ProCON-2910

Process Controller

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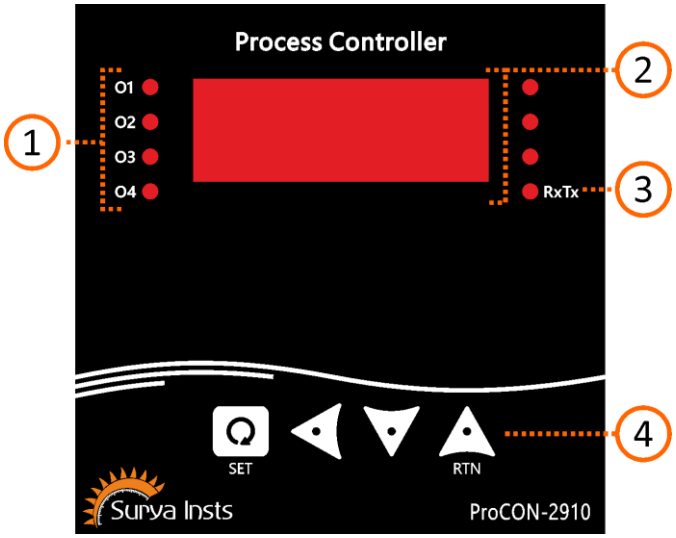
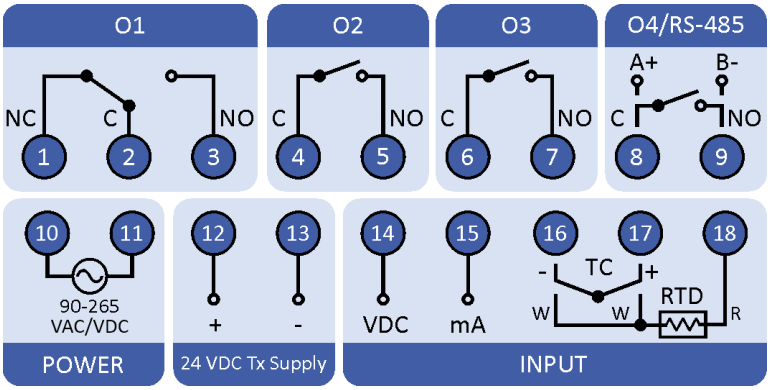
User Interface Details:

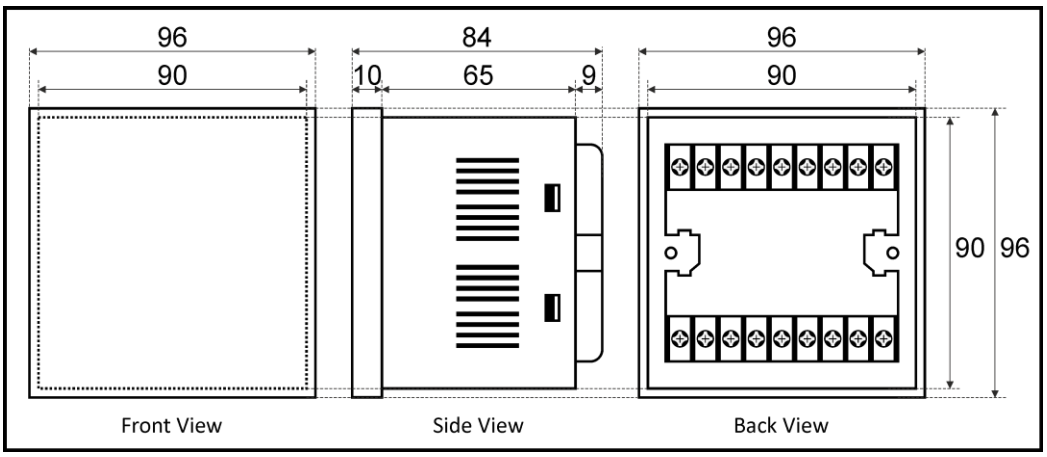


#	GROUP	SYMBOLS	DESCRIPTION
1	O/P Relay Status Indicating LEDS	O1	Output 1 Alarm Status
		O2	Output 2 Alarm Status
		O3	Output 3 Alarm Status
		O4	Output 4 Alarm Status
2	Display (4 x 7 Segment RED LED)	PV	Process Value
3	Status Indicating LEDs	RxTx	RS-485 Communication
4	Keys		Set/Enter
			Shift
			Increment/Return
			Decrement

Terminal Connections:

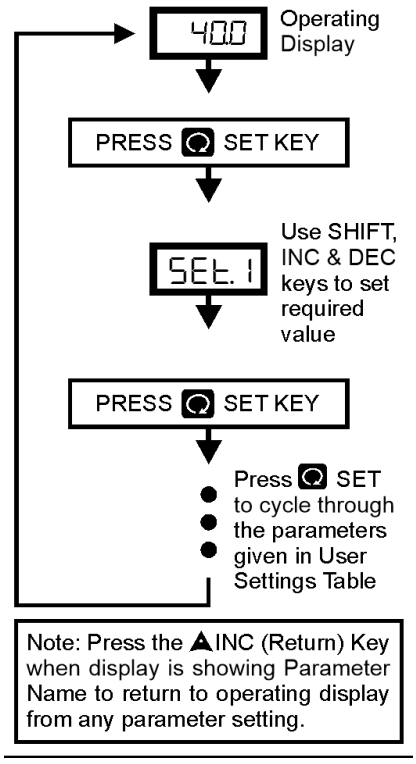


Enclosure Dimensions:

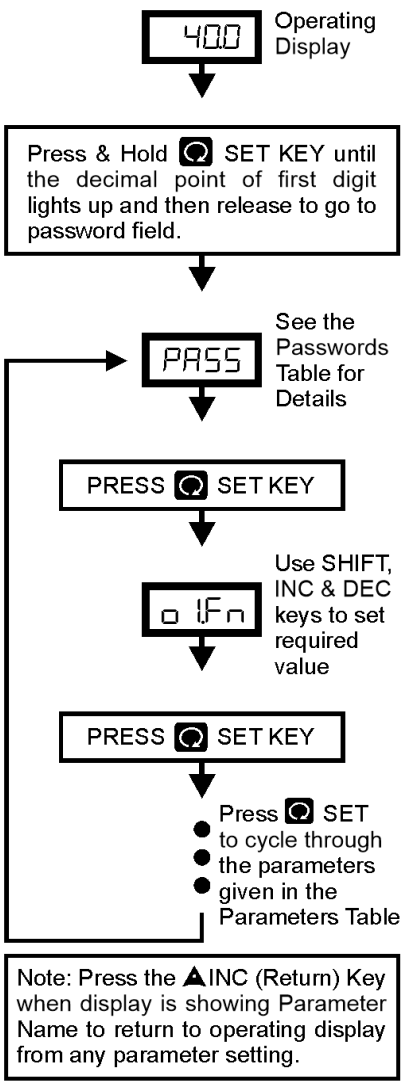


Parameter Setting Procedure:

LEVEL 1 - USER SETTINGS:



ALL OTHER LEVELS:



PASSWORDS TABLE:

Level	Password
Outputs	11
Inputs	111
Re-Tx & RS-485	222
Input Calibration	Contact Manufacturer
Re-Tx Output Calibration	

Parameters Table:

Level 1: User Setting

Parameter	Symbol	Minimum	Maximum	Default
Set Point 1	SEt. 1	SPLL	SPHL	80.0
Set Point 2	SEt.2	SPLL	SPHL	20.0
Set Point 3	SEt.3	SPLL	SPHL	60.0
Set Point 4	SEt.4	SPLL	SPHL	40.0

Level 2: Output Parameters (Password = 11)

Parameter	Symbol	Minimum	Maximum	Default
Output 1 Function	o 1Fn	(See Output Functions Table)		Alarm High
Output 1 Hysteresis	HYS. 1	1	999.9	1.0
Output 1 Delay Function	dL. 1F	None (nonE), ON Delay (ond), Power ON Delay (Pond)		ON Delay
Output 1 Delay Time	dLY. 1	0	9999	0
Output 1 Delay Units	dL. 1u	Seconds (SEc), Minutes (Min)		Seconds
Output 2 Function	o2Fn	(See Output Functions Table)		Alarm Low
Output 2 Hysteresis	HYS.2	1	999.9	1.0
Output 2 Delay Function	dL.2F	None (nonE), ON Delay (ond), Power ON Delay (Pond)		ON Delay
Output 2 Delay Time	dLY.2	0	9999	0
Output 2 Delay Units	dL.2u	Seconds (SEc), Minutes (Min)		Seconds
Output 3 Function	o3Fn	(See Output Functions Table)		Alarm High
Output 3 Hysteresis	HYS.3	0.1	999.9	1.0
Output 3 Delay Function	dL.3F	None (nonE), ON Delay (ond), Power ON Delay (Pond)		ON Delay
Output 3 Delay Time	dLY.3	0	9999	0
Output 3 Delay Units	dL.3u	Seconds (SEc), Minutes (Min)		Seconds
Output 4 Function	o4Fn	(See Output Functions Table)		Alarm Low
Output 4 Hysteresis	HYS.4	0.1	999.9	1.0
Output 4 Delay Function	dL.4F	None (nonE), ON Delay (ond), Power ON Delay (Pond)		ON Delay
Output 4 Delay Time	dLY.4	0	9999	0
Output 4 Delay Units	dL.4u	Seconds (SEc), Minutes (Min)		Seconds

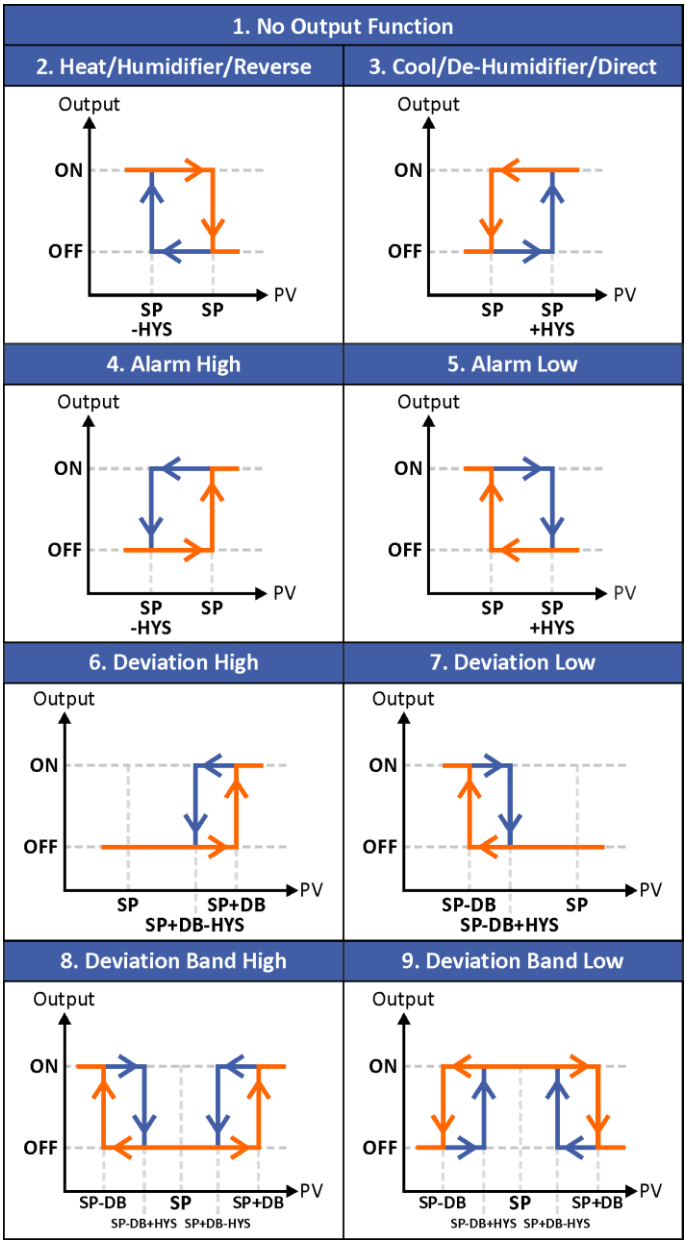
Level 3: Input Parameters (Password = 111)

Parameter	Symbol	Minimum	Maximum	Default
Input	inPt	B, E, J, K, N, R, S, T TC, PT-100 RTD, 4-20 mA, 0-10 VDC, NTC		4-20 mA
Decimal Point for Input	dP	0	3	1
Shift Adjustment (Offset)	SH iF	-199.9	199.9	0.0
Set Point Low Limit	SPLL	-199.9	999.9	0.0
Set Point High Limit	SPHL	-199.9	999.9	100.0
Low Scale	Lo.Sc	-199.9	999.9	0.0
High Scale	H iSc	-199.9	999.9	100.0

Level 5: Re-Transmission & RS-485 Parameters (Password = 222)

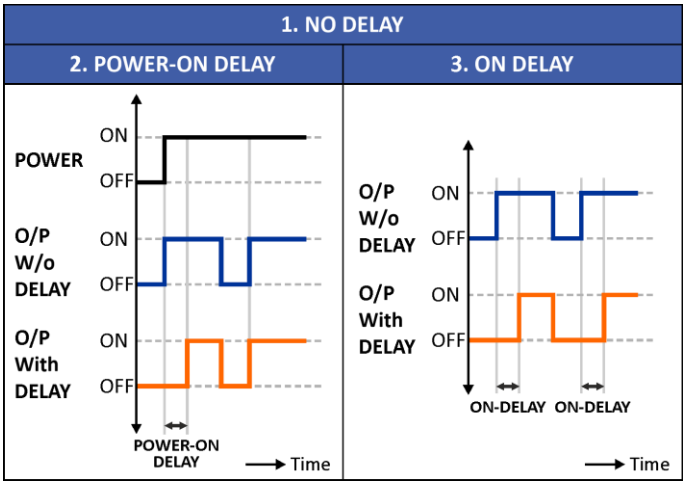
Parameter	Symbol	Minimum	Maximum	Default
RS-485 MODBUS Device Address	Addr	1	31	1
Re-transmission Output Low Scale	L.Sc.o	-199.9	999.9	0.0
Re-transmission Output High Scale	H.Sc.o	-199.9	999.9	100.0

Output Functions:



Sl. No.	Symbol	Description
1	nonE	No Output
2	rEU	Reverse
3	d ir	Direct
4	AL.H ı	Alarm High
5	AL.Lo	Alarm Low
6	dE.H ı	Deviation High
7	dE.Lo	Deviation Low
8	db.H ı	Deviation Band High
9	db.Lo	Deviation Band Low

Delay Functions:



Sl. No.	Symbol	Description
1	nonE	No Output
2	ond	ON Delay
3	Pond	Power ON Delay

MODBUS Communication Detail:

Frame Format:

1 Start Bit, 8 Data Bits, 1 Stop Bit, No Parity

RTU Request Command Example:

Device Address	Function	Parameter Address	Word Count	CRC16
0x01	0x03	0x0000	0x0001	0x840A

MODBUS Address List:

Modbus Address	Parameter Description	Variable Bytes	Parameter Type
40001	Process Value	Byte 3, 2 (AB)	Float - Big Endian - ABCD (Higher Order Byte First)
40002		Byte 1, 0 (CD)	

Ordering Code:

Model Name	ProCON								Process Controller
Series	2								ON-OFF Controller Series
Enclosure		4							48x96 – ABS Panel Mount
		9							96x96 – ABS Panel Mount
		IPM							IP65 – 80x82
		FL							Flameproof
Number of Display Lines			1						1 Line - 4 Digits
			2						2 Lines- 4 + 4 Digits*
Series Variant				0					-
Input					R				PT-100 RTD, 3 wire
					TC1				TC - J, K
					TC2				TC - B, E, J, K, N, R, S, T
					mA				4-20 mA
					VDC				0-10 VDC
					U				Universal 1 (R+TC2+mA+VDC)
Number of Outputs						X			None
						O1			1 Relay
						O2			2 Relays
						O3			3 Relays
						O4			4 Relays
Retransmission							X		Absent
							RTX		Present (4-20 mA)
Rs-485								X	Absent
								RS	Present (MODBUS RTU)
Example	2	9	2	0	U2	O2	X	RS	ProCON-2920-U-O2-X-RS

Note: * 2 Line Display not available in 48x96 enclosure