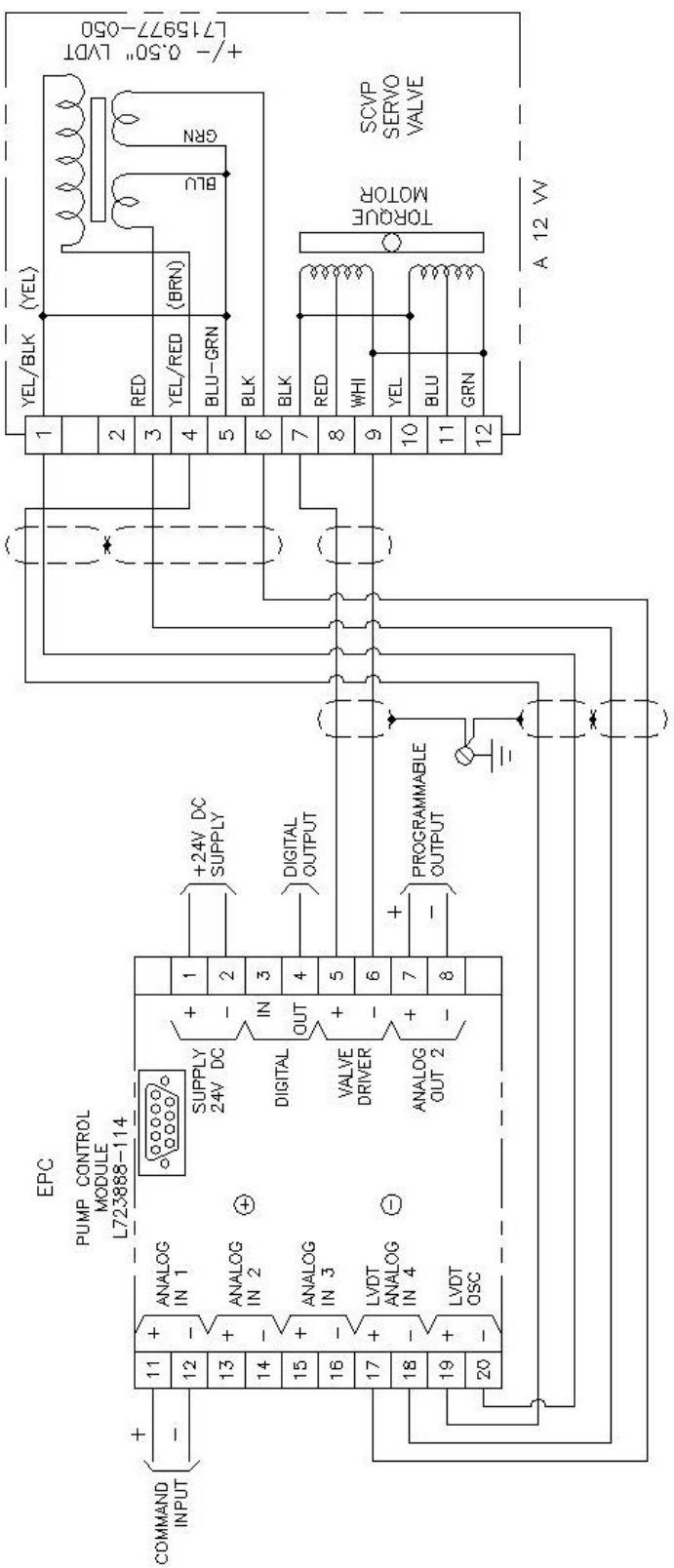

PUMP ROT.	LVDT LOC.	PORT of DELIV	ANALOG INPUT 1 POLARITY COMMAND (852)	ANALOG INPUT 4 POLARITY (LVDT) (845)	MODULE POLARITY CURRENT (802)	MODULE CURRENT LIMIT (803)		DITHER OUTPUT CURRENT (875)	ANALOG INPUT 4 (LVDT FB) (GAIN) (840)		ANALOG INPUT 4 (LVDT FB) (GAIN) (841)		ANALOG INPUT 4 (LVDT FB) (OFFSET) (843)	STROKE CONTROL GAIN (804)		(805)
PROGRAM MENU ITEMS			CONFIGURATIONS (SOFTWARE SWITCHES)			CALIBRATIONS (SOFTWARE VALUES)										
						%	mA									
CW	LHSFS	A	NORMAL	NORMAL	NORMAL	100	250	100	33*	COR	0*	FINE	512*	20*	Kp	0* Ki
CW	RHSFS	A	INVERT	NORMAL	NORMAL											
CCW	LHSFS	A	INVERT	NORMAL	NORMAL											
CCW	RHSFS	A	NORMAL	NORMAL	NORMAL											

OPTIONAL ENTRY FOR CUSTOMER SPECIFIC APPLICATION

* INITIAL CALIBRATIONS ARE ADEQUATE FOR MOST APPLICATIONS BUT MAY NEED TO BE OPTIMIZED FOR SPECIFIC APPLICATIONS

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Bulletin 836269C

General Notes: This document references schematic wiring standards and software configurations/calibrations required to operate a specific pump, utilizing the Oilgear EPC amplifier. The pump is identified by a partial model code. Complete model codes are defined in pump bulletins. “L” (list) numbers or serial numbers may also identify pumps. Contact the Oilgear Company to cross reference “L” and serial numbers to model codes.

Reference Technical Document 836261 for the “Flow Control Program” and Technical Document 836260 for the EPC “User Manual”. Both may be accessed from the Internet at www.oilgear.com.

Caution! Improper wiring, configurations & calibrations may result in loss of pump control, improper operation, damage to components, machinery and even personal injury.

(*) Calibration data for LVDT feedback, pump response gain, and LVDT offset, as listed in the table, are initial values. The initial values (*) are adequate for many applications but may need to be optimized for specific applications.

- **Pump Rotation** - Pumps are designed for clockwise (CW) or counter-clockwise (CCW) rotation.
- **LVDT Location** - Pump & control design, mounting clearance and/or mounting preference, determine LVDT location. Location is defined as left hand side facing shaft (LHSFS), right hand side facing shaft (RHSFS) or top. The LVDT may be inside a control housing or as a component (visible). See “LVDT Invert” for control considerations.
- **Port of Delivery** - Pumps may be one way, neutral to “A” or “B” port or two way (bi-directional) “A” to neutral to “B”, depending on pump design or application. The table assumes “A” port delivery.
- **Polarity (Command)** - Commands may be either current (see Technical Document 836261) or voltage, plus (+) or minus (-) DC voltage polarity, for port of delivery as determined above. The table assumes a plus (+) voltage for “A” port delivery for standardization.
- **Polarity (LVDT)** - The control/LVDT physical location, and schematic diagram wiring, determine LVDT feedback voltage polarity. “LVDT Invert” is set to insure command and feedback cancel.
- **Polarity, Module (Current)** - The control/servo valve mounting physical location, and schematic diagram wiring, determine servo valve pilot flow to pump stroking pistons, and ultimately pump “Port of Delivery”. The table assumes a “Command polarity” and “Current Polarity” for “A” port delivery, unless otherwise listed.
- **Dither (Output Current)** - Provides approximately 200 Hz current pulse to help keep servo valve from sticking (silting up). Value is based on valve design.
- **Current Limit** - Matches electrical maximum saturated current output, to design limit specification of servo valve. Wrong current limit entries may result in servo valve reduced performance and life.
- **LVDT Feedback Gain** - Matches maximum electrical LVDT feedback signals, to pump full mechanical stroke (flow) range. Analog Output #2 is configured for LVDT 0 to approximately +/- 10V DC feedback as a standard for customer use.
- **LVDT Feedback Offset** - Matches minimum electrical LVDT feedback signals, to pump minimum mechanical flow (neutral). The initial 512* assumes an ideal condition. Hydraulic circuit design, mechanical pump machining & electrical component, tolerances, may require resetting the offset.
- **Stroke Controller Gain** - Sets pump response (reaction time) and accuracy of stroking.

A 12 VV Notes:

- The V-V control contains both the LVDT and torque motor servo valve (SCVP) in a common housing and may be mounted on either side of the pump.
- Several sizes of servo valve are available for this pump, which affect the hydraulic gain (response) and will affect optimum “Gain Pump Response” calibration.
- Pump mechanical stroke is rated at approximately +/- 0.318 inch.