

GS02 33 UP TO **13 L/MIN** **3.5 USGPM**
GS02 35 AND **350 BAR** **5000 PSI**



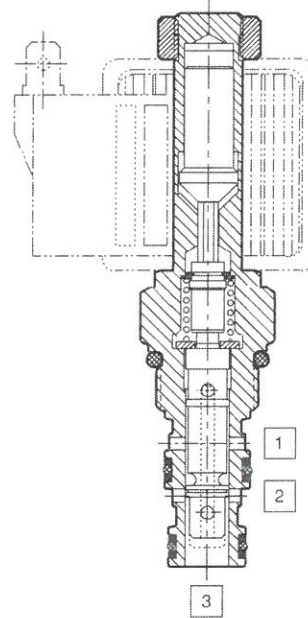
SPOOL TYPE

2 Position 3 Way Side Cylinder Port

- High flow capacity.
- One piece cartridge housing ensures internal concentricity.
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.

OPERATION

De-energized, pressure is trapped at port 1 between the spool lands. Flow is allowed in either direction at ports 2 and 3. The spring and collet maintain this position. **Energized**, the armature pushes the spool against the spring force connecting ports 1 & 2 between the spool lands and blocking the path between ports 2 & 3. Oil will flow either direction from ports 1 & 2.



PATENT
#5,002,253

SPECIFICATIONS

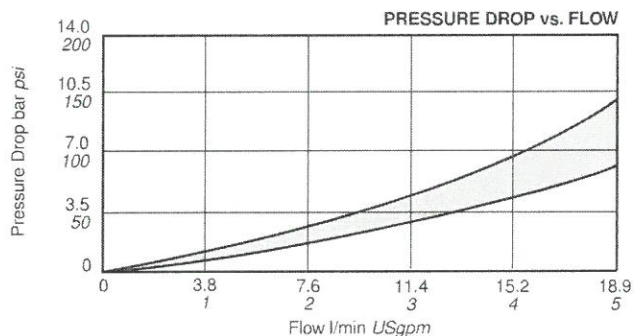
BASIC MODEL NUMBER	STANDARD GS02 33	HIGH FLOW GS02 33	HIGH PRESSURE GS02 35
SYMBOL & CROSSOVER			
NOMINAL FLOW AT $\Delta p = 5 \text{ bar } 70 \text{ psi}$	11 l/min 3 USgpm	13 l/min 3.5 USgpm	11 l/min 3 USgpm
PRESSURE	210 bar 3000 psi		350 bar 5000 psi
FUNCTION	2↔3 WHEN SOLENIOD IS DE-ENERGIZED. 1↔2 WHEN SOLENIOD IS ENERGIZED.		
SERIES CC COIL WATTS. (100% DUTY CYCLE)	14w ('S' Coil)	19w ('P' Coil)	
MAX INTERNAL LEAK AT 210 bar 3000 psi at 38 cSt 180 SSU	82 cc/min @ 210 bar 3000 psi		
MIN AMPERAGE TO OPERATE VALVE AT MAX RATED PRESSURE & FLOW	75% OF NOMINAL AMPERAGE, DETAILS: COIL DATA SHEET page 204		
PREFERABLE INPUT/OUTPUT PORT LOCATION	UNRESTRICTED		
INSTALLATION	UNRESTRICTED		
FLUID *	MINERAL OIL OR SYNTHETIC FLUID WITH LUBRICANT PROPERTIES		
IDEAL VISCOSITY *	15-50 cSt 80-230 SSU		
SEAL MATERIAL/ TEMPERATURE *	NITRILE (Std.) -30°C to +100°C BUNA-N -20°F to +210°F VITON -20°C to +150°C -4°F to +330°F		
FILTRATION *	25 MICRONS (Nom.) OR BETTER		
CART. WEIGHT	0.23 kg 0.51 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

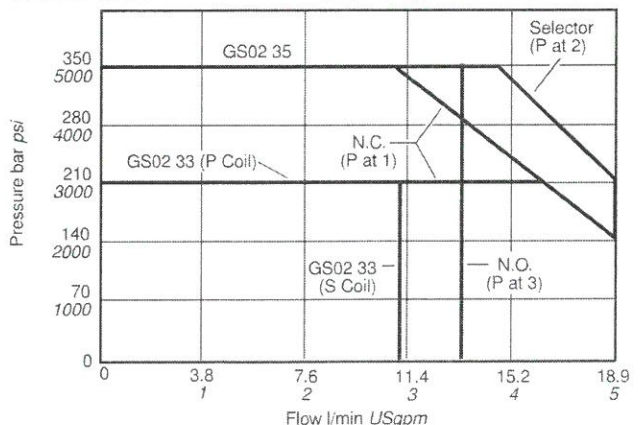
TYPICAL PERFORMANCE

Measured at 30cSt 140 SSU (For cartridge only)

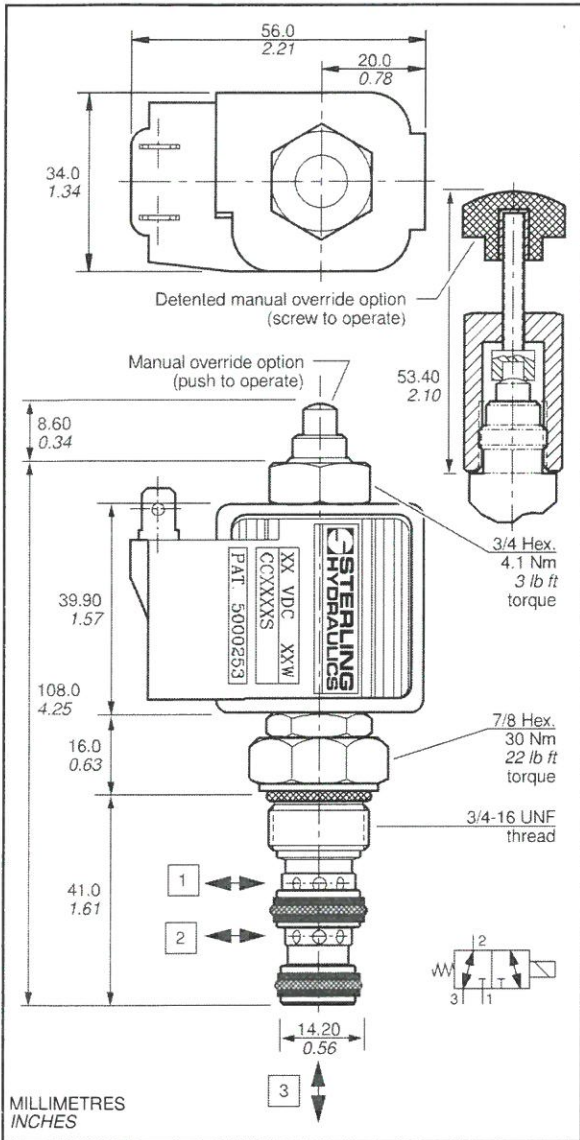


Measured at 75%
of nominal current

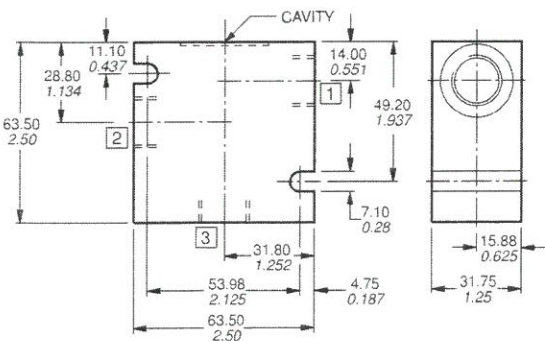
OPERATING LIMITS
Reduce flow by 10% for manual override



DIMENSIONS



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



CAVITY TOOLING FOR CAV02-3

	MM	INCH	
PILOT DRILL Ø	13.00	0.51	REAMER (STEEL) 8RM31058S
STEP DRILL	8DS31345		COUNTERBORE
REAMER (ALUM)	8RM31058A		TAP 8TP31202

MACHINING DETAILS PAGE 536

CARTRIDGE

GS02

35 0 0 N

PRESSURE AND PERFORMANCE FEATURES	33	STANDARD ('S' Coil)
	33	HIGH FLOW ('P' Coil)
	35	HIGH PRESSURE ('P' Coil)
MANUAL OVERRIDE (Option)	0	NOT REQUIRED
	1	MANUAL OVERRIDE
	2	DETENTED M.O. Part no. 900690
FILTER SCREEN (Option)	0	NOT AVAILABLE
SEAL MATERIAL	N	NITRILE <i>BUNA-N</i> (Std.)
	V	VITON

COIL

CC

COIL WATTAGE	S P	STANDARD PUISSANT	WATTAGE	
			S	P
COIL VOLTAGE*	012	12V DC	14w	19w
	024	24V DC	16w	19w
	115	115V AC	17w	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	523	3/8 SAE
	525	3/8 BSP
LINE BODY MATERIAL	A	ALUMINIUM (Anodised) TO 210 bar 3000 psi
	S	STEEL (Zinc plated) TO 420 bar 6000 psi
LINE BODY DETAILS page 511		
SEAL KIT	SK30077N-1 (NITRILE-BUNA N) SK30077V-1 (VITON)	

STERLING HYDRAULICS