

**GS02 72** UP TO **1.7 L/MIN** **.45 USGPM**  
**GS02 73** AND **210 BAR** **3000 PSI**



## POPPET TYPE

### 2 Position 2 Way

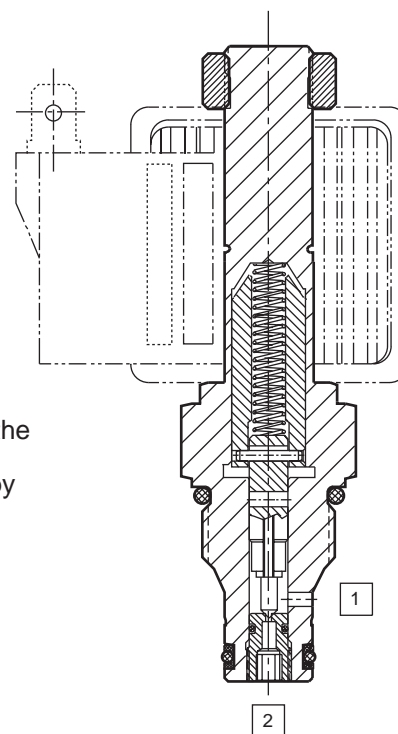
### Normally Closed

### Bi-Directional Direct Acting

- Fast response.
- One piece cartridge housing ensures internal concentricity.
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Interchangeable with 04 and 06 series poppet valves; Symmetrical coil can be reversed without affecting performance.

#### OPERATION

**De-energized** the spring holds the pilot against its seat. Pressure on the side port holds the pilot firmly closed. Pressure above 3000 psi on the nose will lift the pilot causing relief flow. **Energized** the pilot is pulled by the armature lifting it off its seat allowing flow in either direction.



PATENT  
#5,002,253

## SPECIFICATIONS

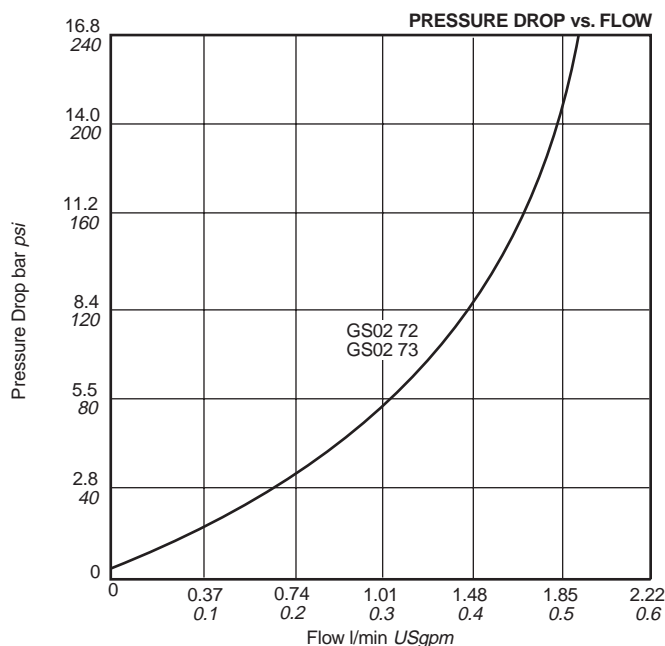
BASIC MODEL NUMBER	STANDARD BI-DIRECTIONAL <b>GS02 72</b>	ZERO DROPS BI-DIRECTIONAL <b>GS02 73</b>
SYMBOL		
NOMINAL FLOW AT Δp = 5 bar 70 psi	1 l/min 0.26 USgpm	
PRESSURE	210 bar 3000 psi	
FUNCTION	CLOSED IN BOTH DIRECTIONS WHEN SOLENOID IS DE-ENERGIZED	
RESPONSE TIME AT NOM. FLOW & PRESS.	10 m. sec.	
MAX INTERNAL LEAK AT 210 bar 3000 psi at 38 cSt 180 SSU	0.33 ml/min 5 drops/min	ZERO drops SOFT (Delrin) SEAT
SERIES CC COIL WATTS. (100% DUTY CYCLE)	19w (P' Coil)	
MIN AMPERAGE TO OPERATE VALVE AT MAX RATED PRESSURE & FLOW	75% OF NOMINAL AMPERAGE, DETAILS: COIL DATA SHEET page 204	
INSTALLATION	UNRESTRICTED	
FLUID *	MINERAL OIL OR SYNTHETIC FLUID WITH LUBRICANT PROPERTIES	
IDEAL VISCOSITY *	15-50 cSt 80-230 SSU	
SEAL MATERIAL/TEMPERATURE *	NITRILE (Std.) BUNA-N VITON	STEEL SEAT -30°C to +100°C -20°F to +210°F -20°C to +150°C -4°F to +330°F  DELRIN SEAT -30°C to +100°C -20°F to +210°F -20°C to +150°C -4°F to +330°F
FILTRATION *	25 MICRONS (Nom.) OR BETTER	
CART. WEIGHT	0.14 kg 0.31 lb	
COIL WEIGHT	0.20 kg 0.44 lb	

\* IMPORTANT: See pages 582-583 for additional notes on operating conditions.

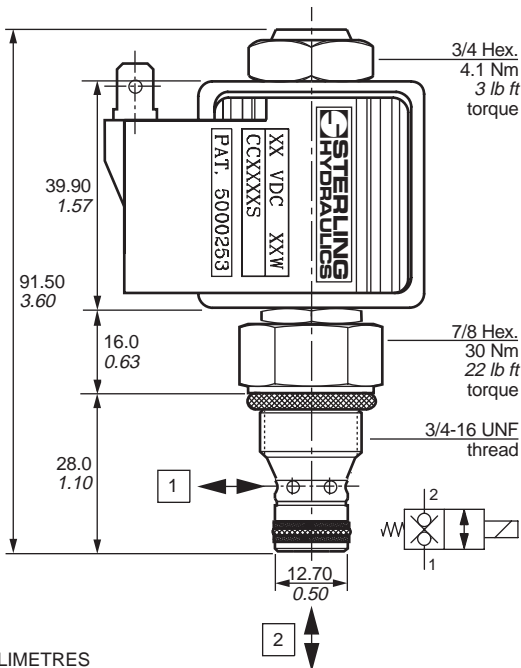
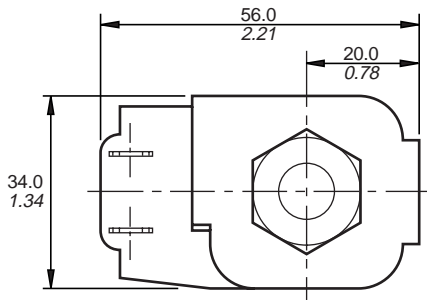
Specifications may change without notice

## TYPICAL PERFORMANCE

Measured at 30cSt 140 SSU (For cartridge only)

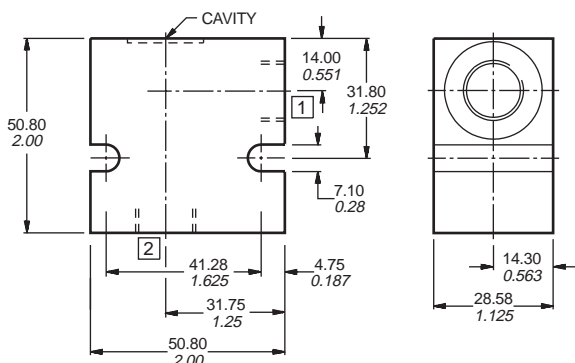


## DIMENSIONS



MILLIMETRES  
INCHES

## LINE BODY CAVITY CAV02-2: 3/4-16 Thread (8-2 Industry common cavity)



### CAVITY TOOLING FOR CAV02-2

	MM	INCH	
PILOT DRILL Ø	11.70	0.46	REAMER (STEEL) 8RM31066S
STEP DRILL	8DS31356		COUNTERBORE
REAMER (ALUM)	8RM31066A		TAP 8TP31202

MACHINING DETAILS PAGE 535

## CARTRIDGE

GS02

PRESSURE AND PERFORMANCE FEATURES (Normally Closed)	72	STANDARD Bi-directional ('P' Coil)
	73	ZERO DROPS Bi-directional ('P' Coil)
MANUAL OVERRIDE (Option)	0	NOT AVAILABLE
FILTER SCREEN (Option)	0	NOT REQUIRED
	1	60 MESH SCREEN
SEAL MATERIAL	N	NITRILE <i>BUNA-N</i> (Std.)
	V	VITON

## COIL

CC

COIL WATTAGE	P	PUISSANT	WATTAGE
COIL VOLTAGE*	012	12V DC	19w
	024	24V DC	19w
	115	115V AC	19w
	230	230V AC	22w
COIL TERMINAL*	A	AMP JR. (CC Coil Only, DC Only)	
	AD	AMP JR. WITH 3 AMP DIODE (CC Coils only, DC Only)	
	C	DOUBLE LEAD WIRE WITH CONDUIT CONNECTOR (AC Only)	
	D	DIN 43650 (AC or DC, Supplied without DIN Connector)	
	L	DOUBLE LEAD (DC Only)	
	LD	DOUBLE LEAD WITH DEUTSCH CONNECTOR DT04-2P-EP04 (DC Only)	
	LE	DOUBLE LEAD WITH 3 AMP DIODE (DC Only)	
	PF	DOUBLE LEAD WIRE WITH PACKARD FEMALE WEATHER PACK CONNECTOR 1201 5792 (DC Only)	
	PM	DOUBLE LEAD WIRE WITH PACKARD MALE WEATHER PACK CONNECTOR 1201 0973 (DC Only)	
	S	DOUBLE SPADE (DC Only)	
	W	DOUBLE SCREW (DC only)	
WE	DOUBLE SCREW WITH 3 AMP DIODE (DC Only)		
Y	SINGLE SCREW (Internally Grounded, DC Only)		

\* ADDITIONAL VOLTAGES AND OTHER TERMINALS ARE AVAILABLE, FOR DETAILS PLEASE CONSULT FACTORY

COIL DETAILS page 204

## LINE BODY

LB10

PORTING	503	3/8 SAE
	506	3/8 BSP
LINE BODY MATERIAL	A	ALUMINIUM (Anodised) TO 210 bar 3000 psi
	S	STEEL (Zinc plated) TO 420 bar 6000 psi

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SEAL KIT	SK30088N-1 (NITRILE-BUNA N) SK30088V-1 (VITON)
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**STERLING**  
**HYDRAULICS**

SOLENOID

PROPORTIONAL

DIRECTIONAL

DIVERTER

SHUTTLE

CHECK

RELIEF

SEQUENCE

PRESSURE  
REGULATOR

LOAD CONTROL

FLOW  
CONTROL

LINE  
POPPETS

CAVITIES

TECHNICAL  
DATA