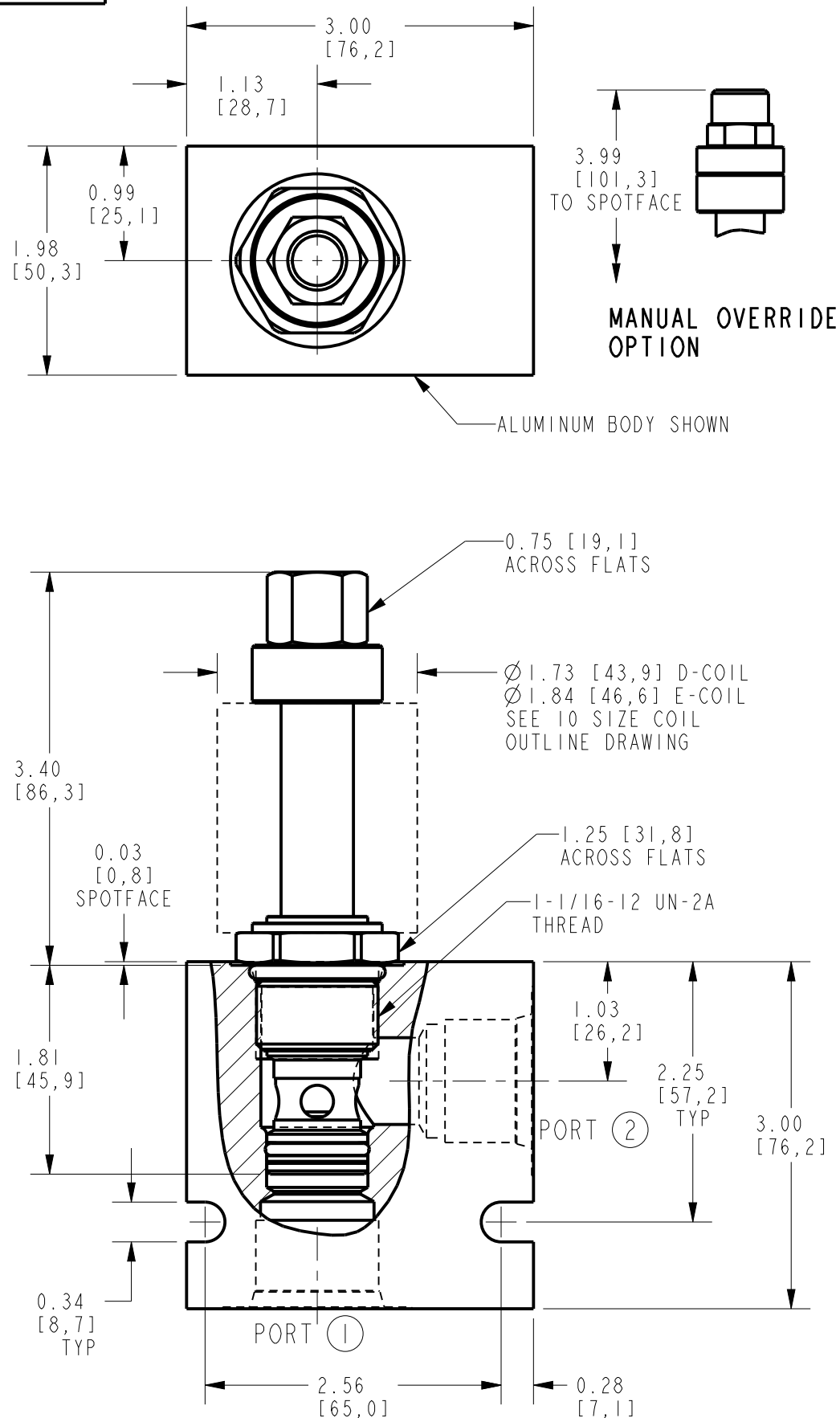


INCH
[mm]

OUTLINE



ALUMINUM BODY SHOWN

3.99 [101,3]
TO SPOTFACE

**MANUAL OVERRIDE
OPTION**

0.75 [19,1]
ACROSS FLATS

Ø1.73 [43,9] D-COIL
Ø1.84 [46,6] E-COIL
SEE 10 SIZE COIL
OUTLINE DRAWING

1.25 [31,8]
ACROSS FLATS

1-1/16-12 UN-2A
THREAD

1.03 [26,2]

2.25 [57,2]
TYP

PORT ②

PORT ①

2.56 [65,0]

0.28 [7,1]

ALL DIMENSIONS ARE FOR REFERENCE ONLY

DESCRIPTION & SPECIFICATIONS

ORDERING INFORMATION DESCRIPTION:

SPI2-21XXX-X-X-XXXX

BASE MODEL NUMBER

POPPET OPTION

NONE - BLANK

LINEAR METERING OPTION - A

MANUAL OVERRIDE OPTION - P

SCREEN OPTION - S

PORTING

CARTRIDGE ONLY - 0

SEAL OPTIONS

BUNA N - N

FLUOROCARBON - V

POLYURETHANE - P

COIL VOLTAGE

LESS COIL - 0

12 VDC COIL - 12

24 VDC COIL - 24

COIL TERMINATIONS

E-COIL OPTIONS:

METRI-PACK CONNECTOR - EY

DEUTSCH CONNECTOR - ER

D-COIL OPTIONS:

(2) LEADWIRES 18"

STANDARD LENGTH - DL

DUAL SPADES SAE J858a - DS

DIN 43650 - DG

(CONSULT FACTORY OR CATALOG
FOR OTHER AVAILABLE OPTIONS)

A SOLENOID-OPERATED, 2-PORT, NORMALLY OPEN, POPPET-TYPE, PROPORTIONAL, SCREW-IN HYDRAULIC CARTRIDGE VALVE, DESIGNED FOR LOW LEAKAGE BLOCKING AND LOAD-HOLDING APPLICATIONS. WHEN ENERGIZED, THE SPI2-21 ACTS AS A CHECK VALVE, ALLOWING FLOW FROM PORT 1 TO PORT 2, WHILE BLOCKING FLOW FROM PORT 2 TO PORT 1. WHEN DE-ENERGIZED, THE POPPET LIFTS TO OPEN THE PORT 2 TO PORT 1 FLOW PATH.

SPECIFICATIONS:

PRESSURE RATING: 3625 psi [250 bar] PER NFPA T2.6.1 R2-2000
USING 99.9 ASSURANCE AND 90% VERIFICATION LEVELS

PROOF PRESSURE: 5000 psi [344 bar]

BURST PRESSURE: 11,300 psi [779 bar]

FLOW RATING: 27 gpm [102 lpm] BASED ON 500 psi [34,4 bar] PRESSURE DROP,
SEE PERFORMANCE GRAPHS

MAXIMUM INTERNAL LEAKAGE: 5 drops/min @ 3625 psi [250 bar],
VALVE ENERGIZED TO 1.2 A

OPERATING FLUID TEMPERATURE: (BUNA N) -40°F TO 212°F [-40°C TO 100°C]

(FLUOROCARBON) -15°F TO 400°F [-26°C TO 204°C]

(POLYURETHANE) -65°F TO 225°F [-54°C TO 107°C]

STORAGE TEMPERATURE: -40°F TO 160°F [-40°C TO 70°C]

AMBIENT TEMPERATURE: -40°F TO 160°F [-40°C TO 70°C]

FLUIDS: MINERAL BASED OR SYNTHETIC HYDRAULIC FLUID WITH LUBRICATING PROPERTIES

FLUID VISCOSITY RANGE: 7.4 TO 420 cSt

MAXIMUM OPERATING CONTAMINATION LEVEL: 20/18/14 PER ISO 4406

VALVE INDUCTANCE: 197 mH

MAXIMUM CONTROL CURRENT: FOR 12 VDC D-COIL 0.85 A
(1.2 A REQUIRED TO ACHIEVE RATED LEAKAGE)

MINIMUM CONTROL CURRENT ≤ THRESHOLD CURRENT

THRESHOLD CURRENT: FOR 12 VDC D-COIL 0.25 A (SEE PERFORMANCE GRAPHS)

HYSTERESIS: < 10% UP TO 45% OF MAX FLOW (AT MAX CONTROL CURRENT),

< 5% FROM 45% OF MAX FLOW (AT MAX CONTROL CURRENT) TO MAX CONTROL CURRENT

DITHER/PWM FREQUENCY RANGE: 100-400 Hz

CORROSION PROTECTION: 960 hr SALT SPRAY PER ASTM B117

CARTRIDGE WEIGHT: 0.60 lb [0,27 kg]

INTERNAL WETTED SURFACE AREA: 32.5 in² [210 cm²]

SEAL KIT: SK12-2X-T (X = SEAL OPTION)

INSTALLATION SPECIFICATIONS:

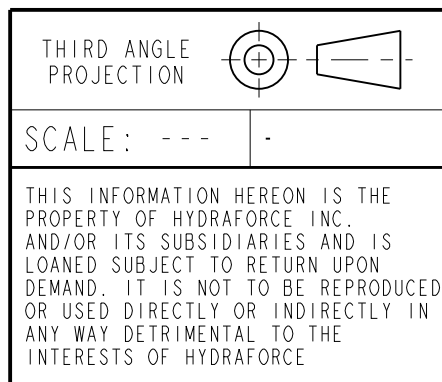
CAVITY: VC12-2

CARTRIDGE TORQUE: 33-37 ft-lb [44,8-50,2 N-m]

COIL NUT TORQUE: 5-7 ft-lb [6,8-9,5 N-m]

ORIENTATION RESTRICTIONS: NONE

(REFERENCE ALL SHEETS)

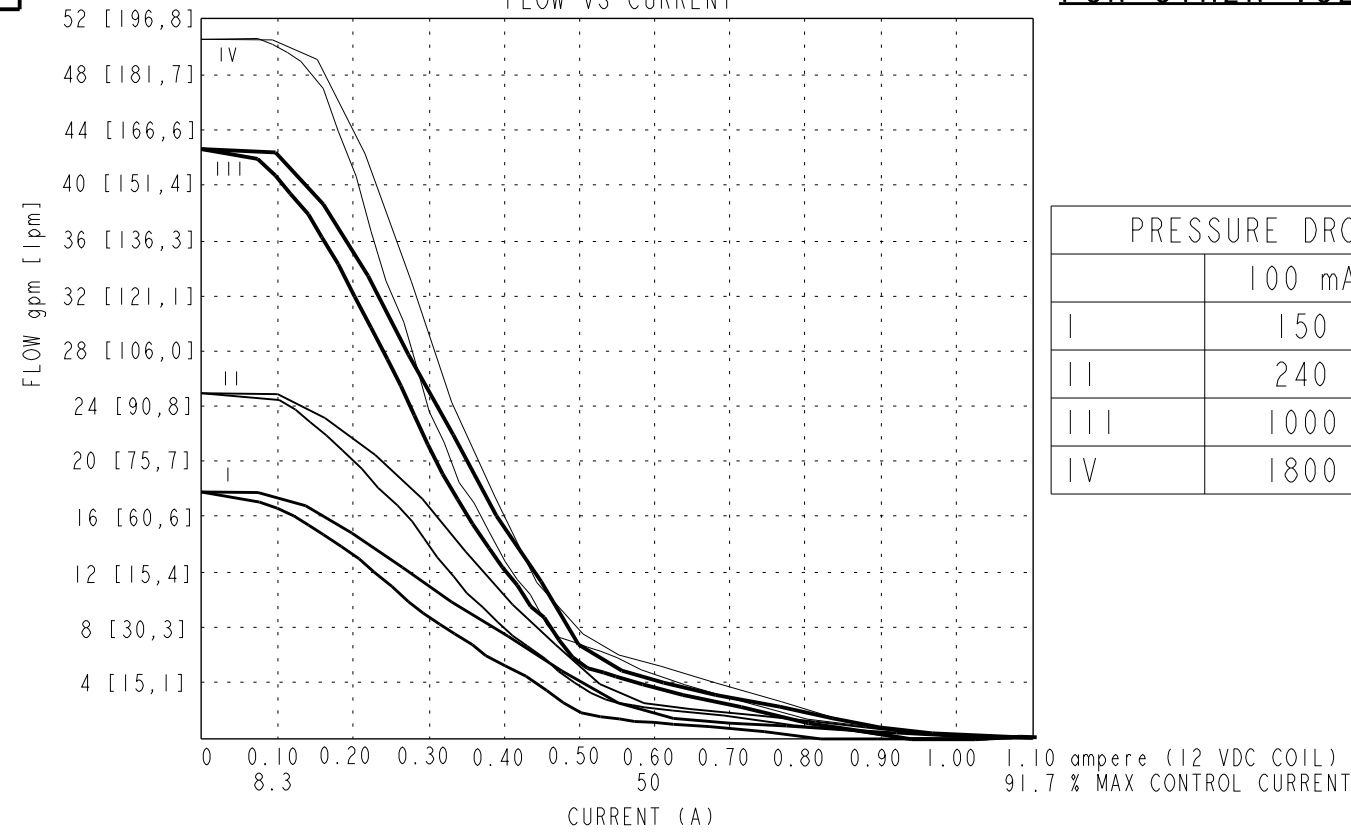


DESCRIPTION
**SOLENOID PROPORTIONAL VALVE
POPPET, 2 PORT, NORMALLY OPEN**

DRAWING NUMBER	SHEET 1 OF 2	REV	3
SPI2-21XXX-X-X-XXXX		ECN	0009866
		BY	WDI/KCF
		DATE	07JUL2015

INCH
[mm]

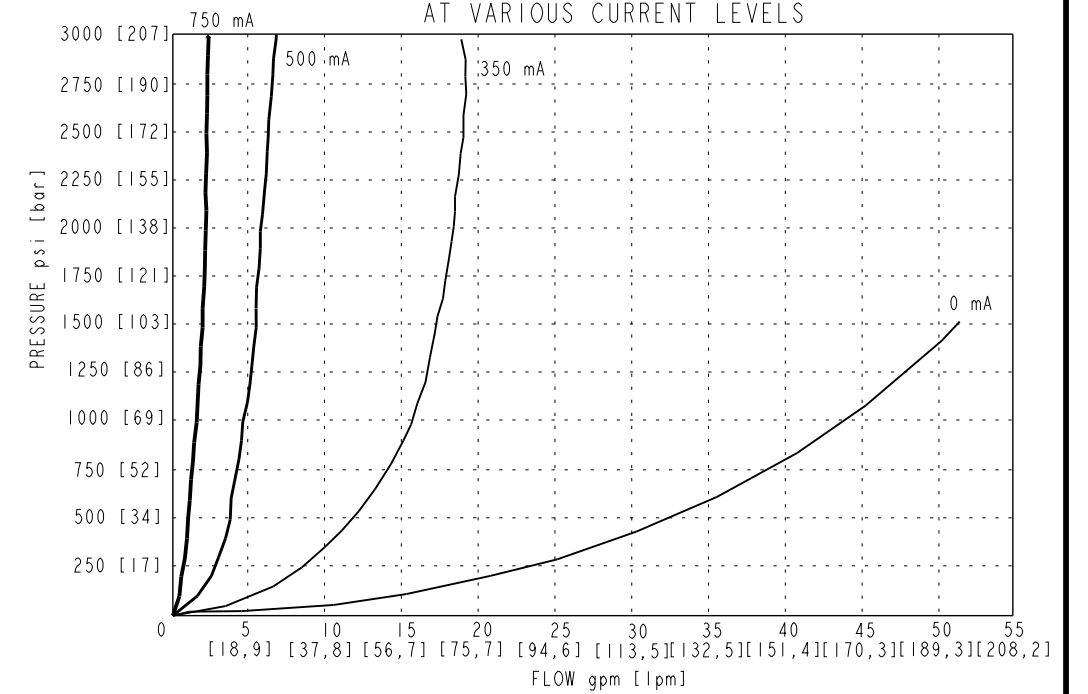
SPI2-21
FLOW VS CURRENT



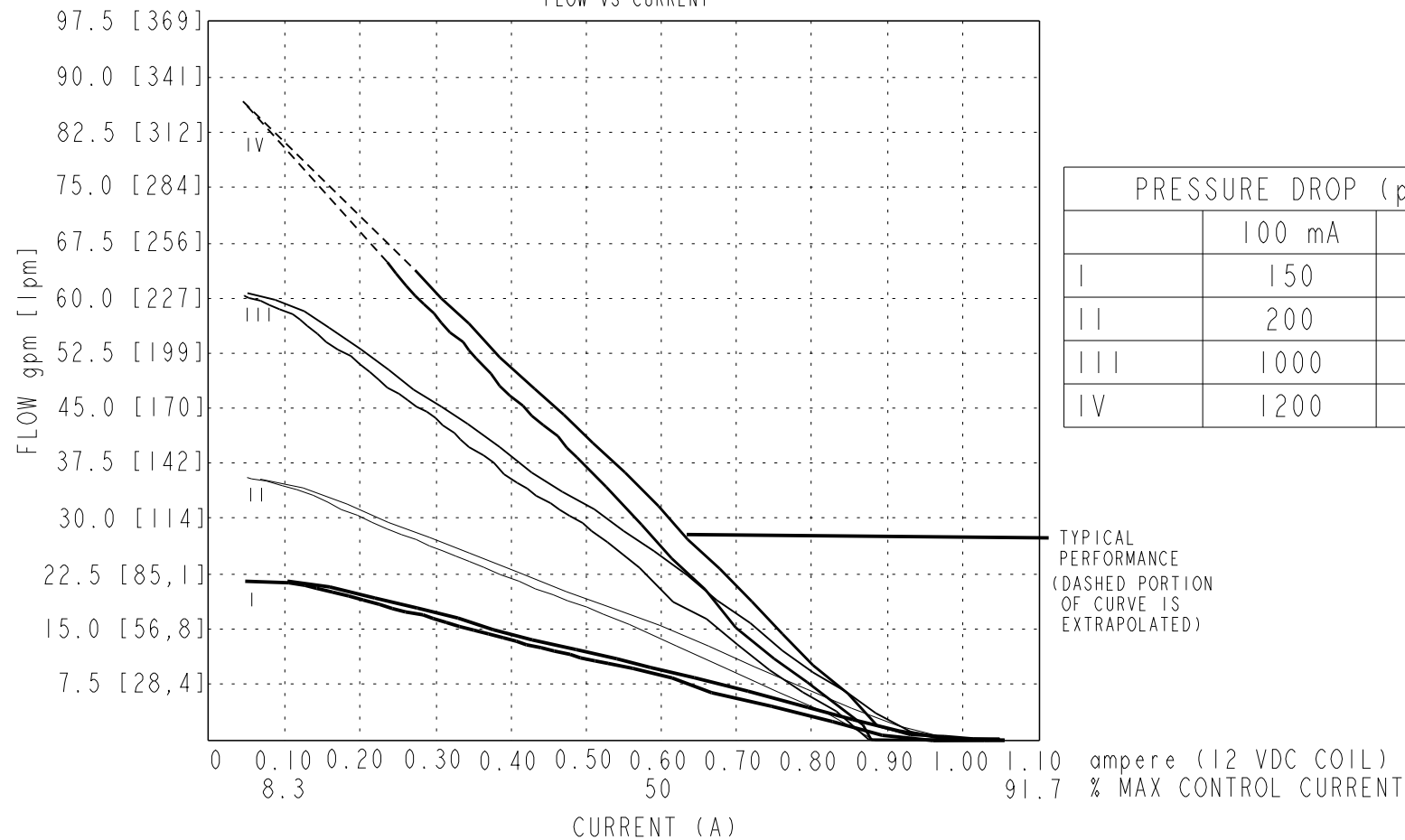
FOR OTHER VOLTAGES CONSULT FACTORY

	100 mA	1200 mA
I	150	200
II	240	500
III	1000	1500
IV	1800	3000

SPI2-21
PRESSURE DROP VS FLOW
AT VARIOUS CURRENT LEVELS

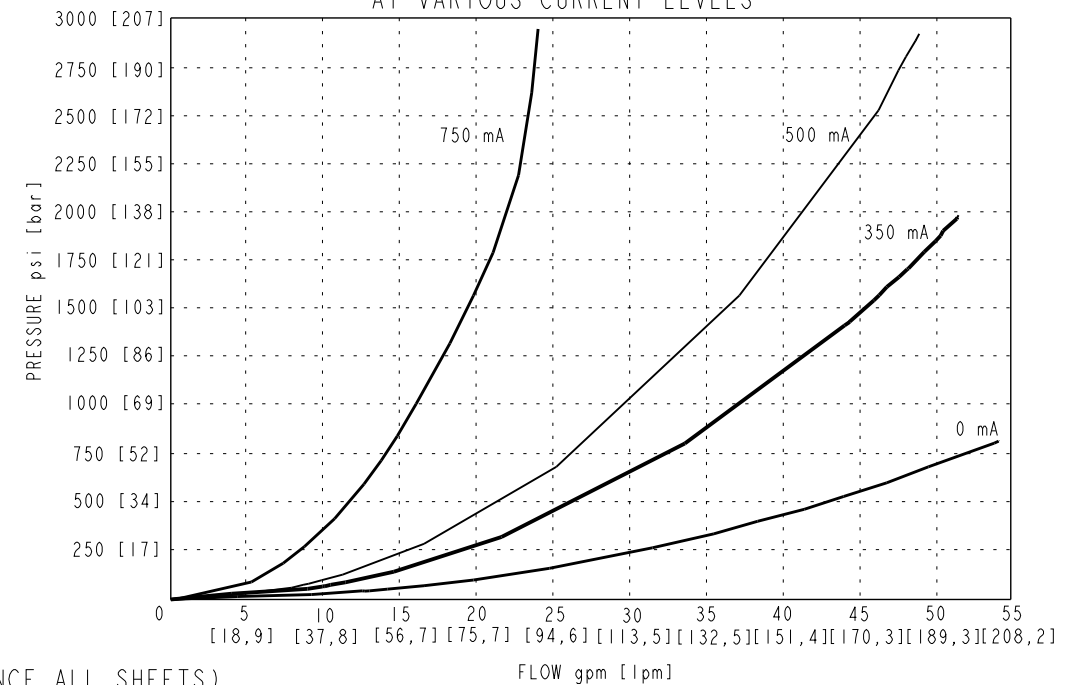


SPI2-21A
FLOW VS CURRENT



	100 mA	1200 mA
I	150	200
II	200	500
III	1000	1500
IV	1200	3000

SPI2-21A
PRESSURE DROP VS FLOW
AT VARIOUS CURRENT LEVELS



(REFERENCE ALL SHEETS)

THIRD ANGLE PROJECTION		
SCALE: --- -		
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	DRAWING NUMBER SPI2-21XXX-X-X-XXXX	SHEET 2 OF 2