OP485-V01



99 x 95.6 x 90.5mm

FEATURES

- Flexible card selection
- Compact PLC with built-in HMI
- 3.5" LCD with touch
- Windows based user friendly software for ladder programming and HMI configuration
- RTC with Time Switch function
- RS 485 based communication with MODBUS Protocol
- Expandable via IO Expansions

SPECIFICATIONS

LCD MODULE	Display Type	3.5" TFT LCD (256 color), Resistive Touch Screen
	Resolution	320 x 240 pixels
	Display Size (WxH)mm	70.08 x 52.56
	Backlight	LED backlight
	Brightness Adjustment	Yes (Via Internal MMI)
KEYS		System key x 1, Function keys x 5
INTERNAL MEMORY	BITMAP	4 MB
	FONT	4 MB
SLOT CONFIGURATION	Slot-1	For I/O Card
	Slot-2	For I/O Card
	Slot-3	For I/O Card
	Slot-4	For Logic Card
	PS Slot	For Power Supply Card
OPERATING TEMPERATURE		0º to 55º C
STORAGE TEMPERATURE		-30º to 80º C
HUMIDITY		95% RH
MOUNTING		Panel
DIMENSIONS (WxHxD)mm		99 x 95.6 x 90.5
PANEL CUTOUT (WxH)mm		92 x 92
WEIGHT (g)		250

INSTALLATION PROCEDURE

Fig. A

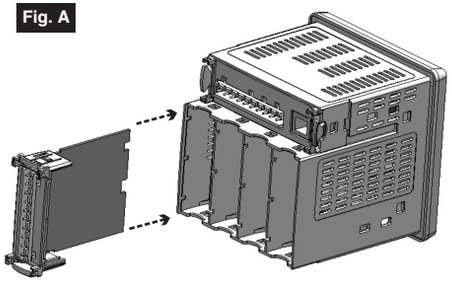


Fig. C

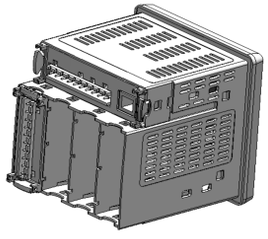


Fig. B

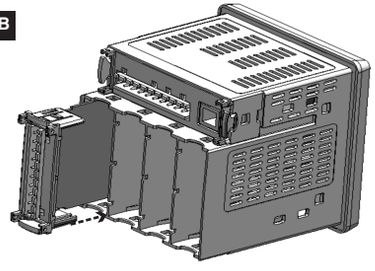
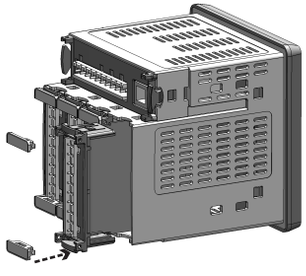


Fig. D



A. Card order as viewed from back, left to right
1. Slot 1 IO Card
2. Slot 2 IO Card
3. Slot 3 IO Card
4. Slot 4 Logic Card

B. Mount the slot card on the PLC slot by pressing the latch, refer fig. A

C. Slide the slot card in the PLC, refer fig. B

Note : The slot card will slide easily if it was mounted properly

D. Ensure that the latch is fitted properly inside the lock, refer fig. C side view

E. Place the lock plate to cover the Latch, refer fig. D

SAFETY PRECAUTIONS

This manual is meant for personnel involved in wiring, installation, operation and routine maintenance of the equipment.

All safety related conditions, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure operator and instrument safety. Any misuse may impair the protection provided by the equipment.

CAUTION : Read complete instructions prior to installation and operation of the unit.

CAUTION : Risk of electric shock.

INSTALLATION INSTRUCTIONS

CAUTION

1. This equipment, being built-in-type, normally becomes a part of the main control panel and the terminals do not remain accessible to the user after installation.
2. Conductors must not come in contact with the internal circuitry of the equipment else it may lead to a safety hazard that may endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between the power source and supply terminals to facilitate power 'ON' or 'OFF' function.
4. The equipment shall not be installed in environmental conditions other than those specified in this manual.
5. Since this equipment forms part of the main control panel, its output terminals get connected to the host equipment. Such equipment shall also comply to EMI / EMC and safety requirements like CE standard procedure.
7. Thermal dissipation of equipment is met through ventilation holes provided on housing of equipment. Obstruction of these ventilation holes may lead to a safety hazard.
8. The output terminals shall be loaded strictly as per the values / range specified by the manufacturer.

ELECTRICAL PRECAUTIONS DURING USE

Electrical noise generated by switching of inductive loads can create momentary disruption, erratic display, latch up, data loss or permanent damage to the instrument.

To reduce noise :

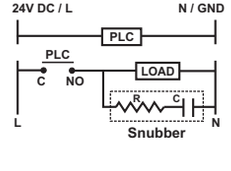
Use of MOV / Snubber circuit across load / contactors of the unit are recommended.

1. MOV Part no. : AP-MOV-03
2. Snubber Part no. : APRC-01

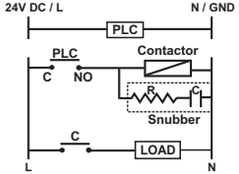
NOTE : Below mentioned diagram is applicable only for 230V relay outputs.

Typical Connections For Loads :

For load current < 0.5A



For bigger loads use interposing relay / contactor

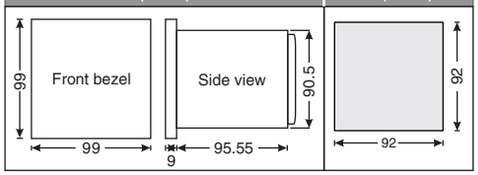


NOTE : Use snubber as shown above to increase life of internal relay.

B) Use separate shielded wires for inputs.

MECHANICAL INSTALLATION

Outline Dimensions (in mm)	Panel Cutout (in mm)



For installing the controller

1. Prepare the panel cutout with proper dimensions as shown above.
2. Remove the clamp from the PLC.
3. Fix the unit into the cutout. Insert the clamp from both sides and tighten the screws.

CAUTION

The equipment in its installed state must not come in close proximity to any heating sources, caustic vapors, oils, steam, or other unwanted process by products.

EMC Guidelines :

1. Use proper input power cables with shortest connections and twisted type.
2. Layout of connecting cables shall be away from any internal EMI source.

MAINTENANCE

1. To avoid blockage of ventilation holes, clean the equipment regularly using a soft cloth.
2. Do not use Isopropyl alcohol or any other organic Solvents for cleaning.

PANEL MOUNTING

Fig. 1

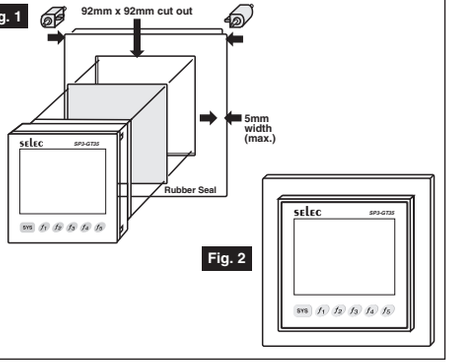


Fig. 2

1. Before you begin, note that the mounting panel cannot be thicker than 5 mm (0.197").
2. Make a panel cut-out measuring 92mm x 92mm (3.622" x 3.622").
3. Slide the controller into the cut-out, ensuring that the rubber seal is in place.
4. Push the 2 mounting brackets into their slots on the sides of the controller as shown in Fig. 1.
5. Tighten the bracket screws against the panel. Hold the bracket securely against the unit while tightening the screw.
6. When properly mounted, the controller is squarely situated in the panel cut out as shown in Fig. 2.

WIRING INSTRUCTIONS

CAUTION

1. To prevent risk of electric shock, power supply to the equipment must be kept OFF while wiring.
2. Terminals and electrically charged parts must not be touched when the power is ON.
3. Wiring shall be done strictly according to the terminal layout provided in the operating manual.
4. To eliminate electromagnetic interference use short wire with adequate ratings and twists of equal size.
5. The power supply connection cable must have a cross section of 1sq.mm or greater and insulation capacity of at least 1.5KV.

FUNCTIONAL DETAILS

FLEXYS GT35 is a PLC with built in HMI. The user can configure the product using SELPRO software.

SELPRO has two sections :

1. Ladder logic programming section
2. Selec Machine Interface, used for configuration of HMI.

This software is provided with the product. For details of the software and configuration method, please refer to its user manual with the product.

ORDERING INFORMATION

ORDER CODE	DESCRIPTION
FL-GT35-DI04-PS-230V	Power Supply Card
FL-GT35-LG-X-X-X	Logic Card
FL-GT35-DSP	Graphical PLC base with touch screen HMI
SUPPORTED IO CARDS	
FL-SC-DI10	10 Digital Inputs
FL-SC-RO08	8 Relay Outputs
FL-SC-TO08	8 Transistor Outputs
FL-SC-AI04-TC	4 Analog Inputs (TC J, K, T, R, S, C, E, B, N, L, U, W, Platinel II, mV(-5 to 65mV))
FL-SC-AI04-RTD	4 Analog Inputs (RTD – PT100)
FL-SC-AI06-V	6 Analog Inputs (0-10V)
FL-SC-AI06-I	6 Analog Inputs (0-20mA)
FL-SC-AO04-V	4 Analog Outputs (0-10V)
FL-SC-AO04-I	4 Analog Outputs (0-20mA)
FL-SC-LC04	4 Channel Load Cell Card
FL-SC-AIDF04-TC	4 Analog Inputs (TC J, K, T, R, S, C, E, B, N, L, U, W, Platinel II, mV(-5 to 65mV))

EXPANSION MODULES ON MASTER RS485

ORDER CODE	DESCRIPTION
IO610-8DI	8 Digital Input
IO610-4RO	4 Relay Output
IO610-4TO	4 Transistor Output
IO610-2AI-VI	2 Analog Input (Voltage / Current)
IO610-2AI-TCR	2 Analog Input (TC / RTD)
IO610-2AO	2 Analog Output (Voltage / Current)
EXP FLEX 2M	Flexys IO Expansion modules

ACCESSORIES

Accessories for Communication
AC-USB-RS485-03 (USB to 6 pin RJ25 jack) AC-USB-RS485-02 (USB to 2 pin open wire)
Accessories for Expansion Module
ACH-004 (6 pin to 6 pin RJ25 jack) for expansion only
AC-IOEXP-02 (Port expansion adapter)
Window-Based Software for Ladder Programming
ACD-005
Relay Module : 1) AR-04-5A-NONC (SPDT) 2) AR-04-5A-NO (SPST) 3) AR-S8-24V-1CO

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.

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