Automatic Freezing Point Analyzer  

FZP 5G2s  

Leading Experience In Freeze-point Analysis  
• Fast and Accurate Freezing Point Determination within 15 Minutes  
• Intelligent Detection of any Type of Jet Fuel Crystallization  
• Compact Design with Built-in Cooling System, Suitable 'in the field'  
• Compliant with ASTM D7153, IP 529, and in perfect correlation to ASTM D2386, IP 16  

Ordering Information  
FZP 5G2s Freezing Point Analyzer with built-in cooling system.  

Standard Test Method  
Compliant with ASTM D7153, IP529, DEF STAN 91-91 - Correlation to ASTM D2386, IP 16, ISO 3013, JIS K2276  

Performance  
Measuring Range: Ambient down to -100°C (-148ºC)  
Self contained operation, no external connection necessary  
Detection: Optical, patented  

Operation  
Operator Time: ½ minute per test  
Test Duration: 15 minutes  
Sample Volume: 10 ml, including volume for cleaning  
Sample Injection: Disposable 10 or 20 ml syringe  
Cleaning: Self-cleaning operation, no cleaning required  

Documentation  
Display: On-screen viewing of test progress and result  
Printing: Detailed detection curve tracking of fuel behavior during the test; can be printed to on optional graphic printer (following a test or recalled from storage) and attached to document the test report  
Data Storage: 50 complete test reports stored locally, unlimited with PC  
Data Export: PC and RS connections standard; ALAN™ software optional  

Utility Requirements  
Electrical: 100–240 VAC, 150W, 50/60 Hz  
Dimensions: 30cm x 65 cm x 34 cm (W x D x H) (10" x 24½" x 15½")  
Weight: 26 kg (57 lbs)  
ISL'S LEADING EXPERIENCE IN FREEZEPOINT ANALYSIS

Long duration flight at high altitude subjects aircraft fuel tanks to very low temperatures, presenting a threat of fuel line and filter blockage due to hydrocarbon crystal formation. Heavy hydrocarbons and/or wax-containing products can change a fuel's cold behavior properties, creating significant flight safety risk. ISL's FZP 5G2s provides highly accurate freezing point determinations down to -100ºC (-148ºF), empowering users to assess the aviation fuel's flow performance at ultra-low temperatures conditions. It combines a patented built-in cooling system and a unique, patented detection cell into an ultra-compact, easy to use instrument that's ready to work whenever and wherever you are.

EASY AND USER-FRIENDLY OPERATION

With the ISL's FZP 5Gs, performing freezing point analysis has never been so simple: simply inject 10ml of sample, press "test" button and get instant results within 15mn! Thanks to a full automated processing, no pre-test programming is necessary - the system controls the test progress and immediately report and manage results data. Self cleaning procedure simplifies the operation and reduces system downtime between two consecutive run, while intelligent software ensures accurate analysis of neat and/or contaminated samples.

- Straightforward operation at push-button
- Standard and customized test methods profiles
- Real-time display of test progress
- Display of the detection curve, after test completion
- Instantaneous results data reporting, with filtering capability - can be export to external PC, ALAN network or LIMS

ADVANCED TECHNOLOGY - POWERFUL PRECISION, SIMPLE OPERATION WITH ULTRA-LOW TEMPERATURE TESTING CAPABILITIES

ISL FZP 5G2S' UNIQUE DETECTION SYSTEM

ISL's unique, detection system utilizes powerful optics and precise temperature control, providing highly reliable freezing point measurements with excellent sensitivity to contamination levels. As the sample is exposed to carefully monitored temperature changes, causing crystal to form (during cooling) and dissolve (during reheating), the system's polarization filters and optics sensors precisely track the refraction of light as it passes through the sample.

The method, which is based on fundamental optical laws, detects all types of crystallization for any type of jet fuel. Smart detection software precisely determines Freezing Point according its definition for aviation fuels, reporting results in perfect correlation to the IP 16 manual method —whether the sample being tested is neat or contaminated.
ACCURATE AND FAST FREEZING POINT DETERMINATION WITHIN 15 MINUTES

The ISL FZP 5G2s provides:

• Rapid cooling to ultra-low temperatures, down to -100°C in minutes
• Reliable analysis - No affect by ambient moisture
• Excellent precision on neat samples
• High sensitivity to contamination levels
• Minimal system downtime between two consecutive analysis - self-cleaning by flushing with next sample

ROBUST AND COMPACT DESIGN FOR IN THE FIELD APPLICATIONS

Thanks to its build-in cooling system, the ISL FZP 5G2s benefits from a compact and portable design, which makes it the ideal solution for mobile and in-field applications.

• Easy installation throughout the laboratory to area ideal for workflow
• Completely self-contained, patented cooling technology - highly energy content, maintenance free, no external liquid connection required
• Multi-level password protection for secure operation
• Proven and endurance tested for long-term operation

APPLICATION RANGE

• Refining Certification Laboratories
• Pipelines, Terminals
• Fuels Research Centers
• Inspection and Customs Points

Cold behaviour:
Aviation Fuels

STANDARD METHODS

In compliance with:
• ASTM D7153
• IP529
• DEF STAN 91-91

In correlation to:
• ASTM D2386
• IP 16
• ISO 3013
• JIS K2276
ORDERING INFORMATION
FZP 5G2s Freezing Point Analyzer with built-in cooling system.

STANDARD TEST METHOD
Compliant with ASTM D7153, IP529, DEF STAN 91-91 - Correlation to ASTM D2386, IP 16, ISO 3013, JIS K2276

PERFORMANCE
Measuring Range: Ambient down to -100°C (-148ºC)
Self contained operation, no external connections necessary.

DETECTION
Optical, patented

OPERATION
Operator Time: ½ minute per test
Test Duration: 15 minutes
Sample Volume: 10 ml, including volume for cleaning
Sample Injection: Disposable 10 or 20 ml syringe
Cleaning: Self-cleaning operation, no cleaning required

CALIBRATION
Automatic calibration routine for temperature measurement.
10ºC interval probe correction capabilities.
Programmable calibration frequency.
Calibration ticket printing.

DOCUMENTATION
Display: On-screen viewing of test progress and result
Printing: Detailed detection curve tracking of fuel behavior during the test; can be printed to on optional graphic printer (following a test or recalled from storage) and attached to document the test report
Data Storage: 50 complete test reports stored locally, unlimited with PC
Data Export: PC and RS connections standard; ALAN™ software optional

UTILITY REQUIREMENTS
Electrical: 100–240 VAC, 150W, 50/60 Hz
Dimensions: 30cm x 65 cm x 34 cm (W x D x H) (10" x 24½" x 15½")
Weight: 26 kg (57 lbs)

ALAN™ Software
Automatic Laboratory Analyzer Network. Enables multi-analyzer networking with centralized operation and data management. Available as option.

Due to continuing product development, specifications subject to change at any time without notice. All products are CE compliant.

Copyright 2012/1 PAC L.P. All rights reserved - 820-697