD

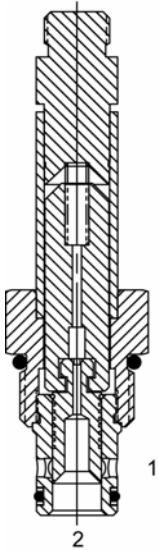
Phone +39 059 254895

Fax +39 059 253512

E-mail: tecnord@tecnord.com

a Delta Power Co.

HE-S2G Direct Acting Spool, 2-Way, Normally Closed



DESCRIPTION

“High Pressure” 10 size, 7/8-14 thread, “Delta” series, solenoid operated, 2-way normally closed, spool valve.

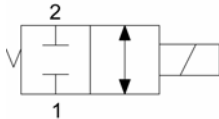
OPERATION

When de-energized the HE-S2G blocks flow from (1) to (2) and (2) to (1). When energized the valve allows flow from (1) to (2) and (2) to (1).

FEATURES

- Hardened parts for long life.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Industry common cavity.
- Unitized, molded coil design.
- Continuous duty rated solenoid.
- Optional coil voltages and terminations.
- Optional “I” Coil: Weatherproof, Thermal Shock, Immersion Safe.

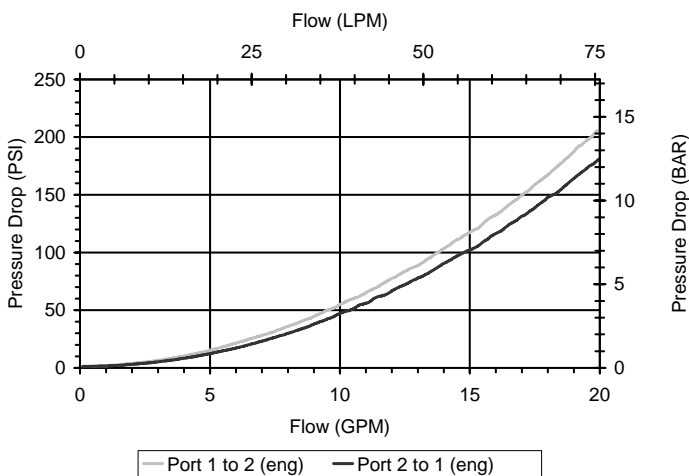
HYDRAULIC SYMBOL



Uses “L” Coil.

PERFORMANCE

Actual Test Data (Cartridge Only)

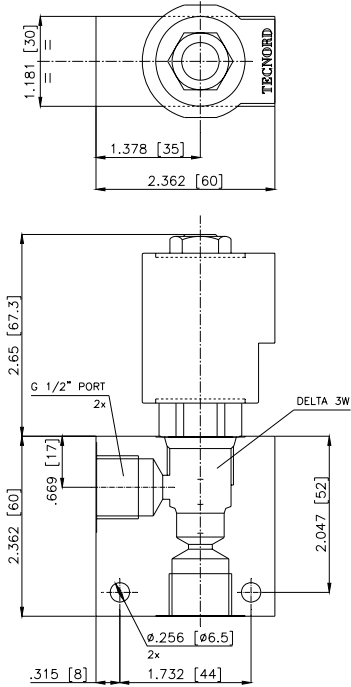
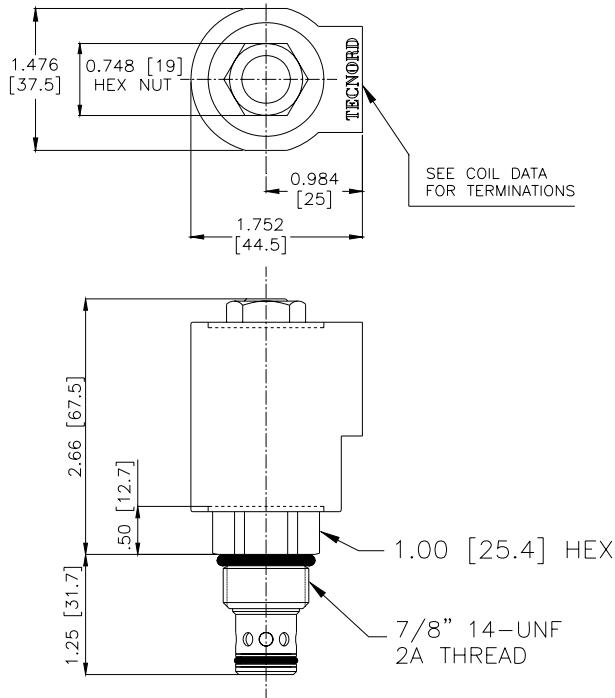


VALVE SPECIFICATIONS

Nominal Flow	15 GPM (57 LPM) from (1) to (2) 6 GPM (23 LPM) from (2) to (1)
Max Operating Pressure	4000 PSI (276 bar)
Typical Internal Leakage (150 SSU)	8 cu in/min (131 ml/min)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.39 lbs. (.17 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Coil Nut Torque Requirements	4-6 ft-lbs (5.4-8.1 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191202

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DIMENSIONS



ORDERING INFORMATION

HE-S2G - - - -

OPTIONS

Buna Standard **00**
 Viton Standard **V0**

Blank
N
S

BODIES

Without Body
 1/2" BSP Ports
 #8 SAE Ports

Note: Aluminum, NOT durability rated for 4000 PSI. Consult factory options.

VOLTAGE (*other voltages on request)

12 12 VDC
24 24 VDC
22 220 VAC without internal rectifier

"L" COIL TERMINATION

(All DC Except as Noted)

DL Double Lead
 (* several types of termination can be attached on leads on request)

HC DIN 43650 (Hirschman) – (AC & DC)
DI Deutsch – Integral DT04-2P

LIA "I" Coil AMP Superseal - Integral
LID "I" Coil Deutsch – Integral DT04-2P
LIJ "I" Coil AMP Jr. Timer - Integral
LIM "I" Coil Metri-Pack – Integral

Approximate Coil Weight: .69 lbs. (.31 kg.)

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.