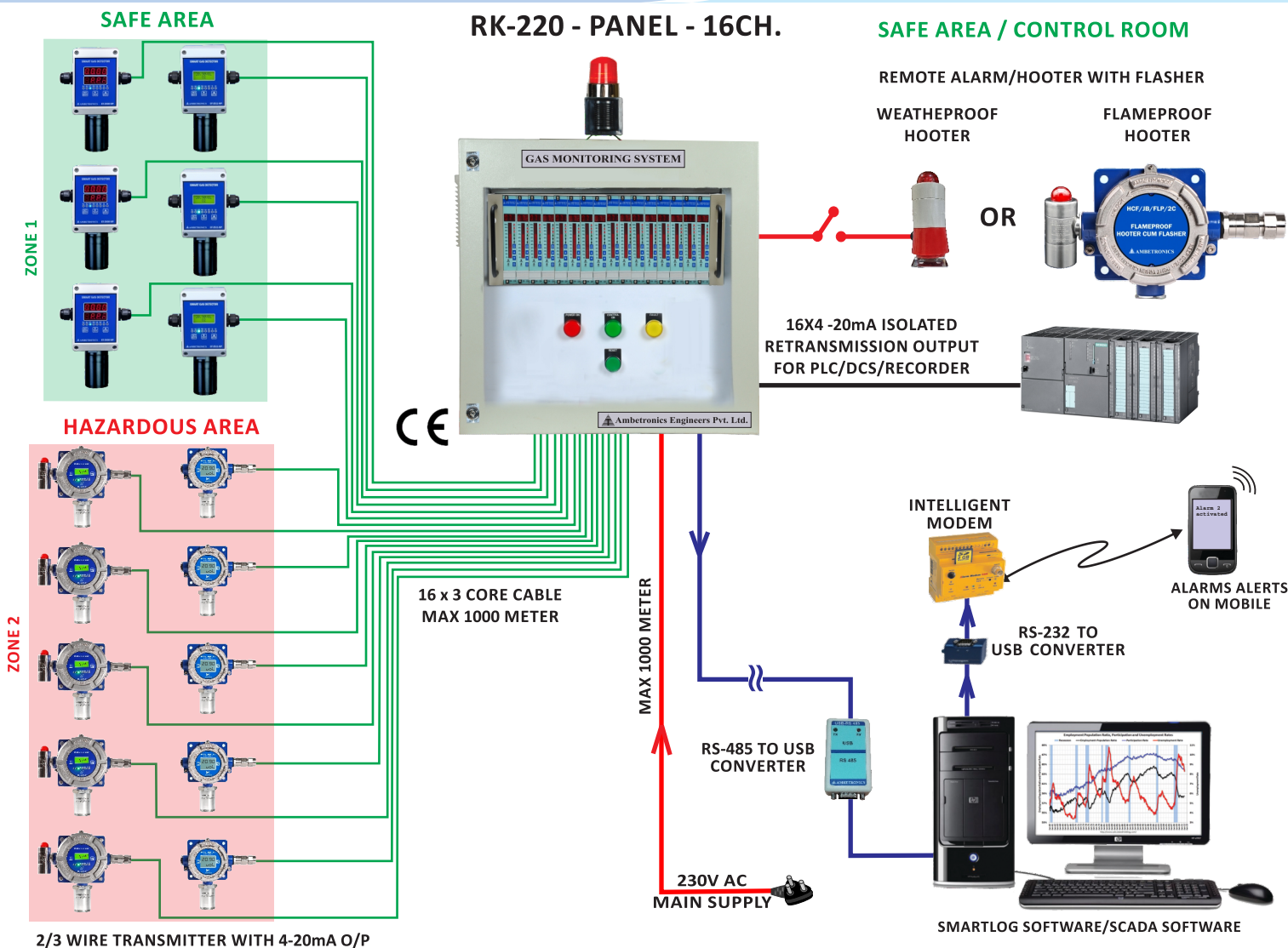


RK-220 - 16CH.

Conventional Multichannel Gas Monitoring Panel



AMBETRONICS
AN ISO 9001:2015 CERTIFIED COMPANY



Features

- Fail Safe Operational Design
- Continuous 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 liner 4-20mA O/P with Respect to gas concentration programmable by user
- Optional Isolated RS-485 with Modbus RTU Protocol for DCS/PLC

Approvals & 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 & INDUSTRIAL SAFETY

TECHNICAL SPECIFICATIONS

General Specification

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.
Resolution	: 0.01, 0.1, 1 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.
L.E.D. 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: $\pm 0.1\%$ of the full-scale value.

Electrical

Power Supply	: 18 to 36 VDC, 24VDC normal for module card OR 230V AC $\pm 10\%$ 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

- 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'
- 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 optional	: Programmable latch/Non-Latch facility for AL1, AL2 & AL3 a) Isolated RS-485 Serial port with MODBUS RTU Protocol output for PLC / DCS b) 16x4-20mA Isolated 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.	• Flame Proof or Non Flame Proof Industrial Hooter / Flasher
• 2/3 Core Cables for Transmission	• RS-485 to USB OR RS-232 convertor
• Gas Calibration Kit (0.5,1, 3,10) Liter.	• PC Based SCADA / SMARTLOG Software
• Hooter cum Flasher	• Annunciator Panel 4 Channel / 8 Channel
• Intelligent Modem	

Environmental

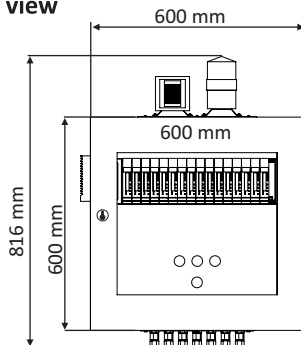
Operating Temp.	: -15 to +55°C - (Tested by ERTL)
Humidity	: Less than 95% Non-Condensing - (Tested by ERTL)
	EMI-EMC compatibility

Housing Details :

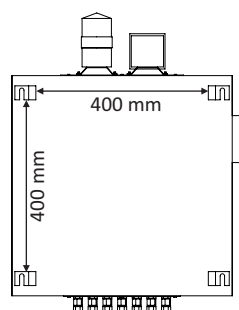
No. of Channels	: 16 Channel Rack
Dimension in mm (Approx)	: 484 mm (W) x 134 mm (H) x 200 mm (D)
Cutout size in mm (Approx)	: 440 mm (W) x 134 mm (H)
Complete Panel Size in mm:	: 600 mm (W) x 600 mm (H) x 400 mm (D)
Rack Weight (Approx)	: 7.5 Kg.
Panel Weight (Approx)	: 30 Kg.
Mounting	: Wall Mounting with 10 mm x 70 mm 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

LAYOUT DESCRIPTION

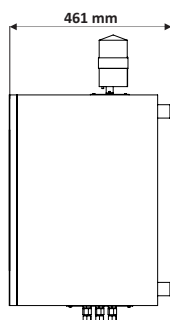
Front view



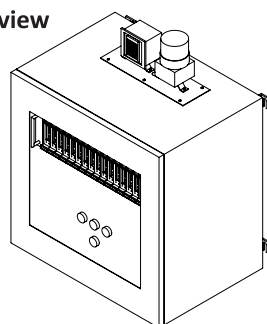
Back view



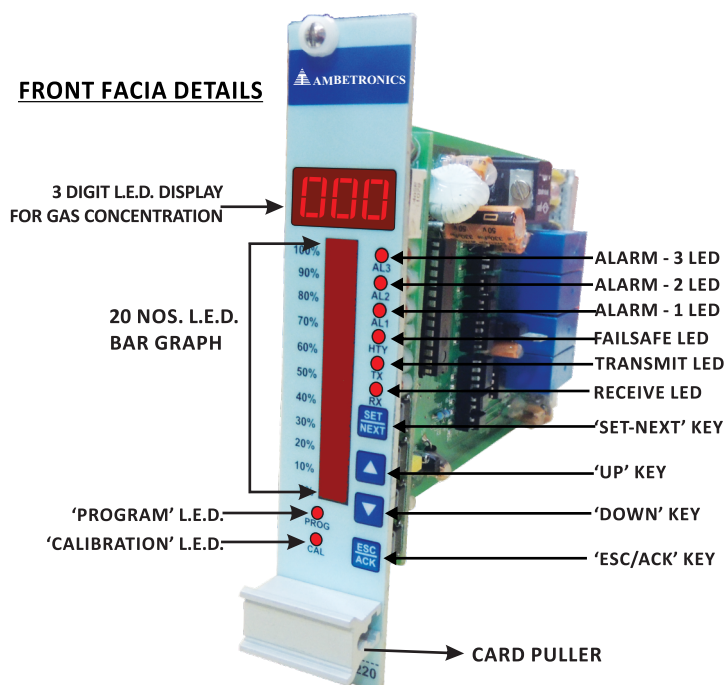
Side view



Trimetric view



FRONT FACIA DETAILS



Manufactured by :



CIMFR



PESO



CE



UL



Ex



IECEx



NSIC



GeM



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