

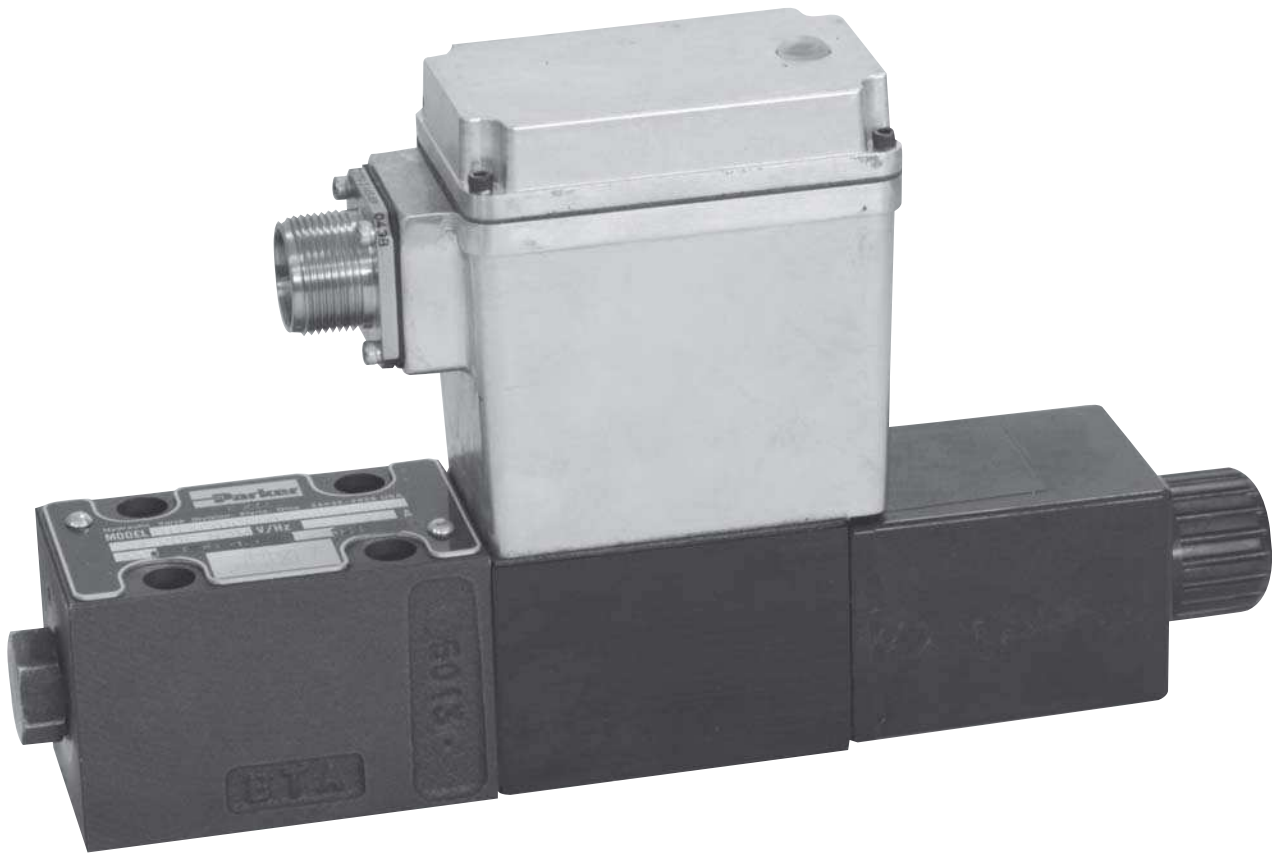


Bulletin 2586-M1/USA  
Installation Guide

# Series D1TX 20 Design

Effective: August 12, 1996

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<b>Technical Information</b> .....	1
General Description .....	1
Operation .....	1
Features .....	1
Specifications .....	1
<b>Functional Description (Version AJ)</b> .....	2
Configuration Definition .....	2
Installation .....	2
Standard Driver — Version AJ .....	2
<i>Figure 1: Version AJ Functional Block Diagram</i> .....	2
<b>Wiring &amp; Initial Startup (Version AJ)</b> .....	3
Initial Startup .....	3
Interface Wiring, 6 Pin I/O Connector .....	3
<i>Figure 2: Version AJ Board Setup</i> .....	3
<i>Figure 3: Interface Wiring Diagram, Version AJ</i> .....	3
<b>Functional Description (Version BJ)</b> .....	4
European Version BJ .....	4
<i>Figure 4: Version BJ Functional Block Diagram</i> .....	4
<b>Wiring &amp; Initial Startup (Version BJ)</b> .....	5
Initial Startup .....	5
Interface Wiring, 7 Pin I/O Connector .....	5
<i>Figure 5: Version BJ Board Setup</i> .....	5
<i>Figure 6: Interface Wiring Diagram, Version BJ</i> .....	5

**Contents**

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<b>Functional Description (Versions DJ &amp; DK)</b> .....	6
Standard Driver with Deadband Eliminators — Versions DJ & DK .....	6
<i>Figure 7: Version DJ Functional Block Diagram</i> .....	6
<b>Wiring &amp; Initial Startup (Versions DJ &amp; DK)</b> .....	7
Initial Startup .....	7
Interface Wiring, 6 Pin I/O Connector .....	7
<i>Figure 8: Versions DJ &amp; DK Board Setup</i> .....	7
<i>Figure 9: Interface Wiring Diagram, Versions DJ &amp; DK</i> .....	7
<b>Options &amp; Adjustments</b> .....	8
Spool Position Monitoring .....	8
LVDT Null .....	8
Reference Voltages (AJ, DJ, DK) .....	8
Manual Overrides .....	8
Min Adjustments (BJ, DJ, DK) .....	8
Max Flow Adjustments (AJ, BJ, DJ, DK) .....	8
Bias .....	8
Current Command .....	8
<b>Trouble-Shooting</b> .....	9
<b>Installation Information</b> .....	10
<b>Dimensions</b> .....	11
<b>Technical Information</b> .....	12
<b>Ordering Information</b> .....	13
<b>Offer of Sale</b> .....	14

## General Description

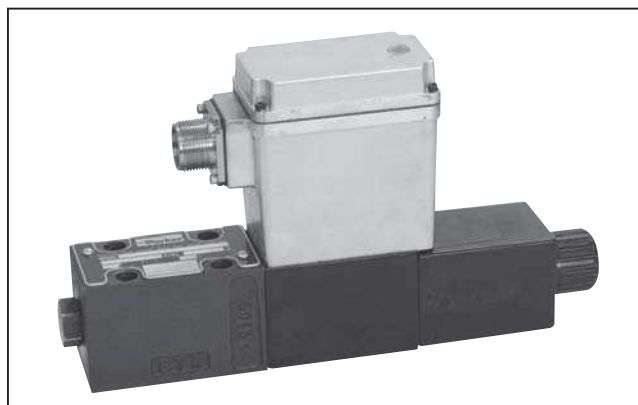
The D1TX throttle valve is designed to vary the amount of fluid flow in proportion to a variable input command signal. The valve will respond to voltage command signals of 0 to +10 VDC, or current command signals of 4-20 mA. The valve features on-board electronics and built-in spool position feedback for low hysteresis.

## Operation

The amount of flow is dependent upon the orifice size and the pressure drop across the valve. The flow will vary if the upstream supply pressure or downstream load pressure changes. To compensate for these changes in pressure drop, use Parker load compensator module, #KADZ020Z07.

A minimum of 20 PSI must be maintained on the "Y or L" ports for proper operation. An external supply of 20 PSI or a 20 PSI check valve may be used for this purpose.

To simplify piping of the valve for the maximum flow output, order our flow conversion module, #FCB03\*\* which has the 20 PSI check valve already installed. (See schematics on page 12). This module converts all of the flow paths internally. Connect the "P" for supply pressure, "B" for outlet flow, and "Y or L" for drain line flow.



## Features

- **Integral Electronics** — Eliminates the time consuming and often costly wiring between the valve and driver card. Provides a fully tested valve/driver package.
- **LVDT** — The spool position feedback provides low hysteresis.
- **Manual Override**
- **Diagnostic Indicator** — An LED confirms movement of the spool.
- **Rugged Construction** — Integral electronics are packaged in a rugged die cast aluminum enclosure to protect it from harsh environments.
- **Electrical Interface** — Standard MS style connector for interface to computers and PLC's.

## Specifications

Interface	NFPA D03, CETOP 3	<u>Version</u>	<u>Command Signal</u>	<u>Input Impedance</u>
Maximum Pressure	207 Bar (3000 PSI)	AJ, BJ, DJ	0 to + 10 VDC Sgl. Coil	100 k ohms
Drain Line Pressure ("T" and "Y" or "L")	1.4 Bar (20 PSI) minimum 35 Bar (500 PSI) maximum	DK	0 to + 5 VDC Sgl. Coil	100 k ohms
Flow	Up to 61 LPM (16 GPM) (Dual Ported)	AJ, BJ, DJ	4 to 20 mA Command	499 ohms
Frequency Response	> 20 Hz with 10% CMD at 50% spool stroke	DK	4 to 20 mA Command	249 ohms
Step Response	Versions AJ, BJ, DJ: Full Shift, <60 mS Version DK: Full Shift, <70 mS	Operating Temp. Range (Ambient)	24 volt model: -20° to 60°C (-4° to 140°F) 12 volt model: -29° to 60°C (-20° to 140°F)	
Repeatability	< 0.5% of spool stroke	Spool Position Voltage	Version AJ, BJ, DJ: -10 VDC Version DK: -5 VDC	
Hysteresis	< 1.5%	Reference Supply	+10 VDC @ 10 mA (AJ, BJ, DJ) +5 VDC @ 10 mA (DK)	
Nominal Deadband	10%	Low Power Fault Protection	20 VDC (AJ, BJ, DJ) 11 VDC (DK)	
Power Requirements	24 VDC @ 3 amps nom.** (AJ, BJ, DJ) Range 21 to 30 VDC regulated 12 VDC @ 3 amps nom. (DK)** Range 11.5 to 15 VDC regulated <b>**4 amp regulated power supply recommended</b>	Diagnostics	Red LED for spool position	
		Viscosity Range	75 - 600 SSU	
		Fluid Cleanliness	ISO Class 16/13, SAE Class 4 or better	
		Protection Class	Nema 4 (IP65)	

**Configuration Definition**

All the D1TX variations incorporate an internal spool position feedback.

The versions include the standard driver (AJ), a European version (BJ) and the deadband versions (DJ & DK). All versions have a bias adjustment, max flow adjustment, and the current command option. The BJ, DJ and DK versions have a min flow adjustment.

Detailed setup instructions can be found in the Options and Adjustments section. Not all jumpers and potentiometers are functional on every version.

Note: the LVDT is mounted on the opposite side of the valve on the D1FX series valve. For this reason the potentiometers are labeled for the opposite side flow. MAX A potentiometer limits the flow for P → B.

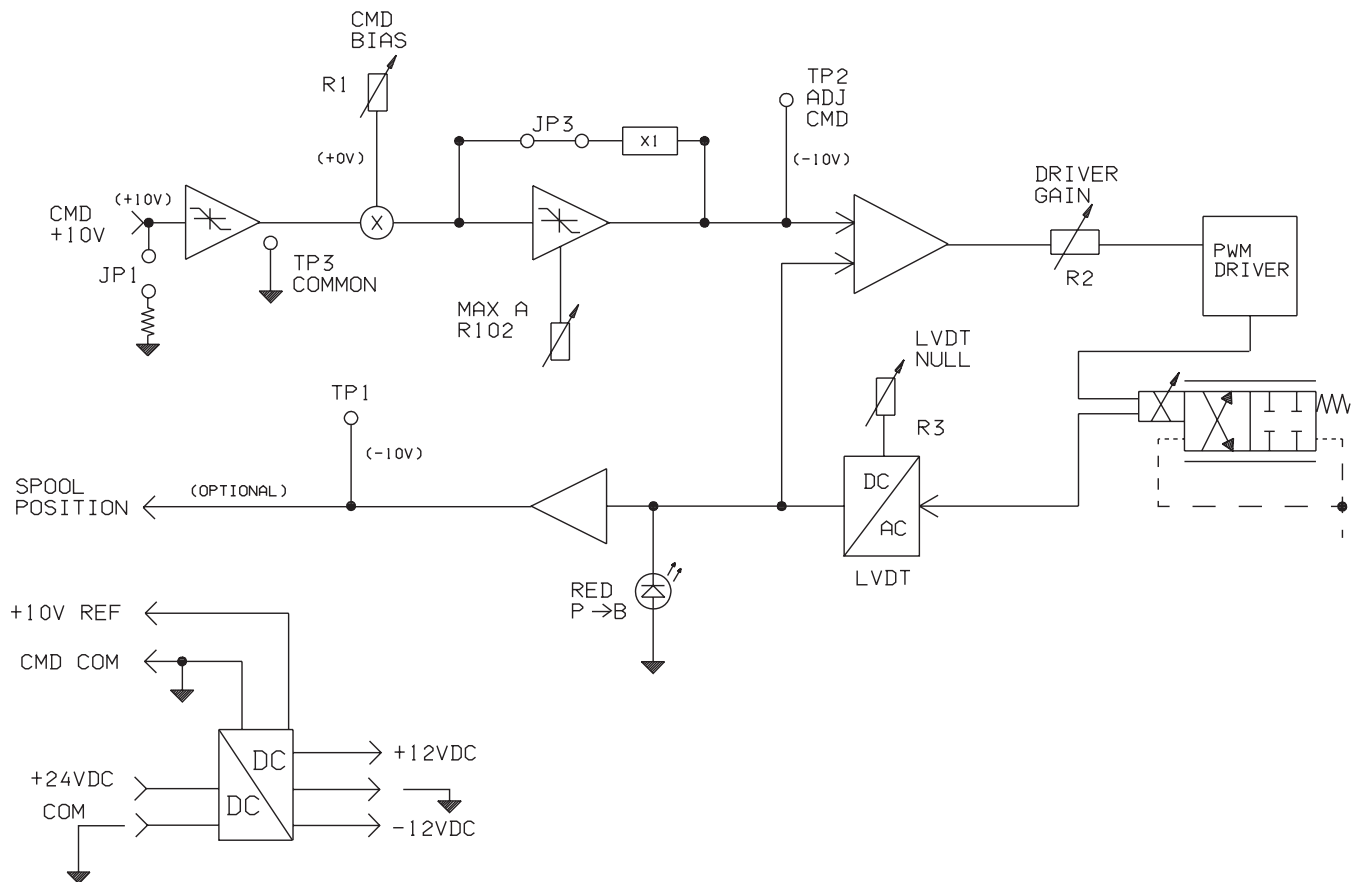
Detailed setup instructions for each version are provided in the following pages.

**Installation**

Refer to the back of the manual for fluid recommendations, mounting restrictions, and other general installation instructions.

**Standard Driver — Version AJ**

Refer to the Functional Block Diagram in figure 1. This is the standard 24 VDC version which accepts either a 0 to +10 VDC or 0 to 20 mA command input. Output flow is proportional to the spool position which follows the adjusted command signal. A +10 VDC reference voltage and a signal common are available on Pins A and F of the I/O connector for a command potentiometer. The spool position is available for diagnostic use.



**Figure 1 — Version AJ Functional Block Diagram**

**Diagnostic Chart**

CMD	TP2 Adj Cmd	FLOW	LED	TP1 Spool
+10V	-10V	P → B	Red	-10V

**Initial Startup**

**Factory Settings:**

- LVDT hydraulically nulled (R3)
- Max A adjusted fully CW
- JP3 inserted: X1 Cmd gain
- Bias set for 0 V (R1)

**Initial Startup:**

- Turn on the DC power supply.
- Apply the Command input
- Slowly increase the system pressure
- Cycle the command and verify that the flow is proportional to the input.

**Options: (Refer to Options/Adjustments section)**

- Spool position monitoring (TP1 or Pin C)
- Max flow adjustments
- Reference voltage
- Current Cmd
- Bias

**Interface Wiring, 6 Pin I/O Connector**

Function	Description	EHC** 8 Cable	
		Pin	Wire Color
Power Supply	24VDC Nom. +Power Supply Common	E	Red
		D	Grn & Yel
Command	+10 VDC signal 4-20 mA	B	Blue
Reference Voltage	+10 VDC Cmd Com	A	Orn
		F	Wht
Spool	-10 VDC	C	Blk

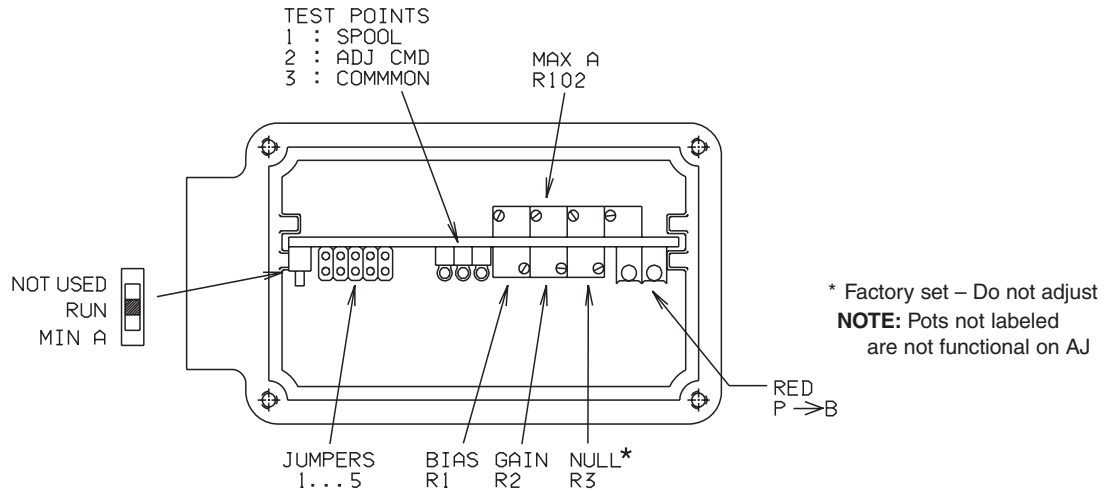


Figure 2 — Version AJ Board Setup

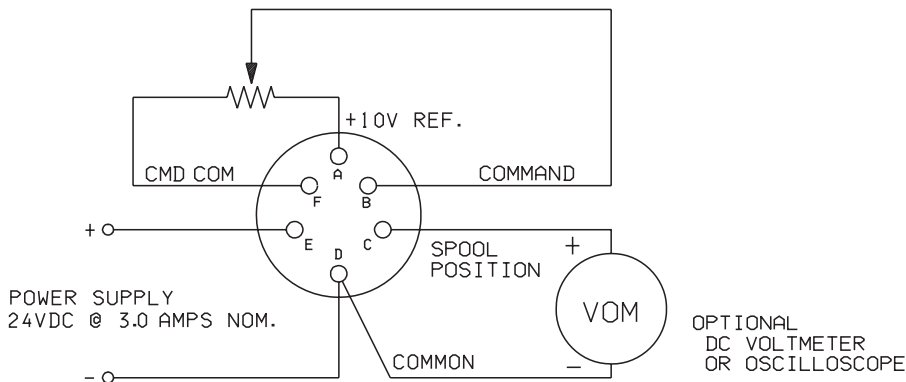


Figure 3 — Interface Wiring Diagram, Version AJ

European Version BJ

Refer to the Functional Block diagram in Figure 4. The basic logic is the same as version AJ.

The power supply requirement is still +24 VDC but a separate wire has been added for chassis grounding. Pin G of the 7 pin connector is connected internally to the valve body but isolated from the electronics. An Enable signal is required at Pin C or the solenoid will

remain de-energized.

The command input accepts either voltage or current inputs and has differential input capability for noise immunity. Output flow is proportional to the spool position which follows the adjusted command signal. The spool position may be observed at TP1 or at Pin F. Reference voltages are not available.

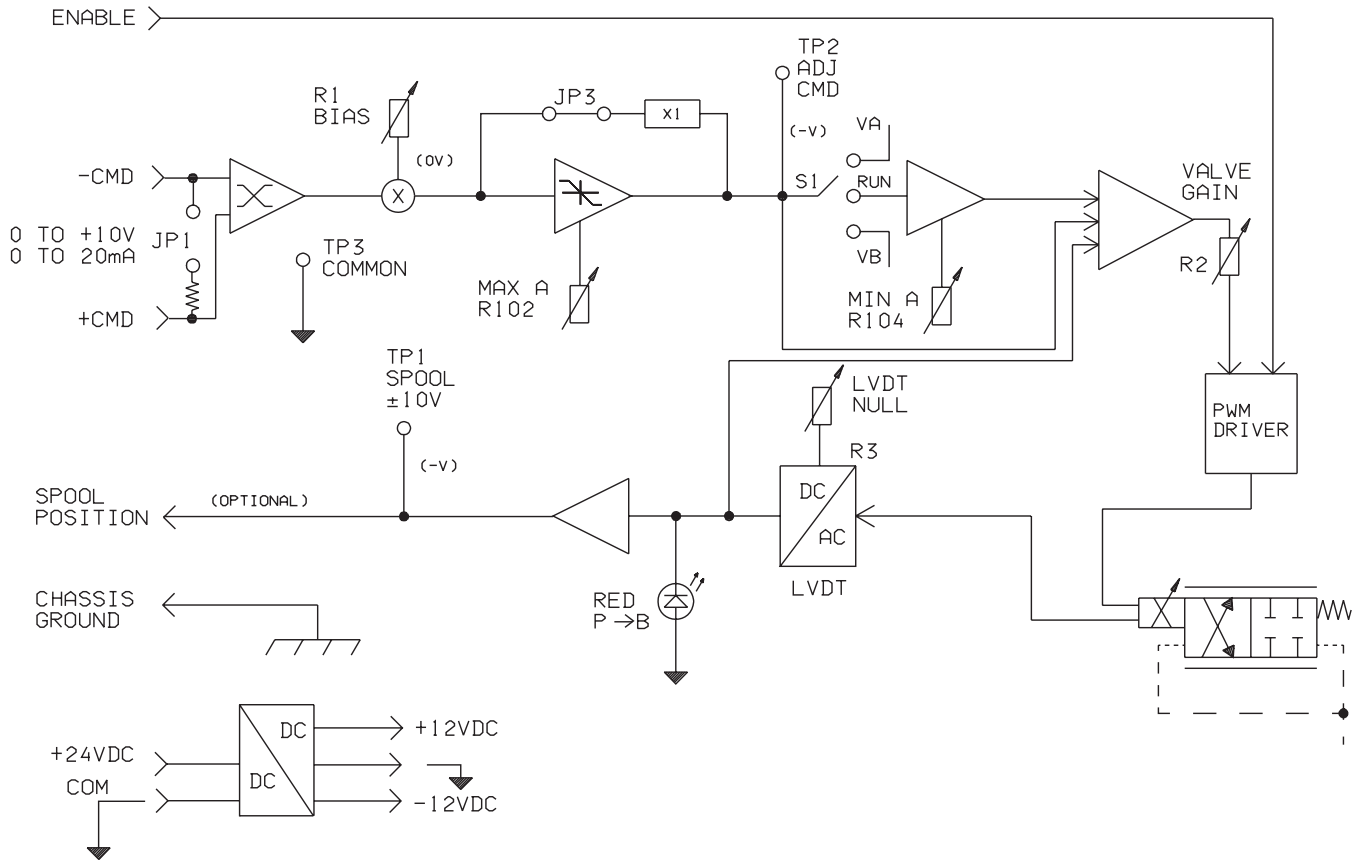


Figure 4 — Version BJ Functional Block Diagram

Diagnostic Chart

-CMD/ +CMD	TP2 Adj Cmd	FLOW	LED	TP1 Spool
0/+10V	-10V	P → B	Red	-10V



**Initial Startup**

**Factory Settings:**

- LVDT hydraulically nulled (R3)
- Max A adjusted fully CW
- Min A adjusted fully CCW
- JP3 inserted: X1 Cmd gain
- Bias set for 0 V (R1)

**Initial Startup:**

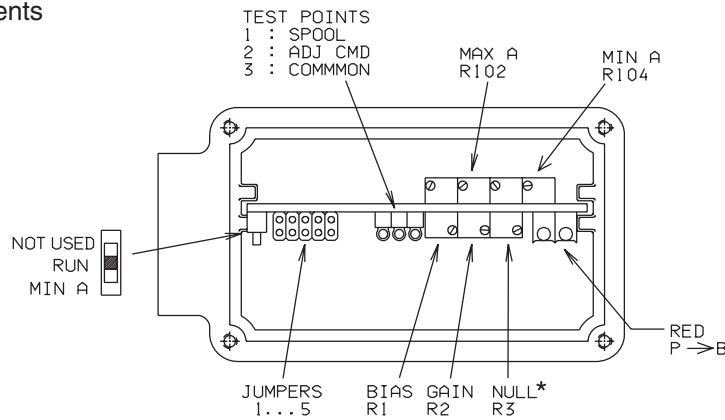
- Turn on the DC power supply
- Adjust Min A
- Apply the command input
- Slowly increase the system pressure
- Cycle the command and verify that the flow is proportional to the input
- Adjust Max A

**Options: (Refer to Options/Adjustments section)**

- Spool position monitoring (TP1 or Pin F)
- Min adjustments
- Max flow adjustments
- Current Cmd
- Bias

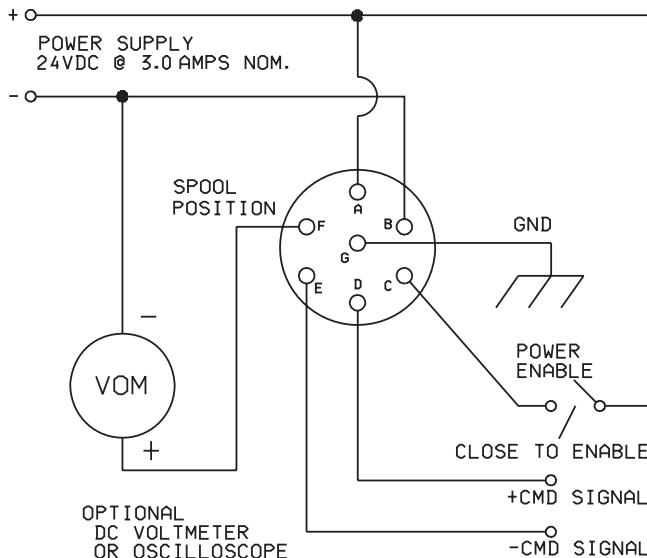
**Interface Wiring, 7 Pin I/O Connector**

Function	Description	EHC** 8G Cable	
		Pin	Wire Color
Power Supply	24VDC Nom. +Power Suply Common	A	Red
		B	Blk
Enable	5 to 30 VDC	C	Yel
Command	+10 VDC signal 4-20 mA +CMD -CMD	D	Blue
		E	Orn
Spool	-10 VDC	F	Wht
Chassis Ground	To valve body	G	Grn



\* Factory set – Do not adjust  
**NOTE:** Pots not labeled are not functional

**Figure 5 — Version BJ Board Setup**



Connect the more positive input to +CMD and the more negative input to -CMD. Both terminals must be connected. If the command source has a single output, tie the common of the command source to -CMD.

**Figure 6 — Interface Wiring Diagram, Version BJ**

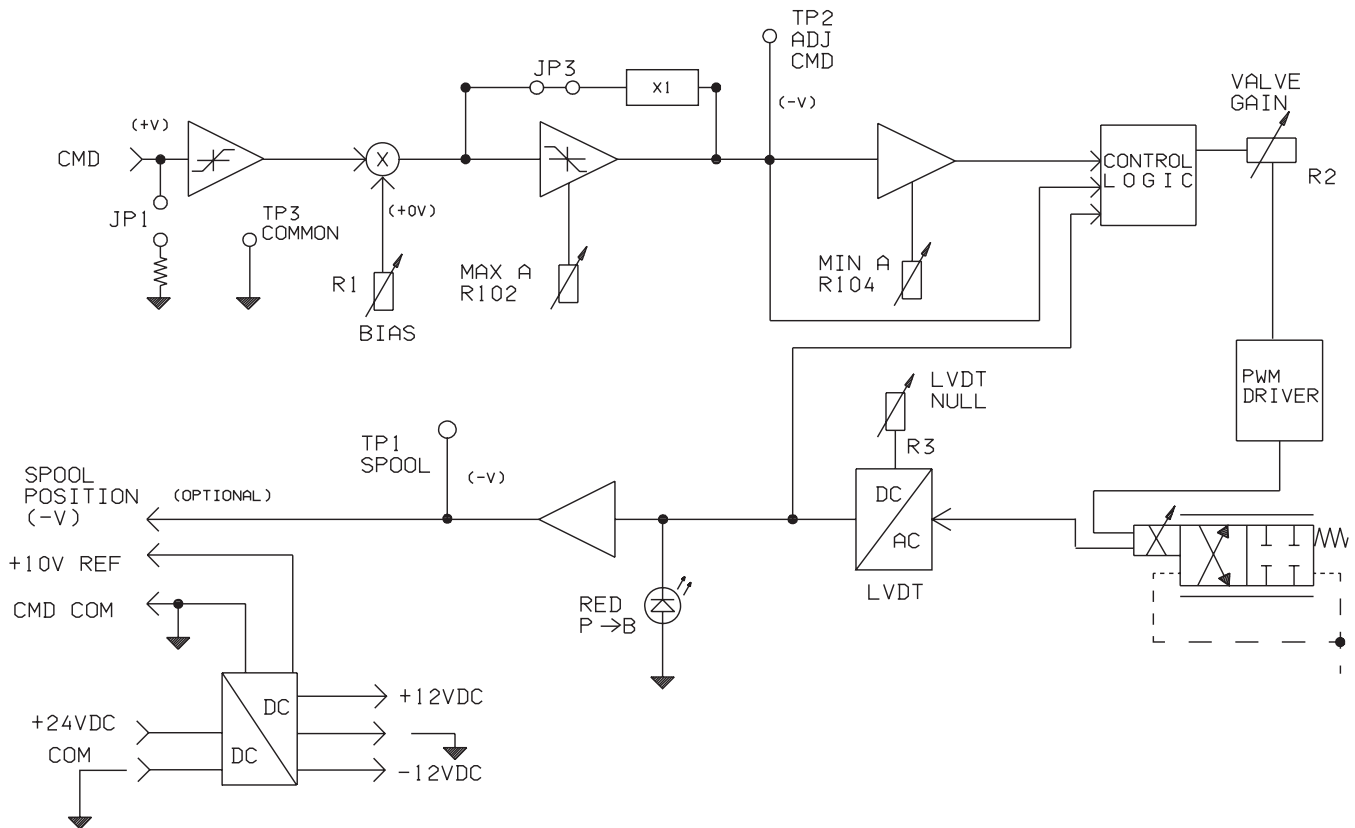
**Standard Driver with Deadband Eliminators — Versions DJ and DK**

The standard D1TX valve, like any proportional valve, has a deadband area before hydraulic flow begins. The min adjustment can be used to reduce the no-flow area of the spool.

Due to manufacturing tolerances, the command signal required to achieve a desired flow may not be identical between D1TX valves. The deadband adjustment

may be used to equalize the signal need for similar flow between valves.

This valve is available in both a 24 VDC and 12 VDC nominal power supply. It has the option of either voltage or current command signal. Reference voltages are available on the MS connector for the command potentiometer.



**Figure 7 — Version DJ Functional Block Diagram**

**Diagnostic Chart**

CMD	TP2 Adj Cmd	FLOW	LED	TP1 Spool
+10V	-10V	P → B	Red	-10V

**Initial Startup**

**Factory Settings:**

- LVDT hydraulically nulled (R3)
- Max A adjusted fully CW
- Min A adjusted fully CCW
- JP3 inserted: X 1 Cmd gain
- Bias set for 0 V (R1)

**Initial Startup:**

- Turn on the DC power supply
- Adjust Min A
- Connect the command input
- Slowly increase the system pressure
- Cycle the command and verify that the flow is proportional to the input
- Adjust Max A

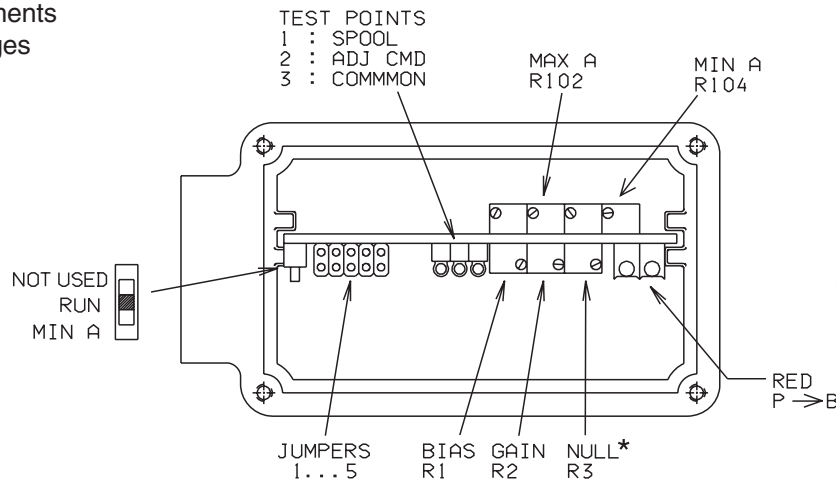
**Options: (Refer to Options/Adjustments section)**

- Spool position monitoring (TP1 or PIN C)
- Min adjustments
- Max flow adjustments
- Reference voltages
- Current Cmd
- Bias

**Interface Wiring, 6 Pin I/O Connector**

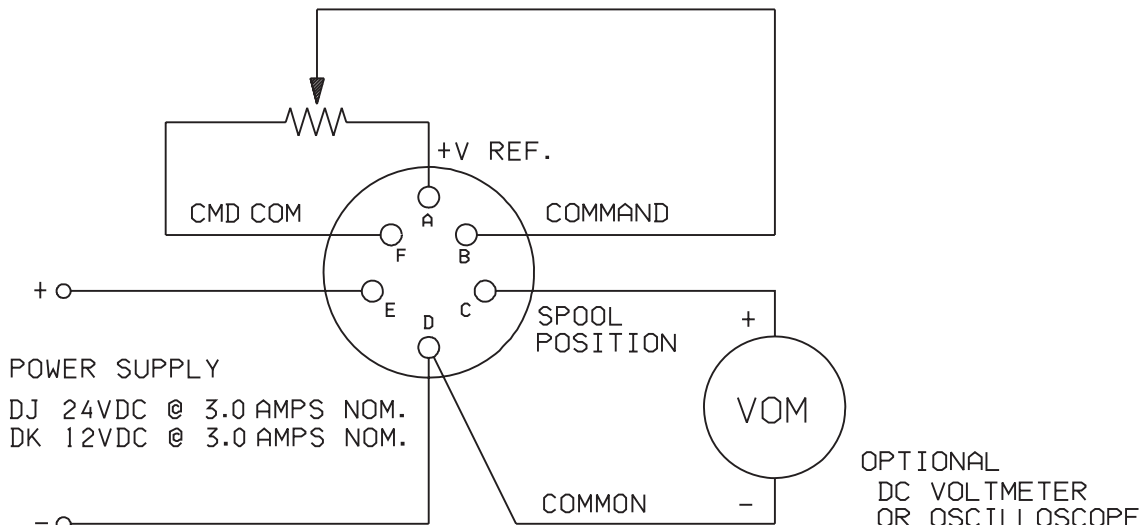
Function	Description	EHC** 8 Cable	
		Pin	Wire Color
*Power Supply	24VDC Nom. +Power Supply Common	E D	Red Grn & Yel
*Command	+10 VDC signal 4-20 mA	B	Blue
*Reference Voltage	+10 VDC Cmd Com	A F	Orn Wht
*Spool	-10 VDC	C	Blk

\* "DK" version requires 12 VDC power supply and +5 VDC input signal. Reference voltage is +5 VDC.



\*Factory set – Do not adjust  
**NOTE:** Pots not labeled are not functional

**Figure 8 — Version DJ Board Setup**



**Figure 9 — Interface Wiring Diagram, Version DJ**

**Spool Position Monitoring**

The spool position relative to its zero starting point can be observed at TP1.

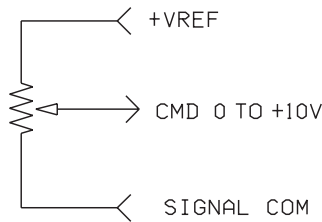
The spool voltage follows the command input after all adjustments have been made.

**LVDT Null**

The D1TX valves are hydraulically nulled at the factory. The null should not need adjustment.

**Reference Voltages (AJ, DJ, DK)**

A reference voltage is available for wiring to potentiometers for Cmd inputs. Up to 10 mA current is available but a 10 K ohm pot is recommended. Check wiring before applying power. Incorrect wiring can result in damage to the electronics.

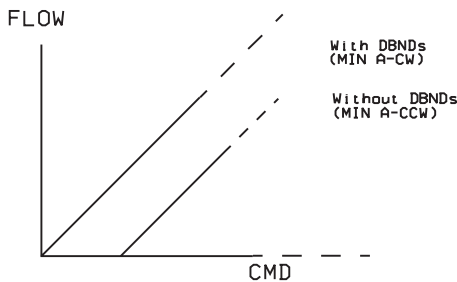


**Manual Override**

The manual override is a design feature which allows the user to shift the valve in a system without electrical power. In the center of the coil there is a brass pin. Pushing on this pin will result in flow.

**Min Adjustments (BJ, DJ, DK)**

Min A can be adjusted to reduce the mechanical deadband in the valve.



To adjust:

- Remove Cmd input. Bias should be set for 0 V.
- Apply low hydraulic pressure
- Move the switch down to A
- Adjust Min A CW until flow just begins

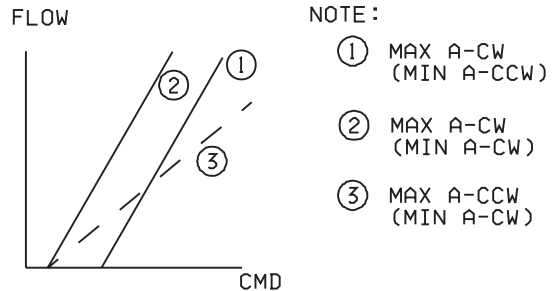
- Turn back CCW until flow ceases
- Move switch to center for Run

**Max Flow Adjustments (AJ, BJ, DJ, DK)**

Max A can be used to limit or scale flow. Potentiometer fully CW results in maximum spool travel. Fully CCW reduces spool travel by 30% with JP3 gain.

- Set the Cmd for maximum input
- Adjust the Max pot for the desired flow

**Adjust Min A before Max A.**



**Bias (All versions)**

The command bias is factory set to 0 VDC. It can be used with a current input.

To reset the bias to zero:

- Disconnect any inputs.
- Adjust Max A about midpoint.
- Adjust bias (R1) until TP2 reads zero volts.

**Current Command (All versions)**

The 24 V versions have a 499 ohm current resistor which converts 4-20 mA to 2 -10 VDC.

The 12 V version has a 249 ohm resistor which converts 4-20 mA to 1-5 VDC.

The bias pot can be used to shift the current input so the command appears to be 0 to 8 VDC or 1 to 9 VDC. The object is to get the maximum flow range but with no-flow at the minimum input. This has the opposite effect of adding deadbands. Adjust Min A adds voltage so flow occurs with a lower input command. Bias subtracts voltage so more input would be required for flow.

- Insert JP1 for current command.
- Adjust Max A fully CW.
- Connect the minimum input signal of 4 mA.
- TP2 should read -2 VDC.
- Adjust the bias pot R1 CCW until TP2 equals 0 VDC ( or is in the no-flow range).

<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
<b>Instability</b>	<i>Power supply?</i>	Select a power supply not current limited below 4.0 Amps. Use a separate power supply for each valve. The power supply should be chassis grounded.
	<i>Noise on inputs?</i>	To verify, disconnect input signals to D1FX. Jumper Cmd terminals to common. For best results use a separate ground wire for signal inputs and power supply.
<b>Actuator Drifting</b>	<i>Min adjustment</i>	Min adjustments can be adjusted such that the spool cannot stop flow and there will be no stable operating point. Remove the Min adjustment and start over.
<b>Low Flow</b>	<i>Flow limited?</i>	Adjust Max CW for more flow on versions A, B, and D. Verify that the command input is correct.
	<i>Floating input?</i>	Both inputs must be connected on B versions.
	<i>System pressure?</i>	Verify that the system pressure is set as required and there are no other flow paths.
<b>No Flow</b>	<i>Power?</i>	Verify there is power to the board and it is wired with the correct polarity. Verify that the ENABLE signal is present on Version B. Verify that the connections to the valve subplate are correct. Verify the hydraulic pump is on.
<b>No Proportional Control</b>	<i>Phasing?</i>	If Version A, B, or D is connected to an external feedback system, verify open loop operation of valve with a potentiometer. Improper system phasing would result in maximum flow output.
	<i>Bias?</i>	With a 4 mA current Command some bias may be required to stay in the deadband.

FOR MAXIMUM VALVE RELIABILITY,  
ADHERE TO THE FOLLOWING  
INSTALLATION INFORMATION

### Fluid Recommendations

Premium quality mineral based hydraulic oil with a viscosity range between 150-250 SSU (32-54 cst.) at 38°C (100°F) is recommended. The absolute operation viscosity range is from 75-600 SSU (15-130 cst.). Oil should have maximum anti-wear properties and rust and oxidation treatment.

### Filtration

For maximum valve and system component life, the system should be protected from contamination at a level not to exceed 125 particles greater than 10 microns per milliliter of fluid. (SAE Class 4 or better / ISO Code 16/13).

### Silting

Silting can cause any sliding spool valve to stick, and not spring return, if held shifted under pressure for long periods of time. The valve should be cycled periodically to prevent sticking.

### Special Installations

Consult your Parker representative for any application requiring the following :

- Pressure above rated.
- Fluid other than those specified.
- Synthetic or fire-resistant fluids.
- Oil temperature above 71.1°C (160°F).
- Flow path other than normal.
- Non-standard power supply grounding.

### Torque Specifications

The recommended torque values are for the bolts which mount the valve to the manifold or subplate are as follows:

NFPA Size	Bolt Thread Size		Torque
	Metric	English	
D03	M5 x 0.8	10-24 UNC	5.6 N.m. (50 in.-lbs.)

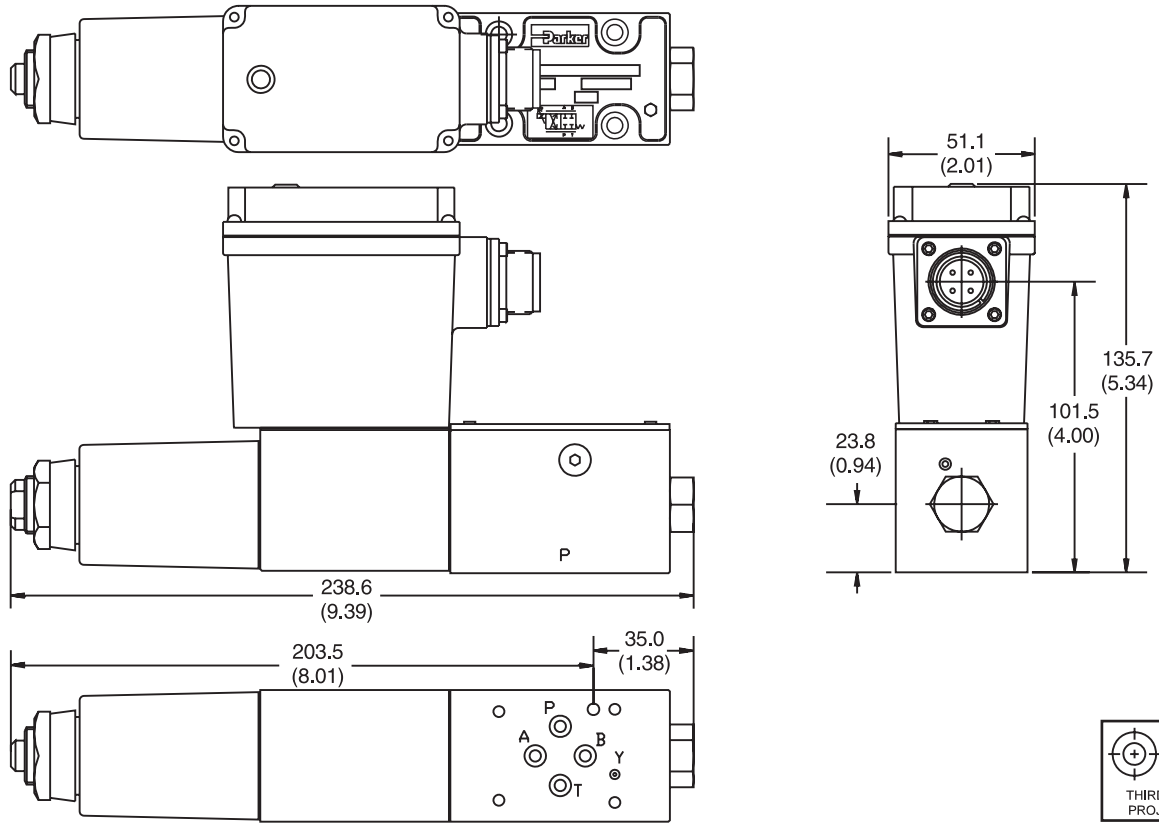
### Mounting Restriction

In order to ensure proper operation, the D1TX must be mounted horizontally. If the valve is mounted vertically, a check valve with a minimum rating of 1.4 Bar (20 PSI) should be placed in the tank line to maintain back pressure to the valve.

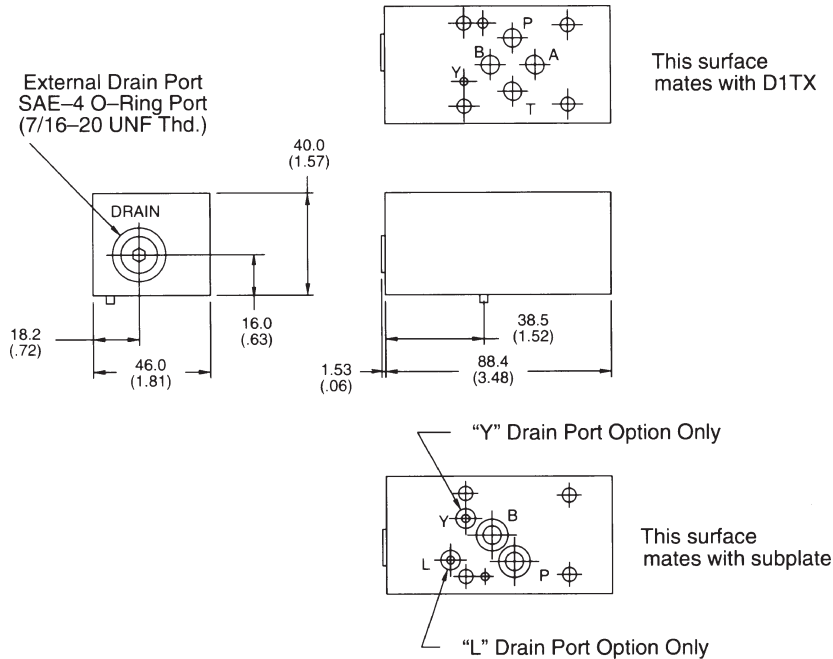
### Subplate Specifications

Subplate	Port Size	Location	Max. Pressure	
			PSI	Bar
SPD31ESA-10	9/16-18 St. Thd.	Side	3000	210

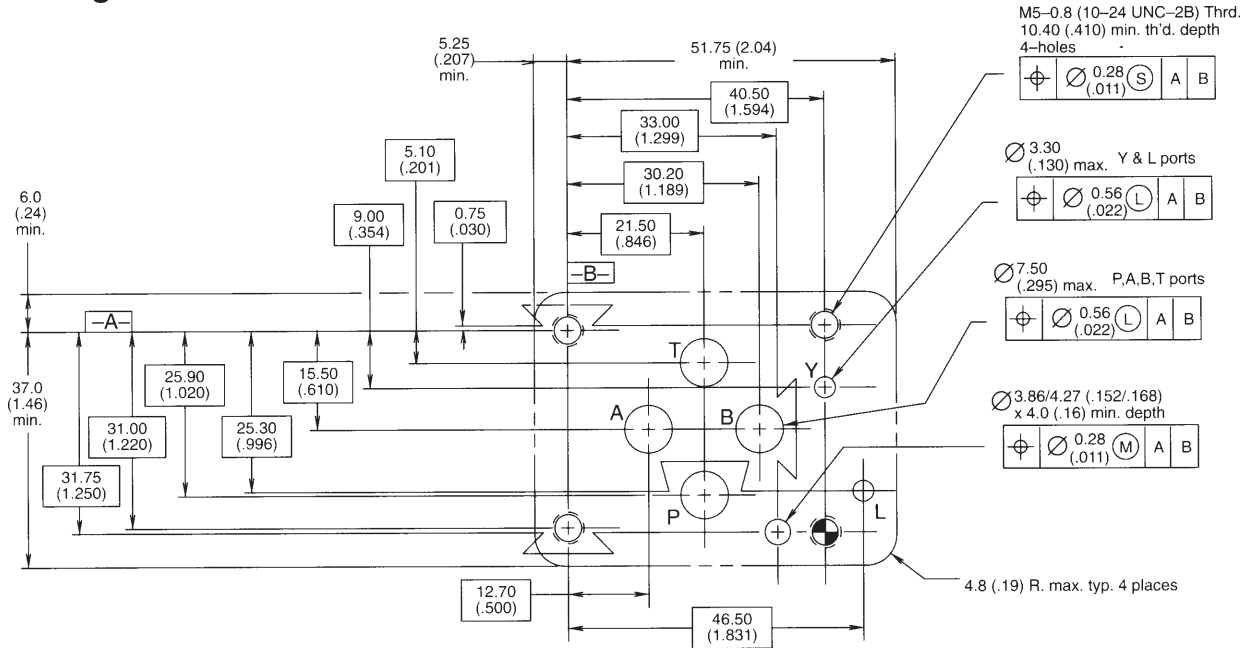
Inch equivalents for millimeter dimensions are shown in (\*\*)



**Flow Conversion Block FCB03**



**Mounting Surface**



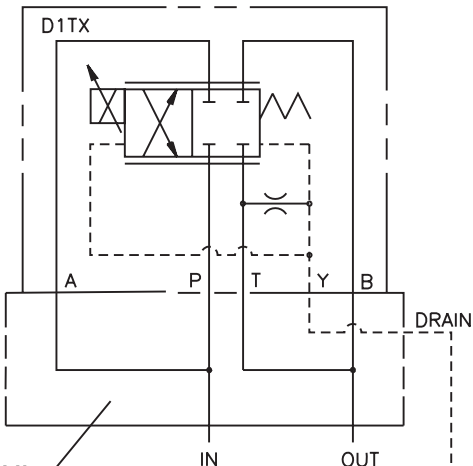
Surface must be flat within 0.10 (.0004) T.I.R. and smooth within 32 micro-inch.  
 Torque bolts to 5.6 N.m. (50 in.-lbs.)

COMBINATION	Required Ports					
	P	A	B	T	Y	L
D1TX valve alone	✓	✓	✓	✓	✓	
D1TX w/FCB03Y	✓		✓		✓*	
D1TX w/FCB03L	✓		✓			✓*

\*Y & L port not required if external drain port (SAE-4) is used.

**Hydraulic Connections**

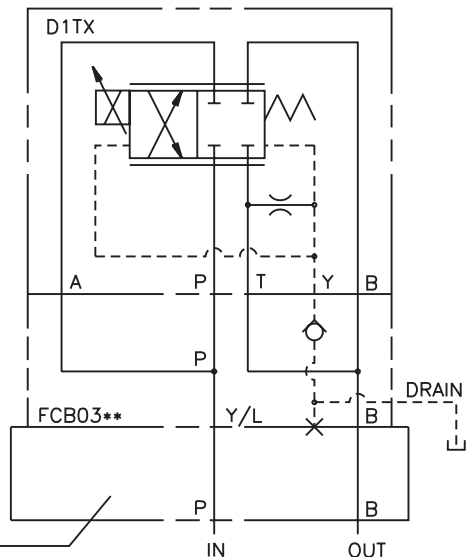
Parallel Flow Hydraulic Connections for D1TX Valve



Custom Manifold or Subplate

Drain Pressure: 35 Bar (500 PSI) max. Must maintain Minimum back pressure of 1.4 Bar (20 PSI)

Parallel Flow Hydraulic Connections for D1TX Valve with Flow Conversion Block



Standard NFPA D03 (Cetop 3) Subplate



<b>D1T</b>	<b>X</b>	<b>E</b>	<b>01</b>		<b>E</b>	<b>9</b>				<b>0</b>	<b>0</b>	<b>20</b>
D03 Electrohydraulic Directional Flow Control Valve	Control Option	Equal Metering	Spool	Flow Code	Style	External Drain	Seal Option	Electronic Variations	Power Supply	Electronic Accessory	Valve Accessory	Design Series

<b>Code</b>	<b>Description</b>
N	Nitrile
V	Fluorocarbon

<b>Code</b>	<b>Description</b>
0	Standard

<b>Code</b>	<b>Description</b>
0	Standard

<b>Code</b>	<b>Description</b>
J	24 VDC
*K	12 VDC

\* Only available in version 'D'

<b>Code</b>	<b>Description</b>	<b>Symbol</b>
E	Uni-Directional	

<b>Code</b>	<b>Description</b>
A	Standard Driver w/6 pin MS
B	Euro Driver (7 pin MS) w/external shutdown
D	Standard Driver w/deadband eliminator & 6 pin MS

<b>Code</b>	<b>Description</b>
01	

<b>Code</b>	<b>Nominal Flow @ ΔP = 5 Bar (72 PSI)</b>
C	15 LPM (4.0 GPM)
F	30 LPM (7.9 GPM)

Weight: Single Solenoid 3.2 kg (7.0 lbs.)  
 Bolt Kit No. — **BK209 (D1TX only), 10-24 x 1.25"**  
**BK243 (D1TX w/FCB03\*\*), 10-24 x 2.88"**  
 Mounting Bolt Torque: 5.6 N.m. (50 in-lbs.)

<b>FCB</b>	<b>03</b>	<b>E</b>		<b>10</b>
Flow Conversion Block	Size	Subplate Drain Port Location	Seal Option	Design Series

<b>Code</b>	<b>Description</b>
03	NFPA D03 Cetop 3

<b>Code</b>	<b>Description</b>
Y	"Y" Drain Port (standard)
L	"L" Drain Port (optional)

<b>Code</b>	<b>Description</b>
Omit	Nitrile
V	Fluorocarbon

**Cables**

<b>EHC</b>		<b>8</b>	
Electrohydraulic Cable for D1TX Valve	Length	Cable Type	Connector Type

<b>Code</b>	<b>Length</b>	<b>Code</b>	<b>Description</b>	<b>Code</b>	<b>Description</b>
3	Length in Feet	8	8-wire, 18 awg. shielded (Alpha 5388)	Omit	Standard Connector 6 Pin for D1TX
6		G	7 Pin Connector for Euro, D1TX "B" variation		
9					
12					
15					

**Note:** For D1TX connector only, order part #697561 (6-pin)  
 For D1TX, Variation "B" connector only, order part #697323 (7-pin)  
**Use Power Supply #PS12 (+12VDC), #PS24 (+24 VDC)**  
**Subplate: SPD31ESA-10 (9/16-18) SAE Ports (Side)**



## Offer of Sale

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**6. Changes, Reschedules and Cancellations:** Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

**7. Special Tooling:** A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the notwithstanding any charges paid by Buyer. Unless otherwise agreed,

Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

**8. Buyer's Property:** Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

**9. Taxes:** Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

**10. Indemnity For Infringement of Intellectual Property Rights:** Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

**11. Force Majeure:** Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

**12. Entire Agreement/Governing Law:** The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

9/91-P







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