

PRODUCT COMPARISON


The new Phase Technology 70Xi — redesigned for greater productivity and reliability.

The world's fastest, most precise cold flow properties analyzer just got smarter... Easy, one touch "favorites" and faster multiprocessors make it quicker and easier to perform tests. Built-in alert messages give you troubleshooting options to quickly resolve issues. In-depth system diagnostics and QC features verify performance and detect potential sample problems.

ASTM TEST METHODS	Pour Point	ASTM D5949; ASTM D97 (IP 15/ISO 3016) equivalent or better		The 70Xi is built on established ASTM methods that have been accepted standards, worldwide for over 15 years. ASTM D5949, D5773 and D5972 were the first automatic methods of their type to be approved by ASTM. Phase Technology remains the only manufacturer with current, valid automatic ASTM test methods for all three cold flow properties.
	Cloud Point	ASTM D5773 (IP 446); ASTM D2500 (IP 219/ISO 3015) equivalent		
	Freeze Point	ASTM D5972 (IP 435); ASTM D2386 (IP 16/ISO 3013) equivalent		
PRECISION: REPEATABILITY & REPRODUCIBILITY		Repeatability	Reproducibility	
	Pour Point	1.6 °C	3.2 °C	Best measured precision of any automatic or manual pour point test method
	Cloud Point	1.3 °C	2.5 °C	Best measured precision of any automatic or manual cloud point test method
	Freeze Point	0.5 °C	0.8 °C	Best measured precision of any automatic or manual freeze point test method
TEST DURATION	Pour Point	8 to 20 minutes		Fastest operating speed of any automatic or manual pour point test method
	Cloud Point	3 to 8 minutes		Fastest operating speed of any automatic or manual cloud point test method
	Freeze Point	8 to 10 minutes		Fastest operating speed of any automatic or manual freeze point test method
SAMPLE TEMPERATURE RANGE	-80 °C to 50 °C		-88 °C to 50 °C	Better thermal management and more powerful cooling system; minimum sample temperature improvement to below -88°C [-126°F]. More low-temperature classes of samples (next generation JF and synthetic lubricants) can now be analyzed.
DISPLAY	Full-color, touch-sensitive, 10.4" LCD touch screen		Full-color, touch-sensitive, 15" high resolution LCD touch screen	Large 15" color screen is easier to read. View more information without flipping between multiple windows. Start and finish test on same screen with real-time test result data and phase plots.
USER INTERFACE	Text box buttons		Graphic, full-color icons	More intuitive, easier to use. Improved user interface with new colorful graphic icon buttons for quicker navigation. Greater use of touch screen gestures and commands; more responsive keyboard.
PROGRAMMABLE TEST RUNS	No		Yes User-selectable, preset "Favorites"	Fast, one-touch testing. Single button to perform test run saves operator time – preset "favorites" with run mode, sample type, temperature mode, and estimated result. No need to enter information multiple times or on multiple screens.
QUALITY CONTROL FEATURES TREND CHARTS WITH CONTROL LIMITS	No		Yes	Easy set up of QC runs with instantaneous control charts; user-selectable or automatic upper and lower control limits. Trend charts with "touchable" data points that open individual phase plots. Overlay and compare multiple phase plots and trend charts. Set automatic QC runs and retest of sample if not within desired limits. Optional alert or lock down if out of acceptable limits
SYSTEM DIAGNOSTICS	Limited Available only when powering on analyzer		Extensive "Intellinostics" are active and accessible while analyzer is running	Built-in alert messages give troubleshooting options to quickly solve problems. In-depth system checks verify performance and detect potential problems with critical components. Detailed logging of all error messages and run history.
CONNECTIVITY & OUTPUTS	(4) RS-232 serial ports (1) RJ-11 telephone port		(3) USB ports (1) 10/100Base-T Ethernet (RJ45) port (3) RS-232 serial ports	Quickly export analyzer data to a portable USB flash drive. USB capability also makes remote diagnostics and troubleshooting easier. USB connects to any HP (PCL) printer; optional barcode scanner. Ethernet port for connection to local network (LAN) or LIMS system.
USER ACCESS LEVELS SECURITY PROTECTION	One user access level No security protection		Three user access levels (User, Administrator, Factory) Password-enabled security protection	Programmable user access levels streamlines workflow and prevents accidental or unauthorized changes to analyzer and test settings.
MICROPROCESSOR MULTI-TASKING	Single microprocessor No multi-tasking		Faster, distributed multiprocessors Built-in multi-tasking	No more waiting for tests to complete before doing other tasks on the analyzer. View phase plots, retrieve previous test run data and other information while current test is running.
DOCUMENT ACCESS AND STORAGE	No		Yes	Access documents library with built-in user guide and tutorials. Import and store any user documents (.doc, .pdf, .ppt and .pps) for customized operating procedures (SOP) or training.
SAMPLE CHAMBER & LID	Sample chamber located on top, above LCD touch screen		Sample chamber located up front, at lower level below LCD touch screen Chamber lid LED indicator light	Easier and faster sample loading and cleaning. Less risk of spilled sample on touch screen or inside analyzer. Red/green chamber lid LED provides visual alert if test is in process or if lid can be safely opened.
ALERT SOUNDS	No		Yes	Alert sounds when test is finished and ready for next run; audible keyboard "clicks" verify input.
MODULAR COMPONENT DESIGN	No		Yes	Field-replaceable components (including cooler); easier, faster service without the need to re-calibrate.

*Comparison based on original pre-2009 70X analyzer