FLUENTA

WE'RE FLUENT IN CHALLENGING APPLICATIONS

FLUENTA FLAREPHASE™ TRANSDUCER RANGE

"Our new range represents another pioneering achievement for the team, providing customers with an unrivalled combination of flexibility, reliability, and accuracy in difficult flare gas installations"

Julian Dudley Smith, Managing Director, Fluenta

WE'RE FLUENT IN EXCEEDING REGULATIONS, FOR YOU AND THE ENVIRONMENT

Reducing and ultimately eliminating routine flaring is frequently identified as a key step in the global aim to achieve net-zero emissions.

The World Bank's Zero Routine Flaring by 2030 initiative was the first to unite governments and companies in the fight against flare gas. Now with over 30 governments and 40 oil companies endorsing the initiative, and many creating environmental policies of their own, we are closer than ever to ending routine flaring.

How do flaring policies benefit you?

These initiatives not only help the environment, they also benefit the companies themselves in a number of ways.

Reduce costs & create revenue

Associated gas that would usually be flared can be monetised by turning it into a saleable product such as LNG, or even capturing it and using it as feedstock.

Positive perceptions

There is increasing pressure on the industry to take the necessary steps to reduce emissions. Endorsing or having your own flare gas reduction policy communicates that you are actively working towards global net-zero targets.

Lead the way

Be an innovator within the industry and lead the way in environmental and flare gas policy.

+350°C

+250°C

-200°C

Introducing, the all new Fluenta FlarePhase™ transducer range

For years, we've been setting the standard for flare gas measurement in challenging applications. Our pioneering achievements mean you can now measure flare gas accurately and reliably with Fluenta's FlarePhase™ transducer range:

Fluenta FlarePhase™ 350

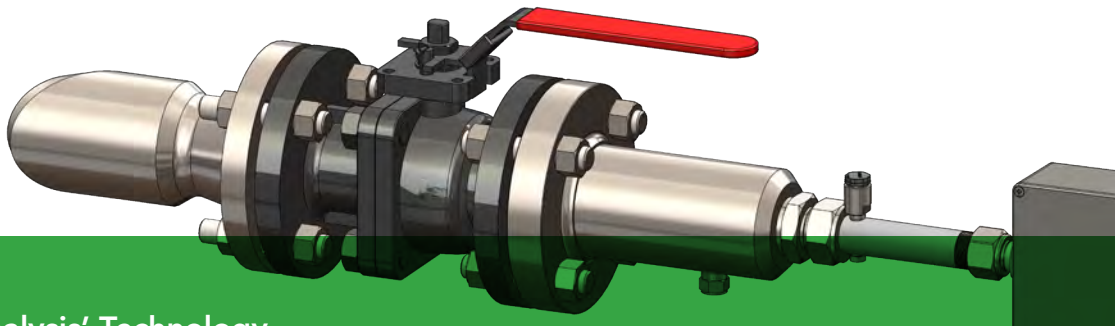
- Uniquely designed for the most challenging applications
- For extreme temperature environments
- For very low gas densities

Fluenta FlarePhase™ 250

- Ideal for the petrochemical and refining industries
- For high temperatures
- Optimised for high levels of hydrogen and CO_2

Fluenta FlarePhase™ Cryo

- Ideal for the LNG and gas liquefaction industries
- For very low temperatures
- For difficult gas conditions including high methane



With 'Active Phase Analysis' Technology

Phase shifts are a common technological issue with precision ultrasonic measurement and result in measurement inaccuracies. Typical industry fixes can amplify these errors.

Fluenta's FlarePhase™ transducers use novel 'active phase analysis technology' to combat this inherent issue. By accurately determining phase shifts and providing a definite figure to calculate the necessary compensation, the Fluenta FlarePhase™ range provides laboratory levels of accuracy in the field.

WE'RE FLUENT IN ACCURATE MEASUREMENT IN EXTREME CONDITIONS

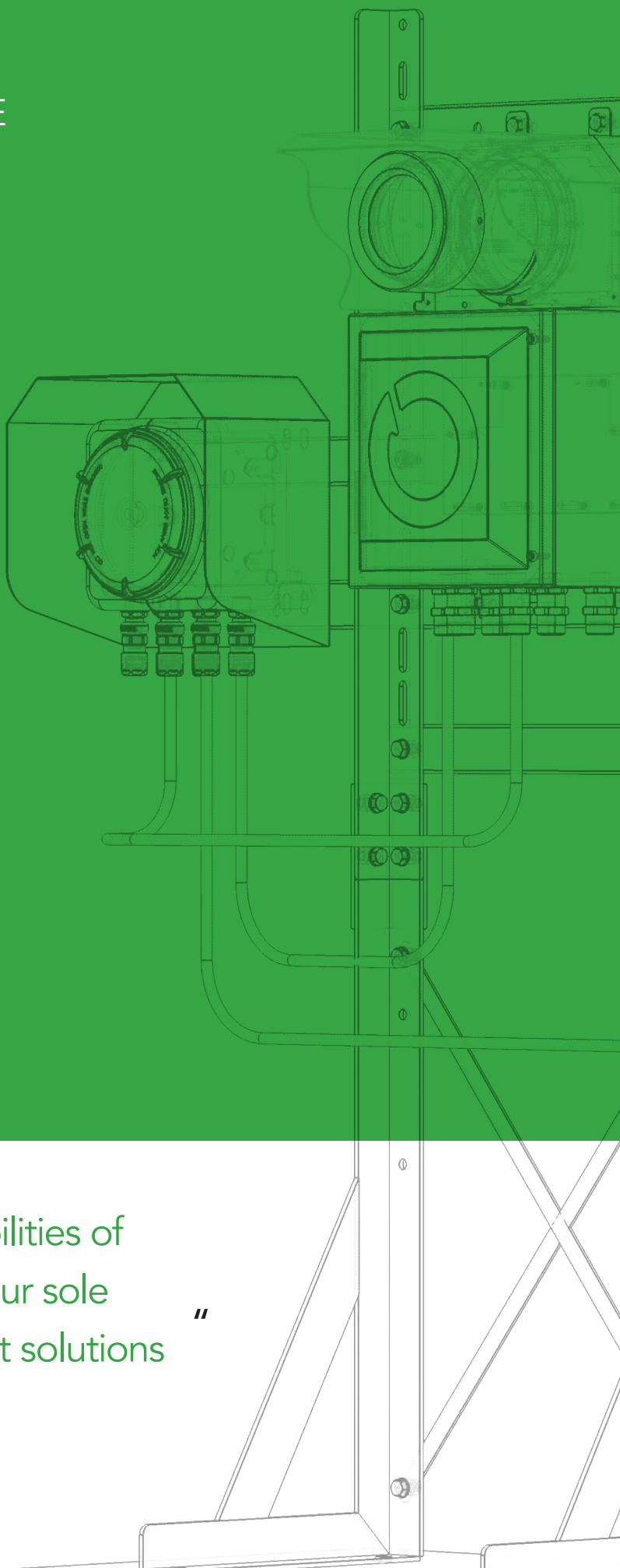
Advanced Temperature Capabilities

The Fluenta FlarePhase™ transducer range offers the highest temperature capabilities on the market, offering measurement up to 350°C and down to -200°C.

Challenging Gas Compositions? No Problem

The Fluenta FlarePhase™ transducers can accurately measure in high levels of H_2, CO_2, or CH_4 typically across the full pipe diameter.

This makes them ideal for the LNG, refinery and petrochemical sectors, providing accurate and stable measurement, even with prolonged exposure to challenging environments.



"The advanced technical capabilities of the range are the product of our sole focus in flare gas measurement solutions"

Stuart Tyers, Group CTO, Fluenta

Technical Specifications for the Fluenta FlarePhase™ Range

	FlarePhase™ Cryo	FlarePhase™ 250	FlarePhase™ 350
Functional Characteristics			
Transducer Type	Ultrasonic / Time-of-flight / Wetted non-intrusive as standard		
Available Materials	Full titanium execution (NACE compliant)		
Specialist Material Certification	Certified for -200°C (-328°F)	Certified for +250°C (+482°F)	Certified for +350°C (+662°F)
Velocity Range	0.03 m/s - 120 m/s (0.1 ft/s - 400 ft/s)		
Turn Down Ratio	4000:1		
Uncertainty[1]	Up to 0.75%		
Resolution	0.0008 m/s (0.003 ft/s)		
Operating Conditions			
Pipe Sizes	6" to 100" as standard (application dependent)[2]		
Process Connection	2" or 3", 150# or 300# lateral flanges		
Gas Composition Limits[3]	Suitable for high levels of H_2, CO_2 and CH_4		
Operating Temperatures	-200°C to +250°C (-328°F to +482°F)	-200°C to +250°C (-328°F to +482°F)	-40°C to +350°C (-40°F to +662°F)
Operating Pressure	0.8 barA to 10 barA (11.6 psiA to 145 psiA)		
Ex Certification			
Awarding Bodies	IECEx, ATEX, NRTL, TR-CU (pending), INMETRO		
Details	Ex ia IIC T2-T4 (Zone 0), IP66		

Please note specifications are subject to change

1 For optimal accuracy, we recommend a multi-point calibration at an accredited flow calibration facility

2 Solutions may be possible outside this range

3 For full gas capability reports, please contact your Fluenta representative

WE'RE FLUENT
IN SIMPLE SOLUTIONS FOR COMPLEX INSTALLATIONS

Flare gas measurement; for over 30 years, it's all we've done. And because it's been our sole focus, our dedication to innovation and precision is unrivalled. With our expert team, we can find a simple solution to your measurement challenge.

Unrivalled measurement capabilities with our range of transducers

- TFS
- TFS-55
- TFS-HT
- FlarePhase™ Cryo
- FlarePhase™ 250
- FlarePhase™ 350

Optional configurations

All our transducers are available in a number of configurations to optimise your installation:

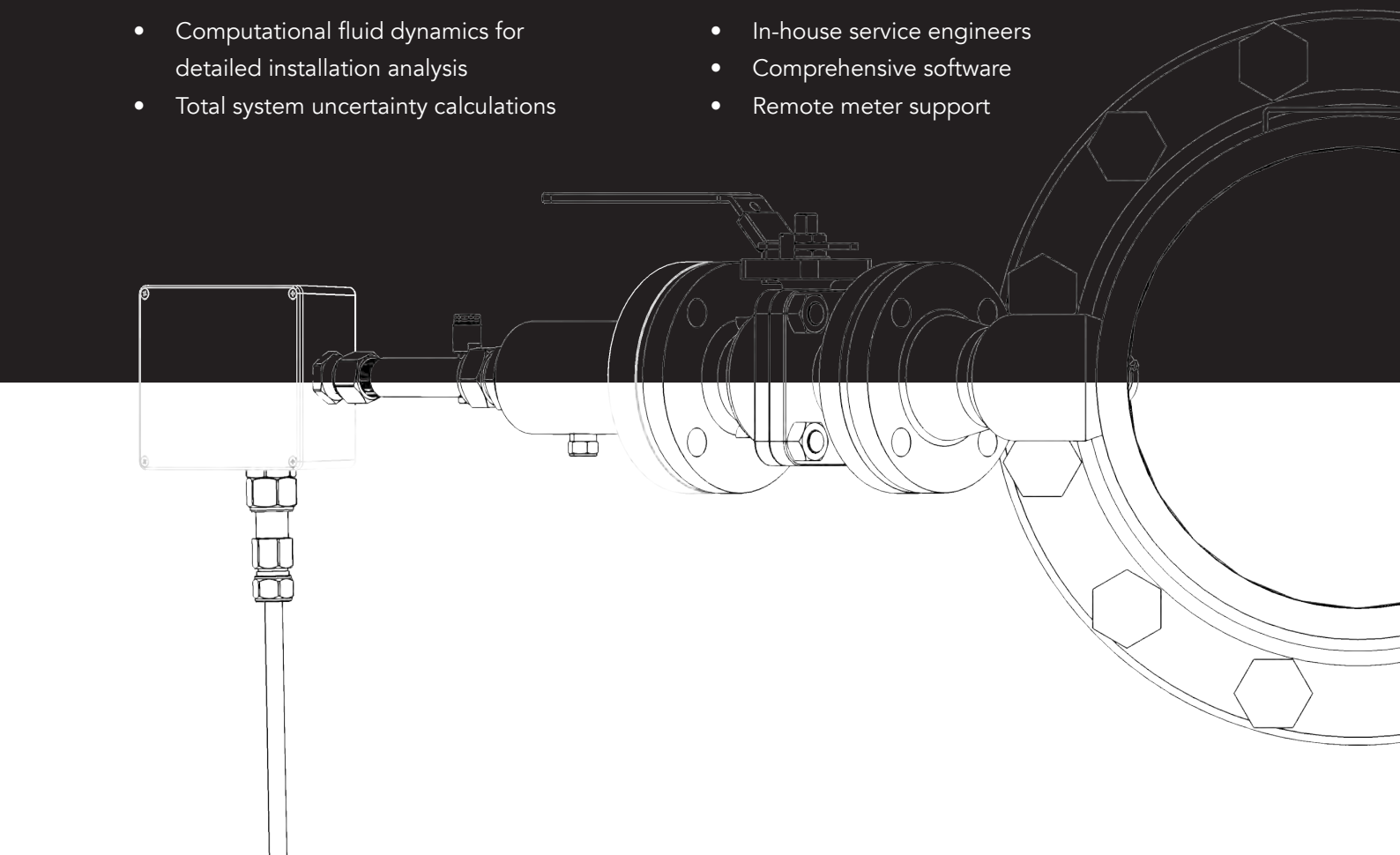
- Single-path - for standard measurement
- Dual-path - for increased accuracy
- Bias 90 - for space limitations & retrofits

Flexible, optimised solutions

- Computational fluid dynamics for detailed installation analysis
- Total system uncertainty calculations

Ongoing customer support

- In-house service engineers
- Comprehensive software
- Remote meter support



WE'RE FLUENT. WE'RE FLUENTA.

With over 3,000 installs across 6 continents, Fluenta has the experience to help you more accurately measure flare gas, to make better business decisions and meet the most stringent regulations.

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