Automated Closed Cup Flash Point Analyzers

FP170 5G2







FP170 5G2

Safe, precise Abel flash point testing has never been easier! ISL's FP170 5G2 combines a compact design together with user friendly automation to significantly increase your laboratory's productivity and improve test precision. Simply select from a list of pre-programmed testing conditions, then press the test button. Progress displays in real time on the local screen. With cooling immediately

initiated, the FP170 5G2 is ready to begin another test in minutes. Its extensive local data storage is further supplemented by LIMS export capabilities, while the addition of ALAN® enables multi-instrument networking with centralized operation control and data management. With 20 standard and pre-programmed

testing profiles to choose from plus your choice of gas or electric ignition, ISL offers ultimate versatility to suit your unique testing preferences and needs. Sophisticated quality control features—including traceable automatic calibrations with lock-out control, and automated quality verification—fulfill your ISO 9000 requirements.

ADVANTAGES

- Simple 1-button test initiation
- Protected thermal flash detection
- 3 programmable stirring rates
- Enhanced quality and calibration features
- Automatic lighting and monitoring of test flame
- Multiple safety features
- Solid state cooling bath
- Stand-alone operation or multi-instrument networking with ALAN™

APPLICATION RANGE

Volatility

- Petroleum Products
- Solvents
- Chemicals
- Fluxed Bitumen

STANDARD METHODS

- IP 170
- ISO 13736
- EN/ISO 13736
- NF M 07-011
- NF T66 009

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ISL by PAC

ISL is a global provider of scientific apparatus and instruments for testing petroleum and petrochemical products in the lab and online. More than 20 automatic analyzers bearing the ISL brand are recognized for increasing test precision, boosting laboratory efficiency and reducing costs.

UNPARALLELED VERSATILITY, ABSOLUTE SIMPLICITY

- Easy test initiation by factory pre-installed test method. Capability to customize test methods and conditions.
 Real-time display during testing, viewable from 5 meters (16½ ft.)

- Multi-language user support
 Quickly configurable gas or electric ignition
 Automatic lighting and test flame monitoring
 Tests samples containing water or silicone
 Optional cooling block for sub-ambient testing
 Detachable cure cover and shutter simplify clean
- Detachable cup cover and shutter simplify cleaning

- Built-in sensor for automatic barometric pressure correction according to ASTM or ISO methods
- Automatic, time-recorded calibrations with lock-out control
 Warning message when result is out of specification

SAFE, DEPENDABLE OPERATION

- Relights flame, if necessary, during operation and suppresses gas source at end of test
- Automatic fire detection system with external fire alarm connection
- Over-heating detection with automatic heat shut-off during test

- Centralizes control and data management of up to 31 ISL ALAN-ready™ cold behavior, distillation & flash point instruments
- Automatically stores results to database with sorting, filtering capabilities
 Transmits results to external computer, network or LIMS with data
- extraction mask for each test program

 Compatible with other Windows-based applications

FRITO 5G2 Automated Abel Flash Point Analyzers (standatione operation) FRITO 5G2 Test Methods Standard: IP 170, ISO 13736, DIN 51 755, EN ISO 13736, NF M07 011 & NF 166009 (fluxed bitumen) Customized: TAG simulation, User, Fast, Pass, Fail and Search methods Compliance CE and ISO9000 OPERATION Analytical principle Abel Closed Cup Ignition system Interchangeable gas/electric Flash desertion Thermal (standard, compatible with water or silicon contained samples) or ionization ring (optional) Cooling Tap water or optional extensil recirculating chiller bath Stirring 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 3 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating Rate 4 programmable stirring speeds (ISO/IP, NF; and no stirring) Heating R		
Test Methods Standard: IP 170, ISO 13736, DIN S1 755, EN ISO 13736, NF M07 011 & NF T66009 (fluxed blumen) Customized: TAG simulation, User, Fast, Pass/Fail and Search methods OPERATION Analytical principle Abel Closed Cup Ignition system Interchangeable gas/electric Flash detection Thermal (standard, competible with water or silicon contained samples) or ionization ring (optional) Cooling Tap water or optional external recirculating childre bath Stirring 3 programmable sitring speeds (ISO/IP), NF; and no stirring) Heating Rate 3 programmable rates: 0,6°C/min, 1°C/min and 3°C/min Calibration Automatic and time-recorded calibration, programmable calibration frequency with lock-out control Application range -3 to +110 °C (-22 to 230°F) Sample temperature measurement Pt 100 glass probe Offset capability with correction table (21 points from -80°C up to 300°C). Barometric pressure correction Automatic correction with built-in pressure gage DATA MANAGEMENT Documentation "Real-time display on screen of test progress Results Instant Report in "C or K (visible from more than 5m)" Internal Memory 20 sample specifications, 20 operator names, 20 learn tembods and 550 tests results. Statistics: computation of average, minimum, maximum values and standard deviation SUPPLY & CONNECTIONS Buttone or propane gas source Buttane or propane gas source Buttane or propane gas source Supply Maximum pressure of 40 mbar Cooling Supply Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP). POWER REQUIREMENTS Voltage 115 and 230 V Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP). POWER REQUIREMENTS Display LCD, X VGA monochrome Alphanumeric keypad with dedicated function keys Data input/output Centronics® parallel link for text printer (40 columns), RS2325 serial link for direct connection to Iulis or external PC SLALAN Surfect connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Display Display Display Display Display Disp	ORDERING INFORMATION	
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Heating Rate 3 programmable rates: 0.6°C/min, 1°C/min and 3°C/min Calibration Automatic and time-recorded calibration, programmable calibration frequency with lock-out control Application range -30 to +110 °C (+22 to 230°F) Sample temperature measurement Pl 100 glass probe Offset capability with correction table (21 points from -80°C up to 300°C). Barometric pressure correction Automatic correction with built-in pressure gage DATA MANAGEMENT Documentation "Real-time display on screen of test progress Results Instant Report in °C or K (visible from more than 5m)" Internal Memory 20 sample specifications, programmable and standard deviation SUPPLY 3 CONNECTIONS Gas type Butane or propane gas source Gas Supply Maximum pressure of 40 mbar Cooling Supply Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP). POWER REQUIREMENTS Voltage 115 and 230 V Frequency 50 / 60 Hz Power 350 W INTERFACE SPECIFICATIONS Data input/output Centronics® parallel link for direct connection to LIMS or external PC ISLA LIAN Suite connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Cooling	Tap water or optional external recirculating chiller bath
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Barometric pressure correction Automatic correction with built-in pressure gage DATA MANAGEMENT Documentation "Real-time display on screen of test progress Results Instant Report in "C or K (visible from more than 5m)" Internal Memory 20 sample specifications, 20 operator names, 20 test methods and 550 tests results. Statistics: computation of average, minimum, maximum values and standard deviation SUPPLY & CONNECTIONS Gas type Butane or propane gas source Gas Supply Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP). POWER REQUIREMENTS Voltage 115 and 230 V Frequency 50 / 60 Hz Power 350 W INTERFACE SPECIFICATIONS Display LCD, % VGA monochrome Alphanumeric keypad with dedicated function keys Centronics® parallel link for text printer (40 colums). RS232C serial link for direct connection to LIMS or external PC ISL ALAN Suite connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Application range	-30 to +110 °C (-22 to 230°F)
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Pocumentation "Real-time display on screen of test progress Results Instant Report in "C or K (visible from more than 5m)" Internal Memory 20 sample specifications, 20 operator names, 20 test methods and 550 tests results. Statistics: computation of average, minimum, maximum values and standard deviation SUPPLY & CONNECTIONS Gas type Butane or propane gas source Gas Supply Maximum pressure of 40 mbar Cooling Supply Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP). POWER REQUIREMENTS Voltage 115 and 230 V Frequency 50 / 60 Hz Power 350 W INTERFACE SPECIFICATIONS Display LCD, '½ VGA monochrome Alphanumeric keypad with dedicated function keys Data input/output Centronics® parallel link for text printer (40 columns), RS232C serial link for direct connection to LIMS or external PC ISL ALAN Suite connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Barometric pressure correction	Automatic correction with built-in pressure gage
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Frequency 50 / 60 Hz Power 350 W INTERFACE SPECIFICATIONS Display LCD, ¼ VGA monochrome Alphanumeric keypad with dedicated function keys Data input/output Centronics® parallel link for text printer (40 columns). RS232C serial link for direct connection to LIMS or external PC ISL ALAN Suite connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Cooling Supply	Temperature of the cooling liquid must be 20°C lower than the Expected Flash Point (EFP).
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Data input/output Centronics® parallel link for text printer (40 columns). RS232C serial link for direct connection to LIMS or external PC ISL ALAN Suite connection for multi-instrument networking ENVIRONMENTAL CONDITIONS Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Power	350 W
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Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	Data input/output	RS232C serial link for direct connection to LIMS or external PC
Operating temperature 15 to 35°C (50 to 104°F) Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch)	ENVIRONMENTAL CONDITIONS	
Humidity Relative humidity: up to 80% at 35°C (not condensing) Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch) Weight 25 Kg (55 lbs)	Operating temperature	15 to 35°C (50 to 104°F)
Storage temperature -20 to 40°C (-4 to 104°F) PHYSICAL SPECS 5 Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch) Weight 25 Kg (55 lbs)	Humidity	Relative humidity: up to 80% at 35°C (not condensing)
PHYSICAL SPECS 360 x 550 x 350 mm (14 x 21 x 14 inch) Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch) Weight 25 Kg (55 lbs)	Storage temperature	-20 to 40°C (-4 to 104°F)
Dimensions (W x D x H) 360 x 550 x 350 mm (14 x 21 x 14 inch) Weight 25 Kg (55 lbs)	PHYSICAL SPECS	
Weight 25 Kg (55 lbs)	Dimensions (W x D x H)	360 x 550 x 350 mm (14 x 21 x 14 inch)
	Weight	25 Kg (55 lbs)

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