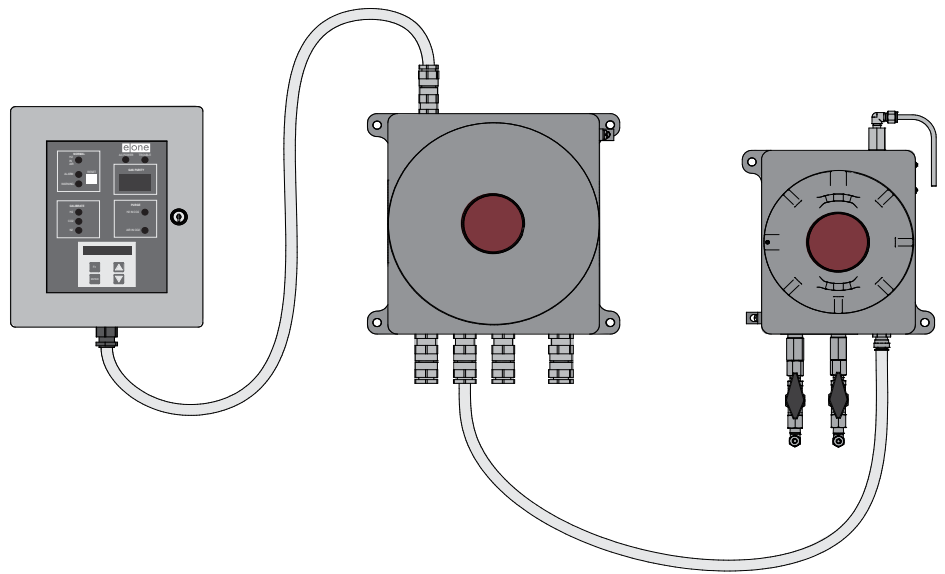


Generator Gas Analyzer

Maintaining hydrogen purity is critical to assuring proper performance, profitability and personnel safety levels.



SPECIFICATIONS

MEASUREMENT CHARACTERISTICS

Technology Principle	Thermal Conductivity
Case Purity	70% to 100% H2 in Air
Purge	0 to 100% H2 in CO2 0 to 100% Air in CO2
Flow Rate	Nominal 500 cc/min
Resolution	+/- 0.1%
Accuracy	+/- 0.5% F.S. on H2 in Air +/- 1.0% F.S. on H2 or Air in CO2
Linearity	+/- 1.0% F.S.
Drift	<0.2%/month

ELECTRICAL CHARACTERISTICS

Power - Input Voltage	115/230 VAC
Input Frequency	50/60 Hz
Output Signal	4-20 mA current output, self-powered
Output, Relays	30V/1.0 A DC, 120V/0.5 A AC
Alarm, NO and NC	125V/0.005 A resistive DC
Warning, NO and NC	
Trouble, NO and NC	
Normal, NO and NC	

MECHANICAL CHARACTERISTICS

Temperature	32-149 F (0-65 C)
Relative Humidity	0-95%
Area Classification	Class 1, Zone 2, Group IIB + H2
Gas Pressure	100 psi maximum
Gas Connections	1/4" compression

The GGA is a triple-range sensor/analyzer that provides

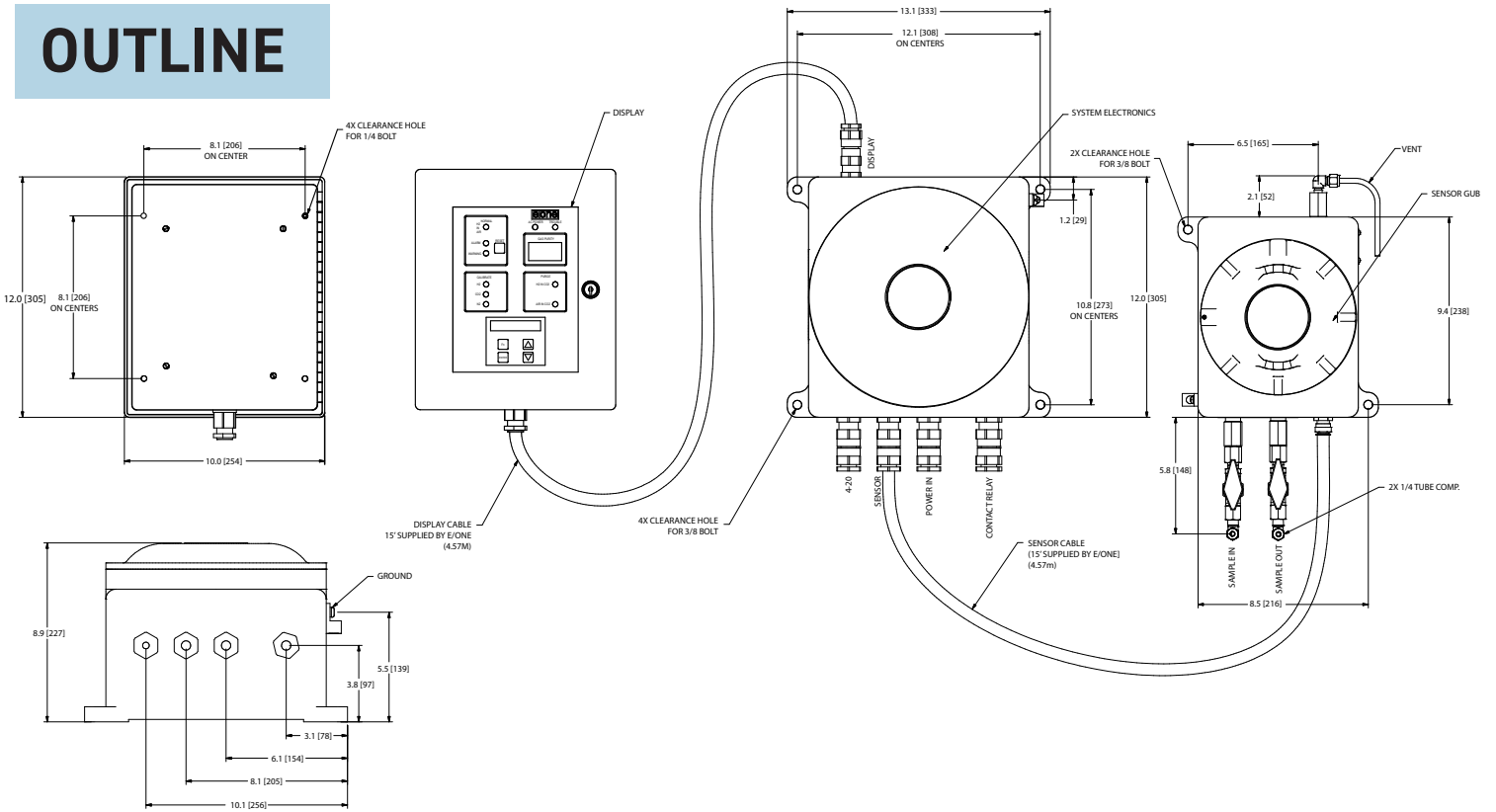
continuous monitoring of gas purity during all phases of generator operation. We've taken a proven monitoring principle – thermal conductivity – and improved upon it. The result of E/One's development work is an extremely accurate, robust and stable system that eliminates the issues of drift and need for frequent recalibration seen in other thermal conductivity systems.

E/One supplies GGA systems in a range of configurations, from stand-alone sensor/analyzers and retrofit "drop-in" replacement systems to comprehensive hydrogen control cabinets that not only monitor gas purity, but provide continuous monitoring of case and differential pressures and interact with plant control systems to assure the highest levels of generator efficiency.

FEATURES AND BENEFITS

- Increased generator efficiency and safety
- Microprocessor controlled
- Flameproof, explosionproof and intrinsically safe designs
- Custom configurations to meet site-specific requirements
- Suitable for new and retrofit applications

OUTLINE



NOTES:

1. SYSTEM ELECTRONICS ASSEMBLY MUST BE LOCATED WITHIN 15' FROM THE DISPLAY AND SENSOR GUB.
2. WEIGHT: 90-100 LB (EST)
3. ALL DIMENSIONS SHOWN FOR REFERENCE ONLY.
4. REFERENCE DOCUMENTS:

P&ID: HB0238P01

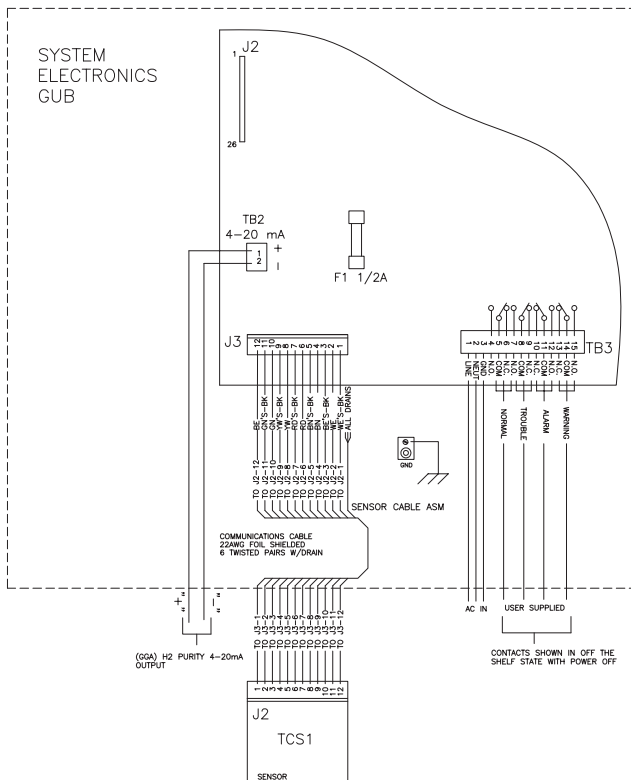
MANUAL: HA0112G04

TOP ASSY: HD0517GXX

CUSTOMER INTERFACE: HB0293P02

	POWER IN	CONTACT RELAY	4-20
REQUIRED WIRE SIZE NOT SUPPLIED BY E/ONE	3 CONDUCTOR 12 GAUGE	12 CONDUCTOR 16-18 GAUGE	2 CONDUCTOR 22 GAUGE SHIELDED TWISTED PAIR
ALLOWABLE CABLE SIZE THROUGH INSTALLED GLAND	9.5-14 mm CABLE OD	5-11.7 mm CABLE OD	3.5-8.4 mm CABLE OD

CUSTOMER INTERFACE



NOTES:

- (GGA) H2 PURITY 4-20mA OUTPUT = 70 TO 100% IN %H2 IN AIR (CAUTION: DO NOT EXTERNALLY EXCITE)
- (GGA) H2 PURITY 4-20mA OUTPUT = 0 TO 100% IN %AIR IN CO2, OR %H2 IN CO2 (CAUTION: DO NOT EXTERNALLY EXCITE)
- (GGA) CONTACT RATING: (GGA) 30VDC 1A, 125VDC 0.005A, 120VAC 0.5A (RESISTIVE MAX)
- INPUT VOLTAGE = 120VAC 50/60HZ 1 PHASE 60W
- * CUSTOMER MUST FILL ALL SEALS AFTER WIRING IS COMPLETED WITH APPROVED POTTING COMPOUND

SUGGESTED CUSTOMER WIRING:

- AC POWER: 3 CONDUCTOR CABLE 12AWG
- CONTACTS: 12 CONDUCTOR CABLE 16-18AWG
- 4-20mA: 2 CONDUCTOR CABLE 22 AWG OVERALL SHIELD

NOTE: TO INSTALL CELL CABLE, FEED CABLE INTO SENSOR CELL ENCLOSURE, INSERT PINS INTO BACK SIDE OF THE CONNECTOR HOUSING WITH LOCKING KEY TOWARD SLOTS. OBSERVE PIN NUMBERS 1-12.

INSERT CONNECTOR INTO SENSOR CELL WITH LOCKING RAMP TOWARD LOCKING FINGERS.

e one Generating
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