PV Display Run Mode

Ambient	Applicable only if input type is TC
%Power	Applicable only in Auto Mode
Control Set Point 1 (C1SP 100)	Range Depending on PV sensor type selected.
*Alarm Set Point 1 (A1SP 100)	Range Depending on PV sensor type selected.
Alarm Set Point 2 (A2SP 100)	Range Depending on PV sensor type selected.

*Parameter is only shows if output type is linear

Auto Tune Mode

[1]Auto Tune (AtUn NO)	Start / Stop Auto Tuning Process YES / no 0 : NO (Stop Auto Tuning) 1 : YES (Start Auto Tuning)
[2]Proportional Band (Pb 100)	Adjust Proportional Band 0 to 9999 or 0.0 to 999.9
[1]Integral Time (ti 60)	Adjust Integral Time 0 to 1000
[3]Derivative Time (td 0)	Adjust Derivative Time 0 to 180
Cycle-Time (Ct 10)	Adjust Cycle Time For, SSR o/p: (1 - 60 sec) Relay o/p: (10 - 300 sec)
[2]Output Direction (odir 0)	Set Output Direction dir / rEu 0 : REV (REVERSE) 1 : DIR (Direct)
[4]Manual Reset (mr 0)	Adjust Manual Reset Value It is used to shift P Band for critical Controlling situations. (Applicable only if Control O/P is "P") -(PB/2) to +(PB/2) EX. If PB = 50, SP = 100, O.DIR = REV MR = 0 MR = 25

PV	%POWER
<= 75	100 %
100	50 %
>= 125	0 %

PV	%POWER
<= 100	100 %
125	50 %
>= 150	0 %

[3]Sampling Rate (ALPH 100)	Adjust Sampling Rate. Its acts like Derivative Factor. It is used to decrease effect of D term in PID output for some critical operating condition 0.01 to 1.00
[3]Sampling Period (SAP 200)	Set Sampling Period For Derivative Term. 200 / 500 / 1 0 : 200 ms 1 : 500 ms 2 : 1 sec
Ramp-Rate type (rAmP None)	None / min.r / hr.r 0:none 1:min.r 2:hr.r
[5]Ramp rate value (rAPr 0.1)	0.1 to 999.9 Degree per minutes or hour
[5]Soak rate (SOPr 100)	1 to 9999 minutes
[5]Soak type (SOPt Srst)	Shod / Srst 0:s.hod 1:s.rst

[1] Parameter is only shows if control type is PI or PID.
[2] Parameter is only shows if control type is P or PI or PID.
[3] Parameter is only shows if control type is PID.
[4] Parameter is only shows if control type is P.
[5] Parameter is only shows if Ramp Rate is not None.

CONF (ConF)

Input Type (inPt tc E)	Set PV Input Type tC E/tC J /tC P /tC t /tC b /tC r /tC S /rtd.1 /rtd/0-5u / 1-5u / 0-10
Zero (zero -200)	Automatically change to the Input Lower Range with changing of Input Type , Can be set to any value within the Input Range & less the SPAN Value.
Span (SPAn 1000)	Automatically change to the Input Higher Range with changing of Input Type , Can be set to any value within the Input Range & greater the ZERO Value.
Offset (OFSt 00)	Offset Value

Input type	Range
RTD/ Thermocouple	-100.0°C to +100.0°C
Linear	-1000 to +1000

Filter (FLtr YES)	Enable or Disable Filter for PV Input no / YES 0 : NO 1 : YES
[1]Type of Set Point (tSP1 L-ON)	Set Type of Set Point L-on / H-on 0 : L-ON (Low ON) 1 : H-ON (High ON)
Open Sensor Status (OPES UP)	Set Control O/P & Retransmission state when Input OPEN condition. doun / UP 0 : DOWN 1 : UP
[1]Relay delay (rd1 1)	Relay Delay is amount of time (in sec), that Relay 1 will wait before getting ON after the ON condition occurs. 1 to 99 sec
[1]Hysteresis 1 (For Relay-1) (HY-1 1)	Hysteresis Value for Relay-1 during ON-OFF type Control.

1 to 100	TC & RTD Input
0.1 to 100.0	RTD.1 Input
1 to 100	Linear Input with DP=0
0.1 to 100.0	Linear Input with DP=1
0.01 to 10.00	Linear Input with DP=2
0.001 to 1.000	Linear Input with DP=3

[2]Decimal Point (dP 1)	Set position of Decimal Point on Display. 0 / 0.0 / 0.00 / 0.000 0 : 0 1 : 0.0 2 : 0.00 3 : 0.000
Display Setpoint (diSP CtSP)	Set which Set Point to show in SV display in RUN mode while device is in Auto Mode CtSP /A2SP /A1SP 0 : C1.SP (Control Set Point 1) 1 : A2.SP (Alarm Set Point 2) 2 : A1.SP (Alarm Set Point 1)(only shows if output type is Linear)
Brightness (brht 100)	Adjust Brightness of the 7-segment Display. 10 to 100
SR NO (Srno 1)	Unit ID for Modbus-RS485 Communication 1 to 247
Baud Rate (bAUd 9600)	Set Modbus RS485 Communication Baud Rate 9600 / 19.2K / 38.4K 0 : 9600 (9600 bps) 1 : 19.2K (19200 bps) 2 : 38.4K (38400 bps)
Retrans-mission 1 (rt-1 4-20)	Retransmission-1 Output Type, This output is according to PV input. Zero & Span acts as Min & Max value of retransmission o/p scale respectively. 0-5u / 1-5u / 0-10 / 4-20 / 0-20 0 : 0-5V 1 : 1-5V 2 : 0-10V 3 : 4-20mA 4 : 0-20mA Voltage or Current is Jumper Selectable from the Hardware.

[3]Retrans-mission-1 Direction
rd-1 | dir

Set Direction for the Retransmission Output-1
rEu / dir
0 : REV (REVERSE)
1 : DIR (DIRECT)
EX. If i/p is RTD.1,ZERO=0,SPAN=600, RTR.1=4-20mA&
RT.D.1=DIR
when PV = 0, RTR o/p = 4mA
PV = 300, RTR o/p = 12mA
PV = 600, RTR o/p = 20mA
RT.D.1=REV
when PV = 0, RTR o/p = 20mA
PV = 300, RTR o/p = 12mA
PV = 600, RTR o/p = 4mA

Retrans-mission 2
rtr2 | 4-20

Retransmission-2 Output Type, This output is according to PV input.
Zero & Span acts as Min & Max value of retransmission o/p scale respectively.
0-5u / 1-5u / 0-10 / 4-20 / 0-20
0 : 0-5V
1 : 1-5V
2 : 0-10V
3 : 4-20mA
4 : 0-20mA
Voltage or Current is Jumper Selectable from the Hardware.

Retrans-mission-2 Direction
rd-2 | dir

Set Direction for the Retransmission Output-2
rEu / dir
0 : REV (REVERSE)
1 : DIR (DIRECT)

Output Type
ot | rELY

Output Type rELY / SSr / Lin
0 : RELY (Relay)
1 : SSR (Voltage Pulse Output)
2 : LIN (Linear)
(Linear and SSR shows if control output is not ON-OFF)

[7]Control Output Type
CoP | P

Select Controlling Type for Output
P /P i / P id / onoF
0 : P (Proportional Control)
1 : PI
2 : PID

Control Output Low Limit in %
CoLo | 00

Control Output Low Limit in %.
0.0 to 100.0 %
(It will be always less then CO.HI)

Control Output High Limit in %
CoH i | 1000

Control Output High Limit in %.
0.0 to 100.0 %
(It will be always greater then CO.LO)

[4]Alarm Type -1
A1tP | PuAL

Alarm Operations
0 to 15

Alarm Type -2
A2tP | PuAL

Alarm Operations
0 to 15

[4]Alarm 1 Hysteresis
A1HY | 1

Set Hysteresis For Alarm 1.

1 to 100	TC & RTD Input
0.1 to 100.0	RTD.1 Input
1 to 100	Linear Input with DP=0
0.1 to 100.0	Linear Input with DP=1
0.01 to 10.00	Linear Input with DP=2
0.001 to 1.000	Linear Input with DP=3

Alarm 2 Hysteresis
A2HY | 1

Set Hysteresis For Alarm 2.

1 to 100	TC & RTD Input
0.1 to 100.0	RTD.1 Input
1 to 100	Linear Input with DP=0
0.1 to 100.0	Linear Input with DP=1
0.01 to 10.00	Linear Input with DP=2
0.001 to 1.000	Linear Input with DP=3

[4]Alarm 1 Logic
A1LC | NOrn

Set Logic for Alarm-1
norn / FLSF
0 : NORM (Normal)
1 : FLSF (Fail-Safe)

Alarm 2 Logic
A2LC | NOrn

Set Logic for Alarm-2
norn / FLSF
0 : NORM (Normal)
1 : FLSF (Fail-Safe)

[4]Alarm 1 Delay
A1dY | 1

Alarm Delay is amount of time (in sec), that Relay-1 will wait before getting ON after the alarm condition occurs.
1 to 99 sec

Alarm 2 Delay
A2dY | 1

Alarm Delay is amount of time (in sec), that Relay-2 will wait before getting ON after the alarm condition occurs.
1 to 99 sec

[5]Auto Cold Junction Compens-ation
AcJc | YES

Select Auto Cold Junction Compensation required for TC input Type
NO / YES
0:NO
1:YES

[6]Fix Cold Junction Compens-ation
FcJc | 00

Set Fix cold junction Compensation value.
0 to 60.0 °C

[7]Function Key
FnEY | SOAt

Select A/M or Soak time
A-n / SOAt
0:A-M
1:SOK.T

Version
vErS | -

Shows the Version of the Current Firmware

Password
PASS | 1

Set Device Password 0 to 99

[1] Parameter is only shows if control output type is ON-OFF.
[2] Parameter is only shows if input type is Linear.
[3] Parameter is only shows if output type is not Linear.
[4] Parameter is only shows if output type is Linear.
[5] Parameter is only shows if input type is TC.
[6] Parameter is only shows if input type is TC and A.CJC is NO.
[7] Parameter is only shows if Control Action is PID.

CAL
CAL

***Ambient**
Anb

Ambient Adjustment

Calibration Zero
CAL2

Calibration Zero for PV Input

Calibration span
CALS

Calibration Span for PV Input

Retrans-mission 1 Zero
rt21

Calibration Zero for Retransmission Output-1

Retrans-mission 1 Span
rtS1

Calibration Span for Retransmission Output-1

Retrans-mission 2 Zero
rt22

Calibration Zero for Retransmission Output-2

Retrans-mission 2 Span
rtS2

Calibration Span for Retransmission Output-2

*parameter is only shows if input type is TC

LC5296-XP-AT can be configured as PID or ON-OFF Controller.

To change configuration of LC5296-XP-AT, following steps are required to follow.

From menu parameter settings if user enter 5296 Password in Pass menu in configuration menu then it will displays

****Control Output Type**
CoP | PId

Select Controlling Type for Output
P id / onoF
0 : PID
1 : onof

**Enter Password 5296 from configuration menu parameter settings

1.In conf menu, pass sub menu, if user enter '5296', sub menu will come COP: it has two options PID or ONOF.

2.Selected COP in above menu will be displayed on power on condition. Like PV: 5296 SV: TC-E then PV: COP SV: ONOF.
If COP: PID is selected then PV: COP SV: PID.

3.For COP = PID, then in conf. mode, after OT menu, COP menu will come. With three option, P, PI or PID.

On selection of PID / ON-OFF, only relevant parameters will be displayed in menu.

Specifications are subject to change without notice due to continuous improvements.
Masibus Automation And Instrumentation Pvt. Ltd.
B-30, GIDC Electronics Estate, Sector-25, Gandhinagar-382044, Gujarat, India.
Tel:+91 79 23287275-79 Fax: +91 79 23287281
Web:www.masibus.com Email:support@masibus.com