MULTICHANNEL COMMUNICATOR
MCC-1322-FLP

FEATURES

- 80 channel Modbus ID monitoring system for Detectors/ Transmitters having RS-485 MODBUS RTU network connectivity.
- Ring topology possibility for redundancy.
- Connectivity to maximum 20 numbers Relay Module, Grouping of Detectors of different ID numbers possible & each Relay Module has 2 numbers relay.
- Multidrop RS-485 port eliminates separate cabling to each Detector, Multichannel communicator panel and Relay Module.
- Polling interval configurable (500mSec/ 1000mSec).
- 128x64 Graphical LCD display for easy readability.
- Common Alarm Setting for all 80 channels, time saving as no need to set alarms separately for each channel.
- 'Detector Open/Communication Break', Error detection & message display.
- Integrated Buzzer/3 numbers DPDT Relay for Alarm set points, AL1, AL2 & fault Relay for fail safe operation.
- Password protected menu with password changing facility.
- Easy handling & programming with 3 keys on front panel.

APPLICATIONS

- Clean Room Monitoring & Validation in Pharmaceutical, Laboratories, Bioscience.
- Room Mapping in Pharmaceutical.
- Pharmaceutical process validation with graph & scale report in Autoclave.
- Healthcare, Hospitals, Shopping Malls.
- Breweries, Steel Plants, Gas Turbines.
- Leak detection, Solvent Vapours.
- Personal Monitoring, Compressor Stations.
- Emergency response, Equipment Maintenance.
- Pulp & Paper Industry, Fuel Loading Facilities.

- Waste Water Treatment Plants, level sensing & control.
- Refineries & Petrochemical Plants Including Offshore.
- Drilling & Plant Shut-downs.
- ISO Certification Records, Validation process certifying.
- Chemical & Hazardous area where data monitoring is essential.
- Cold Storage & Chilling Plant.
- Building Management & Energy Saving Systems.
- Meteorological, Weather Forecast Applications.
- Remote Indication location on tank taps as used in liquid level sensing & control.

TECHNICAL SPECIFICATIONS

GENERAL

Input	:	80 detectors having RS-485 Modbus RTU port (Slave Id = 1 to 80) and 20 numbers Relay module – REL-1200 (ID81 to 100). Set slave Id in sequence.
Display	:	128x64 Graphical Display with Backlight.
Status indication	:	4 numbers LEDs (AL1,AL2,FAULT,COMMUNICATION) to indicate the status of Alarm generation, Connected detector & Relay Module.
Control action	:	Two independent Alarm set points common for all channels with Latch and Non-Latch facility. User selectable Hysteresis and Logic settings
Audible Indication	:	Integrated buzzer for Alarm Set point violation.
Range & resolution	:	1, 0.1,0.01 common for all connected Detectors.

COMMUNICATION SETTING

Protocol	:	MODBUS RTU.
Baud Rate	:	(9600/19200/38400/57600)bps, User Selectable.
Parity	:	Odd/Even/None, User Selectable.
Stop bits	:	One/two, User Selectable.
Polling Interval	:	500ms/1000ms,User Selectable

ERROR MONITORING

'Detector Open/Communicaon Break' errors indication & fault Relay activates for fail safe operation.

RELAY

3 Numbers DPDT Relay with potenal free (2 NO-C-NC) contacts of rang, 2A/230VAC, 2A/24VDC, Common for all configured Detector.

PROGRAMMABLE PARAMETERS

Set point	:	2 Nos, Alarm 1(AL1) & Alarm 2(AL2), user programmable.
Logic	:	High/very High, very low/Low, Low/High User programmable.
Hysteresis/Time Delay/Snooze	:	User Programmable.
Relay Assignment	:	Relay 1 for Alarm 1, Relay 2 for Alarm 2 & Relay 3 for fault (fail safe operation).
Latch	:	'Latch' Relays for Alarm 1 & Alarm 2 programmable as 'Enable/Disable'.
Setting	:	3 No, push button front keys (All programmable menus are password protected).

ELECTRICAL

Supply Voltage	:	90VAC to 270VAC, 50Hz.
Power rating	:	Less than 80W @240VAC
Supply for detector & Relay Module	:	24VDC, 4.5A.
Cable cross section	:	2.5mm².
Cable required	:	2.5mm², 4 core Shielded Armoured/ Twisted flexible cable for (24V+,24V-, D+,D-)signals.

ENVIRONMENTAL

Operating Temp.	:	0 to 50°C.
Relative Humidity	:	Below 95%,RH, Non condensing.

ACCESSORIES

- FLP / WP Junction box enclosure for inter connection between Detector & Relay Module with Multichannel communicator.
- Relay module (REL-1200) for additional 2 common Relay among configured Group of Detector.
- 24VDC/240VAC Operated Hooter cum flasher.
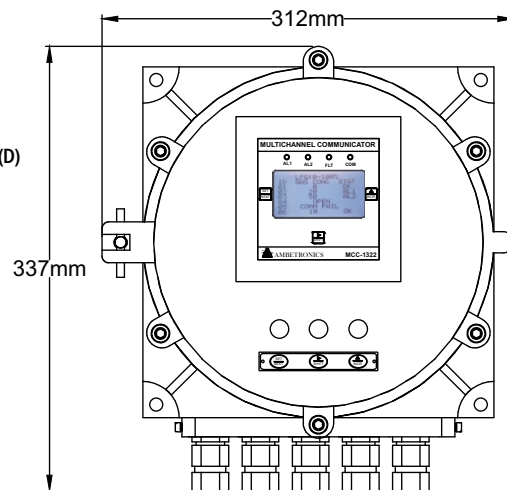- RS-485 to RS-232 / USB /Ethernet / Wi-Fi Converter.

DIMENSIONAL DETAILS

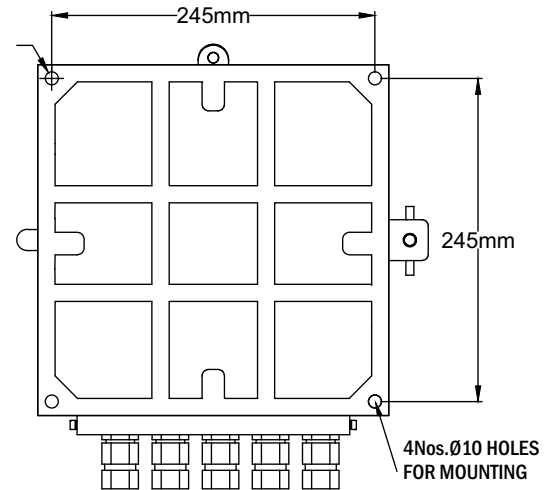|		
Degree of Protection Class	:	IP-66
• CIMFR CERTIFICATE NO.	:	CIMFR/TC/P/1923 Dt. : 26/08/2019
• PESO CERTIFICATE NO.	:	P468728/1 Dt. : 21/02/2020
Housing Material	:	cast Aluminum LM6 Alloy or cast Iron (C.I.) Enclosure
Cable Entry	:	Flameproof, Weatherproof IP66 Double compression cable gland (E x d) Model No. : CG/FLP/2C
		M20 x 1.5 (P) & M25 x 1.5 (P), ½" NPT & ¾" NPT
• CIMFR CERTIFICATE NO.	:	TC/P/1313 Dt. : 19/09/2018
• PESO CERTIFICATE NO.	:	P431645/2 Dt. : 19/11/2019
Dimension	:	37 mm (H) x 312 mm (W) x 170 mm (D)
Mounting	:	Wall Mounting / Stand Mounting
Weight	:	Approx 6Kg

MOUNTING DETAILS

NOTE :
1) ALL DIMENSION ARE IN mm.
2) TOLERANCE ± 2.
3) SIZE : 312mm(W) X 337mm(H) X 173mm(D)

FRONT VIEW

312mm

MULTICHANNEL COMMUNICATOR

AMBETRONICS   MCC-1322

337mm

BACK VIEW

245mm

245mm

4Nos.Ø10 HOLES FOR MOUNTING

SIDE VIEW

173mm

337mm

WALL

MOUNTING DETAILS :
ANKLE FASTENER
8mm x 75mm : 4 Nos.

BOTTOM VIEW

312mm

173mm

240 VAC   RL1   RL2   RL3   24V DC & RS-485 (4 CORE)

3/4" ET
DOUBLE COMPRESSION
CABLE GLAND : 5 Nos.

3/4" ET
STOPPING PLUG :5Nos.
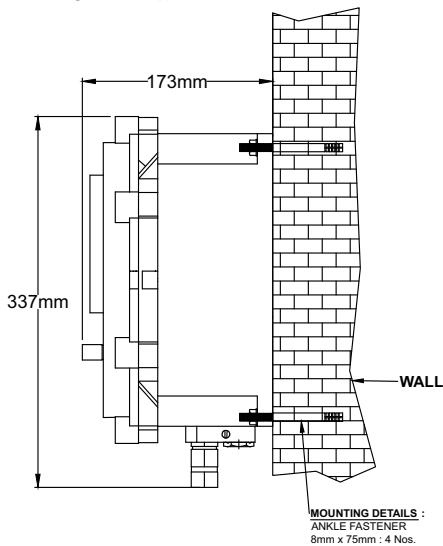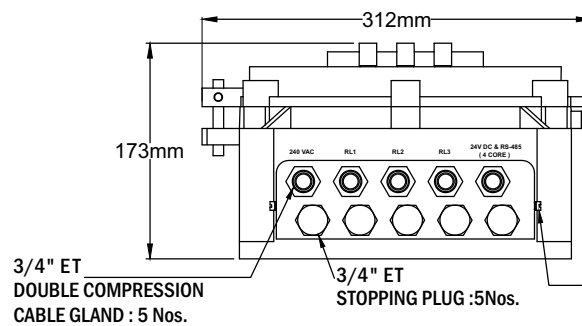
EARTHING DETAILS
CHEESE HEAD SCREW
M6 x 10 -2Nos.
S. S. PLAIN WASHER
ID-6 , OD-12 - 4 Nos.
SPRING WASHER - 2Nos.

Specifications subject to change without any prior notice