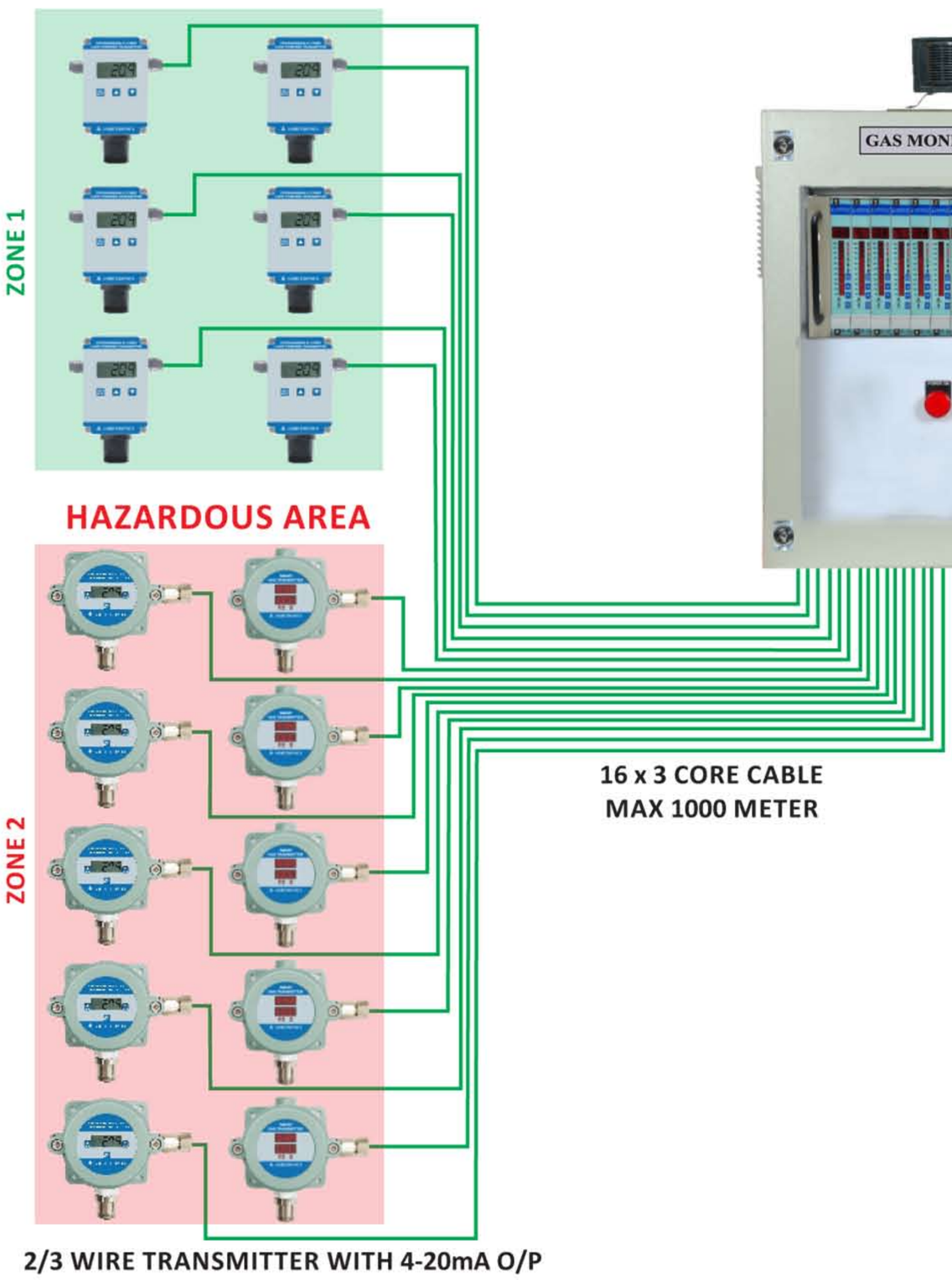
RK - 220 PANEL - 16CH.

AMBETRONICS

MULTICHANNEL GAS MONITOR RACK TYPE - 16CH.

FOR OXYGEN / TOXIC / COMBUSTIBLE GASES



Features

- Fail Safe Operational Design
- Continues Gas Monitoring and Alarm System
- Modular Design Card with Individual Display with Bar Graph Indication for each Transmitter
- Easily Expandable & Easy for Maintenance / Calibration
- Individual Alarm Relay / Open Collector outputs for each Gas Transmitter
- Gas Range, Resolution, control Action, Latch Facility programmable by users / multilayer password protected
- Inhibit / Service Mode, at the time of maintenance Alarm Relay become inactive
- Easy Automatic Software Calibration - No Trim Pots
- Optional isolated linear 4 - 20 mA O/P with Respect to gas concentration programmable by user
- Optional isolated RS-485 with MODBUS RTU Protocol for DCS/ PLC

Approval & Compliance

- Compliance with IEC-60945 Standard for Marine application

Applications

- Refineries
- Sewage Plants
- Fertilizers Plants
- Stack Monitoring
- Gas Cylinder Bank
- Pulp & Paper Plants
- Oil & Gas Industries
- Ambient Monitoring
- Gas Pipeline Project
- Gas Metering Station
- Heat Treatment Plants
- Chemical Storage Area
- Burner / Furnace Areas
- Bullet Yard / Storage Yard
- Coal Mine and Confined Area
- Chemical & Petrochemical Plants
- Chemical Processing Plant
- Acid alkalizes & Dyes Mfg. Plants
- Offshore Drilling & Processing Platforms
- Automotive Industries / Paint Shops

MUST FOR HUMAN AND INDUSTRIAL SAFETY

TECHNICAL SPECIFICATIONS

General

Input	:	16 x 4 to 20mA output from Oxygen / Toxic / Combustible Gas Transmitter.
Range	:	0 to 999 in unit PPM or % LEL or %V/V Programmable by user.
Display	:	3 Digits of 8 mm (H) Red L.E.D. display for Gas Concentration 20 segment Red color Bar Graph Display for Gas concentration 100% Fullscale, 5% Per step L.E.D.
Resolution	:	0.01, 0.1, 1 programmable by user
LED Indication	:	8 No. AL1, AL2, AL3, Health Check / Failsafe Indication PRG, CAL Optional TX / RX for Transmitting Receiving signal
Set Point	:	3 Independent Alarm set point programmable by user AL1, AL2, AL3
No. of Input cards	:	Max. 16 module cards
Control Action	:	LO/HI, HI/LO, LO/Very LO, HI-very HI, Programmable by user AL1, AL2, AL3.
Setting	:	Setting by 4 keys on front panel ' Set/Next,' 'Up', 'Down', 'Test / Ack'

Performance

Measurement Accuracy : ± 0.25% of the full-scale value.

Electrical

Power Supply	:	18 to 36 VDC, 24VDC normal for module card OR 230V AC ±10% for wall mounted panel
Cable	:	1.5 sq. mm 3 core OR 2 core, Flexible OR Armoured shielded cable from Gas Transmitter to Monitor

Error Monitoring

i) Display : If 4-20mA from Transmitter O/P Break / Open is above 21mA display shows 'oPn',
If 4-20mA Transmitter O/P is below 3mA Under range display shows 'Und' & For Over range display shows 'our'

ii) Current O/P : Up scale current > 21mA, Down scale current < 1mA, selectable

Output Signal

Relay Output	:	4 No. 1 NO/C/NC relay contact rated 230VAC / 5A for AL1, AL2, AL3 and Fail safe Relay for each channel.
Relay Latching	:	Programmable latch/Non-Latch facility for AL1, AL2 & AL3
optional	:	a) Isolated RS-485 Serial port with MODBUS RTU Protocol output for PLC / DCS b) 16x4-20mAIsolated retransmission output for PLC, DCS, any recorder c) 4 No, Open Collector O/P rated 100mA at 32VDC instead of 4 No Relay

Accessories (Optional)

- CE certified 24 VDC Power supply.
- 2/3 Core Cables
- Gas Calibration Kit (0.5,1, 3,10)Liter.
- Hooter cum Flasher
- Intelligent Modem
- Flame Proof or Non Flame Proof Industrial Hooter / Flasher
- RS-485 to USB OR RS-232 convertor
- PC Based SCADA / SMARTLOGSoftware
- Annunciator Panel 4 Channel / 8 Channel

Housing Details :

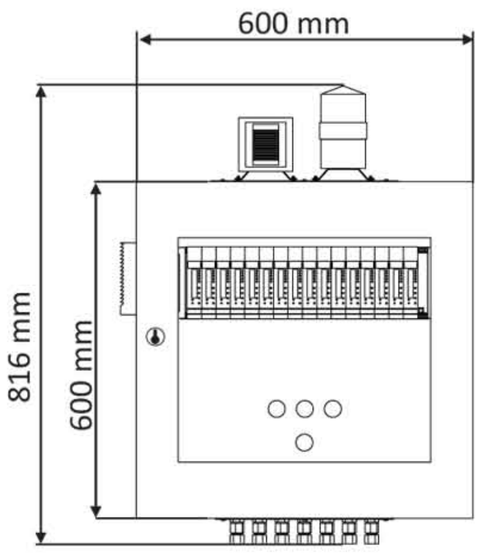
No. of Channels	**: 16 Channel Rack**		**Complete Gas Detection Panel**
Dimension in mm (Approx)	: 484 (W)x134 (H)x200 (D)		600(W) x 816 (H) x 461(D)
Cutout size in mm (Approx)	: 600 (W) x 600(H) x 550 (D)		
Weight (Approx)	: 7.5 Kg		15 Kg
Mounting	: Wall Mounting with 10mm x 70mm screws (4Nos.)		
Cabinet Material	: M.S. housing with powder coating of EPOXY or PP Grade		
Terminal	: connectors with 1.5 Sq. mm. Wire connection facility for each channel inside the panel		

Environmental

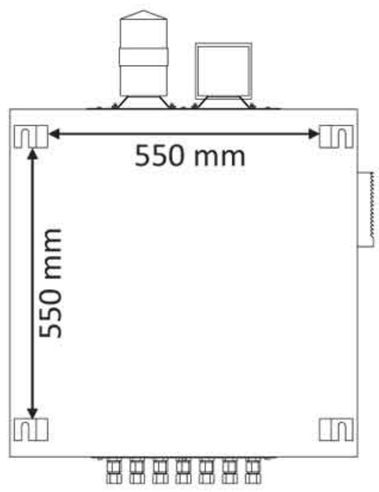
Operating Temperature	:	-15 to +55^{0}C
Humidity	:	Less than 95% Non-Condensing.
		EMI-EMC compatibility

LAYOUT DESCRIPTION

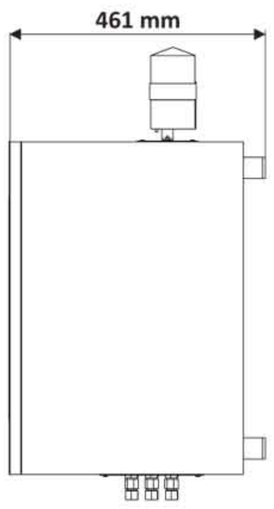
Front view



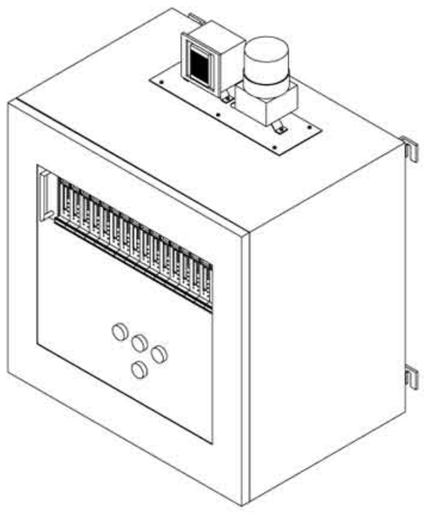
Back view



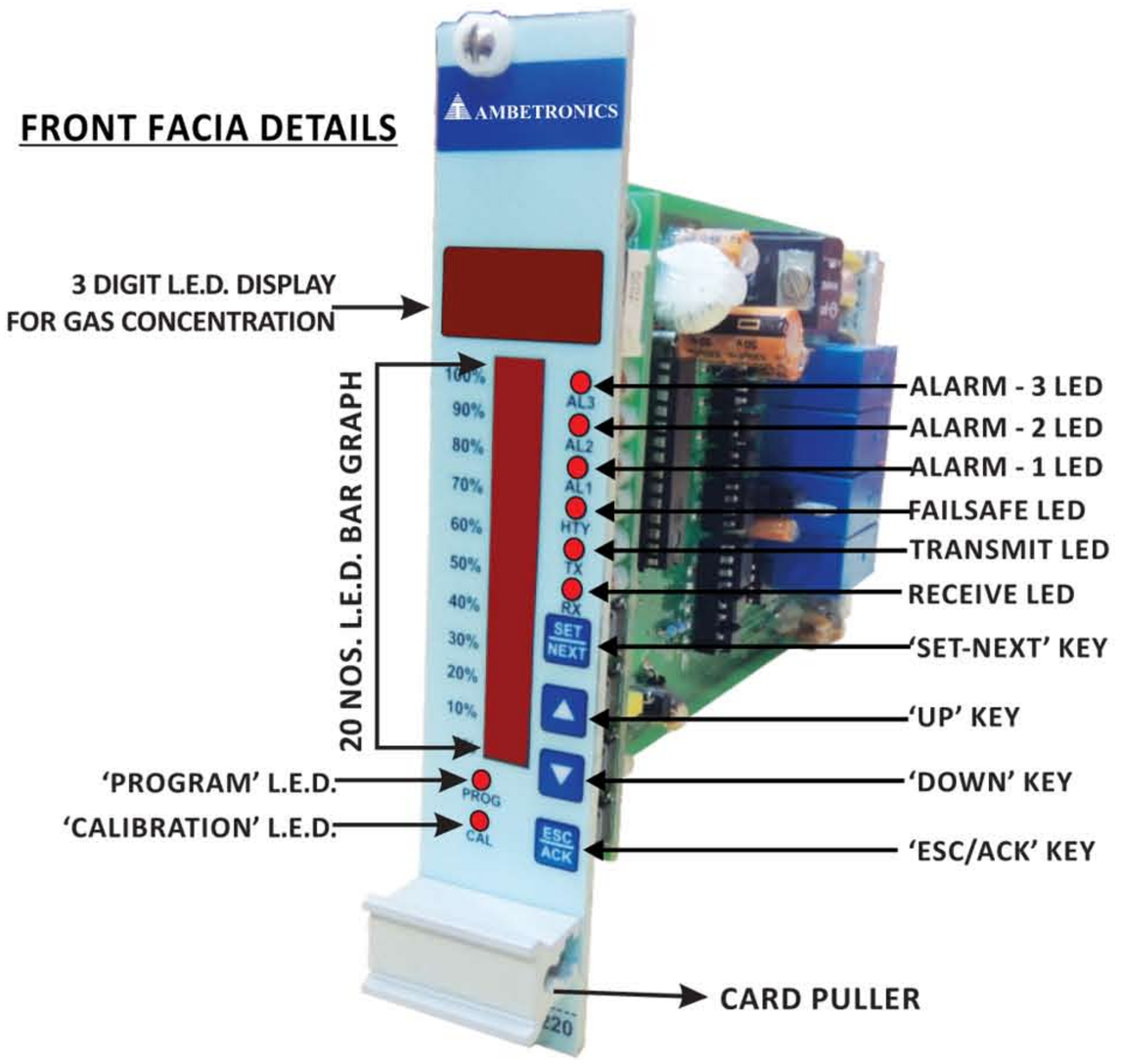
Side view



Trimetric view



FRONT FACIA DETAILS



Manufactured by :

ISO 9001:2008 Certified D-U-N-S No.:65-030-2974

AMBETRONICS ENGINEERS PVT. LTD.

17-B, Tarun Industrial Estate, Mogra Pada, New Nagardas Road, Andheri (East) Mumbai - 400 069, India.
Tel.: +91-22-66995525, 61673000, 28371143 • Fax : +91-22-28226570 • Web : www.ambetronics.com
E-mail : project@ambetronics.com • gas@ambetronics.com • Mob.: 9320619646 • 9320621646

Dealers:

Specifications subject to change without any prior notice

Version 1.0 2K AEPL 01.04.14