

1.5 BC -INTEGRATED BUS DISPLAY CONTROLLER – Model No. IBDC



A) DIMENSIONS:

Cabinet Size	204 x 125 x 54 mm
Display	Graphic LCD 64 x 256 Pixels with back light

B) INPUT – OUTPUT CONNECTIONS ON REAR SIDE CABLE:

Power Connections	250 series 2 pin connector or 90 series 3 pin connector
Data connections for display	90 Series 2 pin sealed male connector to drive destination displays on RS 485
GPS Connections	Gold plated SMA connector for GPS antenna for in built GPS or 90 series 2 pin connector for RS 232 channel for external GPS receiver
Audio Output	2 Channel -20W - 4/8 Ohms
Mic Input	Mic Socket provided

C) ELECTRICAL PRAMETERS:

Operating Voltage	Nominal + 24V DC /+ 12 V DC
	Optional : Extended Supply 9 V to 36 V DC
Power Consumption	0.1 A @ 24V DC
Protection	Power supply input is protected against Reverse Polarity, Over voltage, Cranking voltage, Load Dump
	External Fuse on cabinet for over current
	Communication lines are protected against high voltage application and ESD

D) QUALITY:

EMC/EMC	Test complied as per – AIS 004 Part 3
Ambient Environment	Operating temperature: -10°C to +55°C
Humidity	95% RH
Vibration Test	10g as per AIS 012
Ingress protection	IP 66 as per IS / IEC 60947-1:2004 in conjunction with IS / IEC 60529:2001

E) STRUCTURE:

1.	Aluminum Cabinet, Powder Coated finish.
2.	Weight – 1.5 kg
3.	Mounting arrangement by wall mounting
4.	Automotive grade components used ,with conformal coated PCB boards

F) TECHNICAL SPECIFICATION:

Information on Single or Multiple line fonts on GLCD
20 keys Alpha Numeric, Function, Arrow Keys
Downloading of bitmap & LAT LON through USB Pen Drive
Built in memory with 1 GB (128 M bytes) For Route & 2 GB for Audio Files.
Interactive keys for smooth operations
Option for External GPS trackers with NEMA 0183 or Built-in GPS receivers is available
IBDC supports various options of number of languages in sequence, Stop announcements, messages, music, etc. via PC software programming.
IBDC supports operation of displays & announcement for 150 routes, 300 destinations & 50 bus stops in each route
IBDC provides a facility of manual skipping of bus stop announcement
Supports functions selection by using Route no.Sr. no., Skip Next Stop operation, volume control for audio, displaying LAT LON on move.
GPS triggered display with next stop on Inner sign is synchronized.
In event of GPS failure Stop information can be initiated manually
Driver can press 1-9 keys to display pre-decided information on Inner sign & announce pre-recorded message.
Functionality of Display 'clock'-GPS based or 'Default Messages' on Inner sign
Back office is able to check, via Bus Controller, the version of firmware loaded on the signs

OPTIONAL FEATURES:

GPRS Connections with Gold plated SMA connector.
Two way communication with central control center (CCC)
Possible to change/choose/select a 'route' remotely over the air from back office and provide current route information to back office
It should be possible to transmit adhoc messages (English) from back office to internal sign

G) PART NO. DESCRIPTION:

Generic	I/P VOLT	Display	KBD	GPS	GPRS	PID	Mike	Speaker
BC	N-18~36V	G- Graphic LCD	S-4 Key small KBD	C-Cost Effective Internal	C-Cost Effective Internal	S-With RS485	I-internal preamplifier	A-Available
	E-Extended 8~36V	O-OLED	L-Large, Alphanumeric KBD	U-ublox or as Required	U-ublox or as Required	B-with Blue tooth	E-external Preamplifier	N-Not Available
		2-2 Line		E-External	E-External	W-Wireless	N-No mike input	-
		4-4 Line		N-No GPS	N-No GPRS	N-No PID		-

BC Available with Part Number:

Part Number	I/p V	Display	KBD	GPS	GPRS	PID	Mike	Speaker
BCNGLCNSNA	18~36V	Graphic LCD	Tactile, Large, Alphanumeric KBD	Cost Effective Internal GPS receiver	No GPRS	With RS485	No Mike facility	With Speakers
BCNGLCNSIN	18~36V	Graphic LCD	Tactile, Large, Alphanumeric KBD	Cost Effective Internal GPS receiver	No GPRS	With RS485	Internal Preamplifier for Mike	Without Speakers

TECHNICAL DRAWING REFERENCE: MM_14_027 REV.1