

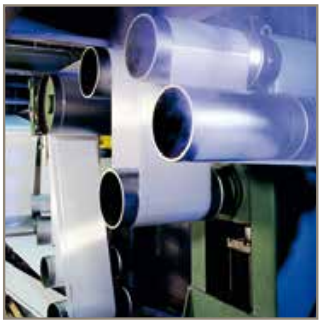

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





Condition Monitoring

Product Overview and Ordering Information
Version 2.0



ENGINEERING YOUR SUCCESS.

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Total System Health Management

Condition Monitoring – an essential component of any predictive maintenance programme.

Why adopt condition monitoring?

Effective machinery and oil condition monitoring provide the end user with the ability to predict breakdown and eliminate or reduce the associated cost of failure. Having an intimate knowledge of the fluid and mechanical properties upon which your machine depends, can maximize pre-warning time, resulting in the most efficient planning of maintenance and resources for asset repair or replacement.

What is Condition Monitoring?

Condition monitoring techniques broadly fall into 3 areas - Reliability Centered Maintenance (RCM), a process to ensure that 'assets' continue to do what their users require in their present operating mode. Condition Based Maintenance (CBM), the preventive maintenance initiated as a result of knowledge gained of the condition of that 'asset' from routine or continuous monitoring. Condition Monitoring (CM), the continuous or periodic measurement and interpretation of data to indicate the condition of an 'asset' to determine the need for maintenance.

Why specify Parker Condition Monitoring?

Today, Parker offers one of the widest ranges of accurate, reliable and innovative condition monitoring products, providing solutions in:

- Detection of abnormal wear/ impending system failure.
- Detection of lube degradation/ contamination.
- Verification of the oil in use.
- Optimization of equipment service intervals.
- Improvement of operational safety.
- Reduction of risk and maximization of uptime.

Contents

Condition Monitoring in the Laboratory **Page 3**
icountBSplus / FTIR³ Infrared Oil Analyser
ANALEXpqL / ANALEXfdMplus

Condition Monitoring in the Field **Page 4**
icountLCM20 / icountLCM20 Case Mounted Pump
icountACM20 / icountACM20 Z2

Condition Monitoring in the Field **Page 5**
icountOS plus Wi-Fi / icount FS
MHC-Bearing Checker / MHC-Memo Pro

Condition Monitoring in the Field **Page 6**
Cold Corrosion Test Kit / Viscostick
10MFP Hydraulic Trolley / EWS

Condition Monitoring in the Field **Page 7**
Heated Viscometer / System 20
Oilcheck / Oil Test Centre

Condition Monitoring in the Field **Page 8**
DIGI Low Range Water Kit / DIGI Field Kit
Fuel, Lube Oil and Diesel Engine Analysis Cabinet

Condition Monitoring with On-Line Sensors **Page 9**
Metallic Wear Debris Sensor / Oil Condition Sensor
Holroyd Smart Sensors / icountMS Moisture Sensor

Condition Monitoring with On-Line Sensors **Page 10**
icountPD / icountPDR
icountPDZ2 / FPS - Fluid Property Sensor

Condition Monitoring with On-Line Sensors **Page 11**
WaterSCAN / LinerSCAN
PVS Vacuum Dehydration / Sentinel

Condition Monitoring Reagents & Spares **Page 12**
Replacement Reagents / EasySHIP Reagents
Bottle Packs / Procal Emissions Monitoring





Does the user have the information needed to make a decision...?

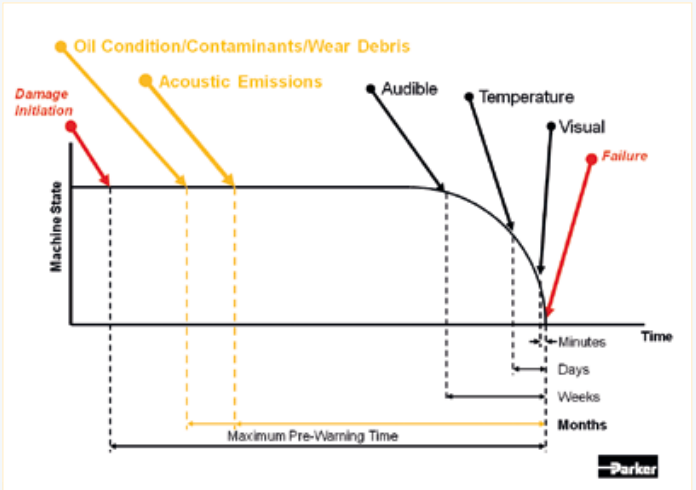
Condition monitoring techniques divide into 3 techniques:

- Off-site analysis such as bottle sampling in a laboratory.
- On-site testing and detection.
- On-line, permanently installed sensors.

A combination of these techniques will provide end users with sufficient knowledge and feedback to take corrective action. Depending on the route taken, the condition monitoring 'technique timescale' and the predictability of system conditions will vary.

This chart shows the condition monitoring techniques used to pre-warn of failure. The y axis on the left is the condition of the equipment - with the black line showing perfect condition on the far left, moving through damage initiation, to failure on the far right. The maximum warning time between the start of damage and failure is the time gap between the two red arrows.

By combining lubricant and machinery monitoring equipment, the earliest warning of damage initiation can be given and then the component requiring attention identified - that's where Parker's Condition Monitoring products can add value, save time and save money.



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Condition Monitoring in the Laboratory

icountBSplus - Particle Counter

Offline + Online Bottle Sampler



Product Features

- Quick sample bottle analysis with variable test time options from 15 seconds and volume capacities from 25ml.
- Repeatable and re-producible result performance to ISO4406:1999, NAS1638 AS4509E and GOST 17216:2001 (Differential and Cumulative) particle count distributions.
- On-board compressor and 'shop' air capability.
- CE compliant.

Specifications

- Principle of operation is Laser diode optical detection of actual particulates.
- Fluid compatibility - Mineral-based oils and petroleum-based fuel.
- Viscosity range of the icountBSplus is 1 to 300cSt.
- Online sampling feature for pressures up to 350 bar.

Ordering Information

Key	Version		Options		Region	Part Number
IBS	Plus	3	Online	000	Global	IBS3000
IBS	Plus	3	Offline	100	Global	IBS3100

FTIR³

Infrared Oil Analyser



Product Features

- Simple operation
- Rapid analysis of multiple parameters
- Powerful analysis software included
- Easy flushing of measurement cell

Specifications

- Spectral Range: 5000 – 600 cm^{-1}
- Resolution: 2 cm^{-1}
- Dimensions: 27 x 21 x 19 cm

Ordering Information

Part Number	Product Description
FG-K19000-KW	FTIR³ Oil Analyser with case, netbook and accessories

ANALEXpqL

Debris Monitor



Product Features

- Ferrous wear debris measured, irrespective of particle size and distribution
- Established, trusted PQ index
- Designed to fit into your laboratory's systems

Specifications

- Repeatability: ± 4 PQ or ± 1 %
- Resolution: 1PQ
- Dimensions: 370mm x 230 mm (3.6 kg)

Ordering Information

Part Number	Product Description
FG-K17000-KW	ANALEX pqL – PQ Instrument
FG-K18300-KW	Printer Kit
FG-K18311-KW	Barcode Scanner
FG-K18305-KW	Spare Paper

ANALEXfdMplus

Ferrous Debris Monitor



Product Features

- Lab grade test for ferrous debris wear in the field
- Provides direct PPM measurement
- Measures both oils and greases
- Features adaptors for many bottles / syringes / pots

Specifications

- Power: 100 – 250 VAC auto selected 50/60 Hz
- Operating temperature range: 15 - 40°C
- Weight: 4.22 kg

Ordering Information

Part Number	Product Description
FGK17144PA	ANALEXfdMplus
FGK14946PA	x 360 off 50ml Sample Bottles
FGK15005PA	x 3000 off Grease Pots
FGK17074PA	x 1000 off 5ml Test Tubes
FGK17075PA	x 500 off 10ml Syringes
FGK17076PA	x 500 off 15ml Syringes

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Condition Monitoring in the Field

icountLCM20

Portable Particle Counter (PPC)



Product Features

- icountLCM20 is a proven answer to fluid system contamination monitoring.
- 2-minute test procedure.
- Multi-standard ISO, NAS and AS4059 cleanliness reporting.
- Data entry, data graphing and integral printer.
- 420 bar rated maximum pressure.

Specifications

- Particle counts: MTD 4+, 6+, 14+, 21+, 38+ and 70+ microns(c) ACFTD 2+, 5+, 15+, 25+, 50+ and 100+ microns.
- International codes: ISO 7-22, NAS 0-12.
- Special 'diagnostics' are incorporated into the icount LaserCM microprocessor control to ensure effective testing.

Ordering Information

Part Number	Product Description
LCM202022	icountLCM20 (MTD calibrated)

icountLCM20 CMP

PPC with Case Mounted Pump



Product Features

- Off-line sampling from bottles, barrels and reservoirs
- On-Line pressure system sampling
- Automatic Calibration Reminder
- Integral printer
- 300 Test Memory
- Portable, lightweight

Specifications

- Particle counts: MTD 4+, 6+, 14+, 21+, 38+ ,70+ microns(c) ACFTD 2+, 5+, 15+, 25+, 50+, 100+ microns.
- International codes: ISO 7-22, NAS 0-12.
- 2 minute test time, every 2 minutes
- Oil Viscosity 100cSt @ 40°C
- Max Working Pressure - 2.5 bar with CMP, 420 bar on-line
- Automatic Testing, 6 - 999 minute intervals

Ordering Information

Part Number	Product Description
LCM202028	icountLCM20 with CMP (MTD Calibrated)
LCM202027	icountLCM20 with CMP (ACFTD Calibrated)

icountACM20

Aviation Fuel Contamination Monitoring PPC



Product Features

- Monitors aviation fuel contamination to DEFSTAN 91-91 Issue 6 Jet A-1 fuel specification - IP654
- Multi-standard ISO cleanliness reporting
- Laser optical scanning analysis
- Fully manufactured by Parker with 20 years experience in the Particle Counter measuring market

Specifications

- 2-minute test procedure
- Latest averaging software as standard
- Downloader software

Ordering Information

Part Number	Product Description
ACM202024UK	icountACM20 with Lab Kit - UK (DEFSTAN9191)
ACM202024US	icountACM20 with Lab Kit - US (DEFSTAN9191)
ACM202024EUR	icountACM20 with Lab Kit - EUR (DEFSTAN9191)

icountACM20 Z2

ATEX approved PPC



Product Features

- Assembled in an approved and certified stainless steel enclosure to comply with ATEX Directive 94/9/EC
- Can be used in explosive and hazardous environments
- ATEX Zone II
- ATEX approved handset and keypad

Specifications

- Certified to CE Ex II 3 G Ex nR/nL IIC T6
- "A" Class product defined for the Aviation market
- Suitable for use with mineral oil and petroleum based fluid as per ACM20/ LCM20 particle counters

Ordering Information

Part Number	Product Description
ACM202032UK	icountACM20 Z2 + Online Kit and UK Battery Charger
ACM202032US	icountACM20 Z2 + Online Kit and US Battery Charger
ACM202032EUR	icountACM20 Z2 + Online Kit and Euro Battery Charger

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Condition Monitoring in the Field

icountOS

Oil Sampler



Product Features

- Portable monitoring tool providing fluid qualification to ISO 4406:1999 standards
- Quick, simple to use monitoring tool for sampling fluids from containers, fuel bunkers and holding tanks
- Field solution to laboratory methods for the detection of solid contamination and freewater inference
- On-board 250,000 test memory
- MS moisture sensor standard
- Now available with integrated WiFi transmitter for remote operation

Specifications

- Sampling period from 5 seconds to 999 seconds
- No special software needed. Embedded web page generator for data download onto any PC or laptop via a universal RJ45 connection interface

Ordering Information

Part Number	Fluid Type	Calibration	Connection	Options
IOS1210EUR	Mineral	MTD	Offline	None
IOS1220EUR	Mineral	MTD	On line	None
IOS1211EUR	Mineral	MTD	Offline	WiFi
IOS1221EUR	Mineral	MTD	On line	WiFi

icountFS

Fuel Sampler



Product Features

- Designed for use with hydrocarbon fuels
- Independent monitoring of system contamination trends
- Calibration by recognised online principles confirmed by relevant (ISO) procedures
- Specific ISO 4406 / NAS 1638 codes indicate contamination levels directly
- Self-diagnostic software
- Mineral fluid-compatible and Fuel-compatible construction
- Robust, portable design with a 'soft' handle and an optional carry strap
- On-board web page generation allows user setting of test parameters and code alarm limits
- On-board memory capable of storing in excess of 250,000 test results
- Flexible data exporting - as XML, CSV and TXT files
- Modular design for easy servicing

Specifications

- 4 channel product: 4µ, 6µ, 14µ, 30µ
- Sampling period from 5 second to 999 second
- No special software is needed. Embedded web page generator for data download and IFS parameter configuration
- Optional wireless communication via embedded router

Ordering Information

Part Number	Fluid Type	Calibration	Connection	Options
IFS3210EUR	Fuel	MTD	Offline	None
IFS3220EUR	Fuel	MTD	On line	None
IFS3211EUR	Fuel	MTD	Offline	WiFi
IFS3221EUR	Fuel	MTD	On line	WiFi

MHC-Bearing Checker

Acoustic Emissions Instrument



Product Features

- Simple Acoustic Emission measurement tool to assess bearing condition.
- Simple handheld device for determining the condition of rotating bearings and inadequate lubrication.
- The unit can instantly detect if there is a problem, allowing corrective action to be taken to prevent further damage or machine failure.

Specifications

- Operating temperature: 0°C to 65°C
- Dimensions: 98 mm x 62 mm x 34 mm (including magnetic sensor)
- Weight: 225g

Ordering Information

Part Number	Product Description
FGH11510PA	MHC Bearing Checker

MHC-Memo Pro

On-Site Acoustic Emissions Instrument



Product Features

- Advanced Acoustic Emission measurement tool for bearing analysis
- Monitor a near unlimited number of machines on a periodic basis
- The MHC-Memo Pro can store manually input values from any other device
- Super-Slo mode allows bearings on many slowly rotating applications to be analysed

Specifications

- Operating temperature: 0°C to 50°C
- Dimensions: 85 mm x 40 mm
- Weight: 320g (including cable)

Ordering Information

Part Number	Product Description
FG-H16111-KH	MHC-Memo Pro

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Condition Monitoring in the Field

Cold Corrosion Test Kit

Corrosion measurement



Product Features

- Excellent correlation between field measurements and lab inductively Coupled Plasma (ICP) results
- Monitors products of corrosion that cannot be detected magnetically
- Provides early warning that cold corrosion is underway
- Gives a running commentary on internal corrosion as the operator adjusts the cylinder liner jacket temperature or oil feed rate
- When used in conjunction with the Parker Kittiwake LinerSCAN, it is possible to monitor abrasive and corrosive wear independently
- Each test is simple, cost effective and quick (←5 minutes) to complete

Specifications

- Measurement Range
  0 - 400 PPM (Accuracy +/- 20 PPM) Parts Per Million (PPM)
  0 - 800 PPM (Accuracy +/- 40 PPM) Parts Per Million (PPM)
- Ambient Temperature: 20 - 55 °C

Ordering Information

Part Number	Product Description
FG-K19763-KW	Cold Corrosion Test Kit (CCTK) including 1 Reagent Pack (100 tests)
FG-K19875-KW	Reagent Pack (100 tests)

Viscostick

Simple viscosity result in field or lab



Product Features

- Make informed maintenance decisions and prevent costly downtime
- Suitable for hydraulic oils, diesel engine oils, enclosed gears and fuel oils
- Simple, cost effective equipment requiring no consumables
- Measuring oil viscosity provides early detection of contamination, fuel ingress and shear thinning

Specifications

- Range: Go / no go
- No of tests: Unlimited
- Test time: 1 minute

Ordering Information

Part Number	Product Description
FG-K3-020-KW	ECON Viscostick

10MFP Series

Portable Filtration Trolley



Product Features CE

- 10MFP hydraulic trolley is the ideal way to pre-filter and transfer fluids into reservoirs or to clean up a system
- Maximum flow 38 l/min.
- Par-Gel water removal elements available
- icountPD particle detector option available
- MS Moisture Sensor option (IPD integrated)

Ordering Information

Standard Products Table - icountPD Fitted Options

Part Number	Motor Option	Element	
		Inlet	Outlet
10MFP140SA10Q1UKPD	220/240 VAC	940802	937399Q
10MFP140SA10Q1EURPD	220/240 VAC	940802	937399Q
10MFP240SA10Q1INDPD	110VAC	940802	937399Q

Standard Products Table - Standard Trolley Options

Part Number	Motor Option	Element	
		Inlet	Outlet
10MFP140SA10Q1UK	220/240 VAC	940802	937399Q
10MFP140SA10Q1EUR	220/240 VAC	940802	937399Q
10MFP240SA10Q1IND	110VAC	940802	937399Q

EWS

Early warning condition monitoring system



Product Features

- Rugged Robust Construction
- Integral pump for sample extraction
- Flow control and pressure regulation
- Air Bubble suppression for high viscosity oil
- HMI (Human Machine Interface) for Alarm and System Setting

Specifications

- 250 ml/min
- 20 Bar max. inlet pressure
- Up to 100 bar outlet pressure
- 240 VAC mains power supply
- Maximum viscosity: 320 cSt

Ordering Information

For further information about specifications and ordering information for the EWS (Early Warning System) please contact Parker Filtration's Condition Monitoring Centre, Thetford UK manufacturing location.

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Condition Monitoring in the Field

Heated Viscometer

Viscosity measurements



Product Features

- Accurate viscosity measurement in the field
- Rolling ball technique for high accuracy
- Direct readings in cSt @ 40
- Laboratory grade oil viscosity results in minutes

Specifications

- Range: Calculated viscosity @ 40°C, 50°C and 100°C
- Display: 8 digit LED
- Power: 100/240 Volts. User specified

Ordering Information

Part Number	Product Description
FGK1200PA	Heated Viscometer, power supply and all consumables in portable metal case

System 20

Inline Sensors, Flow and Pressure Monitoring





Product Features

- 2 types of System20 sensor are available. STI=industrial with reverse flow capability. STS=Mobile without reverse flow capability.
- 3 sizes of industrial inline System20 sensor for pressures up to 420 bar. 2 sizes of Mobile System20 sensor.
- Analogue monitor (STM) utilizes 3 day-glow gauges with protective cover.
- EM20 electronic monitor with full digital display and 300 test memory.
- For use with all mineral oils, water and oil/water emulsions.

Specifications

- Sensors Construction: Industrial: (STI)Body: S/Steel 303 Internal components: S/Steel and Brass Mobile: (STS)Body: S/Steel 303Internal components: Cast Aluminium and S/Steel
- Flow capacities: All suitable for use with oil, water and oil/water emulsion. Size 0: 6-25 l/min. Size 1: 20-100 l/min. Size 2: 80-380 l/min.
- Max. working pressure: 420 bar
- Capability:Reverse flow (STI only)
- Aggressive Fluid Applications: EPDM internal/external seals

Ordering Information

Product No.	Size	Flow Range l/min	Fluid Type	Port Threads	Reverse Flow Capability
STI0144100	0	6-25	Mineral	3/8	Yes
STI1144100	1	20-100	Mineral	3/4	Yes
STI2144100	2	80-380	Mineral	1 1/4	Yes
STM6211110	-	L/Min	Mineral	Dual Scales, bar/PSI, °C/°F	

Oilcheck

Hand-Held Oil Condition Monitor



Product Features

- Oilcheck hand-held condition monitor provides a visual comparison between new and used oils.
- The Oilcheck, once calibrated with clean oil, will store the calibration in memory when the unit is switched off, until such time that a re-calibration is required by the user.
- Completely portable and battery powered.

Specifications

- Numerical display shows positive or negative increase in dielectrics.
- Gives early warning of impending engine failure.
- Optional protective rubberised sleeve.

Ordering Information

Part Number	Product Description
OLK605	Oilcheck Kit with Numerical Readout
OLK611	Oilcheck Cleaner
ACC6NV001	Rubberised Protective Sleeve

Oil Test Centre

Fuel & Lube Oil Analysis



Product Features

- Fast accurate results for multiple oil parameters (Water / Base Number / Acid Number / Insolubles / Viscosity / Salt Contamination etc)
- Make informed onsite maintenance decisions
- Act before the onset of critical failure
- Robust and reliable in harsh or remote environments

Specifications

- Diesel engine configuration
- Steam turbines gear boxes & compressors, aviation lubes & hydraulics configurations
- Other configurations available

Ordering Information

Contact Parker Kittiwake to find out more about the configuration options available

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Condition Monitoring in the field

Low Range DIGI Water Kit

Accurate results for water in oil



Product Features

- Electronic display gives simple, step by step instructions
- Fully portable for use on-board or in the field
- Fast, accurate results
- State of the art digital analysis

Specifications

- Range: 0.02 – 1%, 100 – 3000 ppm, 0 – 10%
- Test time: 3 minutes
- Battery Life: Five years

Ordering Information

Part Number	Product Description
FGK17032PA	Low Range DIGI Water Kit
FGK2101PA	EasySHIP Water in Oil Reagent Pack (50)

DIGI Field Kit

Multiparameter test kit



Product Features

- Lab grade accuracy in a field deployable kit
- State of the art digital analysis
- Monitor combustion related debris and oxidation products
- Easily understandable results

Specifications

- DIGI Combined Water in Oil / TBN Cell: 0.02 – 1%, 200 – 1000 ppm, 0 – 10%, 0 – 20% / 0 – 80 TBN
- ECON Insolubles Test: Qualitative
- ECON viscostick: go / no go
- ECON TAN Test: TAN 0 - 6

Ordering Information

Part Number	Product Description
FGK1108PA	DIGI Field Kit
FGK24743PA	ECON TAN Drop Test Kit

Fuel & Lube Oil Analysis Cabinet

Onsite oil analysis suite



Product Features

- Wall mounted cabinet containing core QC tests for lubricants and residual fuel oils
- Rugged design, suitable for long term use in harsh environments
- Simple to use equipment

Specifications

- Viscosity: Unheated to 40°C, heated to 40°C & 50°C
- Water in Oil: 0 – 1%, 0 – 10%, 0 – 20%
- Base Number: 5 - 80
- Density: 0.8 – 1.1 RD

Ordering Information

Part Number	Product Description
FG-K1-400-KW	Fuel & Lube Test Cabinet
FG-K4-400-KW	EasySHIP Fuel & Lube Test Cabinet

Diesel Engine Analysis Cabinet

Power plant lab



Product Features

- Fast accurate results for multiple oil and fuel parameters
- Determine fuel quality and quantity during the bunkering process
- Make informed maintenance decisions around your major lubricants
- Identify contamination in time to act

Specifications

- Viscosity: Unheated to 40°C, heated to 40°C & 50°C
- Water in Oil: 0 – 3000 ppm, 0 – 6000 ppm, 0 – 2.5%
- Base Number: 5 - 90
- Density: 0.8 – 1.1 RD

Ordering Information

Part Number	Product Description
FG-K1-600-KW	Power Plant Cabinet
FG-K4-602-KW	Power Plant Cabinet - Steam

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Condition Monitoring with On-Line Sensors

Metallic Wear Debris Sensor

Instant indication of condition



Product Features

- Sealed to IP67 suitable for industrial applications
- Robust iron enclosure provides strength and magnetic shielding
- Wide range of interface options due to variety of industry standard outputs

Specifications

- Detection Range: > 40 micron Ferrous & > 135 micron Non-Ferrous Metallic
- Fluid Compatibility: Petroleum, synthetic oils and water / oil emulsions
- Ambient Temperature: -20°C to 65°C

Ordering Information

Part Number	Product Description
FG-K19567-PA	Metallic Wear Debris Sensor

Oil Condition Sensor

Detect when an oil is no longer fit for service



Product Features

- Internal processing power offers wide interface options
- Stainless steel housing, gold plated sensor head – rugged and long life performance
- Standard ½" BSP thread fitting with long reach and alternative thread options

Specifications

- Detection Range: Oil condition (0 – 1 Oil Quality Units) @ 4% repeatability
- Fluid Compatibility: Petroleum and synthetic lubricating oils
- Ambient Temperature: -20°C to 70°C

Ordering Information

Part Number	Product Description
FG-K14492-KW	Oil Condition Sensor Long Reach – Analogue Output
FG-K16203-KW	Oil Condition Sensor Standard Reach – Analogue Output
FG-K16330-KW	Oil Condition Sensor Standard Reach – Digital Output
FG-K16340-KW	Oil Condition Sensor Long Reach – Digital Output

MHC 4000 Series Sensors

Smart Acoustic Emission sensors



Product Features

- Signal detection – high frequency transducer and signal conditioning
- Flexible, user configurable alarm settings
- Data-logging – automatic non-volatile memory of trended values over the last 384 days
- Digital interface enables PC connection via Sigma / RT for set-up and memory download

Specifications

- MHC-Smart Std – smart sensor for use on shaft speeds above 30 RPM
- MHC-Smart Slo – smart sensor uniquely developed for monitoring shaft speeds from 60 RPM down to 0.25 RPM
- MHC-Sigma – smart sensor for intermittent or short duration machine operation

Ordering Information

Part Number	Product Description
FG-H21412-KH	Slo Speed SM1
FG-H21402-KH	Standard Speed DS1
FG-K21422-KH	MHC-Sigma

icountMS Range

Fluid Condition Monitoring - Moisture Sensors



Product Features

- MS moisture sensors provide fast, reliable and accurate inline detection of moisture in fluids.
- Technology developed for preventative maintenance programmes.
- MS150 'low pressure' Suction Return line applications. 10 bar maximum operating pressure.
- MS200 'Programmable' sensor monitoring and reporting relative humidity (RH), moisture content in oils. 420 bar MAOP.
- MS300 'Intrinsically safe' sensor ATEX certificated for use in hazardous Zone 0 environments. 420 bar MAOP.
- Temperature Outputs on all versions.

Specifications

- Operating temperature: Minimum: -20°C. Maximum: +85°C
- Flow through sensor cell: Installed in active flowstream.
- Fluid compatibility: Mineral oils and petroleum-based fluids.
- Viscosity range: Unlimited.
- Port connections: 1/4" BSPT or 1/4" NPT.

Ordering Information

Specifying a part number for a Moisture Sensor is best done using the Product Configurator in the Hydraulic Filtration and Condition Monitoring catalogue. Alternatively contact Parker Filtration, Condition Monitoring Centre, Thetford UK for more details.

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Condition Monitoring with On-Line Sensors

icountPD

Online Particle Detector



Product Features

- Independent monitoring of system contamination trends
- Continuous performance for prolonged analysis
- Visual indicators with power and alarm output warnings
- Self diagnostic software
- Cost effective solution to prolong fluid life and reduce machine downtime

Specifications

- Full PC/PLC integration technology such as:- RS232 and 0-5 Volt, 4-20 mA, CAN(J1939)
- Set up and Data logging support software included
- Moisture % RH indicator (included)

Ordering Information

Part Number	Fluid Type	Communication	Cable connector kit
IPD12322230	Mineral	RS232/4-20mA	M12, 8 pin plug connector
IPD12323230	Mineral	RS232/0-5V	M12, 8 pin plug connector
IPD22322230	Aggressive	RS232/4-20A	M12, 8 pin plug connector

icountPDR

Robust online particle detector



Product Features

- Independent monitoring of system contamination trends
- Rugged design ensures protection against environmental exposure
- Small and compact device constructed in stainless steel
- Continuous performance for prolonged analysis
- Cost effective solution to prolong fluid life and reduce machine downtime

Specifications

- Full PC/PLC integration technology such as:- RS232 and 0-5 Volt, 4-20 mA, CAN(J1939)
- Set up and Data logging support software included
- Moisture % RH indicator

Ordering Information

Part Number	Communication	Cable connector kit
IPDR12115240	RS232/CAN-bus	M12, 12 pin plug connector
IPDR12112240	RS232/4-20mA	M12, 12 pin plug connector
IPDR12113240	RS232/0-5V	M12, 8 pin plug connector

icountPDZ2

ATEX approved online particle detector



Product Features

- Independent monitoring of system contamination trends
- Can be used in explosive and hazardous areas
- Continuous performance for prolonged analysis
- Warning limit relay outputs for low, medium and high contamination levels

Specifications

- ATEX Zone 2
- Self diagnostic software
- Moisture & % RH indicator (optional)

Ordering Information

Part Number	Fluid Type	Moisture	Cable Connector Kit
IPDZ12122230	Mineral	Yes	M12, 8 Pin Plug Connector
IPDZ32122130	Aviation Fuel*	No	M12, 8 Pin Plug Connector

* 4 Channels

FPS

Fluid Property Sensor



Product Features

- Simultaneous measurement of viscosity, density, dielectric constant & temperature
- Field or laboratory use
- Data logging
- Programmable sample rates
- Compact rugged construction
- Operates using Harmonics (tuning fork) Technology

Specifications

- Up to 50 cSt viscosity reporting
- Refresh rate - 30 seconds
- 12 Volt operating power supply
- IP68 compatible
- Max. operating pressure - 25 bar (max. 10% of operating time)

Ordering Information

Part Number	Fluid Type	Communication	Cable connector kit
FPS2000	Mineral/Fuel	CAN-bus	4 pin plug connector

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Condition Monitoring with On-Line Sensors

WaterSCAN

Total water and soot sensor



Product Features

- Measures the total concentration of free and dissolved water in oil
- Provides a direct readout of soot content (in % Wt)
- Works in the real world, where oils can exhibit varying degrees of oxidation and / or contain high levels of soot as a by-product of combustion
- Robust, waterproof housing and temperature stable circuitry

Specifications

- Communications: USB download / upload as standard
- Alarms: Programmable alarm levels for water and soot
- Ambient operating temperature: 5 to 55°C
- Measurement levels: Water 100 - 10,000 PPM. Soot 0 - 1% Wt.

Ordering Information

Part Number	Product Description
FG-K17353-KW	WaterSCAN Monitor – Complete

LinerSCAN

Cylinder liner monitor



Product Features

- Highly capable communications enable the system to link with ships management systems
- Bespoke user-friendly software
- LinerSCAN takes the usage of oil analysis data a stage further than is possible with lab or test kit results
- Compact units require little space per cylinder

Specifications

- Operating temperature range: 0 - 65°C
- Power supply voltage: 24 DC
- Connection for power: Either @PSU at 24 V DC

Ordering Information

Part Number	Product Description
FG-K17400-KW	LinerSCAN Sensor complete (one per cylinder)
FG-K17401-KW	LinerSCAN Sensor & Network (one per engine)

PVS Series - Models 185, 600, 1200, 1800 and 2700

Vacuum dehydration - portable purification systems



Product Features

- PVS draws water contaminated fluid out of a system.
- Removes water, air and particulate content and returns the 'clean' fluid to the reservoir.
- Maximum flow 170 l/min (PVS2700).
- Reduces the catastrophic results of water contamination.

Specifications

- Contaminated oil is drawn into the PVS by a vacuum of 25 In/Hg. The oil passes through the in-line low watt density heater/s where the oil is heated to an optimum temperature of 66°C (150°F).
- The oil then enters the distillation column where it is exposed to the vacuum through the use of dedicated dispersal elements. This increases the exposed surface area of the oil and converts the water to a vapour form, which is then drawn through the condenser by the vacuum pump. The vapour returns to water and drops into the condensate holding tank.
- The water-free oil falls to the bottom of the vacuum chamber and is passed through a final particulate removal filter by a heavy duty lube oil pump.
- Clean dry oil re-enters the reservoir/system via the outlet port.

Ordering Information

Part Number	Model	Flow Rate
Contact Parker Filtration for part number profile availability	Model 185	19 LPM
	Model 600	38 LPM
	Model 1200	76 LPM
	Model 1800	114 LPM
	Model 2700	170 LPM

Sentinel™

Portable Purifications System

Sentinel™

Portable purification system



Product Features

- Proven vacuum dehydration technology, ensuring only clean, dry oil re-enters the reservoir.
- On board data display and storage via IQAN MD3 display screen.
- Rapid detection and removal - embedded % RH moisture, and optional solid particle contamination detector.
- Sentinel mode – long life automatic switch on, measurement, operation and shut-off.

Specifications

- Working pressure 0–4 bar
- Working viscosity 1-400 cSt
- Flow rate 12 L/Min
- Fluid: Hydraulic oil
- Sentinel mode for automatically run dehydration process
- IQAN MD3 display for operation controls with programmable set points
- Power requirement 400 VAC, 3P, 50Hz

Ordering Information

Part Number	Product Description
945274	Standard Unit
Optional accessories	**943237** – Service Kit (Triceptor element, Coalescer element, Filter element, Vacuum Pump Oil) **ACC6JH003** - Vacuum Pump Oil (1 LITRE) **MS1504** - Moisture Sensor

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Reagents and Spares / Procal Emissions Solutions

Reagents, Spares & Consumables

Replacement Reagent Packs



Product Features

Parker Kittiwake test kits for individual parameters contain reagents, consumables and full instructions for multiple tests.

Features

- Replacement reagents can be ordered at short notice
- Kits contain all necessary equipment for instant test results in the field
- Reagents are packed in accordance with IATA/IMDG/IRD air/marine/road transportation codes and can be delivered to major ports worldwide

Ordering Information

Please contact Parker Kittiwake for more information

EasySHIP Reagents

Non hazardous oil analysis



Product Features

- Non hazardous for transport
- Save on shipping costs
- Simple and safe to use
- Safe alternative to calcium hydride powder
- Reduce the cost of your planned maintenance programme
- Easily used by ships maintenance staff

Ordering Information

Part Number	Product Description
FG-K2-101-KW	EasySHIP Water in Oil Reagent Pack
AS-K17493-KW	EasySHIP DIGI Water Test Cell
AS-K17494-KW	EasySHIP DIGI Combined Test Cell

Sample Bottles

Fuel oil sample bottle packs



Product Features

- Designed to withstand hot oil under vacuum conditions
- Supplied in sizes from 5 ml, 50 ml to 750 ml
- Self adhesive labels, pre-printed with your logo/information if required

Specifications

- Tamper evident locking
- Uniquely numbered sealing systems
- IATA compliant return sample cartons

Ordering Information

Please contact Parker Kittiwake for more information

Parker Procal 2000

Emissions Monitoring Solutions



Product Features

- Multi-component IR emissions analyser
- Low cost of through-life ownership
- Proven success in over 3000 applications worldwide
- Procal 2000 is an infra-red (IR), duct or stack-mounted analyser, designed to provide in-situ analysis of up to six gas-phase emission components

Specifications

- A typical system comprises a stack mounted analyser, an integral calibration function and a control unit with options which include a powerful in-situ heater and a stand-alone analysis software package

Ordering Information

Please contact Parker Kittiwake for more information or visit www.procal.com

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Parker Hannifin
Hydraulic Filter Division Europe
filtrationinfo@parker.com
kittiwakesales@parker.com
www.parker.com/hfde
www.kittiwake.com

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