

OP619-V01

**1. PRODUCT PROFILE**



Figure 1.1 :  
FL-GT35-DI04-PS-230V

**2. DESCRIPTION**

- FL-GT35-DI04-PS-230V/  
FL-GT35-DI04-PS-24V as shown in  
Figure 1.1 and Figure1.2 are used as a plug-in  
module in Flexys GT35 and not as an  
independent module.
- 4-Digital Inputs (can function as Fast Inputs)
- Sensor Supply in FL-GT35-DI04-PS-230V

Figure 1.1 :  
FL-GT35-DI04-PS-24V

**3. ELECTRICAL SPECIFICATIONS**

| Parameter                          | FL-GT35-DI04-PS-230V                                 | FL-GT35-DI04-PS-24V |
|------------------------------------|--|---------------------|
| <b>Supply Voltage</b>              | 230V AC ( 90 ~ 270V AC)                              | 24V DC (±10% V DC)  |
| <b>Sensor Supply (SS)</b>          | 10V (100 mA)   | NA                  |
| <b>Power Consumption</b>           | 18 VA  | 8 W                 |
| <b>Reverse polarity protection</b> | NA   | Yes                 |
| <b>Voltage interruption</b>        | Up to 10 ms  |                     |
| <b>Operating Temperature</b>       | 0 to 55°C  |                     |
| <b>Storage Temperature</b>         | -20 to 70°C  |                     |
| <b>Humidity</b>                    | 95%  |                     |
| <b>Connector</b>                   | Spring type pluggable terminal block (5.08 mm pitch) |                     |
| <b>Weight (g)</b>                  | 90   | 80                  |

**NOTE :** FL-GT35-DI04-PS-230V card limitations 1) Maximum 1 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.  
4) Maximum 2 FL-SC-DI04-RO04 cards.

Where X = V/I

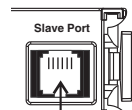
**COMPLIANCE WITH STANDARD**

|   |                                       |
|---|---------------------------------------|
| <b>EMC/EMI compliance</b>               | IEC61131-2, Clause 8                  |
| <b>Safety compliance</b>                | IEC61131-2, Clause 11                 |
| <b>Immunity Zone</b>                    | Zone A                                |
| <b>Power supply FL-GT35-DI04-PS-24V</b> | PS2, Safety Extra Low Voltage Circuit |

| DIGITAL INPUTS   |          | *1 = 90° Phase shift signals   |                |             |                |               |
|--|----------|--|----------------|-------------|----------------|---------------|
| Number of Digital Input  |          | 4 (Including 4 Fast Inputs)  |                |             |                |               |
| 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                             |                |             |                |               |

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

|   | DESCRIPTION     |
|---|-----------------|
| 1 | RS485 Slave +ve |
| 2 | —               |
| 3 | —               |
| 4 | —               |
| 5 | —               |
| 6 | RS485 Slave -ve |



PIN 1

#### 5. TYPICAL WIRING DIAGRAM

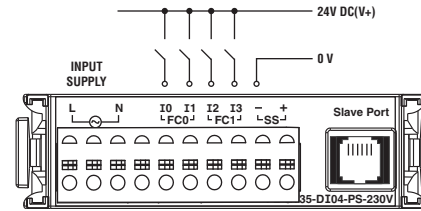


Figure 5.1 : Digital inputs via external 24V supply

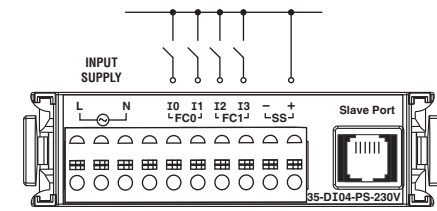


Figure 5.2 : Digital Inputs using internal 10V power supply

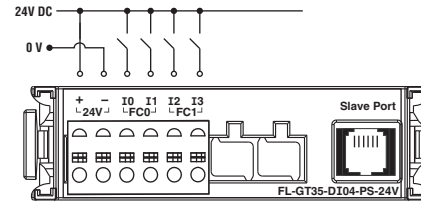


Figure 5.3 : FL-GT35-DI04-PS-24V wiring diagram

#### 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-GT35-DI04-PS-24V, 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.

#### 7. ORDER CODE INFORMATION

| ORDER CODE           | DESCRIPTION          |
|----------------------|----------------------|
| FL-GT35-DI04-PS-230V | 230V AC Power Supply |
| FL-GT35-DI04-PS-24V  | 24V DC Power Supply  |

#### 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

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