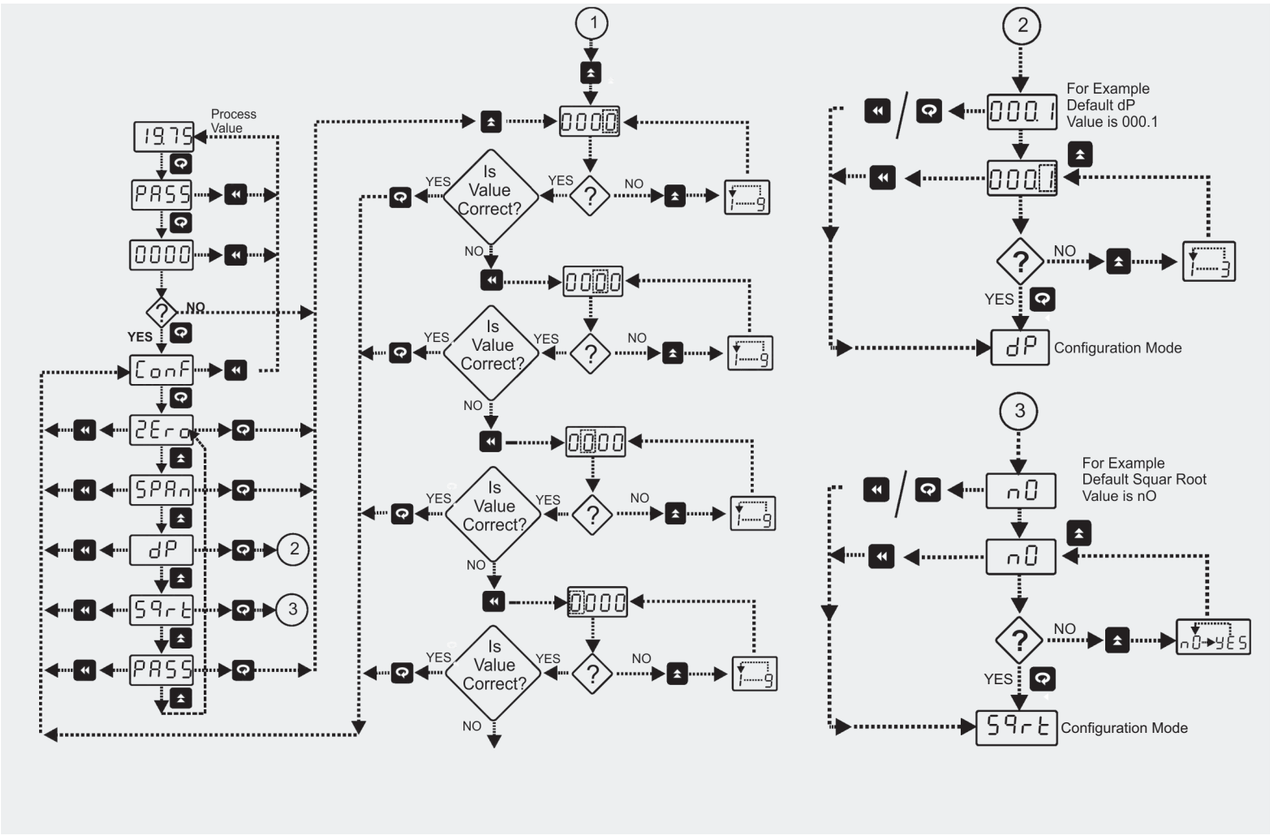
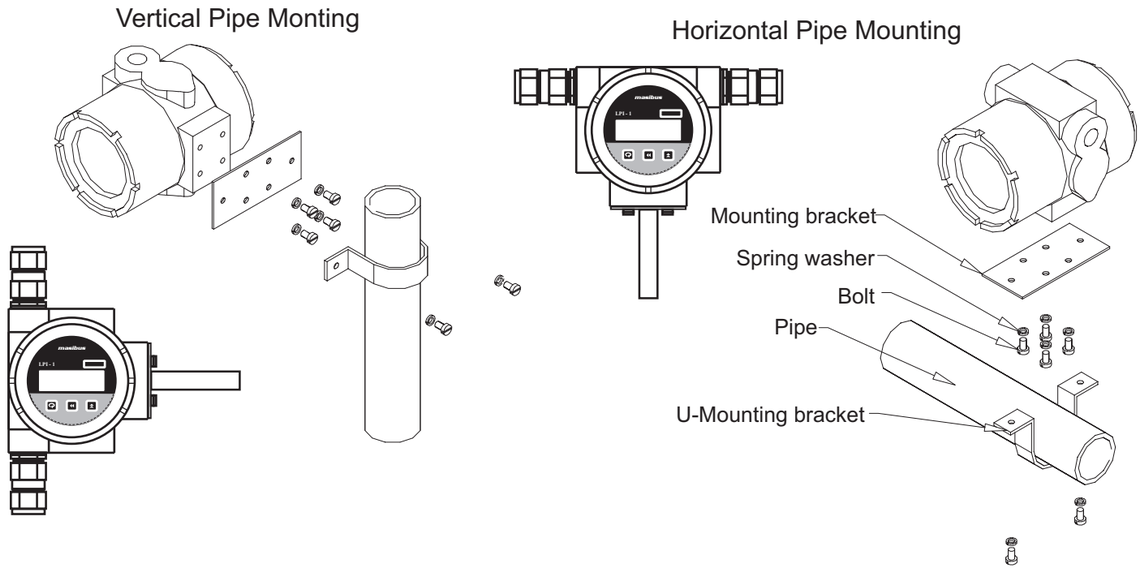
SPECIFICATION

	LED Panel Mount	LED Wall Mount	LED Pipe Mount	LCD Panel Mount	LCD Wall Mount	LCD Pipe Mount
Input						
Current	4-20mA					
Voltage drop	< 5V			< 3V		
Maximum current	30mA					
Minimum current for operation	3.5mA					
Display						
Display	0.56", Seven Segment LED, Red 4-digit			0.5", Seven Segment LCD, Black 4-digit		
Indication Range	-1999 to 9999					
Decimals	Selectable, 0 to 3					
Response time	< 500mSec					
Configuration						
Scaling	Via Three pushbuttons at front panel					
Accuracy						
Indication	0.1% of FS (+/- 1 digit)					
Resolution	12 bits					
Temp-co	< 100ppm					
Physical						
Gas Group, Zone	-	-	II B, Zone 1 & 2	-	-	II B, Zone 1 & 2
Material	Flame resistant Noryl SE 1 GFN 1	ABS	Cast Aluminium Alloy LM-6	Flame resistant Noryl SE 1 GFN 1	ABS	Cast Aluminium Alloy LM-6
Dimensions (W x H x D)	96 x 48 x 68 mm	98 x 64 x 38 mm	112x115x146 mm	96 x 48 x 68 mm	98 x 64 x 38 mm	112x115x146 mm
Weight (Approx.)	150g	180g	2.2 Kg	140g	170g	2.2 Kg
IP (Ingress Protection)	Front IP65	Enclosure IP65	Enclosure IP66	Front IP65	Enclosure IP65	Enclosure IP66
Terminal Cable Size	2.5 mm^2					
Environmental						
Operating Temperature	0 to 55°C					
Storage Temperature	0 to 80°C					
Humidity	20 to 95% (Non-condensing)					

CONFIGURATION



PIPE MOUNTING (EXPLOSION PROOF) INSTALLATION

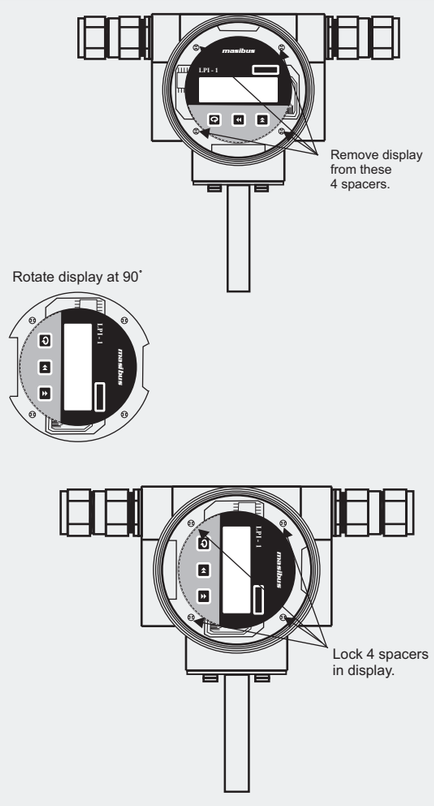


ROTATING DISPLAY DIRECTION

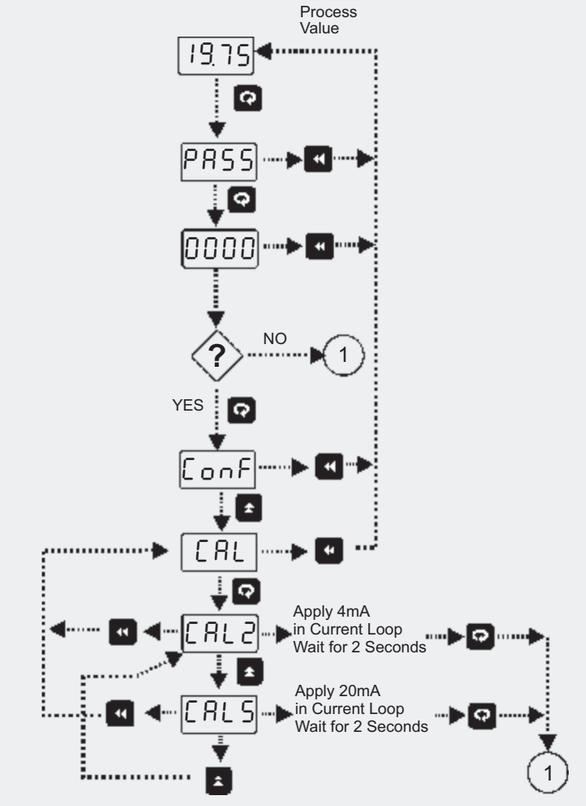
The loop Powered indicator display is designed so that it can be rotated in 90 degree increments.This is accomplished by ordering the unit as a horizontal pipe mount or a vertical pipe mount.However there may be the need for the customer to change the angle of the display.The following are procedures for the display rotation.

(1) Remove power from the unit.
(2) Remove the glass cover from the display side.
(3) Remove Display PCB by pressing 4 spacers, holding the display PCB to the standoffs.
(4) Rotate the display to the desired position (can be rotated in 90 degree increments).
(5) Replace and tighten firmly the 4 spacers into the standoffs.
(6) Fit the glass cover.

ROTATING DISPLAY DIRECTION



CALIBRATION



sonepar
Powered by Difference

LPI - 1

masibus

LPI-1 LED-W
Wall Mount



LPI-1 LED-P
Panel Mount



LPI-1 LCD-P
Panel Mount



Operator's Manual

LPI - 1

Loop Powered Indicator

Please read the manual carefully before
Installation/Configuration/Calibration

INTRODUCTION

LOOP POWERED INDICATOR OVERVIEW

Model LPI-1 is a microcontroller based Loop Powered Indicator that incorporates bright, 4 Digit Seven Segments LED or 4 Digit high contrast Seven Segment LCD Display indicating process value. It does not require any external Power supply to run its own circuitry. The instrument is designed to take power and display process value from the 4mA to 20mA current loop. Having front key operation, Instrument is easily programmable for any values between -1999 to 9999 and decimal point.

Loop Powered Indicator is available in three mounting types; Panel Mount, Wall Mount and 2" Pipe Mount (Explosion Proof).

Product Ordering Code

Model	Display	Mounting	
LPI-1	LED	W	Wall
		P	Panel
		XP - V	Vertical Pipe (Explosion Proof)
		XP - H	Horizontal Pipe (Explosion Proof)
	LCD	W	Wall
		P	Panel
		XP - V	Vertical Pipe (Explosion Proof)
		XP - H	Horizontal Pipe (Explosion Proof)

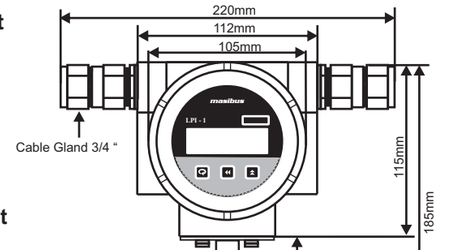
List Of Accessories

Sr. No.	Description	Quantity
1	Mounting Clamps	02*
2	Engineering Unit Sticker	01

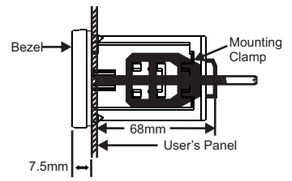
*1 No. for LPI-1 Pipe Mounting

MECHANICAL LAYOUT

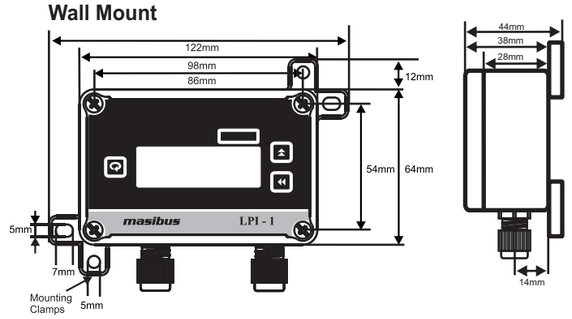
Pipe Mount



Panel Mount



Wall Mount



MENU

MODE	MENU	DESCRIPTION	VALUES APPLICABLE
CONF		**Configuration Mode**	
	ZERO	Input Zero Scale	-1999 to 9999
	SPAN	Input Span Scale	-1999 to 9999
	DP	Decimal Point	0 to 3
	SQRT	Square root	Yes / No
	PASS	Change Password	0000 to 9999
CAL		**Calibration Mode**	
	CALZ	Calibration Zero	
	CALS	Calibration Span	

SQUARE ROOT LINEARIZAITON

Square Root Linearization:

$$PV = [SQRT ((V_{i/p} - V_{min})/(V_{max} - V_{min})) * (SPAN - ZERO)] + ZERO$$

Where,

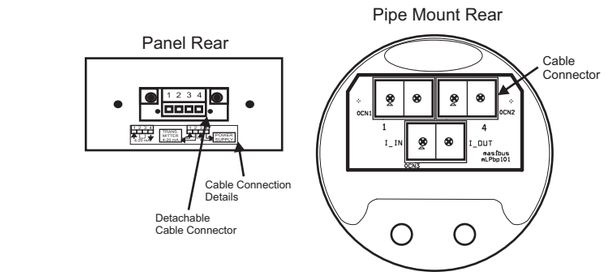
PV	Process Value
$V_{i/p}$	Input Signal
V_{min}	Minimum Value of Input Signal (4mA)
V_{max}	Maximum Value of Input Signal(20mA)
SPAN	Configurable Span value for Input Signal
ZERO	Configurable Zero value for Input Signal

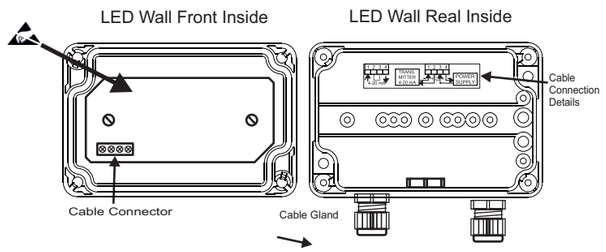
For Example

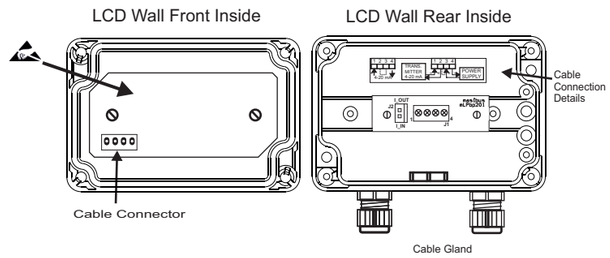
$V_{i/p}$	12.00mA
V_{min}	4.00mA
V_{max}	20.00mA
SPAN	1000
ZERO	0

PV = [SQRT ((12- 4)/(20 – 4)) * (1000 - 0)] + 0
PV = (SQRT (0.5) * 1000)
PV = 707

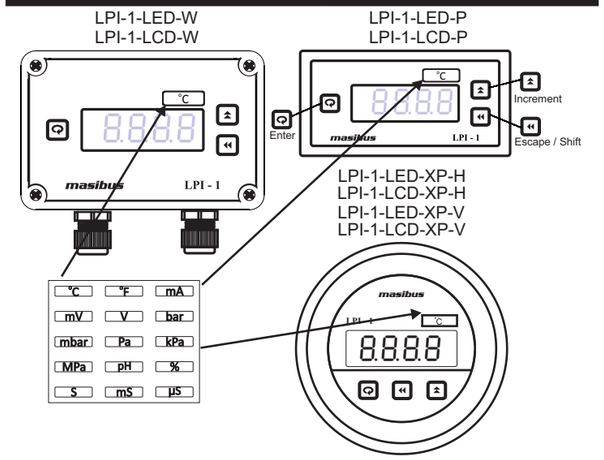
REAR LAYOUT



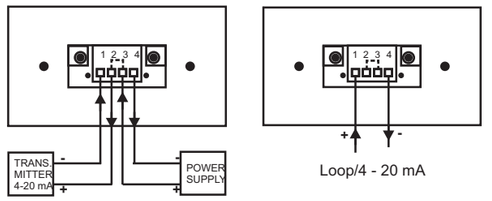




DESIGN



ELECTRICAL CONNECTIONS



SAFETY / WARNING PRECAUTIONS

To ensure that the device can be operated safely and all functions can be used, please read these instructions carefully.

Installation and startup must be carried out by qualified personnel only.The relevant country-specific regulations must also be observed.

Before startup it is particularly important to ensure:

- Terminal wiring :Check that all cables are correctly connected according to the connection diagram
- All wiring must confirm to appropriate standards of good practice and local codes and regulations. Wiring must be suitable for Voltage, Current and Temperature rating of the system.
- Unused control terminals should not be used as jumper points as they may be internally connected, which may cause damage to the unit

WARRANTY

Warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification.
Masibus is not liable for special, indirect or consequential damages or for loss of profit or for expenses sustained as a result of a device malfunction, incorrect application or adjustment

Masibus' total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied

For operation manual please visit www.masibus.com
Specifications are subject to change without notice due to Continuous improvements.

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