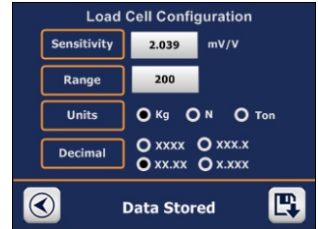
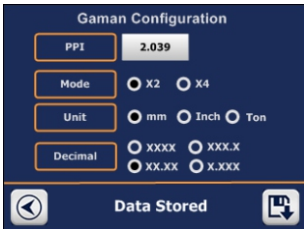
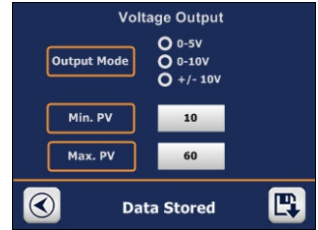


Koal Touch Series

Load Vs Displacement

USER'S MANUAL



Read the user's manual carefully before starting to use the unit or software.
 Producer reserves the right to implement changes without prior notice.

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Index

Section	Title	Pages
1	Safety/Proper Usage	03
2	Warning	04
3	Product Description	05
4	Outline Drawing & Panel Cutout	06
5	Mounting	07
6	Pin Configuration	08
7	Communication	09
8	Screen Setting	10
9	Icon Description	12
10	Main Menu	13
11	Input Setting	14
12	Output Setting	17
13	Engineering Settings	25
14	Calibration Settings	26

1. Safety / Proper Usage

- Don't use sharp edge tools/equipment on touch screen
- In order to minimize fire or electric shock hazard, the unit must be protected against atmospheric precipitation and excessive humidity.
- Do not use the unit in areas threatened with excessive shocks, vibrations, dust, humidity, corrosive gasses and oils.
- Do not use the unit in areas where there is risk of explosions.
- Do not use the unit in areas with significant temperature variations, exposure to condensation or ice.
- Do not use the unit in areas exposed to direct sunlight.
- Make sure that the ambient temperature (e.g. inside the control box) does not exceed the recommended values. In such cases forced cooling of the unit must be considered (e.g. by using a ventilator).
- Do not attempt to disassemble, repair or modify the unit yourself. The unit has no user serviceable parts. Defective units must be disconnected and submitted for repairs at an authorized service centre
- In an environment with a high amount of moisture or humidity, create a drip loop on the cable to prevent any water from flowing into the sensor.

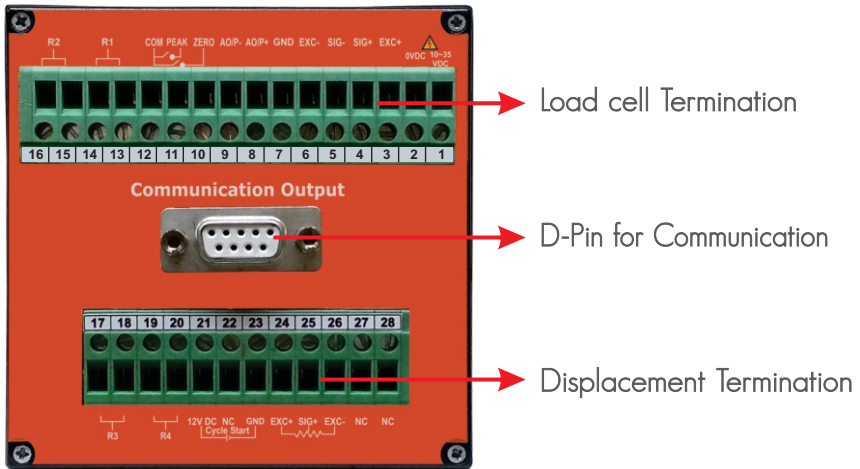
2. Warning

The indicator must not be modified from the design or safety engineering point of view except with our express agreement. Any modification shall exclude all liability on our part for any damage resulting there from.

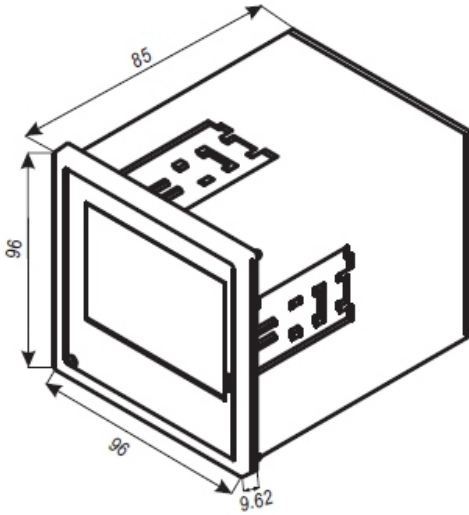
Koal Touch Series

Load Vs Displacement

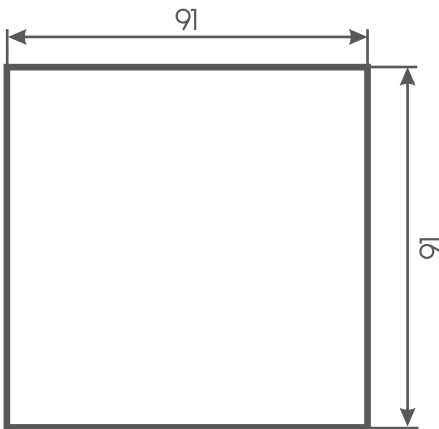
3. Product Description



4. Outline Drawing & Panel Cutout

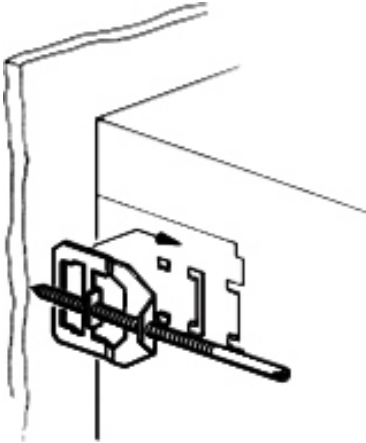


Panel Cutout



All Dimensions are in mm

5. Mounting

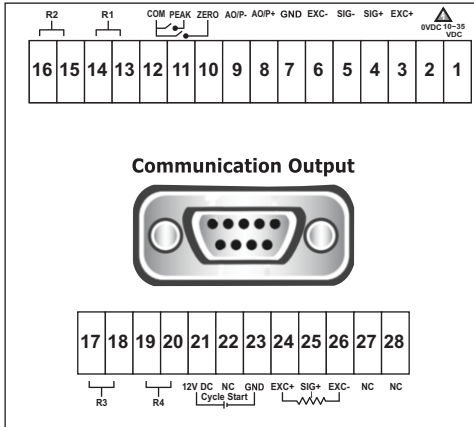


The Screw clamp is placed on the enclosure from the rear of the control panel.

After this, the enclosure is pressed firmly on to the rear wall of the control panel through the integrated screw.

6. Pin Configuration

Koal Touch Strain (KTS) – Strain output sensor



- 1 - 10-35V DC
- 2 - 0V DC
- 3 - Exc +
- 4 - Sig +
- 5 - Sig -
- 6 - Exc -
- 7 - GND
- 8 - A O/P+
- 9 - A O/P -
- 10 - Zero
- 11 - Peak
- 12 - COM
- 13 - NO1
- 14 - COM1
- 15 - NO2
- 16 - COM2

Force Sensor

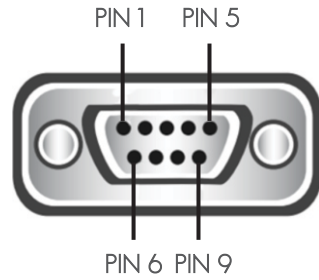
- 17 - NO3
- 18 - COM3
- 19 - NO4
- 20 - COM4
- 21 - 12V DC (Cycle Start)
- 22 - NC
- 23 - GND (Cycle Start)
- 24 - Exc+
- 25 - Sig +
- 26 - Exc-
- 27 - NC
- 28 - NC

Displacement Sensor

7. Communication

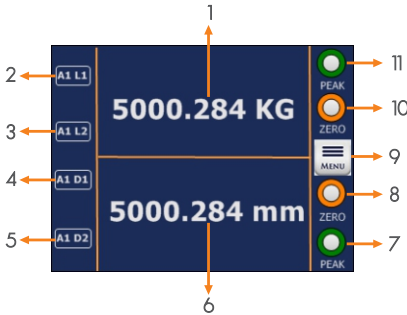
Pin Configuration	
Pin 1	NA
Pin 2	RS232 TX
Pin 3	RS 232 RX
Pin 4	NA
Pin 5	RS232 GND
Pin 6	NA
Pin 7	RS485 A
Pin 8	RS485 B
Pin 9	NA

9 Pin male



8. Screen Setting

Home Screen



S.No	Parameters	Description
1	Load cell Display Reading	The current display of sensor reading.
2&3	Load Cell Alarm Channel	Displays the status of alarm channel Red - Disabled Green - Enabled
4&5	Displacement Alarm Channel	Displays the status of alarm channel Red - Disabled Green - Enabled
6	Displacement Display Reading	The current display of sensor reading.
7	Displacement Peak	Displays only max. value when enabled Peak Enabled - Button Red Color Peak Disabled - Button Green Color
8	Displacement Zero	When enabled the current value is zeroed






8. Screen Setting

Home Screen

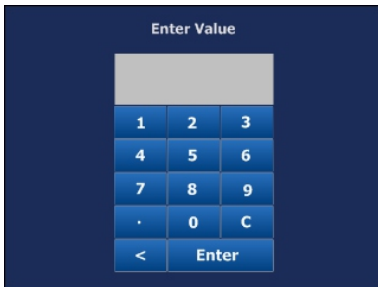
S.No	Parameters	Description
9	Menu	Navigate to
		Input
		Output
		Engineering Setting
		Calibration
10	Load cell Zero	When enabled the current value is zeroed
11	Displacement Peak	Displays only max. value when enabled
		Peak Enabled - Button Red Color
		Peak Disabled - Button Green Color

Note: kindly touch icon for navigation to following screen.

9. Icon Description

Icons	Description
	Home Button - Navigate to Home Screen
	Forward - Navigate to Next Screen
	Backward - Navigate to Previous Screen
	Backward - Navigate to Previous Screen
	Save Button - To Save the Settings

Numeric Screen



This screen will pop up for numerical data entry.

10. Main Menu



Main menu consists

1. Input Configuration
2. Output Configuration
3. Engineering Configuration
4. Load Cell Configuration

} Common for all
Koal Touch Series

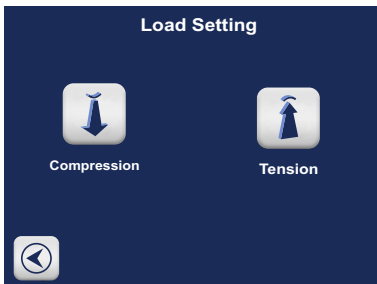
11. Input Setting

11.1 Load cell Configuration

Sensor Type Selection



Load Setting

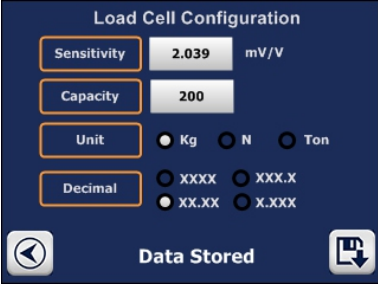


Compression - unipolar

Tension - Bi-polar

11. Input Setting - Load Cell

Sensor Input



The screenshot shows a 'Load Cell Configuration' menu with the following settings:

Parameter	Value	Unit/Label
Sensitivity	2.039	mV/V
Capacity	200	
Unit	<input checked="" type="radio"/> Kg <input type="radio"/> N <input type="radio"/> Ton	
Decimal	<input type="radio"/> XXXX <input type="radio"/> XXX.X <input checked="" type="radio"/> XX.XX <input type="radio"/> X.XXX	

At the bottom of the menu, there is a 'Data Stored' button with a left arrow icon on the left and a right arrow icon on the right.

- Enter sensitivity of sensor as mentioned in datasheet.
- Enter full scale of sensor to be measured.
- Select the unit to be displayed of sensor (unit conversion not available)
- Select the appropriate decimal point.
- Save the setting.

11.2 Input Setting - Displacement

11.2 Displacement Configuration

Sensor Input

Potentiometer Configuration

Sensor O/P 0-5 VDC 0-10 VDC

Range

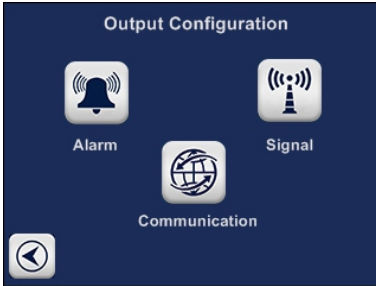
Units mm Cm M

Decimal XXXX XXX.X
 XX.XX X.XXX

← Data Stored →

- Select required sensor.
- Enter full scale of sensor to be measured in range.
- Select the unit to be displayed of sensor (unit conversion not available)
- Select the appropriate decimal point.
- Save the setting.

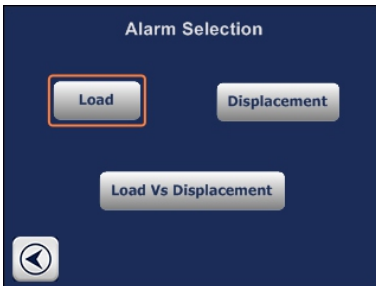
12. Output Setting



12.1 Alarm Output Setting

Alarm output consists of four channels in which conditions can be set and trigger the relay output accordingly.

12.1.1 Channel Navigation Screen(Load & Displacement)



Alarm output settings are same as Load & Displacement for following steps

12. Output Setting

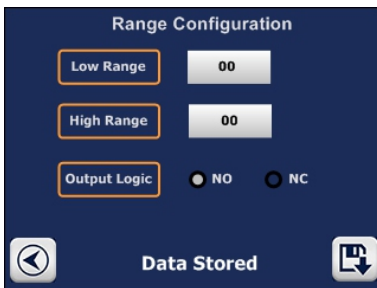
12.1.2 Channel Setting Screen



Same window for Load & Displacement at alarm output settings

12.1.3 Range Setting

Energize (or) De-energize relay between two set conditions



Output logic - select **HIGH** for energizing the relay between the set values. Till then the relay will be de -energized.

Select **LOW** for de - energizing the relay between the set values. Till then the relay will be energized.

Low range - Enter the low range value

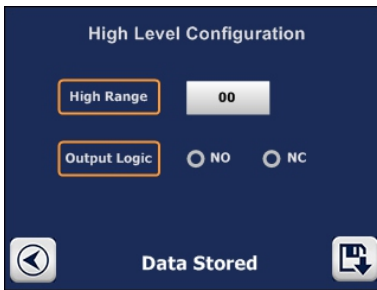
High range - Enter the high range value

After entering data select save button upon which "**Alarm data stored**". Once saved, it will be navigated to alarm channel selection screen.

12. Output Setting

12.1.4 High Setting

Energize (or) De-energize relay output greater than the given value.



Output logic - select **HIGH** for energizing the relay after the values. Till then the relay will be de - energized.

Select **LOW** for de - energizing the relay after the values. Till then the relay will be energized.

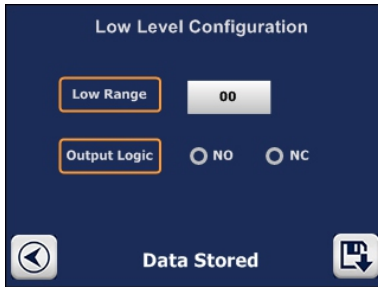
High range - Enter the high range value

After entering data select save button upon which "**Alarm data stored**". Once saved, it will be navigated to alarm channel selection screen.

12. Output Setting

12.1.5 Low Setting

Energize (or) De-energize relay output lesser than the given value.



Output logic - select **HIGH** for energizing the relay below the values. Till then the relay will be de - energized.

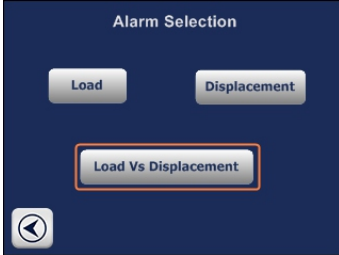
Select **LOW** for de - energizing the relay below the values. Till then the relay will be energized.

Low range - Enter the low range value

After entering data select save button upon which "**Alarm data stored**". Once saved, it will be navigated to alarm channel selection screen.

12. Output Setting

12.1.6 Channel Navigation Screen (Load vs Displacement)



Click the load vs Displacement - Select Recipe's

12.1.6.1. Select Recipe (Load vs Displacement)



Individually select the port (or) Recipee. Don't be confused ports and recipee are same.

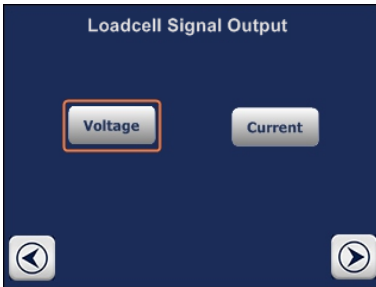


Enter the low values and high values. and no is nominally open(NO) and nomainally close(NC)

12. Output Setting

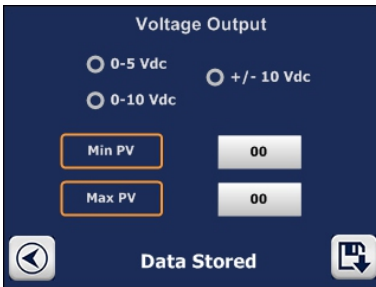
12.2 Signal Output

Select type of analog output required for your process/application.



12.2.1 Voltage Setting

The voltage will be scaled between minimum process value and maximum process value



Output mode - Select the required output voltage for your process.

Min PV- Enter minimum process value

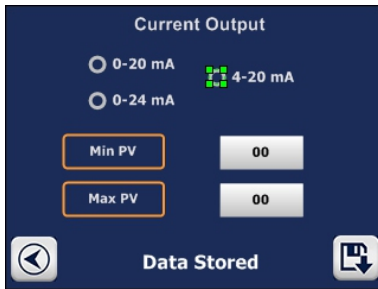
Max PV - Enter maximum process value

After entering data select save button upon which "**Output data stored**". Once saved, it will be navigated to output setting screen.

12. Output Setting

12.2.2 Current Setting

The current will be scaled between minimum process value and maximum process value



Output mode - Select the required current output for your process.

Min PV- Enter minimum process value

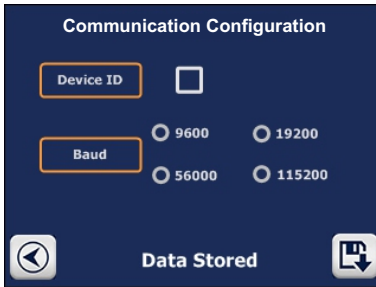
Max PV - Enter maximum process value

After entering data select save button upon which "Output data stored". Once saved, it will be navigated to output setting screen.

After entering data select save button upon which "Output data stored". Once saved, it will be navigated to output setting screen.

12. Output Setting

12.3 Communication



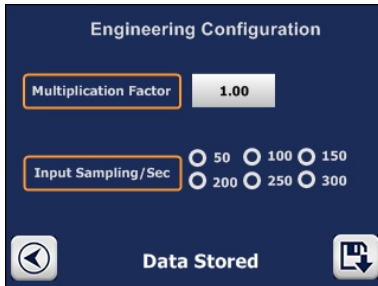
Enter device ID

Select type of communication

Select baud rate based on the device connected to koal touch.

After entering data select save button upon which "Com data stored".

13. Engineering Settings



Enter multiplication factor to be multiplied with calibrated value

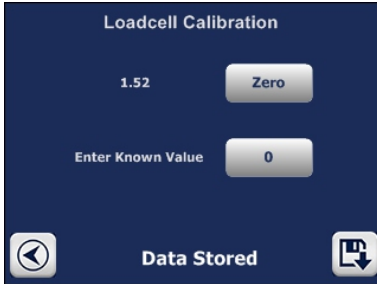
Input sampling/sec - Select options for required samples to be read by the indicator.

Display update/sec - Select options for how many times the display has to be updated.

After entering data select save button upon which “Eng data stored”.

14. Calibration Settings

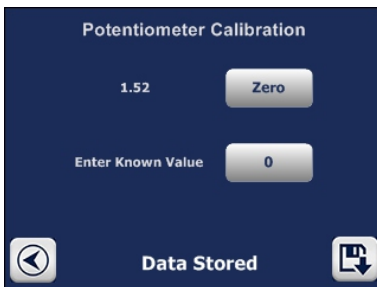
14.1 Load Cell Calibration setting



Physically Load sensor with known load and enter the known value.

After entering data select save button upon which "calibration data stores".

14.2 Displacement Calibration setting



Physically Load sensor with known load and enter the known value.

After entering data select save button upon which "calibration data stores".