RS 233-3534 Pro Multi-Function Panel Meter Instructions

smart lighting

RS229-T4 Comfort Spot Wit GU10 Set

Instruction Manual© Innr Lighting B.V. 2018

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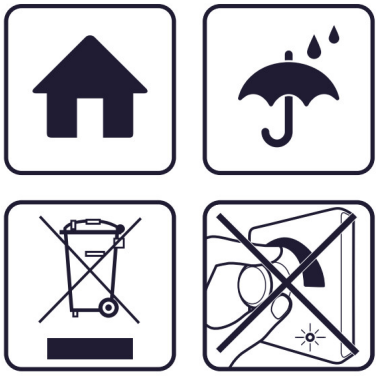

To connect the lamp to the bridge, follow the instructions in the mobile app.
Factory-reset: switch the lamp OFF and ON six times (6x) with intervals of 0,5 seconds.
The lamp will blink to indicate it is the factory reset. It can then be connected to a bridge again.

Contents

Important safety instructions

- For indoor use only.
- Do not disassemble the product; if any part is damaged, the product should not be used.
- Do not immerse in water.
- For cleaning, use a damp cloth, never a strong cleaning agent.
- Keep these instructions for future use.

Declaration of Conformity

Hereby, Inner Lighting BV declares that the radio equipment types RB 26x, BY 26x, RB 27x T, BY 27x T, RB 28x C,
BY 28x C, RB 24x, RB 24x T, RS 22x, RS 22x T, and RS 23x C are in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
www.innrlighting.com/en/downloads
Frequency: 2.4 GHz (2400 ~ 2483.5MHz) – RF power: max. 10 dBm

Instruction

RS PRO Multi-Function Panel Meter Process Indicator

Stock No: see below

ENGLISH

RoHS

PROCESS INDICATOR : (48*96)

Ordering Information:

Sr.No CAT No.

Description

1

180 to 270 VAC, Process Indicator, Analog Input 233-3534 (0-10VDC / 4-20mA)

2

233-3538

180 to 270 VAC, Process Indicator, Thermocouple & RTD input

CAT No: 233-3534W & 233-3538W (Where W stands for White display)

NOTE:
Ø The technical information provided in this document was correct at the time of publish.
Ø Product innovation being a continuous process, we reserve the right to alter specications without any prior notice.
TECHNICAL SPECIFICATION:
233-3538/ 233-3534 Supply Characteristics: Supply Voltage (Un) 180 to 270VAC
Supply Frequency 47 / 63 Hz Power Consumption 5 VA max @ 230 VAC

Functional Characteristics:

PRODUCT DESCRIPTION:
Process Indicator 233-3534 and 233-3538 helps to indicate temperature, Flow, Level, RPM. Monitors the process by accepting inputs from sensor or from analog signals in process industries, with inbuilt hour meter functionality.
FEATURES:
Ø Flush Mounting Version 48X96 mm with 7 segment display Ø Thermocouple (J, k, T, R & S)/ RTD 3-wire (PT-100) sensor input Ø Analog Input (0-10VDC/ 0-20mA/ 4-20mA) Ø °C & °F temperature unit selectable Ø Short depth of 65mm Ø IP 20 (For terminal), IP 30 (For enclosure) & IP 65 (For Front Panel) Ø Hour meter counter functionality Ø Automatic Decimal Point Adjust

Menu Password
Sensor Measurement Range

60 Default (User Selectable)

Applicable for Cat_id: PIT200

J-type
K-type
T-type
R-type & S-type RTD (Pt-100)

°C

-200 to 950

°F

-328 to 1742

°C

-200 to 1350

°F

-328 to 2462

°C

-200 to 400

°F

-328 to 752

°C

-200 to 850

°F

-328 to 1562

°C

0 to 1750

°F

32 to 3182

Analog Input: Applicable for Cat_id: PIA200

CAUTION:

Voltage

0 to 10VDC

Ø When extending the thermocouple lead wires always use thermocouple compensation
Ø wires for wiring. Ø For RTD sensor, use a wiring material with a small lead resistance
(10O max per lead) Ø & no resistance differentials among 3 wires. Ø For 2 wire RTD sensor Short terminal RTD2 & RTD3 then connect to
the Devices. Ø Clean the product with a soft and clean cloth. Do not use
isopropyl alcohol or any Ø other cleaning agent. Ø 20 min warm-up time after connecting thermocouple input. Ø When replacing the sensor, please turn OFF the power. Ø Product innovation being a continuous process, we reserve the
right to alter Ø specications without any prior notice. Ø Ensure the congure and connected input Sensor are same.

Current

0 to 20mA, 4 to 20mA

J, K, T & Pt-100

0.1°/1°

Resolution

R & S

1°

Analog inputs

1/0.1/0.01/0.001

RTD

±0.1% of F.S

± 1°C

233-3538 J, K & T

±0.25% of F.S

± 1°C

R & S

±0.5% of F.S

± 2°C

Measurement Accuracy

233-3534 Signal input

0.5% of F.S

Temperature Unit °C/°F selectable (Appliable for PIT200)

Signal Sampling Time 168 ms

SUITABILITY FOR USE:

Display

Seven Segment Display (Red Color)

These are products with Auto reset, hence never use the products for an application involving signicant risk to life without ensuring that the system as a whole has been designed to address the risks and that

Front Keypad

4 Keys as ESC ( ), DOWN ( ), UP ( ), ENTER ( )

our products are properly rated and installed for the intended use within the entire system or equipment.

Key de-bounce time 40 ms

1

52LL001_00

TECHNICAL SPECIFICATION:

Functional Characteristics:

233-3538 / 233-3534

J, K, T & Pt-100

0.1°/1°

Resolution

R & S Analog inputs

1° 1/0.1/0.01/0.001

RTD

±0.1% of F.S

± 1°C

Measurement Accuracy

PIT200 J, K & T R & S

±0.25% of F.S ±0.5% of F.S

± 1°C ± 2°C

PIA200 Signal input

0.5% of F.S

Temperature Unit °C/°F selectable (Appliable for PIT200)

Signal Sampling Time 168 ms

Display

Seven Segment Display (Red Color)

Front Keypad

4 Keys as ESC ( ), DOWN ( ), UP ( ), ENTER ( )

Key de-bounce time 40 ms

Error Indications

Sens Sensor open/Break error ovrg Over range error

unrg Under range error

Environmental Characteristics:

Operating Temperature
Storage Temperature

0 to 50 °c -20 to 75 °c

Operating Humidity 85 % RH (Non-Condensing)

Operating Altitude 2000 m (max) Pollution Degree II

IP 20: Terminal

Degree of Protection

IP 65: Front Facial IP 30: Enclosure

Enclosure

Flame Retardant (UL 94 V-0)

Other Characteristics:

Mounting (WXHXD) mm

48X96X65

Weight

(Un-Packed)

PIA200 : 144 gm PIT200 : 145 gm

Operating Position Horizontal (Readable)

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FUNCTIONAL PARAMETERS:

Parameter Inp Menu: Input

Description

senS

Sensor input setting

j

J-type

K-type

S y

S-type

r

r-type

t

T-type

Default j

Pt1

Pt-100

rAte ofst

RATE Range: 0.000 to 2.000
OFFSet Range: -1999 to 9999

DP

Decimal Point Range: 0 to 1 for J, K, Pt1 & T 0 for R, S

unIt Filt

Temperature Unit Range: °C or °F Filter Range: 0 to 10

misc Menu: Miscellaneouc

unit

hcnt

Unit Range: OFF,day,hr
hcth

Counter Threshold Range: OFF to 9999

This Parameter will displays the Current

Ver

Product Firmware Version

pwd Menu: Password

stat

Password Status Range: EN or DIS

EN: Enable DIS: Disable

set

Password Set

Range: 0 to 9999

Hide Menu: Hiding

Input

Range: OFF or ON

inp

OFF: Inp menu will not hide

ON: Inp menu will hide

Misc

Miscellaneouc Range:OFF or ON
OFF: Misc menu will not hide ON: Misc menu will hide

1.000 0 0 o C 0
oFF oFF
…
En 60
off
off

Parameter

Description

pwd Menu: Password

Password

Pwd

Range: OFF or ON

OFF: PWD menu will not hide

ON: PWD menu will hide

rset

Reset Range: OFF or ON
OFF: Rset menu will not hide ON: Rset menu will hide

rset Menu: Reset

rset

Reset To reset the devices & load default setting (Press Enter key)

Default off off

cnfm

If “Yes”: Will display Conrm reset

If “No” : Will get to menu

no

After Conrm, If “Yes”: Devices Reset and back to main
Screen If ” No”: Back to main Screen

2

The Functional parameter for cat_id: 233-3534 is same as above only input menu is different

Inp Menu: Input

senS

Sensor input setting

0_20

0 to 20mA

4_20

4 to 20mA

0_10

0 to 10VDC

0_20

Analog Input Low Scale

IScL

Range: -1999 to ISCH

0

Selectable low value for analog input

isch

Analog Input High Scale Range: ISCL to 9999 Selectable high value for analog input

100.00

airl
airH rAte ofst
DP Filt

Analog Input Range Low Range: For 0_20: 0 to AirH
For 4_20: 4 to AirH For 0_10: 0 to AirH Selectable low value for Display scaling
Analog Input Range High Range: For 0_20: AirL to 20
For 4_20: AirL to 20 For 0_10: AirL to 10 Selectable high value for Display scaling
RATE Range: 0.000 to 2.000
OFFSet Range: -1999 to 9999
Decimal Point Range: 0 to 3 for V & I
Filter Range: 0 to 10

00.00
20.00
1.000 0 0 2

EMI/EMC Compliance:
Harmonic Current Emission ESD Radiated Susceptibility Electrical Fast Transients (Power Ports)
Surge

IEC 61000-3-2 (Class A) IEC 61000-4-2 (Level III) IEC 61000-4-3 (Level III) IEC 61000-4-4 (Level IV) IEC 61000-4-5 (Level IV)

Conducted Susceptibility IEC 61000-4-6 (Level III)

Power Frequency Magnetic Field

IEC 61000-4-8 (Class 4)

Voltage Dips/Interruption IEC 61000-4-11

Voltage Dips (DC)

IEC 61000-4-29

Conducted & Radiated Emission

CISPR 11 (Class A)

Product Standard Safety Compliance: Dielectric Strength (Input & Output)

IEC 61326-1 IEC 60255-5

Impulse(Input & Output) IEC 60255-5 (Level IV)

Single Fault

IEC 61010-1

Insulation Resistance Leakage Current

UL 508 (>100 M) UL 508 (< 3 mA)

Environmental Compliance:

Cold Heat Dry Heat
Vibration

IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-6 (5g)

CONNECTION DETAIL:

DC Analog Input
V mA
+ — + 1 2 3 4 5 6 7 8 9 10

21

23

22

233-3534

24

11 12 13 14 15 16 17 18 19 20

Pt-100

RTD1 RTD2 RTD3

+ TC/mV 1 2 3 4 5 6 7 8 9 10

21

22

233-3538

23 24

11 12 13 14 15 16 17 18 19 20

NL Input Supply

NL Input Supply

FRONT FACIA:

1 6

2

5

Sr.

Keys/

No. Indication

1

PV

2

3

4

5

6

°F

3

4

Description
To displays the `Process Value' & `Menu'.
To exit from menu. To abort changed value or parameter. To return to home screen.
To view parameter downward. To decrement/ change parameter value in edit mode. To view hour counter unit & threshold (Press for >2 sec)

To view parameter upward. To increment/change parameter value in edit mode.
To enter into main menu (Press for >2 sec) To select and save parameter
To indicates LED `°F' unit setting.

MECHANICAL DIMENSIONS (in mm):

FRONT VIEW

SIDE VIEW

PANEL CUTOUT

Terminal Details:

Ø4……5.0mm Combi Head Bit./Flat
AWG

0.5 N.m (4.4lb.in) to 0.7N.m (6.2lb.in)
2 x 2.5 mm2 Solid / Standard Wire
1 X 20 to 12

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3

FUNCTION MENU:

Cat_id: 233-3538

60

pwd

Press Enter key for 2 sec

(60 is password)

1np SenS rate oFSt

DP

UnIt

J

1.000

0

0

oC

y

of

s

r

T

pt1

misc Unit off

hcnt off

pwd stat SET

Dis

60

Hide

inp misc PWD rset

off off

rset no

yes

off off

cnF

no

yes

filt 2

Cat_id: 233-3534

60

pwd

Press Enter key for 2 sec (60 is password)

1np SenS iSCL isch airl airh

0_20 4_20

0

100

00.00 20.00

filt

DP

oFSt rate

0_10 misc Unit

2 off

0

0

1.000

hcnt off

pwd stat SET

Dis

60

Hide

inp misc PWD rset

off off

rset no

yes

off off

cnF

no

yes

DESCRIPTION & DEFINATION:
Rate (rate) & Offset (ofst): This menu is used to adjust the PV value in cases where it is necessary for PV value to agree with another recorder or indicator, or when the sensor cannot be mounted in correct Location. E.g. Sensor is mounted at a location, where less than actual temperature is observed. Let us say actual temperature is 550 and sensor is located to such a location where the temperature is 500.This device will measure 500 and show the value accordingly. To observe the actual temperature, user should add offset of 50 to measured temperature value. i.e. 500+50=550. Now device will show 550 instead of 500, Rate can be applied as slope; range is from 0.001 to 2.000. Display temp. = rAtE * Measured Temp + oFst
HOUR METER: It is the number of hour/day that the instrument is turned ON. When the DUT reached to the threshold value (Programmable) the display will indicate an message of “INSP”(Inspection), to indicated that set threshold is completed and can start his necessary action. After acknowledge the hour meter will continue to record the hours till new threshold is set. If counter threshold is edited then it will reset the current count. UNIT (UNIT): It is used to select day or hour. HOUR METER THRESHOLD (hcNT): It is used to set the threshold.
ANALOG INPUT & DISPLAY SETTING E.g. We have few setting in Inp menu. Sens = 0_10 (0V to 10V) AlrL = 1, Alrh = 10, (Selectable high & low value for analog input) IScL = 0, ISch = 99 (Selectable high & low value for Display scaling value) When analog input voltage is 1V then value on display will be 0. When analog input voltage is 10V, then value on display will be 99.This value will vary from 0 to 99 according to analog input.
E-Waste Regulatory notice: Kindly treat, recycle or dispose of this equipment in an environmentally sound manner after End of Life, as per WEEE (Waste and Electronic Equipment) regulations; or hand it over to General Industrial Controls Pvt. Ltd, through website https://www.gicindia.com/get-intouch/

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PROCESS INDICATORS : (48*96)
RoHS

Ordering Information:

FRONT FACIA:

Sr.No CAT No

1

233-3535

Description
85-270V AC/DC, Process indicator, Analog Input (0-10VDC/0-20mA),Thermocouple, RTD & mV, 24VDC Sensor Supply

85-270V AC/DC, Process indicator, Analog Input

2

233-3536 (0-10VDC/0-20mA),Thermocouple, RTD & mV,

Alarm outputs-Analog (0-10V/0-5V,0-20mA/4-20mA)

& Relay 5A for alarm indication, 24VDC Sensor Supply)

85-270V AC/DC, Process indicator, Analog Input

3

233-3537 (0-10VDC/0-20mA),Thermocouple, RTD & mV,

Alarm outputs-Analog (0-10V/0-5V,0-20mA/4-20mA)

& Relay 5A for alarm indication with Rs485 Modbus

communication, 24VDC Sensor Supply)

CAT No: PIB110W, PIB120W & PIB12CW (Where W stands for White display)

PRODUCT DESCRIPTION:

Process indicator Series with scalable analog input and output, monitors the process, indicates the temperature, level, ow and pressure, retransmits the analog output, provides alarm indication, with inbuilt hour meter functionality and RS485 Modbus communication.

FEATURES:
Ø Flush Mounting Version 48X96 mm with 7 segment display Ø Thermocouple (J, k, T, R & S)/ RTD 3-wire (PT-100) sensor input Ø Analog Input (0-10VDC/ 0-20mA/ 4-20mA), mV(Linear) -5 to 56mV Ø Alarm Outputs, Analog (0-20mA/ 4-20mA or 0-10VDC/0-5VDC) and Ø Relay 5A for alarm indication Ø Congurable Band, Deviation Alarms Ø °C & °F temperature unit selectable Ø Short depth of 65mm Ø RS485 Communication (applicable for Cat No: PIB12C) Ø IP 20 (For terminal), IP 30 (For enclosure) & IP 65 (For Front Panel) Ø 24 VDC (30mA) sensor supply Ø Hour meter counter functionality Ø Automatic Decimal Point Adjust

1 2

6 7 8 5

Sr. Keys/ No. Indication

1

PV

2

3

4

5

6

AL1

7

AL2

8

°F

3

4

Description
To display the `Process Value' & `Menu'.
To exit from menu. To abort changed value or parameter. To return to home screen. To view parameter upward. To increment/change parameter value in edit mode.
To view parameter downward. To decrement/change parameter value in edit mode. To view hour counter unit & threshold(Press for >2 sec)
To enter into main menu (Press for >2 sec) To select and save parameter To indicate LED for Alarm 1. To indicate LED for Alarm 2. To indicate LED `°F' unit setting.

FRONT VIEW

SIDE VIEW

AL1 AL2

CAUTION:
Ø When extending the thermocouple lead wires, Always use Ø thermocouple compensation wires for wiring. Ø For 2 wire RTD short terminal RTD2 & RTD3 and then connect to the
devices. Ø Clean the product with a soft and clean cloth. Do not use
isopropyl alcohol or any other cleaning agent. Ø 20 min warm-up time after connecting thermocouple input Ø When replacing the sensor, please turn OFF the power. Ø Product innovation being a continuous process, we reserve the
right to alter specications without any prior notice. Ø Ensure the congure and connected input Sensor are same. Ø For RTD sensor, Use a wiring material with small Lead resistance Ø (100O max per lead) & no resistance differentials among 3 wires

MECHANICAL DIMENSIONS (in mm): PANEL CUTOUT
Terminal Details:

Ø4……5.0mm Combi Head Bit./Flat
AWG

0.5 N.m (4.4lb.in) to 0.7N.m (6.2lb.in)
2 x 2.5 mm2 Solid / Standard Wire

1 X 20 to 12

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TECHNICAL SPECIFICATION:

Supply Characteristics:

233-3535 / 233-3536

Supply Voltage (Un) Supply Frequency Power Consumption

85 to 270 VAC/DC 47 to 63 Hz 8 VA @ 230 VAC

/ PIB12C

Functional Characteristics:

Menu Password Sensor Inputs (IEC)
Sensor Measurement Range

60 Default (User Selectable)

Thermocouple (J, K, T, R & S) RTD (Pt-100, 3-wire, 2-wire) For 2 wire RTD short terminal no 6 & 7

J-type

°C -200 to 950 °F -328 to 1742

K-type
T-type R-type & S-type

°C -200 to 1350 °F -328 to 2462 °C -200 to 400 °F -328 to 752
°C 0 to 1750 °F 32 to 3182

RTD (Pt-100)

°C -200 to 850 °F -328 to 1562

Analog Input

Voltage Current

0 to 10VDC 0 to 20mA, 4 to 20mA

Resolution

mV

-5 to 56mV

J, K, T & Pt-100

0.1°/1°

R & S

1°

Analog inputs

1/0.1/0.01/0.001

RTD

±0.1% of F.S

± 1°C

Measurement Accuracy

J, K & T R & S Signal input

±0.25% of F.S ±0.5% of F.S 0.5% of F.S

± 1°C ± 2°C

20 min warm up

Temperature Unit °C/°F selectable

Signal Sampling Time 168 ms

Display

Seven Segment Display (Red Color)

Front Keypad

4 Keys as ENTER ( ), UP ( ), DOWN ( ), ESC ( ),

Key de-bounce time 40 ms

Error Indications

Sens Sensor open/Break error Ovrg Over range error Unrg Under range error

Sensor Supply Characteristics:

Output Voltage

24 VDC (26.4 V Max.)

Load Current

30 mA (Max)

Relay(Alarm Indication) Characteristics:

Applicable for cat No: PIB120 and PIB12C

Contact Arrangement 1 C/O (SPDT)

Contact Rating

5A(NO), 3A(NC), RES. @ 250VAC/ 24VDC

Contact Material

Ag alloy (Cd free)

Utilization Category (AC-15)
Switching Frequency

Ue Rated Voltage (V): 120 / 240 Ie Rated Current (A): 3.0 / 1.5 1800 Operations/Hour

Electrical Life

50,000 Operations

Mechanical Life

5,000,000 Operations

Linear DC Output Characteristics: Applicable for cat No: PIB120 and PIB12C

Programmable output

Voltage: 0 to 10V/ 0 to 5V Current: 0 to 20 mA / 4 to 20mA

Output update rate 100mS

Accuracy of DC Output 0.25% of F.S.

Min. load resistance (Voltage)

Min 30K

Max. load resistance (Current)

Max 600

LED Indications(For Alarm Indication): AL1 and AL2 LED’s are applicable for cat No: PIB120 and PIB12C

AL1 (Red LED) ON AL2 (Red LED) ON

Relay output ON Relay output ON

`°F’ (Red LED) ON Display `°F’ value OFF Display `°C’ value

Communication Characteristics: Applicable for cat No: PIB12C

Interface Standard

RS-485 (Modbus RTU)

Communication Address

1 to 247

Transmission Distance Upto 1000 m

Transmission Speed 2400,4800, 9600, 19200 BPS

Parity

Even, Odd, None

Communication

Half Duplex

Environmental Characteristics:

Operating Temperature 0 to 50 °c

Storage Temperature -20 to 75 °c Operating Humidity 85 % RH (Non-Condensing)

Operating Altitude Pollution Degree

2000 m (max) II

Degree of Protection
Enclosure Other Characteristics:

IP 20: Terminal
IP 65: Front Facial IP 30: Enclosure Flame Retardant (UL 94 V-0)

Mounting (HXWXD) Weight (Un-Packed)

48X96X65 (mm) 233-3535:160 gm 233-3536 :200 gm 233-3537 :200 gm

Operating Position

Horizontal (Readable)

EMI/EMC Compliance:

Harmonic Current Emission
ESD

IEC 61000-3-2 (Class A) IEC 61000-4-2 (Level II)

Radiated Susceptibility IEC 61000-4-3 (Level III)

Electrical Fast Transients (Power Ports)

IEC

61000-4-4 (Level

IV)

Surge

IEC 61000-4-5 (Level IV)

Conducted Susceptibility IEC 61000-4-6 (Level III)

Power Frequency Magnetic Field

IEC 61000-4-8 (Class 4)

Voltage Dips/Interruption IEC 61000-4-11

Voltage Dips (DC)

IEC 61000-4-29

Conducted & Radiated CISPR 11 (Class A)

Emission

Product Standard

IEC 61326-1

Safety Compliance:

Dielectric Strength (Input & Output)

IEC 60255-5

Impulse (Input & Output)

IEC 60255-5 (Level IV)

Single Fault

IEC 61010-1

Insulation Resistance UL 508 (>100 M)

Leakage Current

UL 508 (< 3 mA)

Environmental Compliance:

Cold Heat

IEC 60068-2-1

Dry Heat

IEC 60068-2-2

Vibration

IEC 60068-2-6 (5g)

2

ALARM MENU:

Alarm Types: 1. Absolute low (“AbLO” on display): Alarm is activated if PV goes below A1th and is deactivated if PV goes above (A1th+A1hY).

Menu AL1

Sub menu A1tY

Option AbLo

PV A1hY

A1th+A1hY A1th

ON

OFF

ON

OFF

ON

Time

2. Absolute high (“AbhI” on display): Alarm is activated if PV goes above A1th and is deactivated if PV goes below (A1th-A1hy).

Menu AL1

Sub menu A1tY

Option Abhi

PV A1hY

A1th A1th-A1hY

OFF

ON

OFF

ON

OFF

Time

3. Absolute band (“AbbA” on display): Alarm is activated if PV goes above A1hi or below A1Lo. It is deactivated if it goes below (A1hi-A1hy) or above (A1Lo+A1hy).

Menu AL1

Sub menu A1tY

Options AbbA

PV A1hY A1hy
Menu AL1

ON O F F

ON O F F

ON O ON O ON

F

F

F

F

A1hi A1hi-A1hy A1L0+A1hy A1Lo
Time

Sub menu A1tY

Options
AbLo AbhI AbbA

AL Menu: This Menu is applicable for Cat No: PIB120 & PIB12C

A1tY

Alarm 1 type: Range: 1. AbLo: Absolute low 2. AbhI: Absolute high 3. AbbA: Absolute band

AbLo

Alarm 1 function:

0 : Alarm on Error

+1: Acknowledge alarm

A1Fn

+2: Delayed alarm

0

+4: Latch alarm

+8: No alarm at power on

Range: 0-15

A1Lo A1th

Alarm 1 low level Range: -1999 to A1th
Alarm 1 Threshold Range: A1Lo to A1Hi

-1999 0

A1hI A1hY

Alarm 1 high level Range: A1th to 9999
Alarm 1 hysteresis Range: OFF to 9999

9999 1

Alarm 1 Annunciator

Range: LED, DISP, OFF

LED: LED blinks at 0.2 Sec

A1AN

after alarm occurrence DISP: Message gets displayed

Off

On Screen and LED gets

ON after alarm occurrence

OFF: LED is continuous ON

A1dL

Alarm 1 delay Range: OFF to 9999 s

Off

Alarm Functions:

Sr.No Value

Details

Applications

10 21 32 44 58

Normal Activation: When alarm condition occurs. Deactivation: When the alarm condition Disappear.
Acknowledge Activation: When alarm condition occurs. Deactivation: 1)When the alarm condition disappear.
2)When configurable key is programmed for acknowledgment and it is pressed in alarm condition.

Normal
To ignore the alarm Condition

Delayed

To delay the

Activation: Delayed by time set in A1dL alarm

parameter after occurrence of the alarm generated,

condition.

some times

Deactivation: When the alarm condition alarm can be

disappear.

generated for

Note: During the delay if the alarm

shorter time

condition disappears, alarm will not

due to some

generated.

disturbance in

system

Latched

To record or

Activation: When alarm condition occurs. draw attention

Deactivation: When configurable key is of alarm

programmed for acknowledgment and generation

it is pressed in alarm condition.

condition every

Note: Alarm will not automatically

time. since no

deactivated once generated.

automatic of

alarm

No alarm at Power ON Activation: IF alarm condition exist at power on, alarm will not be activated. Once devices comes out of alarm condition after power on, there after alarm will be activated at every occurrence of the alarm condition. Deactivation: Alarm will be deactivated in no alarm condition.

To avoid alarm after power on. Since possibility of alarm condition after every power on.

Note: Alarm types and functions are explained for alarm 1. The explanation for AL1 is same as AL2. 2. Binary addition of alarm function allows Combination of different function.
Eg. If it is required to have no alarm at power On [8] and Delayed [2], set function as 10.

FUNCTIONAL PARAMETERS:

Parameter

Description

Inp Menu: Input

senS

Sensor input setting

j

J-type

S y

K-type

S-type

r

r-type

t

T-type

Pt1

Pt-100

0_20

0 to 20mA

4_20

4 to 20mA

0_10

0 to 10VDC

56mV

56mV Analog input

IScL

Analog Input Low Scale Range: -1999 to ISCH

Isch

Analog Input High Scale Range: ISCL to 9999

airl

Analog Input Range Low Range: For 0_20: 0 to AirH
For 4_20: 4 to AirH For 0_10: 0 to AirH For 56mV: -5 to AirH

airH

Analog Input Range High Range: For 0_20: AirL to 20
For 4_20: AirL to 20 For 0_10: AirL to 10 For 56mV: AirL to 56

Default
j
0 100 0.00 20.00

3

rAte

RATE Range: 0.000 to 2.000

ofst

OFFSet Range: -1999 to 9999

DP unIt

Decimal Point Range: 0 to 3 for V, I & mV
0 to 1 for J, K, Pt1 & T 0 for R, S
Temperature Unit Range: °C or °F

PvLO PvhI Filt

Process Value Low Range: -1999 to 9999 Corresponds to 0 or 4mA / 0VDC
Process Value High Range: -1999 to 9999 Corresponds to 20mA / 10VDC
Filter Range: 0 to 10

0p Menu: Output

Output 1

Range: OFF

A1NO(Alarm 1 Normally open)

op1

A1NC(Alarm 1 Normally Close) A2NO(Alarm 2 Normally open)

A2NC(Alarm 2 Normally Close)

SMER(Sensor Measurement Error)

Output 2

Range: OFF

A1NO(Alarm 1 Normally open)

op2

A1NC(Alarm 1 Normally Close)

A2NO(Alarm 2 Normally open)

A2NC(Alarm 2 Normally Close)

SMER(Sensor Measurement Error)

op3 manl Serr

Output 3 Range: V005(0 to 5 VDC)
V010(0 to 10 VDC) I020(0 to 20 mA) I420(4 to 20 mA)
Manual mode Range: ON, OFF
Sensor Error Range: Low, High (Note: the parameter will only be visible if manual mode is OFF) When ever sensor error conditions occurs in that case analog o/p will be High (for e.g 5 VDC)

Ptag

Percentage Error Range: 0.0 to 100.0 (Note: The parameter will only be visible if manual mode is ON) if PtAg: 50 & OP3: V005 then, When ever sensor error conditions occurs in that case analog o/p will be 2.5VDC (Percentage value of Analog o/P)

misc Menu: Miscellaneouc

hcnt

unit Unit Range: OFF,day,hr
hcth Counter Threshold Range: OFF to 9999

This Parameter will displays the

ver

Current Product Firmware Version

modb Menu: Modbus

addr

Address (Devices ID) Range: 1 to 247

1.000 0 0 oC 0 100 0
oFF
oFF
V005 off high
0
oFF oFF … 1

baud

Baud rate Range: 24, 48, 96, 192
24: 2400 baud rate 48: 4800 baud rate 96: 9600 baud rate 192: 19200 baud rate

part

Parity Range: None, Odd, Even
None: None Parity odd : Odd Parity Even : Even parity

Stpb

Number of stop bits Range: 1 to 2

pwd Menu: Password

stat

Password Status Range: EN or DIS
EN: Enable DIS: Disable

set

Password Set Range: 0 to 9999

Hide Menu: Hiding

Input

inp

Range: OFF or ON OFF: Inp menu will not hide

ON : Inp menu will hide

Alarm1

Al1

Range: OFF or ON

OFF: AL1 menu will not hide

ON : AL1 menu will hide

Al2 op Misc

Alarm2 Range: OFF or ON
OFF: AL2 menu will not hide ON : AL2 menu will hide
Output Range: OFF or ON
OFF: OP menu will not hide ON : OP menu will hide
Miscellaneouc Range: OFF or ON
OFF: Misc menu will not hide ON : Misc menu will hide

Modb

Modbus Range: OFF or ON

OFF: Modb menu will not hide ON : Modb menu will hide

Password

Pwd

Range: OFF or ON OFF: PWD menu will not hide

ON : PWD menu will hide

rset

Reset Range: OFF or ON
OFF: Rset menu will not hide ON : Rset menu will hide

rset Menu: Reset

rset cnfm

Reset To reset the devices & load default setting (Press Enter key) If “Yes” : Will display Confirm reset If “No” : Will get to menu After Confirm, If “Yes” : Devices Reset and back to
main Screen If ” No” : Back to main Screen

96
none 1 En 60 off off off off off off off off
no

4 rspro.com

The Functional parameter for cat_id: PIA200 is same as above only input menu is different

Inp Menu: Input

senS

Sensor input setting

0_20 4_20

0 to 20mA 4 to 20mA

0_10

0 to 10VDC

IScL

Analog Input Low Scale
Range: -1999 to ISCH Selectable low value for analog input

isch

Analog Input High Scale Range: ISCL to 9999 Selectable high value for analog input

4_20 0
100.00

airl

Analog Input Range Low Range: For 0_20: 0 to AirH
For 4_20: 4 to AirH For 0_10: 0 to AirH Selectable low value for Display scaling

00.00

airH

Analog Input Range High Range: For 0_20: AirL to 20
For 4_20: AirL to 20 For 0_10: AirL to 10 Selectable high value for Display scaling

20.00

MECHANICAL DIMENSIONS (in mm):

FRONT VIEW

SIDE VIEW

PANEL CUTOUT

Terminal Details:

Ø4……5.0mm Combi Head Bit./Flat
AWG

0.5 N.m (4.4lb.in) to 0.7N.m (6.2lb.in)
2 x 2.5 mm2 Solid / Standard Wire
1 X 20 to 12

rAte

RATE Range: 0.000 to 2.000

ofst DP Filt

OFFSet Range: -1999 to 9999
Decimal Point Range: 0 to 3 for V & I
Filter Range: 0 to 10

CONNECTION DIAGRAM:

Pt-100 DC Analog

RTD1 RTD2 RTD3

Input

+ TC/mV –

V mA
+ — +

1 2 3 4 5 6 7 8 9 10

21 22

233-3535

23 24

11 12 13 14 15 16 17 18 19 20

+ 24V –
Sensor Supply

N/- L/+
Input Supply

OP3

RTD1 RTD2 RTD3

0-5V 0-20mA 0-10V 4-20mA

Pt-100

DC Analog Input

+ – + + TC/mV –

+

V-

mA
–

+

1 2 3 4 5 6 7 8 9 10

21 22

233-3536

23 24

11 12 13 14 15 16 17 18 19 20

NO

NC

P

OP1

NO

NC

P

OP2

+ 24V –
Sensor Supply

N/- L/+
Input Supply

OP3

0-5V 0-20mA 0-10V 4-20mA

Pt-100

DC Analog Input

+ – + + TC/mV –

V mA
+ — +

1 2 3 4 5 6 7 8 9 10

+

D 21 D- 22

233-3537

23 24

11 12 13 14 15 16 17 18 19 20

NO

NC

P

OP1

NO

NC

P

OP2

+ 24V –
Sensor Supply

N/- L/+
Input Supply

RS485 RTD1
RTD2 RTD3

1.000
0 0 2

FUNCTION MENU:

60

pwd

Press Enter key for 2 sec

(60 is password)

1np SenS rate oFSt

DP

UnIt

J

1.000

0

0

oC

y

of

s

r

T

pt1

misc Unit off

hcnt off

pwd stat SET

Dis

60

Hide

inp misc PWD rset

off off

rset no

yes

off off

cnF

no

yes

filt 2

5

rspro.com

Cat_id: 233-3534

60

pwd

Press Enter key for 2 sec (60 is password)

1np SenS iSCL isch airl airh

0_20 4_20

0

100

00.00 20.00

filt

DP

oFSt rate

0_10 misc Unit

2 off

0

0

1.000

hcnt off

pwd stat SET

Dis

60

Hide

inp misc PWD rset

off off

rset no

yes

off

off

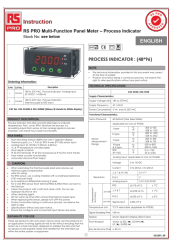
cnF

no

yes

DESCRIPTION & DEFINATION:
Rate (rate) & Offset (ofst): This menu is used to adjust the PV value in cases where it is necessary for PV value to agree with another recorder or indicator, or when the sensor cannot be mounted incorrect Location. E.g. Sensor is mounted at a location, where less than actual temperature is observed. Let us say actual temperature is 550 and sensor is located to such a location where the temperature is 500.This device will measure 500 and show the value accordingly. To observe the actual temperature, user should add offset of 50 to measured temperature value.i.e. 500+50=550. Now device will show 550 instead of 500, Rate can be applied as slope; range is from 0.001 to 2.000. Display temp. = rAtE * Measured Temp + oFst
HOUR METER: It is the number of hour/day that the instrument is turned ON. When the DUT reached to the threshold value (Programmable) the display will indicate an message of “INSP”(Inspection), to indicated that set threshold is completed and can start his necessary action. After acknowledge the hour meter will continue to record the hours till new threshold is set. If counter threshold is edited then it will reset the current count. UNIT (UNIT): It is used to select day or hour. HOUR METER THRESHOLD (hcNT): It is used to set the threshold. ANALOG INPUT & DISPLAY SETTING E.g. We have few setting in Inp menu. Sens = 0_10 (0V to 10V)AlrL = 1, Alrh = 10, (Selectable high & low value for analog input)IScL = 0, ISch = 99 (Selectable high & low value for Display scaling value) When analog input voltage is 1V then value on display will be 0. When analog input voltage is 10V, then value on display will be 99.This value will vary from 0 to 99 according to analog input.

Documents / Resources

	RS 233-3534 Pro Multi-Function Panel Meter [pdf] Instructions 233-3534, Pro Multi-Function Panel Meter, 233-3534 Pro Multi-Function Panel Meter

References

- Get in Touch - GIC India