

## THE COMPANY

**SOS Systems On Ship Pvt. Limited** is a house of interfacing product. The company has design and developed many interface solutions both for Marine application as well as for industrial in general.

## BRIEF DESCRIPTION

BAR GRAPH Indicator is a giant step in measurement technology. These can be used for monitoring parameters like Temperature, Humidity, Pressure, Flow, Speed, Level etc.

**BI-020** is configured using the front keyboard and display or PC based configuration software supplied with unit. The unit has a 4 digit numeric and 101 segment bars to display process value, Alarm/Trip and communication status are displayed by discrete LEDs on Front fascia.

**BI-020** comes with Two RS485 port as a standard to enhance the communication capabilities of the unit.

The 2 Relay outputs can be freely mapped to any channel set points configured as control, Alarm or Trip functionality with Failsafe or Normal Logic.

**BI-020** is housed in a 144 x 72 (mm) extruded Aluminum enclosure with Ip55 front fascia.

**BI-020** can be used for monitoring parameters like Temperature, Humidity, Pressure, Flow, Speed, Level etc. The input and measuring range are set through the keypad on front fascia and control output is available at the rear terminals.

## APPLICATIONS

- Monitoring of Level, Vibration, Flow, etc
- Alarm/Trip Unit
- On/off Controller
- Digital Switch
- Gas Detection
- Marine-Utility Monitoring on Ships

## PRODUCT OVERVIEW



## FEATURES

- Micro Controller Based
- Dual 101 Segment Bar Display
- 4 Digit 7 Segment Display
- 4-20mA Input
- Fully Configurable & Programmable by front keypad or PC Based configuration via terminal software
- Built-in Transmitter supply
- Power supply, Input & Output Isolated for 1500VAC
- Alarm activate indications on front fascia
- Two Rs485 Out port
- 2 Relay Output for each channel
- Instrument Size 72W x 144H x 165 D

<http://www.systemsonboard.com>



**SOS-Systems On Ship[P] Ltd.**

## INPUT

No of Inputs	: 1 or 2
Accuracy	: $\pm(0.1\%$ of FS)
Display Resolution	: 0.1 / 1.0 °C for temperature input
Max Input Voltage	: 20VDC
Temp-co	: < 100ppm/°C
RTD Excitation current	: 250uA(Approx.)
CMRR	: > 120dB
NMRR	: > 40dB
CJC Error	: +/-2°Cmaximum

## DISPLAY & KEYS

Process Value display (one per channel)	: 4- digit 7- segment Red LED (0.25")
Alarm indicating LED	: Red LED's & Green LED's Relay status
Keys	: MENU , ACKNOWLEDGE , UP/DOWN BACK , ESC , ENTER

## BAR DISPLAY (one per channel)

LED Bar	: 101
Resolution	: 1%
1st Bottom Bar Display	: Under range

## RELAY OUTPUT (Optional)

Relays	: 4 Nos (2 NOs For Each Channel)
Type	: C-NO-NC
Rating	: 10A @ 250 V AC / 30V DC
Connector Type	: PBT Screw Terminal

## ANALOG OUTPUT (Optional)

No of outputs	: One per channel
Output accuracy	: +/- 0.25 % of span
Resolution	: 16bits
Output signal	: 0/4 to 20mA
Load Resistance	: 500Ω or less

## COMMUNICATION OUTPUT

RS485-1 (Standard) & RS485-2 (Optional)	
Interface	: 2 Wire, EIA RS485
Protocol	: Modbus-RTU Slave
Baud Rate	: 9600 or 19200 (bps)

## POWER SUPPLY

Power Supply (Device op.voltage)	: 85 to 264VAC, 50/60 Hz
Transmitter (power supply)	: 24 V DC @ 100mA

## PHYSICAL

Dimensions (mm)	: 144(H) x 72(W) x 121(D)
Front Bezel (mm)	: 144(H) x 72(W)
Panel Cutout (mm)	: 139(H) x 67.5(W)
Depth behind Panel (mm)	: 110
Mounting	: Panel Mount (Standard)
Protection	: IP55 (Front Fascia)

## Display Range

	Input Type	Range
	E	-200 °C to 1000 °C
	J	-200 °C to 1200 °C
	K	-200 °C to 1372 °C
	T	-200 °C to 400 °C
<u>Thermocouple</u>	B	-450 °C to 1820 °C
	R	0 to 1768 °C
	S	0 to 1768 °C
	N	-200 °C to 1300 °C
	pt-100	-199.9 to 850.0 °C
<u>RTD</u>	Cu-53	-210.0 °C to 210.0 °C
	NI-120	-70 °C to 210.0 °C
<u>Linear</u>	+/- 10 to 10 VDC	-1999 to 9999

