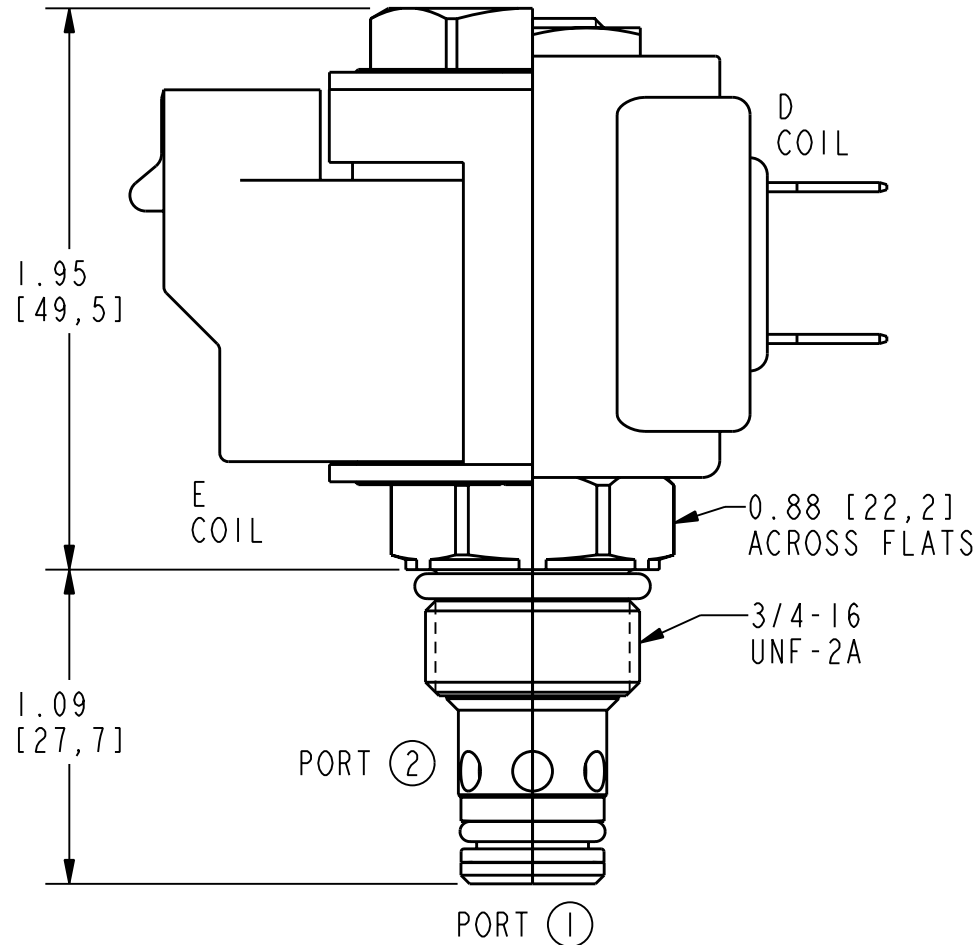
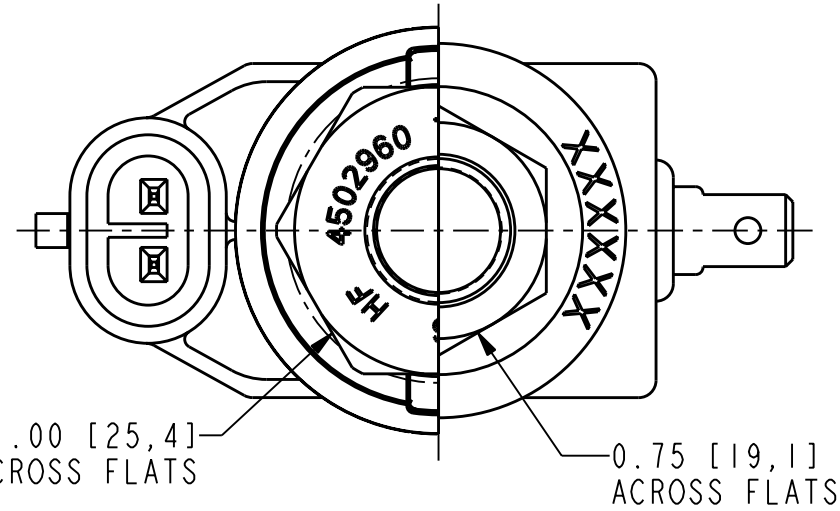
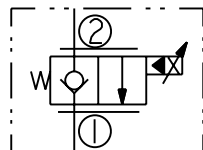


INCH  
[mm]

OUTLINE



USASI/ISO SYMBOL



WEIGHT

CARTRIDGE:  
0.23 lb [0.10 kg]

CARTRIDGE WITH COIL:  
0.94 lb [0.45 kg]

DESCRIPTION & SPECIFICATIONS

A SOLENOID-OPERATED, 2-WAY, NORMALLY CLOSED, POPPET-TYPE, PROPORTIONAL, SCREW-IN HYDRAULIC CARTRIDGE VALVE, DESIGNED FOR LOW LEAKAGE BLOCKING AND LOAD-HOLDING APPLICATIONS. WHEN DE-ENERGIZED, THE SP08-20 ACTS AS A CHECK VALVE, ALLOWING FLOW FROM 1 TO 2, WHILE BLOCKING FLOW FROM 2 TO 1. WHEN ENERGIZED, THE POPPET LIFTS TO OPEN THE 2 TO 1 FLOW PATH.

OPERATING PRESSURE: 3000 psi [207 bar]  
 MAX INTERNAL LEAKAGE: 5 drops/min. @ 3000 psi [207 bar]  
 OPERATING TEMPERATURE: -40° TO 120°C  
 MATERIALS: STEEL WITH HARDENED WORK SURFACES  
 ZINC-PLATED EXPOSED SURFACES  
 BUNA-N OR VITON O-RINGS  
 BUNA-N OR TEFLON BACK-UP RINGS

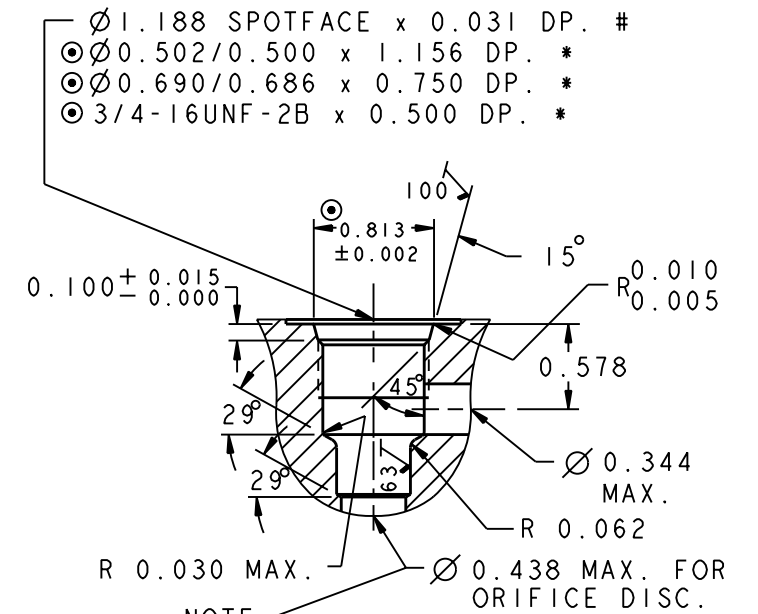
ORDERING INFORMATION

SP08-20X-X-X-XXXXX  
 BASE MODEL NO. ——— TERMINATIONS  
 S - SCREEN OPTION ——— VOLTAGE  
 CARTRIDGE ONLY ——— SEAL SELECTION  
 N - BUNA (STANDARD)  
 V - FLUOROCARBON  
 P - POLYEUNATHANE

SEAL KIT  
SK08-2N-T

INSTALLATION

VC08-2



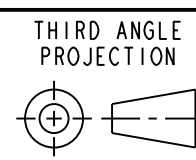
NOTE:  
 CAVITY VARIATION 'A' \*\*  
 MIN. PILOT DRILL Ø0.438 REQ. TO  
 MIN. DEPTH OF 1.81 FROM  
 SPOTFACE.

- THE ABOVE FEATURES (EXCEPT FOR PILOT DRILL & CROSS DRILL) CAN BE MACHINED SIMULTANEOUSLY WITH A FORM TOOL.
- ⊙ - THESE DIAMETERS TO BE CONCENTRIC WITHIN 0.002 T.I.R. AND PERPENDICULAR TO SPOTFACE WITHIN 0.001 T.I.R.
- \* - DEPTHS ARE FROM SPOTFACE.
- # - UNLESS OTHERWISE SPECIFIED ON MACHINING DRAWING.
- UNSPECIFIED TOLERANCES ARE ±0.005.
- \*\* - FEATURES OF VARIATION 'A' ARE ONLY REQ. IF NOTED ON SPECIFIC PRODUCT CATALOG PAGE.

INSTALLATION TORQUE:

CARTRIDGE: 19-21 ft-lb [25.8-28.5 N-m]  
 NUT: 4-5 ft-lb [5.4-6.8 N-m]

SCALE  
3:2  
DO NOT SCALE  
DRAWING



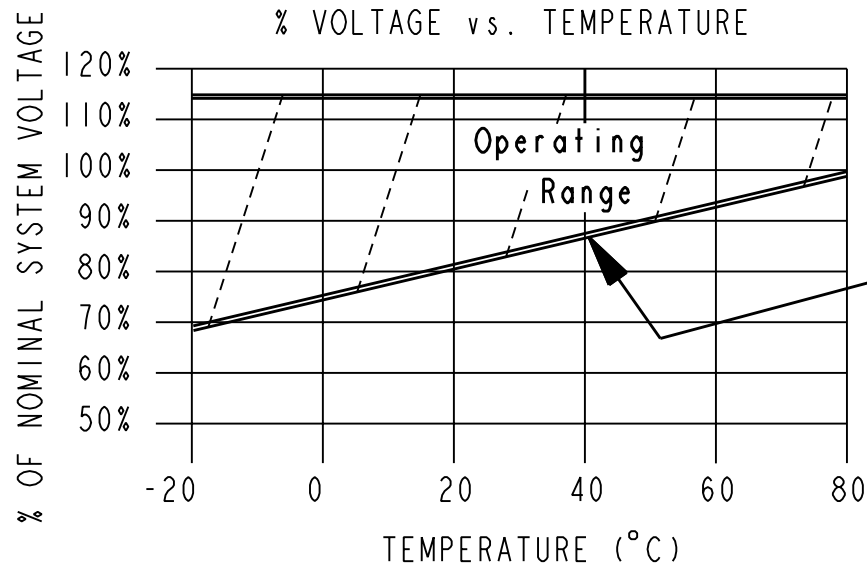
THIS DRAWING IS THE PROPERTY OF HYDRAFORCE, INC., 500 BARCLAY BOULEVARD, LINCOLNSHIRE, IL 60069, AND IS LOANED SUBJECT TO RETURN UPON DEMAND. IT IS NOT TO BE REPRODUCED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF HYDRAFORCE. HYDRAFORCE HYDRAULICS, LTD. IS A WHOLLY OWNED SUBSIDIARY OF HYDRAFORCE, INC.



DESCRIPTION  
**SOLENOID VALVE  
 NORMALLY CLOSED**

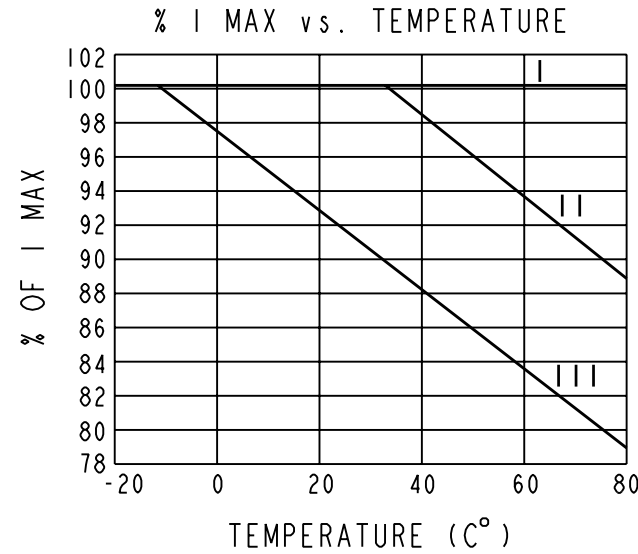
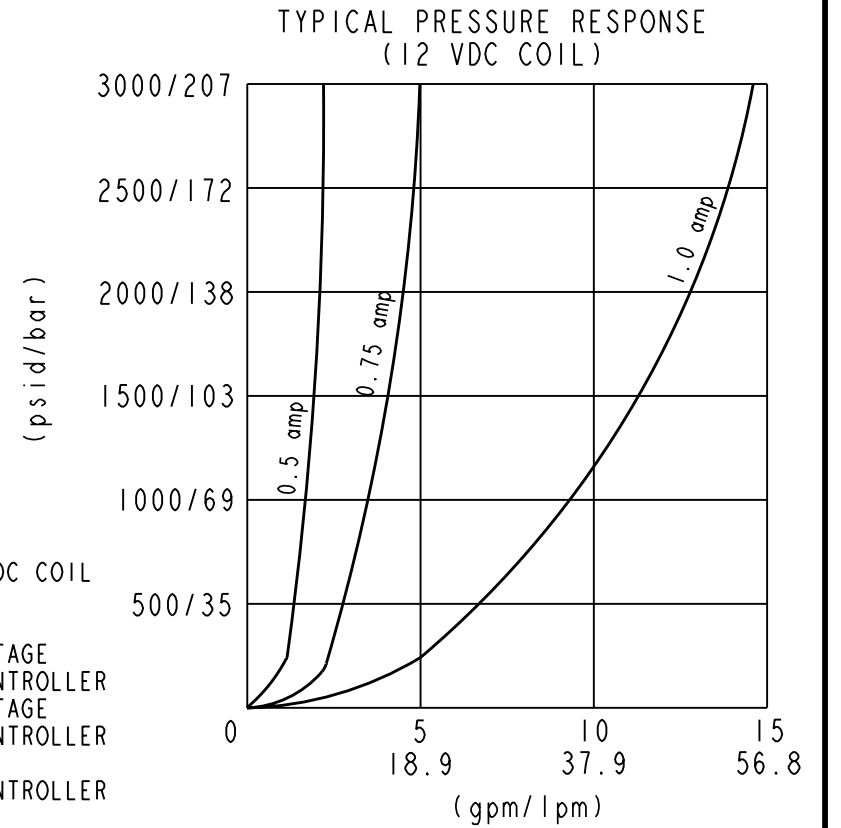
DRAWING NUMBER: SP08-20X-X-X-XXXXX  
 SHEET 1 OF 2  
 REV ECN 021236  
 BY MAM/BFB  
 DATE 11OCT2002

**FOR OTHER VOLTAGES CONSULT FACTORY**



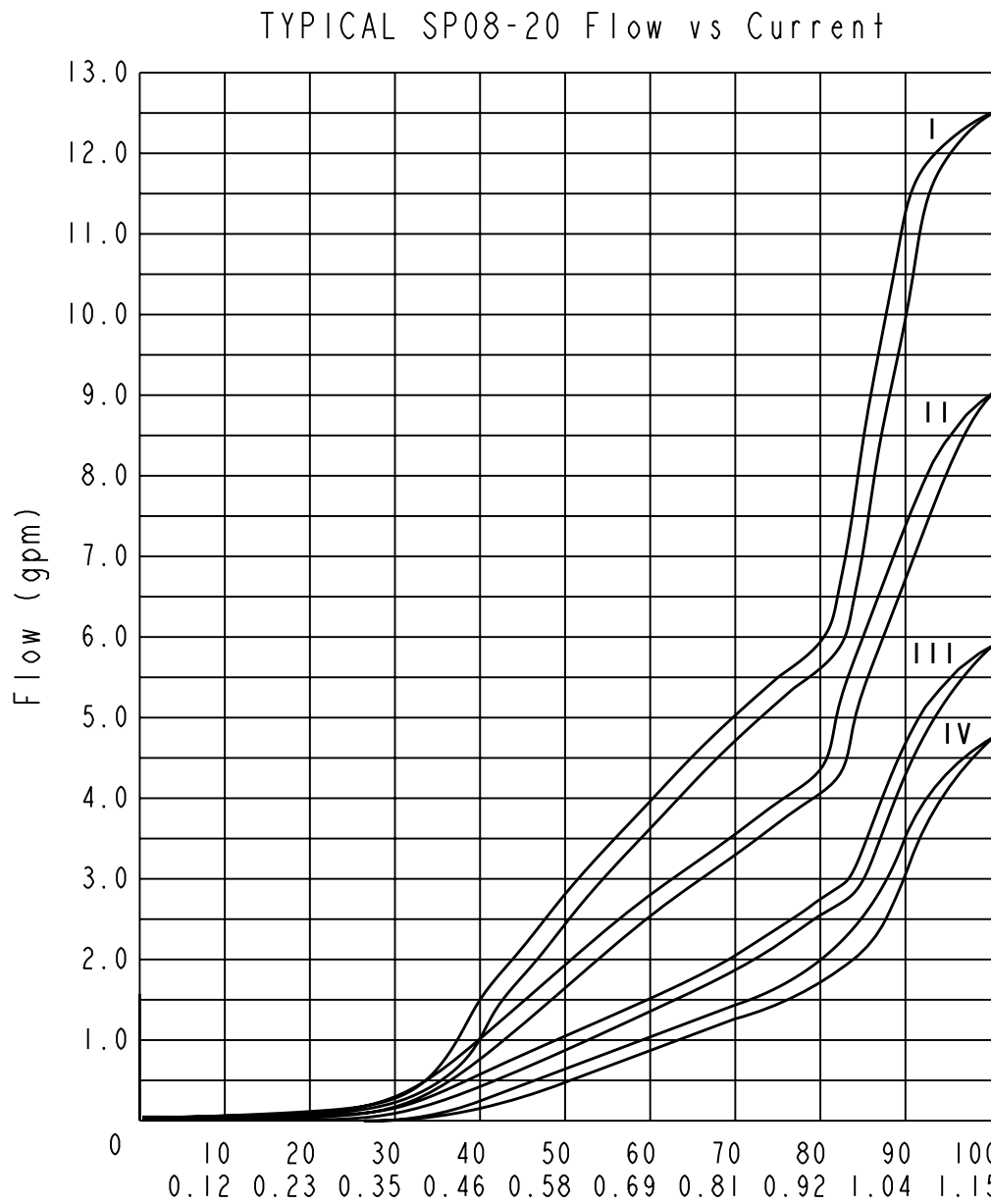
MINIMUM OPERATING VOLTAGE REQUIRED FOR RESISTANCE TO STABILIZE AT 1 AVERAGE WHILE ALLOWING 1 MAXIMUM TO BE ACHIEVED. GRAPH APPLIES TO 10 VDC OR 20 VDC COIL ALLOWING A 1.5 V DROP ACROSS AN ELECTRONIC CONTROLLER SIMILIAR TO HF P/N 4000161.

1 AVERAGE=(1 THRESHOLD + 1 MAXIMUM)/2



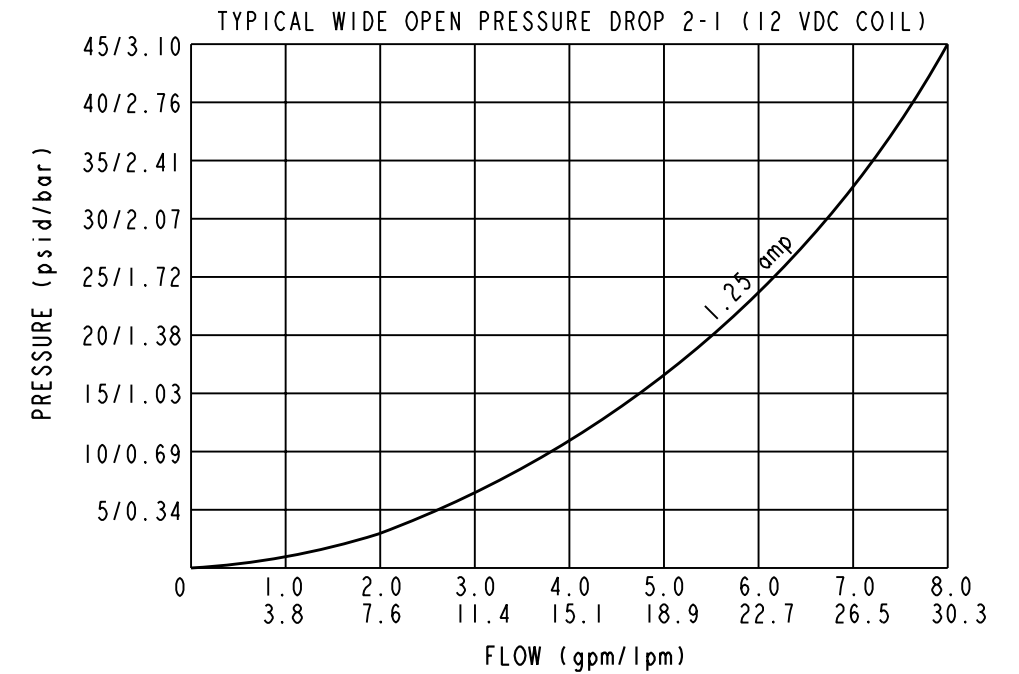
GRAPH APPLIES TO 10 VDC OR 20 VDC COIL FOR 10 VDC COIL, I MAX=1.15A.

I: 115% OF NOMINAL SYSTEM VOLTAGE MINUS 1.5 V DROP ACROSS CONTROLLER  
 II: 100% OF NOMINAL SYSTEM VOLTAGE MINUS 1.5 V DROP ACROSS CONTROLLER  
 III: 85% OF NOMINAL VOLTAGE MINUS 1.5 V DROP ACROSS CONTROLLER



Differential Pressure  
 I: 3000 psi (207 bar)  
 II: 1500 psi (104 bar)  
 III: 500 psi (35 bar)  
 IV: 250 psi (17 bar)

CURVES ARE FOR STANDARD COILS FOR "E" COILS CONSULT FACTORY



SCALE 3:2 DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION 	<b>HYDRAFORCE®</b>
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DRAWING NUMBER <b>SP08-20X-X-X-XXXXX</b>		REV ECN 021236 BY MAM/BFB DATE 11OCT2002
SHEET 2 OF 2		