



Spark CH₄ Serves Requirements for Trace Detection

Why and Where CH₄ Measurement is Critical

APPLICATION	REQUIRED RANGE	PURPOSE
Measure CH ₄ in O ₂ sample from low pressure column in ASU cold box	0-100ppm	Process Safety
Measure CH ₄ impurity in air after TSA/PSA	0-100ppb	Process Control
Measure CH ₄ impurity in pure gas products	0-1ppm	Quality Control
Measure CH ₄ impurity in H ₂ from HyCO/SMR processes	0-100ppm	Process Control
Measure CH ₄ concentration in gas mixtures	1ppm-10%	Quality Control

Spark CH₄ Triumphs Across the Board

FACTORS	FID	GC-FID	FTIR	NDIR	CRDS
Range	ppb to ppm	ppb to %	ppb to %	ppb to %	ppb to ppm
LDL	10ppb	10ppb	100ppb	10ppb	10ppb
Response time	Real time	~15mins	~15mins	Real time	Real time
Accuracy	high	high	medium	medium	high
Drift	Yes	No	Yes	Yes	No
Cost of ownership	High	Very high	Very high	high	Very low
Maintenance	Required	Required	Required	Required	None
Calibration	Required	Required	Required	Required	None
Easy operation	Yes	No	No	Yes	Yes
Support gas requirement	Yes	Yes	No	Yes	No



The Spark: Ultimate Answer for CH₄ Measurement

Advantages of Spark CH₄:

- Fast response time
- No need for calibration and maintenance
- No need for zero purifier
- No need for Air or Hydrogen support gases
- Small size and easy installation & operation.



Consider its specifications:

Performance, CH ₄ :	Range	LDL	Sensitivity
In Nitrogen	0 – 80 ppm	10 ppb	7.5 ppb
In Oxygen	0 – 50 ppm	7 ppb	6 ppb
In Argon	0 – 70 ppm	9 ppb	6.5 ppb
In Helium	0 – 50 ppm	7 ppb	6 ppb
In Hydrogen	0 – 80 ppm	10 ppb	7.5 ppb
In Clean Dry Air (CDA)	0 – 80 ppm	10 ppb	7.5 ppb