OP454-V02

1. PRODUCT PROFILE

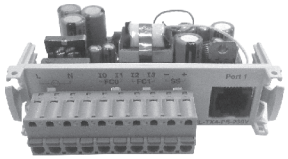


Figure 1.1 : **FL-TX4-DI04-PS-230V-CE**

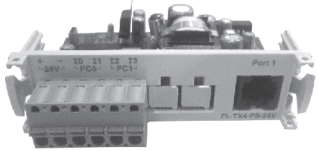


Figure 1.2 : **FL-TX4-DI04-PS-24V-CE**

2. DESCRIPTION

- FL-TX4-DI04-PS-230V-CE / FL-TX4-DI04-PS-24V-CE as shown in Figure 1.1 and Figure1.2 are used as a plug-in module in Flexys Panel TX4 and not as an independent module.
- 4-Digital Inputs (can function as Fast Inputs)
- Sensor Supply in FL-TX4-DI04-PS-230V-CE

NOTE : For installation procedure, refer FL-TX4-LG-X-X-X operating Instruction.

3. ELECTRICAL SPECIFICATIONS

Parameter	FL-TX4-DI04-PS-230V-CE	FL-TX4-DI04-PS-24V-CE
Supply Voltage	230V AC (90 ~ 270V AC)	24V DC (±10% V DC)
Sensor Supply (SS)	10V (100 mA)	NA
Power Consumption	13 VA	12 W
Reverse polarity protection	NA	Yes
Voltage interruption	Up to 10 ms	
Operating Temperature	0 to 55°C	
Storage Temperature	-20 to 70°C	
Humidity	95%	
Connector	Spring type pluggable terminal block (5.08 mm pitch)	
Weight (g)	80	70

NOTE : FL-TX4-DI04-PS-230V card limitations 1) Maximum 2 FL-SC-RO08 cards
2) Maximum 1 FL-SC-AO04-X card
3) Not supported FL-SC-AO04-X if FL-SC-RO08 used and vice-versa.

Where X = V/I

COMPLIANCE WITH STANDARD

EMC/EMI compliance	IEC61131-2, Clause 8
Safety compliance	IEC61131-2, Clause 11
Immunity Zone	Zone A
Power supply FL-TX4-DI04-PS-24V-CE	PS2, Safety Extra Low Voltage Circuit

DISCLAIMER LIABILITY

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However the information in this publication is reviewed and any necessary corrections are included in subsequent editions.

? SERVICE DETAILS

This device contains no user serviceable parts and requires special equipment and specialized engineers for repair.
Please contact service center for repair on the following numbers :
Tel. No. : + 91-7498077172 ; **Email :** service@selec.com
NO WARRANTY ON UNIT DAMAGED DUE TO WRONG POWER SUPPLY.

(Specifications are subject to change, since development is a continuous process.)

Selec Controls Pvt. Ltd., India

Factory Address :
EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape, Navi Mumbai - 400 710, INDIA.
Tel. No. : +91-22-41 418 419/430 I Fax No. : +91-22-28471733 I Toll free : 1800 227 353(BSNL/MTNL Subscribers only)
Website : www.selec.com I Email : sales@selec.com

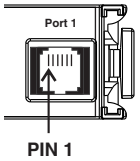
DIGITAL INPUTS

*1 = 90⁰ Phase shift signals

Number of Digital Input		4				
Input Type		DC, PNP				
Operating Modes (user configurable)		Unidirectional / Bidirectional / Quadrature / Dual Unidirectional / None				
Channel	**DI**	**MODE**				
		UNI	BI	QUAD	DUAL UNI	None
FC0	I0	Rate Totalizer	Rate Totalizer	1st input*1	Rate Totalizer	Digital Input
	I1	Digital Input	Direction	2nd input *1	Totalizer	Digital Input
FC1	I2	Rate Totalizer	Rate Totalizer	1st input*1	Rate Totalizer	Digital Input
	I3	Digital Input	Direction	2nd input *1	Totalizer	Digital Input
Operating Range		6 ~ 30V DC (V+)				
Input current		8mA Max				
Action Level	ON ➡ OFF	<2V DC				
	OFF ➡ ON	≥6V DC				
Response Time		Digital Input mode : typical 1 ms (based on ladder scan time)				
		Fast Input mode : 100µsec				
Input Impedance		3.3 kΩ				
Debounce Time		0 ~ 255ms (Default = 10ms)				
Maximum Frequency (Fast inputs)		5 kHz				
Isolation		2.2 kV (CPU and Inputs)				
Protection against polarity inversion		Yes				
Existence of common points between channels		SS- / GND				
Effect of incorrect input terminal or withdrawing / inserting input module under power		Unstable responses or input / product damage				
Monitoring point and binary state of visual indicator		Available				

4. INTERNAL PIN OUT DESCRIPTION FOR 6 PIN JACK (PORT 1)

PIN	DESCRIPTION
1	RS485 Slave +ve
2	RS485 Master +ve
3	RS485 Master –ve
4	Proprietary Expansion +ve
5	Proprietary Expansion –ve
6	RS485 Slave –ve



5. TYPICAL WIRING DIAGRAM

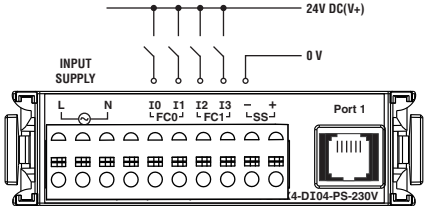


Figure 5.1 : Digital inputs via external 24V supply

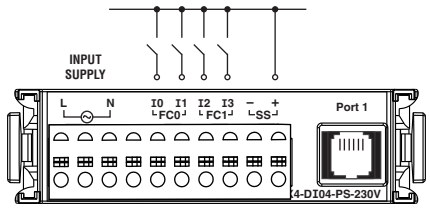


Figure 5.2 : Digital Inputs using internal 10V power supply

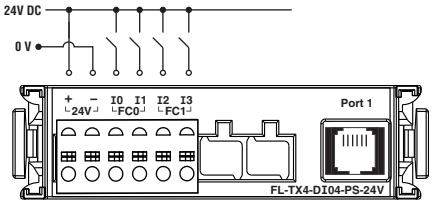


Figure 5.3 : FL-TX4-DI04-PS-24V-CE wiring diagram

6. SAFETY SUMMARY

- To prevent risk of electric shock, power supply to the controller must be kept off while wiring.
- Wiring shall be done strictly according to the terminal layout provided in the operating manual.
- When operating FL-TX4-DI04-PS-24V-CE, ensure that power at its terminal is +24V and GND (power range is 21.6V DC ~ 26.4V DC).
  When voltage is less than 18V DC, Controller will stop operating and all on board outputs will turn OFF.

NOTE : For safety precautions, refer FL-TX4-LG-X-X-X operating Instruction

7. ORDER CODE INFORMATION

ORDER CODE	DESCRIPTION	CERTIFICATION	
		CE	cULus LISTED
FL-TX4-DI04-PS-230V-CE	230V AC Power Supply	■	—
FL-TX4-DI04-PS-24V-CE	24V DC Power Supply	■	—