



Process &

**Environmental
Analysis Solutions**

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Precise[®] 5-152

LNG ANALYZER

The Precise[®] 5-152 analyzer is a real-time hydrocarbon gas analyzer based on MKS' unique Tunable Filter Spectroscopy (TFS™) platform. Calibrated for LNG composition monitoring and heating value analysis, this package is optimized for gas-phase LNG product analysis containing C1 – C5 alkane gases.

Features & Benefits

- Analysis in seconds
 - Continuous measurement instead of batch handling
 - Quick spot check measurement
 - Minimized sampling issues
 - Real-time feedback
- No re-calibration, no carrier gas requirements
 - Low operational costs
 - Well suited for loading and unloading measurements
- Flow-through sensor design
 - No sensitivity to pressure and flow variations
 - Minimized potential sampling issues
- Small footprint, outdoor rated
 - Well suited for transportable spot check applications
 - Can be mounted on the dock, close to loading area

Applications

- LNG measurement at loading and unloading
- Spot check measurement / custody transfer
- Receiving terminal on-line analysis
- Downstream LNG production
- NG/LNG based power generation
- Ideal fast-response alternative to traditional gas chromatograph type instruments



Specifications

Measurement Ranges*

Methane	0 – 100%	iso-Butane	0 – 10%
iC5 + neo-C5	0 – 5%	Nitrogen	Calculated balance
Ethane	0 – 25%	Calorific Value	Computed as per ISO 6976:2016 (HHV & LHV)
Propane	0 – 25%	Wobbe Index	Computed as per ISO 6976:2016
nC4 + nC5 + nC6	0 – 10% (as nC4)		

* Contact MKS for higher or custom ranges

Precision/Repeatability

Hydrocarbon Channels	<±0.05% (Absolute)
CV and WI Computation	<±0.05% (Relative of Reading)

Update Rate

5 seconds (default), software selectable from 1 – 120 seconds

Zero Drift

Not to exceed 0.2% per month on each hydrocarbon channel

Sample Pressure*

0.1 – 2 psig * Contact MKS for higher or custom ranges

Flow Rate*

0.1 – 1 L/min * Contact MKS for higher or custom ranges

Sample Cell

0.35m pathlength, 100mL volume

Weight

12kg (25.8lbs)

Power Requirement

24 VDC or 100 - 240 VAC

Operating Temperature

-20°C to 48°C (ATEX)

Data Output/Communication

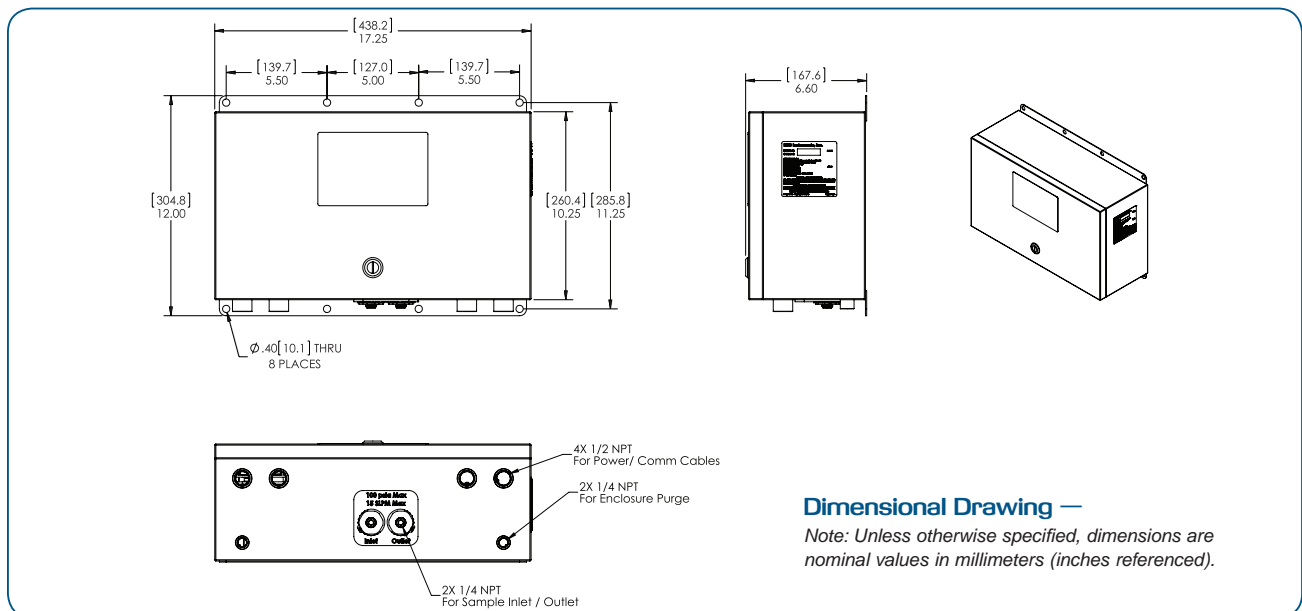
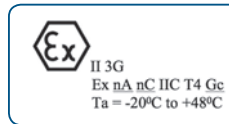
Modbus over Ethernet or RS485

Enclosure Dimensions

17.25" (438.2 mm) width, 6.60" (167.6 mm) depth, 11.25" (285.8 mm) height

Certifications

CSA Class 1Div2,
Groups A/B/C/D,
T4. ATEX Zone 2,
Ex nAnCIICT4Gc
IECEX



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