air breathers

Pi 0101 - Pi 0185		Technical Data
	Elements	Pleated for high dirt-holding capacity Mic (10 μm) SM-L (3 μm) Mol (oil vapours)
	Temperature range Housing material	-40°C to +100°C (other temperature ranges on request) Polyamide: Pi 0101 to Pi 0126 Galvanised sheet metal: Pi 0140 to Pi 0154 Steel or aluminium: Pi 0182 to Pi 0185
₩₩₩	Varied mounting options	Screwed Pipe mount Face mount With filling strainer With protective screen
	Sealing material	Rubberised cork: Pi 0126 NBR: Pi 0140 to Pi 0185

Description

Using these filters your tank will breathe clean air. The Pi 0101 through Pi 0126 breather filters have pot-shaped housings made of non-corrosive material. The air intake is located in the upper section, this prevents surface dust to be drawn in from the tank top. The cover is designed to prevent entry of splash water. The disposable, pleated elements can be replaced in a matter of seconds.

The Pi 0140 through Pi 0185 breather filters have a housing made of galvanised sheet metal. The built-in O-ring provides accurate air intake at the tank connection.

Mol elements prevent oil vapours from exiting the tank. The oil vapours coagulate, forming drops within the pleated coalescer layer, which are returned to the tank.



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suction filters

Pi 1710



Flow rate

Temperature range Degree of filtration Other ratings Material Connecting port End cap Inner tube Wire mesh

Technical Data

10 / /min to 480 //min at 33cSt Δp 0.1 bar -10°C to 120°C 100 μm on request Polyamide Galvanised steel Galvanised steel Stainless steel 1.4301

Description

Pumps incorporated in hydraulic systems must be protected from coarse contaminants which, when not removed by any other filtering devices, may gain access to tank and damage system components as well as the pump.

Suction filters, series Pi 1710, stand out for their robust construction and large filter surface area.

The filter surface is dimensioned to ensure long life at the specified corresponding flow rate.

The installation should be submerged in the tank for optimal protection.

The standard filter material is a 100 μ m stainless steal wire mesh.



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tank top return-line filters

Pi 500 Nominal Size 40 up to 100



Design	Tank top mounted filter, threaded or flanged
Nominal pressure	10 bar
low rate	Up to 100 l/min
emperature range	-10°C to +80°C
	(other temperature ranges on request)
ypass setting	Δp 3.5 bar ±10%
√laterial	
Filter head	Gadolinium aluminium
Filter bowl	Plastic
Filter cover	Plastic
ndicator / switch setting	∆p 2.2 bar ±10%
Electrical specifications	
of pressure indicator	
Current load	1 A
Contact load	70 W
/oltage	230 V AC
Type of protection	IP 65
Contact	Normally open / normally closed

Technical Data

Inductivity in the direct current may require the use of a signal suppressor.

For further information please see our Contamination Indicators on page 9.1.

Recommended max flow rate at 500 cSt using a 3 µm element: NG 40 81/min NG 63 151/min NG 100 251/min

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient Mic or PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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tank top return-line filters

Pi 500 Nominal Size 160 up to 1000



Tank top mounted filter, threaded or flanged Design Nominal pressure 10 bar Flow rate Up to 1000 l/min Temperature range -10°C to +120°C (other temperature ranges on request) Bypass setting ∆p 3.5 bar ±10% Material Filter head Gadolinium aluminium Filter bowl Steel Filter cover Gadolinium aluminium Indicator / switch setting $\Delta p 2.2 \text{ bar } \pm 10\%$ Electrical specifications of pressure indicator Current load 1 A Contact load 70 W Voltage 230 V AC

IP 65

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Normally open / normally closed

Technical Data

Inductivity in the direct current may require the use of a signal suppressor.

For further information please see our Contamination Indicators on page 9.1.

Filters compatible with standard mineral oils.

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop

Type of protection

Contact

- Visual / electrical contamination control
- Highly efficient Mic or PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



Johannesburg (Head Office)

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OMSA / Filtration / Tank Top Return-Line Filters / 3.2 / 0610

Pi 150



DesignIn-line filter, threaded or flanged SAE 4-boltNominal pressure10 / 25 barFlow rate350 / 630 //minTemperature range-10°C to +120°C (other temperature ranges on request)Bypass settingΔp 3.5 bar ±10%MaterialGadolinium aluminiumFilter headGadolinium aluminiumFilter bowlSteel SealSealNBRIndicator / switch settingΔp 2.2 bar ±10%Current load1 A Contact loadCurrent load70 WVoltage230 V ACType of protectionIP 65 ContactCurrent loadIP 65		
Bypass settingΔp 3.5 bar ±10%MaterialGadolinium aluminiumFilter headGadolinium aluminiumFilter bowlSteelSealNBRIndicator / switch settingΔp 2.2 bar ±10%Electrical specifications of pressure indicator1 ACurrent load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed	Design Nominal pressure Flow rate Temperature range	In-line filter, threaded or flanged SAE 4-bolt 10 / 25 bar 350 / 630 //min -10°C to +120°C (other temperature ranges on request)
Filter headGadolinium aluminiumFilter bowlSteelSealNBRIndicator / switch settingΔp 2.2 bar ±10%Electrical specifications of pressure indicator1 ACurrent load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed	Bypass setting Material	Δp 3.5 bar ±10%
Indicator / switch settingΔp 2.2 bar ±10%Electrical specifications of pressure indicator1 ACurrent load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed	Filter head Filter bowl Seal	Gadolinium aluminium Steel NBR
Electrical specifications of pressure indicatorCurrent load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed	Indicator / switch setting	∆p 2.2 bar ±10%
Current load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed	Electrical specifications of pressure indicator	
	Current load Contact load Voltage Type of protection Contact	1 A 70 W 230 V AC IP 65 Normally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Technical Data

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Filters compatible with standard mineral oils.

Please contact us when other fluids apply.

Housings with nominal pressure 10 bar are fitted standard with an air bleeder valve, housings with nominal pressure 25 bar with a venting screw.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient Mic or PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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Line Filter Pi 1907



Design Nominal pressure	In-line fi 10 bar to	lter, flang o 16 bar	ged (DIN	2632, D	DIN 2633)	
Flow rate (<i>l</i> /min)	400	630	800	1250	1800	3500	6000
Line size (mm)	50	65	80	100	125	150	200
Temperature range	-10°C to (other te	+100°C	: ire range	es on rec	juest)		
Material Filter housing Seal	Steel we NBR (other m	lded cor	nstruction	n st)			
Bypass setting Indicator / switch setting	∆p 3.5 b ∆p 2.2 b	ar ±10 % ar ±10%	% 5				
Electrical specifications of pressure indicator							
Current load Contact load Voltage Type of protection Contact	1 A 70 W 230 V A IP 65 Normally	C / open /	normally	v closed			

Technical Data

- Modular and compact design
- Minimal pressure drop

- Visual / electrical contamination control
- Equipped with highly efficient glass fibre PS filter elements
- Beta-rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt-holding capacity



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	lecnnical Data
esign perating pressure pw rate mperature range	In-line filter, threaded 25 / 60 bar Up to 450 //min -10°C to +120°C (other temperature ranges on request)
rpass setting aterial	$\Delta p 3.5 \text{ bar } \pm 10\%$
Filter head	Gadolinium aluminium
Filter bowl	Aluminium
Seal	Steel NBR Aluminium
dicator / switch setting	Δp 2.2 bar ±10%
ectrical specifications of	

Electrical specifications of pressure indicator

Current load Contact load Voltage Type of protection Contact 1 A 70 W 230 V AC IP 65 Normally open / normally closed

Features

- Modular and compact design
- Visual / electrical contamination control
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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Pi 220



Design	In-line filter, threaded
Nominal pressure	10 / 25 bar
Flow rate	Up to 160 <i>l</i> /min
Temperature range	-10°C to +120°C
	(other temperature ranges on request)
Bypass setting	Pressure side Δp 3.5 bar
	Suction side ∆p 0.25 bar
Material	
Filter head	Gadolinium aluminium
Spin-on-cartridge	Steel
Seal	NBR
	Aluminium
Indicator / switch setting	Δp 2.2 bar ±10%
Electrical specifications of pressure indicator	
Current load	1 A
Contact load	70 W

230 V AC IP 65 Type of protection Normally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Technical Data

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Spin-on cartridges are compatible with standard mineral oils.

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop

Contact

- Visual / electrical contamination control
- Highly efficient Mic or PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



Johannesburg (Head Office)

Pi 230



Technical Data Design In-line filter Nominal pressure 25 / 40 bar (360 / 570 psi) Temperature range -10°C to +120°C (other temperature ranges on request) Bypass setting ∆p 3.5 bar ±10 % Material Filter head and cap Gadolinium aluminium Filter housing Aluminium Seal NRR Indicator / switch setting $\Delta p 2.2 \text{ bar } \pm 10\%$ Electrical specifications of pressure indicator Current load 1 A Contact load 70 W Voltage 230 V AC Type of protection IP 65

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Normally open / normally closed

Features

- Modular and compact design
- Minimal pressure drop

Contact

- Visual / electrical contamination control
- Equipped with highly efficient glass fibre PS filter elements
- Highly efficient Mic or PS filter elements
- Beta rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt-holding capacity



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Pi 270

lr

Type of protection

Contact



	Technical Data
Design	In-line filter, threaded, 1½ inch BSP
Operating pressure	10 / 25 bar
Flow rate	Up to 300 l/min
Temperature range	-10°C to +120°C
	(other temperatures on request)
Bypass setting	Pressure side Δp 3.5 bar ±10%
	Suction side $\Delta p 0.25$ bar ±10%
Material	
Filter head	Gadolinium aluminium
Spin-on-cartridge	Steel
Seal	NBR
	Aluminium
Indicator / switch setting	Δp 2.2 bar ±10%
Electrical specifications of pressure indicator	
Current load	1 A
Contact load	70 W
Voltage	230 V AC

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Normally open / normally closed

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Spin-on cartridges are compatible with standard mineral oils.

IP 65

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient Mic or PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



Johannesburg (Head Office)

medium pressure filters

Pi 340

Design Operating pressure Static test pressure Flow rate Temperature range Bypass setting Material Filter head Filter bowl Seal

Technical Data

In-line filter, flanged, SAE 250 bar 325 bar Up to 450 //min -10°C to +120°C (other temperature ranges on request) Δp 7 bar ±10% Ductile cast iron Hardened steel NBR PTFE Copper Δp 5 bar ±10%

Indicator / switch setting $\Delta p 5 \text{ bar } \pm 10\%$

Electrical specifications of pressure indicator

Current load	1 A
Contact load	70 W
Voltage	230 V AC
Type of protection	IP 65
Contact	Normally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



Johannesburg (Head Office)

medium pressure filters



Design Operating pressure Flow rate Temperature range Bypass setting ∆p 7 bar Material Filter head Filter bowl Seal NBR PTFE Copper

Technical Data

In-line filter, threaded, BSP ports 210/350 bar Up to 450 l/min -10°C to +120°C (other temperature ranges on request) Ductile cast iron Hardened steel Indicator / switch setting $\Delta p 5 \text{ bar } \pm 10\%$

Electrical specifications of pressure indicator

Current load Contact load Voltage Type of protection Contact

1 A 70 W 230 V AC IP 65 Normally open / normally closed

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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high pressure filters

Pi 420

Design Operating pressure Static test pressure Flow rate Temperature range Bypass setting Material Filter head Filter bowl Seal

Technical Data

In-line filter, threaded SAE 4-bolt 400 bar 520 bar Up to 450 l/min (other temperature ranges on request) ∆p 7 bar ±10% Ductile cast iron Steel NBR PTFE Copper Indicator / switch setting $\Delta p 5 \text{ bar } \pm 10\%$

Electrical specifications of pressure indicator

1 A
70 W
230 V AC
IP 65
Normally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Filters compatible with standard mineral oils.

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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high pressure filters



	iecinical Data
Design	In-line filter, threaded
Nominal pressure	NG 40 up to 100 (450 bar) NG 160 and 250 (250 bar)
Connections	NG 40 up to 100 (1 inch BSP) NG 160 and 250 (1½ inch BSP)
Flow rate	Up to 450 l/min
Temperature range	-10°C to +120°C
	(other temperature ranges on request)
Material	24.6.66
Housing	316 SS
Seal	PTFF
Indicator / switch setting	Δp 5 bar ±10%
Electrical specifications	
of pressure indicator	
Current load	1 A
Contact load	70 W
Voltage	230 V AC
Type of protection	IP 65
Contact	Normally open 7 normally closed
The electrical indicator fur	action can be changed from the Normally

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

- Features
- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Equipped with highly efficient glass fibre PS filter elements according to DIN 24550
- Beta rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt-holding capacity
- NPT- and SAE-connections on request



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Pi 210

Technical Data In-line filter, threaded or flanged SAE 4-bolt Design Nominal pressure 25 / 63 bar Temperature range -10°C to +120°C (other temperature ranges on request) Flow rate Up to 450 l/min Bypass setting ∆p 3.5 bar ±10% Material Filter head Gadolinium aluminium Filter bowl Aluminium Seal Steel NBR Aluminium Indicator / switch setting $\Delta p 2.2 \text{ bar } \pm 10\%$ Electrical specifications of pressure indicator

Current load1 AContact load70 WVoltage230 V ACType of protectionIP 65ContactNormally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Filters compatible with standard mineral oils.

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Switching valve on upstream side
- Ergonomic switch-over handle with safety lock and pressure compensation
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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Pi 370



Nominal pressure 200 / 250 bar Temperature range Bypass setting Filter head Filter bowl Steel

Technical Data

In-line filter, threaded or flanged Up to 300 l/min -10°C to +120°C (other temperature ranges on request) ∆p 3.5 bar ±10% Ductile cast iron NBR PTFE Copper Indicator / switch setting $\Delta p 5 \text{ bar } \pm 10\%$

Electrical specifications of pressure indicator

Design

Flow rate

Material

Seal

1 A
70 W
230 V AC
IP 65
Normally open / normally closed

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or vice versa by inverting the electrical section.

Inductivity in the direct current may require the use of a signal eraser.

For further information please see our Contamination Indicators on page 9.1.

Filters compatible with standard mineral oils.

Please contact us when other fluids apply.

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Switching valve on upstream side
- Ergonomic switch-over handle with safety lock and pressure compensation
- Highly efficient PS filter elements
- Beta-rated elements per ISO 4572
- Large dirt-holding capacity and high differential pressure stability providing optimum element service life



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Pi 281

	Technical Data
Design	In-line filter flanged
Flow rate	Up to 6000 / /min
Temperature range	-10° C to $+100^{\circ}$ C
iemperatare range	(other temperature ranges on request)
Material	
Filter housing	Steel welded construction
Seal	NBR
	(other materials on request)
Bypass setting	∆p 3.5 bar ±10%
Indicator / switch setting	Δp 2.2 bar ±10%
Electrical specifications	
of pressure indicator	
Current load	1 A
Contact load	70 W
Voltage	230 V AC
Type of protection	IP 65
Contact	Normally open / normally closed

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Equipped with highly efficient glass fibre PS filter elements
- Beta-rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt-holding capacity
- Butterfly valve switch-over device



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Pi 2110



	Technical Data
Design	In-line filter, flanged
Nominal pressure	25 bar
Flow rate	Up to 800 / /min
Temperature range	-10°C to +100°C
	(other temperature ranges on request)
Bypass setting	Δp 3.5 bar
Material	
Filter head	Gadolinium aluminium
Filter bowl	Aluminium
Seal	NBR
Indicator / switch sotting	$4p 2 2 bar \pm 10\%$
indicator / switch setting	др 2.2 bai ±10 /0
Electrical specifications of	
pressure indicator	
Current load	1 A
Contact load	70 W
Voltage	230 V AC
Type of protection	IP 65
Contact	Normally open / normally closed

Features

- Modular and compact design
- Minimal pressure drop
- Visual / electrical contamination control
- Equipped with highly efficient glass fibre PS filter elements
- Beta-rated elements according to ISO 16889 multipass test
- Elements with high differential pressure stability and dirt-holding capacity



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water coalescer and separator

Water Coalescer and Separator		Technical Data
	Operating pressure Flow rate Flow direction Indicator / switch setting Body Interior and exterior Inlet and outlet	10 bar Up to 110 //min Outside to in Δp 1 bar Carbon steel Epoxy coated 1½ inch NPT
		Description
	Depending on the type of	cartridge selected, the housings r

he housings may be used as filters, absorptive filters, filter separators or air / gas entrainment separators to remove solids, water, mist or hydrocarbon carry-over. Both the exterior and interior of the carbon steel body are epoxy coated to protect against corrosion. These sturdy, single cartridge housings are easy to maintain and require only 2 inch (51mm) base clearance for cartridge change-out.



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contamination indicators

Contamination Indicators



Overview

Filter elements are economically used only if their dirt-holding capacity is fully utilised. This is achieved by using filter housings with a contamination indicator.

- The following designs are available
- Differential pressure indicators
- Pressure indicators / switches / gauges
- Vacuum switches / gauges
- Pressure transmitters

With pressure filters, the pressure is measured upstream and downstream of the filter element (differential pressure). With return-line filters the pressure is measured only on the upstream side because, depending on the tank design, atmospheric pressure exits on the downstream side of the filter element. With suction filters the vacuum is measured downstream.

This red button remains visible until it is pushed in during the daily check which is to be performed while the plant is at operating temperature. If the button pops out immediately after being pushed in, the filter element must be replaced.

This optical function may also be used for generating contactless electrical signals. For this purpose an electrical upper part is fitted over the hydraulic / optical part. This upper part incorporates all electrical switching elements.

Features

- Optical and electrical indicator with standard check function
- Normally open / normally closed combination standard feature
- Electrical function, easy to install at a later time
- Two-step indication, at 75% and 100% optional
- Non-bypass design



Johannesburg (Head Office)

turbidity sensors

PIT 400



Material	С
	Po
Protection	IP
Connection	1
Nominal pressure	1(
Operating temperature	-2
Power supply	24
Switching outlet	Pľ

Technical Data

opper zinc olyamide 65 1⁄4 inch 0 bar 25°C to 85°C 4 V DC NP, 200 mA

Description

The Turbidity Sensor PIT 400 was developed to identify turbidity in hydraulic fluids reliably. Ingress of water into the hydraulic system causes the turbidity in the hydraulic fluid.

Water in hydraulic fluids can harm the function of the entire system and reduce the lifespan of the pressure fluid and the components of the system.

Turbidity in the fluid is quickly recognised by the sensor. Ingress of water is registered immediately so that precautionary measures can be taken before the damage to the system becomes out of hand. Therefore the sensor offers great security for the entire system. The sensor should be built into all fluid-technical systems that are at risk of being contaminated by water, e.g. by defect coolers, broken seals or condensed water.

The sensor should preferably be installed in the return line, the tank or the bypassing cooling circulation. It is easily calibrated to the normal condition of the fluid by the push of a button.

The fading transmission of the infra-red light measures the turbidity in the fluid.



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Overview

The metal edge filter system is used for filtering a wide range of liquids (pastes, resins, glue, sealants, paints, etc.). It can be cleaned manually or automatically without having to interrupt process operations. The filter cartridge is cleaned by rotating it against a fixed scraper blade. The special profile of the wire winding ensures a very effective cleaning process. This patented system prevents high axial forces, ensuring that the cleaning process is trouble-free. The residue deposited in the collection cone can then be emptied through the drain valve only while the system is in operation.

Metal-edge filters are suitable in low or high viscosity applications.

These compact in-line filter systems are designed for automatic or manual cleaning. The system is cleaned by rotating the filter cartridge against a spring-actuated scraper blade.

- Minimum cartridge replacement costs
- Cleaning is possible without interrupting the filtration process
- Robust filter cartridge made of triangular stainless steel wire on a core element
- Efficient filter cleaning assures maximum process stability
- Solid construction and high-quality materials for a long service life
- Modular Vario system for optimum filter selection
- Suitable for a wide range of applications
- Flow rate on request



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AF 71 L



Operating pressure	40 / 25 bar
Operating temperature	100 / 180°C
Inlet and outlet	½ inch BSP
Drain	M14 x 1.5
Material	
Filter head and bowl	Aluminium s
Installed parts	Aluminium
	Copper zinc
	Galvanised s
Seal	Viton

Capacity Weight

Technical Data 40 / 25 bar

∕₂ inch BSP M14 x 1.5 Aluminium silicone Aluminium Copper zinc alvanised steel Viton 0.25 *l* 1kg



Operating pressure Operating temperature Differential pressure Gap width

Inlet and outlet Drain Material Housing and cover Installed parts

> Bearing bushes Seal

100 / 63 / 40 bar 200/200/100°C ∆p 40 bar 30 μm to 2000 μm (others available on request) 1 inch BSP, threaded 1 inch BSP, threaded

Technical Data

Cast iron Stainless steel Cast iron PTFE or VI Viton



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AF 71 H



Operating pressure Operating temperature Material Filter head Filter bowl Internal Bearing bushes Seal Coiled cartridge Welded cartridge Inlet and outlet Drain

Technical Data

Max 400 bar Max 100°C

Cast iron Hardened steel Steel Cast iron PTFE-based Viton Stainless steel or aluminium (Δp max 30 bar) Stainless steel (Δp max 10 bar) 1¼ inch BSP ½ inch BSP

Pi 72 G



Operating pressure Operating temperature Material Seal

Differential pressure

Gap width

Inlet and outlet Drain Volume Weight

Technical Data

16, 25, 40, 63, 100 bar up to 63 bar max 200°C / 100 bar max 100°C

180°C Viton up to 200°C PTFE-based Welded cartridge (Δp max 30 bar) Coiled cartridge (Δp max 10 bar) 30 µm to 2000 µm (others available on request) 1½ inch BSP, threaded and flanged 2 inch BSP 4 *l* 42kg to 52kg



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AF 73 G



Operating pressure Operating temperature	Max 16 bar Max 100°C
Material	
Housing and cover	Cast iron
Internal	Cast iron
	Steel
Bearing bushes	PTFE-based
Seal	Viton
Coiled cartridge	Stainless steel or aluminium (Δp max 30 bar)
Welded cartridge	Stainless steel (∆p max 10 bar)
Inlet and outlet	2 inch BSP
	Optional: screw-in flanges, DN 50 or DN 65
Drain	2 inch BSP

Technical Data

AF 74 S - AF 76 S



Technical Data

Specially engineered to customer requirements

Туре	Line	Filtration in µm						
	Size	30 µm	50 µm	80 µm	100 µm	130 µm	200/250 µm	500/1000 µm
AF 71 11-1	R 3/4"	750	2125	3000	3300	3800	4100	4300
AF 71 21-1	R 3/4 "	1250	2475	3250	3575	4000	4200	4400
AF 71 31-1	R 3/4"	1750	2800	3500	3850	4200	4300	4500
AF 72 42-2	DN 40	5500	8500	9500	12000	13000	13500	14000
AF 72 52-2	DN 40	7500	10000	11500	13200	14300	14850	15400
AF 73 62-4	DN 65	9700	18000	27800	30000	33500	35500	37000
AF 73 72-4	DN 65	14500	22000	30000	33000	36500	37700	39500
AF 73 72-5	DN 80	17000	25500	34500	40000	44000	45500	47500
AF 73 82-5	DN 80	24500	34500	43000	48000	52000	54000	56500
AF 73 82-6	DN 100	30000	43000	53500	58000	62000	65500	68500
AF 74 72-6	DN 100	33000	48500	63000	70000	73500	78500	82000
AF 74 72-7	DN 125	40500	64000	92000	105000	110000	121500	127000
AF 74 82-7	DN 125	49000	74500	100000	110000	115500	126500	132500
AF 74 82-8	DN 150	57500	93000	133000	148000	155000	170500	179000
AF 74 92-8	DN 150	72000	107000	140000	155000	162500	176500	185000
AF 75 82-8	DN 150	85000	120000	150000	165000	173000	185000	194000
AF 75 82-9	DN 200	100000	160500	238000	270000	283500	315000	330500
AF 75 92-9	DN 200	125000	193000	274000	300000	315000	355000	372500
	Flow rate //h							

This is based on a pressure drop of 0.3 bar with a 72 cP media



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Self-Cleaning Filters



Manual and Automatic

The range of self-cleaning filters provides highly cost-effective solutions for difficult liquid filtration problems for all viscosities.

Features

- Simple and efficient cleaning process which minimises disruption to flow
- Minimal amount of liquid loss during cleaning process
- Suitable for practically all liquids including those of high viscosity
- Filtration levels down to 50 microns
- Separate bowl and head secured by Vee clamp allows easy access to element
- Maximum working pressure 14 bar at 50°C
- Maximum working temperature 260°C (dependent on seal material)
- High quality 316 SS

Options

- Filters available in the following materials: Head: stainless steel, cast steel, cast iron or SG iron Bowl: stainless steel or mild steel
- Range of automated control devices available
- Inlet and outlet: 3/4 inch up to 8 inch



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automatic filters



	Technical Data
Operating pressure	16 / 25 bar
Operating temperature	Max 100°C
Differential pressure of segment element	
high-grade steel foil	Δp 5 bar
steel fleece	Δp 10 bar
V-profiled spacer winding	Δp 25 bar
Inlet and outlet	2 inch BSP
	Optional: DN 50 or DN 65
Drain	2 inch BSP
Material	
Housing and cover	Cast iron
Installed parts	Stainless steel
	Cast iron
	PU
Bearing busnes	PTFE-based
Seal	viton
Type designation for	
segmented elements	
AF 90	High-grade steel foil 30 to 60 μ m
AF 100	Top-mesh 5 to 60 µm
AF 120	V-profiled spacer winding 60 to 250 μm
AF 150	High-grade steel fleece 3 to 10 µm





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automatic filters



	Iechnical Data
Operating pressure Operating temperature	16 / 25 bar Max 100°C
Differential pressure of segment element top-mesh or high-grade steel fleece V-profiled spacer winding	Δp 10 bar Δp 25 bar
Inlet and outlet	2 inch BSP Optional: DN 50 or DN 65
Drain Material	2 inch BSP
Housing and cover Installed parts	Cast iron Stainless steel Cast iron PU
Bearing bushes Seal	PTFE-based Viton
Type designation for segmented elements AF 170 AF 140 AF 180	Top-mesh 5 to 60 μm V-profiled spacer winding 60 to 250 μm High-grade steel fleece 3 to 10 μm





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automatic filters

AF 153 G



Operating pressure Operating temperature Inlet and outlet

Drain

Material Housing and cover Internal

> Bearing bushes Seal

16 bar Max 100°C 2 inch BSP Optional: DN 50 or DN 65 2 inch BSP

Technical Data

Cast iron Cast iron Steel PTFE-based Viton





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basket strainers

Single Strainer

Features

- High quality 316 grade stainless steel basket with large filtration areas resulting in low pressure drops
- Compact design for space saving
- Working pressures up to 50 bar
- Quick release filter covers and knobs for easy maintenance



Dual Strainer

Features



- Simple change-over operation requires infrequent maintenance
- Compact design
- Large filtration areas giving low-pressure drops
- Working pressures up to 50 bar
- Quick release filter covers and knobs for easy maintenance
- No contamination between filtered and unfiltered liquids
- Wide range of materials, sizes and accessories such as magnetic columns
- Filtration down to 10 microns
- Handle covers chamber in use indicating which chamber is pressurised
- Differential pressure indicators as optional extras



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basket strainers

Single / Dual Strainer Multibasket

Features

- High quality stainless steel baskets with large filtration areas resulting in low pressure drops
- Compact design for space saving
- Working pressures up to 22 bar
- Quick-release filter covers and knobs for easy basket removal
- Simple change-over for uninterrupted operation
- Easy to read differential press indicators / switches
- Positive seal separates clean and dirty liquids
- Remote operation via electrical signal available if required
- Anodised aluminium casing and nitrile diaphragm for water and oil applications
- Stainless steel casing, stainless steel internals and viton diaphragm for other liquids
- Indicator preset at 10 psi other spring ratings available on request
- Pointer operated by internal magnet avoiding leakage through seals





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off-line filtration systems

Mobile or Stationary

Description

Custom-built to specification

Applications

- Off-line circulation of hydraulic fluid through fine filtration for tank volume clean-up to improve cleanliness levels
- Removal of metallic particles when using magnetic filtration
- Removal of free water when filters with water-sorb elements are used
- Units can be used for filling purposes
- Units can be fitted with quick couplers if required
- Particle counters can be built-in as optional equipment



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Benefits

A simple concept

- no moving parts
- very long lifespan
- 100% scaleabilityeasy to clean and re-use

To remove ferrous contaminants

- down to one micron
- with minimal pressure drop
- without contaminant wash-off
- under diverse fluid pressure, temperatures and flow rates

To deliver cost savings and environmental benefits

- reducing the chain reaction of wear
- improving fluid life
- enhancing process performance
- reducing waste and disposal requirements

• Compact and robust construction in aluminium alloy.

- Screw-in bowl requires minimal clearance to remove, making the core easily accessible for inspection and cleaning.
- High contaminant-holding capacity.
- Suitable for variety of applications, from hydraulic and transmission to steel process applications.

Features of the Patented Technology

- The filter consists of a series of annular magnets and innovatively designed, formed (shaped) steel plates.
- The steel plates create the magnet field strength.
- Fluid passes through the flow channels, these sum to a greater flow volume than that of the inlet pipe.
- The contaminant is drawn into the collection zones by the created magnetic field.
- The contaminant is trapped in the collection zone, leaving the flow channels open.





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Design
Operating pressure
Temperature
Inlet and outlet
Contaminant capacity
Material
Housing and mandrel
Plate
O-ring

Technical Data

In-line filter 140 bar Max 100°C 1 inch BSP Approx 185 grams

Aluminium Mild steel NBR

Clear 5 inch / 10 inch



Design
Operating pressure
Temperature
Inlet and outlet
Contaminant capacity
Material
Head
Bowl
Plate
Mandrel
O-ring

Technical Data

In-line filter 12 bar Max 80°C 1 inch BSP Approx 200 / 400 grams

Brass Nylon Stainless steel or mild steel Acetal NBR



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Simplex Vertice of the second second

Design
Operating pressure
Temperature
Inlet and outlet
Contaminant capacity
Material
Head
Bowl
Mandrel
O-ring
Fluid compatibility

Technical Data

In-line filter 63 bar Max 120°C ½ inch BSP Approx 175 grams

Aluminium Aluminium Aluminium NBR

Compatible with a wide range of petroleum oils, synthetic fluids, water-glycols, water emulsions, hydraulic and lubricating fluids

Duplex



Design Operating pressure Temperature Inlet and outlet Contaminant capacity Material Head Bowl Mandrel O-ring Fluid compatibility

Technical Data

In-line filter 63 bar Max 120°C 1 inch BSP Approx 175 grams

Aluminium Aluminium NBR Compatible

Compatible with a wide range of petroleum oils, synthetic fluids, water-glycols, water emulsions, hydraulic and lubricating fluids



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In-Line Process Unit



Design	In-line filter
Operating pressure	17 bar
Temperature	Max 120°C
Inlet and outlet	2 inch BSP
Contaminant capacity	4kg
Material	
Housing	Aluminium
Mandrel	Aluminium
O-ring	NBR
Fluid compatibility	Compatible with a wide range of petroleum oils, synthetic fluids, coolant, cutting oils, hydraulic and lubricating fluids
Unit weight	25kg

Technical Data

Benefits

- This large unit with high contaminant-holding capacity makes it the ideal choice for high contaminant environments that require a design for extended service intervals.
- Outstanding results from the installation of this unit have been achieved in diverse applications such as: metal working processes, large transmissions, central lubrication systems, and removal of rust and magnetite in large water systems along with many others.

Pump Mate



Design Temperature Inlet and outlet Contaminant capacity Material Housing Fluid compatibility

Technical Data

Suction-line filter Max 100°C ³⁄₄ inch to 2 inch Up to 200 grams

Acetal

Compatible with a wide range of petroleum oils, synthetic fluids, water-glycols, water emulsions, hydraulic and lubricating fluids

Benefits

- For the first time ever, primary pump protection with the benefit of:
 - Filtration of fine ferrous materials to sub-micron levels.
 - Negligible pressure drop with minimal restriction to flow.
 - Negligible risk of cavitation.
- Suction side filter with very high contaminant-holding capacity offering "fit and forget" solution.
- Patented technology with unique and highly efficient flow dynamics which results in pressure differential equivalent to an equal length of pipe.
- Provides whole system protection including critical valves.
- Compact design for ease of installation with a rugged construction in high-impact polymer.



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Clear 20



Design Operating pressure Temperature Inlet and outlet Contaminant capacity Material Head Bowl Mandrel O-ring Fluid compatibility Unit weight

Technical Data

In-line filter 8 bar Max 50°C ½ inch BSPP 4kg PP Styrene acrylonitrile PVC Viton Compatible with a wide range of coolants, cutting oils. 16.9kg (37lb 8oz)

Benefits

- This unit has high contaminant-holding capacity, which makes it the ideal choice for high contaminant environments.
- The units are the best low cost alternative to the process unit and are most suitable in metal working environments.
- The SAN bowl mounted on polypropylene head allows easy condition monitoring of the contaminant build-up.
- Screw-in bowl makes the core easily accessible for inspection and cleaning without disconnection of pipework.



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Overview

OMSA offers a diverse range of products and solutions for diesel and lubricant filtration. With the ongoing demand for supply of diesel and lubricant oils, it has become imperative to supply cleaner product to various industries such as earthmoving, mining, transport, marine and others which account for an ever-growing economy in sub-Sahara Africa. Contamination is the biggest threat to the supply of clean bulk fuel product. Dirt particulate and water ingress during transport and storage of bulk products is the root cause of many equipment failures. OMSA offers products and solutions to assist in prevention of these failures. The cost of filtration and solutions versus production downtime or equipment failure is priceless.

Product Range

1. Diesel:

- Water coalescer and separator filter manifold up to 500 ℓ /min
- Manifolds assembled in various configurations
- These units remove dirt particulate and water ingress
- 2. Lube Oils:
- Filter manifold, dependent on viscosity of oil up to 1000 ℓ /min
- Water absorbing filters, free suspended water up to 80 ℓ /min
- Suitable for removing dirt ingress on gearbox, transmission, engine and hydraulic oils
- Lube oil pumping station enclosed in a 20 foot container:
 - This system is typically utilised at oil storage depots the complete solution is enclosed in a 20 foot container which is commissioned at our factory and then delivered to site which is based on the "plug and play" concept

3. Accessories:

• Pre-filter (bag filtration):

Pre-filters are fitted before filter manifolds and increase spin-on element filter life using a "bag filter" with a large surface area for dirt-holding capacity

• In-line particle counter:

This portable unit detects particle sizes via infra-red laser and displays ISO 4406 codes digitally on the cleanliness of a fluid Requires 9-36 Volt DC supply and will log data via fibre optic cable onto standard PC or laptop, 99.5% accuracy

We Offer

- Top quality products in bulk filtration
- Design and commissioning of diesel and oil lubrication systems
- In-line diesel and oil conditioning and particle monitoring
- Filtration training
- Installation, maintenance manuals and procedures for product range

Resources and Structures

- Design engineers for system solutions
- Drawing office and draughtspeople using 3D Inventor
- Production facility 3000m²
- On-site technicians
- Comprehensive range for all filtration requirements
- Sufficient stockholding of replacement parts and spares



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Filter Manifold c/w Water Coalescer and Separator		Technical Data
9	Fluid type	Diesel
	Flow rates	2-way @ 0 - 200 / /min: flanged 3 inch ASA 150
C.		3-way @ 0 - 300 / /min: flanged 3 inch ASA 150
it a stars		4-way @ 0 - 400 / /min: flanged 3 inch ASA 150
		5-way @ 0 - 500 / /min: flanged 4 inch ASA 150
	Working pressure Replacement of	Up to 10 bar
	Spin-on filter Water coalescer and	Differential pressure $\Delta p = 2.2$ bar
- W T	separator cartridge	Differential pressure $\Delta p = 1$ bar
- T	Drain	1/2 inch BSP lockable ball valve
10 ¹		

Standard Filter Manifold



Fluid type Flow rates

Replacement of Spin-on filter Pressure

Technical Data

Diesel and lubricant oil 2-way @ 0 - 400 l/min: flanged 3 inch ASA 150 3-way @ 0 - 600 //min: flanged 3 inch ASA 150 4-way @ 0 - 800 //min: flanged 3 inch ASA 150 5-way @ 0 - 1000 //min: flanged 4 inch ASA 150

Differential pressure $\Delta p = 2.2$ bar Up to 10 bar

Filter Elements for Manifolds



Spin-on filter elements

Absolute micron ratings 3 µm, 6 µm, 10 µm, 25 µm Absolute rating efficiency 99.5% Nominal micron ratings 10 µm, 25 µm Nominal rating efficiency 50%

Water coalescer and separator cartridge

Nominal micron rating 25 µm Nominal rating efficiency 50%

Technical Data



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Pre-Filters Standard	Technical Data	
	Fluid type Flow rates	Diesel Single bag housing @ 0 - 300 //min: flanged 3 inch ASA 150 Dual bag housing @ 0 - 600 //min: flanged 3 inch ASA 150 3-bag housing @ 0 - 1000 //min: flanged 4 inch ASA 150
	Pressure Replacement of bag filter Drain	Up to 10 bar Differential pressure $\Delta p = 1.5$ bar 1 inch BSP lockable ball valve

Pre-Filters 316 Stainless Steel



Fluid type	Diesel	
Flow rates	Single bag housing	@ 0 - 300 l /min: flanged 2 inch DIN 50
	2-way manifold	@ 0 - 600 l /min: flanged 3 inch ASA 150
	3-way manifold	@ 0 - 900 l /min: flanged 3 inch ASA 150
	4-way manifold	@ 0 - 1200 l /min: flanged 4 inch ASA 150
	5-way manifold	@ 0 - 1500 l /min: flanged 4 inch ASA 150
Pressure	Up to 10 bar	
Replacement of bag filter	Differential pressure ∆p = 1.5 bar	
Drain	1/2 inch BSP lockable ball valve	

Technical Data

Filter Bags

Technical Data



Single filter bag or Dual core filter bag

Dual core filter bag:

- Higher flow rates smaller, less costly vessel can be used
- Up to 35 times more effective than standard filter cartridges
- Low differential pressure results in less energy consumption of pumps
- Surface area is up to 65% greater than a similar size filter bag
- Element change: weighs up to 75% less than a filter bag
- Easier maintenance with reduced costs
- Easy retro fit to existing filter vessels
- Micron ratings 1 $\mu m,$ 5 $\mu m,$ 10 $\mu m,$ 15 $\mu m,$ 25 $\mu m,$ 50 $\mu m,$ 100 μm



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Portable Contamination Monitor	Technical Data		
	Fluid type Power supply Operating temperature Specifications	Diesel and lubricant oil 12 V DC 80°C Sensor type - infra-red laser Particulate ISO counts 4 μm, 6 μm, 14 μm, 21 μm Digital display of ISO counts	
In-Line Particle Counter		Technical Data	
	Fluid type Flow rates Pressure Power supply required Operating temperature Specifications	Diesel and lubricant oil Minimum 50 to 500 ml/min Up to 500 bar 9 V DC to 36 V DC 80°C Sensor type - infra-red laser Particulate ISO counts 4 μm, 6 μm, 14 μm, 21 μm Digital display of ISO counts	
Water Absorbing Filter	Technical Data		
	Fluid type Flow rates Pressure Porting Filter element rating absolute nominal	Diesel and lubricant oil Up to 80 //min Up to 16 bar 2 inch SAE 4-bolt 10 µm 25 µm	

Johannesburg (Head Office)

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