Operating Instructions

OP785-V01



FEATURES

- > 8 Programmable Windows
- ➤ 6 Colour Selection
- > RS485 based communication with MODBUS RTU protocol

137 x 67 x 63mm

Display Multicolour LED's - Fault Annunciation	SPECIFICATIONS					
LED's - Status Indication Operation mode Program mode Green Blinking Continuous ON Red Alarm Output Status NO / NC Selection No of Keys 4 Supply Voltage 90-270VAC Sensor Supply (SS) 12V, 50mA (for looping) Frunctional Specification Digital Inputs 13 Operating Range 5-30VDC Input Current 3mA ⊕ 12V Input Impedance 7-5k Ω Debounce Time 0-255ms (Default = 10ms) Protection against polarity Inversion Yes DIGITAL I/Os Modbus Address Description F1 10000 F2 F3 10002 Fault Inputs F5 10004 Folionical Individual Window F6 10005 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins	Display		Multicolour LED's - Fault A	Multicolour LED's - Fault Annunciation		
Green Blinking Continuous ON Red Alarm Output Status NO / NC Selection No of Keys 4 Supply Voltage 90-270VAC Sensor Supply (SS) 12V, 50mA (for looping) Functional Specification Digital Inputs 13 Operating Range 5-30VDC Input Current 3mA@12V Input Impedance 7.5k Ω Debounce Time 0-255ms (Default = 10ms) Protection against polarity Inversion Yes DIGITAL I/Os Modbus Address Description F1 10000 F2 F2 10001 Fault Inputs F5 10004 For Individual Window F6 10005 F F7 10006 F F8 10007 Ack MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short progr	Colour's		Red, Green, Yellow, Blue, Magenta, Cyan			
Red	LED's - Status Indic	ation	Operation mode	Program mode		
No of Keys	Green		Blinking	Continuous ON		
Supply Voltage	Red		Alarm Output Status	NO / NC Selection		
Sensor Supply (SS)	No of Keys		4			
Digital Inputs	Supply Voltage		90-270VAC			
Digital Inputs 13 5-30VDC Input Current 3mA@12V	Sensor Supply (SS)		12V, 50mA (for looping)			
S-30VDC Input Current 3mA@ 12V Input Impedance 7.5k Ω Debounce Time 0-255ms (Default = 10ms) Protection against polarity Inversion Yes DIGITAL I/Os Modbus Address Description F1	Functional Specific	ation				
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Debounce Time 0~255ms (Default = 10ms)	•					
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F2 10001 F3 10002 F4 10003 F5 10004 F6 10005 F7 10006 F8 10007 ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output						
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F4 10003 Fault Inputs for Individual Window F5 10004 For Individual Window F6 10005 Fr F8 10007 ACK MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F2	10001				
F5 10004 for Individual Window F6 10005 F7 10006 F8 10007 ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F3	10002				
F6 10005 F7 10006 F8 10007 ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F4	10003				
F7 10006 F8 10007 ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F5	10004				
F8 10007 ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F6	10005				
ACK 10008 Fault Acknowledgment MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F7	10006				
MUTE 10009 Mute Alarm Relay RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	F8	10007	1			
RST 10010 Reset Faults TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	ACK	10008	Fault Acknowledgment			
TEST 10011 Enable test mode (Input to be sensed for 3 sec.) PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	MUTE	10009	Mute Alarm Relay			
PRG Mode 10012 Short programming pins to enter in program mode TRIP 0 Alarm Output	RST	10010	Reset Faults			
TRIP 0 Alarm Output	TEST	10011	Enable test mode (Input to be sensed for 3 sec.)			
7 Main Super	PRG Mode	10012	Short programming pins to enter in program mode			
ALM 1 Trip Output	TRIP	0	Alarm Output			
		4	Trip Output			

Digital Outputs	
Number of Outputs	2
Outputs Type	NO Contact type - Relay
Output Current	7A @ 30VDC (Resistive), 7A @ 250VAC (Resistive)
Response Time	10ms
Life Expectancy	2,00,000 operation of Full load
Isolation	NA
Outputs Description	
Alarm	Alarm Output
Trip	Trip Output
COMMUNICATION	
Communication Port	RS485 Slave
Communication Protocol	MODBUS RTU
Baud Rate	Default = 115200 , 8N2
Slave ID	01
ENVIRONMENTAL CONDITIONS	
Operating Temperature	0 to 55°C
Storage Temperature	-20 to 70°C
Humidity (non-condensing)	95%
Mounting	Panel Mount
Weight	220 gms

MOD	MODES OF OPERATIONS						
1) OP	1) OPERATIONAL MODE						
Fault Functions		Window	LED		Relay		
rauit	runctions	window	Green	Red	Alarm Relay	Trip Relay	
NO	NA	OFF	BLINK'S	OFF	OFF	OFF	
YES	NA	BLINK'S	BLINK'S	ON (If Alarm Selected)	ON (If Alarm Selected)	ON	
YES	ACK Key / ACK Input	ON	BLINK'S	ON (If Alarm Selected)	ON (If Alarm Selected)	ON	
YES	Mute key / Mute Input	ON	BLINK'S	OFF	ON (If Alarm Selected)	OFF	
YES	RST Key / RST Input	OFF	BLINK'S	OFF	OFF	OFF	
2) PROGRAMING MODE							
Short programming pins to enter in program mode. Press and Hold ACK key to exit program mode or turn OFF unit.							

Kev	Functions	LED		Selected	
Rey	Tunctions	Green	Red	Window	
ACK	Window Selection	ON	NA	ON	
ACK	Exit Program mode if Pressed and Hold	NA	NA	NA	
MUTE	Select Window Colour	ON	NA	ON	
RST	NO / NC Selection for Input Sensing	ON	NO - ON NC - OFF	ON	
TEST	Select's Alarm Output	ON	NA	BLINK's	

3) TEST MODE

In Operation mode, Press and Hold TEST key / TEST Input sensed for 5 sec to enter TEST mode. Press ACK key to exit TEST Mode

Key	Functions	LED		Window	
	Functions	Green	Red	Willdow	
ACK	Exit Test mode	BLINK's	BLINK's	All Windows blink's and changes colors at each blink	
MUTE	NA	BLINK's	BLINK's		
RST	Hold Test mode	BLINK's	BLINK's	Hold Blinking	

A 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.

A 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.
- 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. 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.
- 6. 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.

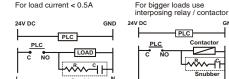
To reduce noise:

Use of Selec make Snubber across load is recommended.

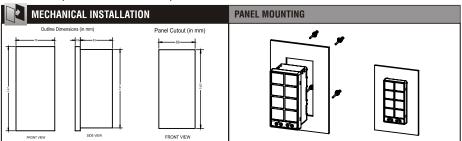
Snubber Part no.: SNUBBER

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

Typical Connections For Loads:



NOTE: Use snubber as shown above to increase life of internal relay.
Use separate shielded wires for inputs.



A CAUTION

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

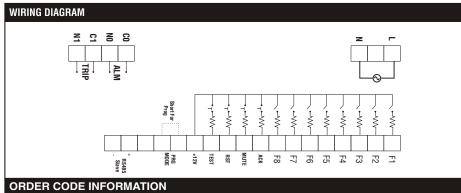
MAINTENANCE

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

WIRING INSTRUCTIONS

CAUTION

- 1. To prevent risk of electric shock, power suppply 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 interface use short wire with adequate rating and twists of equal size.
- The power supply connection cable must have a cross section of 1sq.mm or greater and insulation capacity of At least 1.5KV.



Product	Certification		
	C€	CUL) US	
AN-8-0-0-230V			

SERVICE DETAILS

This device contains no user serviceable parts and requires equipments 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 | Fax No.: +91-22-28471733 Toll free: 1800 227 353 (BSNL/MTNL Subscribers only)

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Doc. name :OP INST AN-8-0-0-230V OP785-V01 (Page 2 of 2)