

# 1.3 BD840 IN-BUS DISPLAY: Model No.IBD216112

(Used as In-bus display in Standard Bus & Mini / Midi Buses)



#### A) DIMENSIONS:

Cabinet Size	912 x 180 x 53 mm
Display Area	842 x 120 mm
Character Height	120 mm

#### **B) LED PARAMETERS:**

Type of LED	Dot Matrix
Color	Amber Colored
Wavelength	591 to 595 nm Dominant Wavelength as per AIS-012
	standard
Intensity	40 mCd
Viewing angle	45° all around
UV Resistant	Yes

## **C) ELECTRICAL PRAMETERS:**

Operating Voltage	Nominal + 24V DC or + 12 V	
	Optional: Extended Supply Range 9 V to 36 V DC	
Power Consumption 0.4 A @ 24V DC		
	Power supply input is protected against Reverse Polarity,	
	Over voltage, Cranking voltage, Load Dump	
Protection	Resettable fuse inside the cabinet for over current	
	Communication lines are protected against high voltage	
	application and ESD	



# D) QUALITY: (Complied with ITS Annexure II of UBS II Specifications )

EMI/EMC	Test complied as per – AIS 004 Part 3
Ambient Environment	Operating temperature: -15°C to 80°C
Humidity	95% RH for +25°C/+55°C ,24 Hrs. for 6 cycles in off condition
Vibrations	10g as per AIS 012
Ingress protection	IP 66 as per IS / IEC 60947-1:2004 in conjunction with IS /
	IEC 60529:2001

#### E) DISPLAY CHARACTERISTICS:

No. of Sides	Single sided	
Line Matrix	16 x 112	
Pitch	7.62 (H) x 7.62 (V)mm	
Intensity of display	In-built light sensor with continuously variable brightness control to enable the display intensity to change based on ambient light conditions.	
Viewing distance	15 meters minimum, for single line text in both Day and Night	
Data interface	Via RS 485	
Memory	Ability to retain the last message displayed in event of power failure without the message being reloaded from Controller	

## F) STRUCTURE:

Aluminum Cabinet, Powder Coated finish with Polycarbonate at front
Weight - 5 kg
Mounting arrangement by roof hanging, wall mounting
Automotive grade components used , with conformal coated PCB boards
Power to signs is supplied through bus multiplex wiring system

## **G) TECHNICAL SPECIFICATION:**

To display Bus number and Destination in Fixed, Scrolling and flashing mode formats with the help of SCU / Bus Controller with fixed route number up to 6 characters with capability to show customized graphics

Display in English (2 lines) / Hindi(1 line) / Regional (1 line) Language

Total display height is capable to accommodate two lines in English language and the Individual heights of each line are adjustable to enable one line to be larger/smaller than the second line. Possible to display, concurrently, different messages

Able to display special signs like signs for 'PWD enable bus', 'ladies special'.

Display in English and local languages using Microsoft fonts via window based software package Possible to change/choose/select a 'route' remotely over the air from back office and provide current route information to back office through SCU

Back office is able to check, via SCU, the version of firmware loaded on the display.

Able to store Diagnostic trouble codes (DTC), Parameters identifiers (PID) as per Annex-3 and data retrievable through SCU



## H) PART NO. DESCRIPTION:

BD216112	2 – 2 pin 250 series connector for P/S	L –Left cable entry
	3 – 3 pin 90 series connector for P/S	R – Right cable Entry

# **BD216112** Available with Part number:

BD216112I3R	Bus Display, J2 type, with 16 rows & 112 columns, used as Internal display, with 3 pin, 90 series power supply connector and with cable entry on Right side.
BD216112I2R	Bus Display, J2 type, with 16 rows & 112 columns, used as Internal display, with 2 pin, 250 series power supply connector and with cable entry on Right side.

#### TECHNICAL DRAWING REFERENCE: MM\_14\_006 REV.6