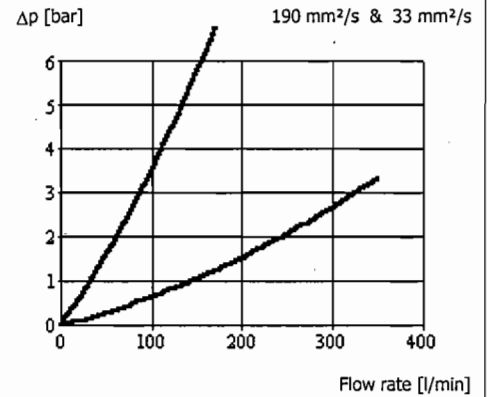


MAHLE filter data - Pi 3630-015 - Pi 2230 Sm-x 3 vst

Technical Data I

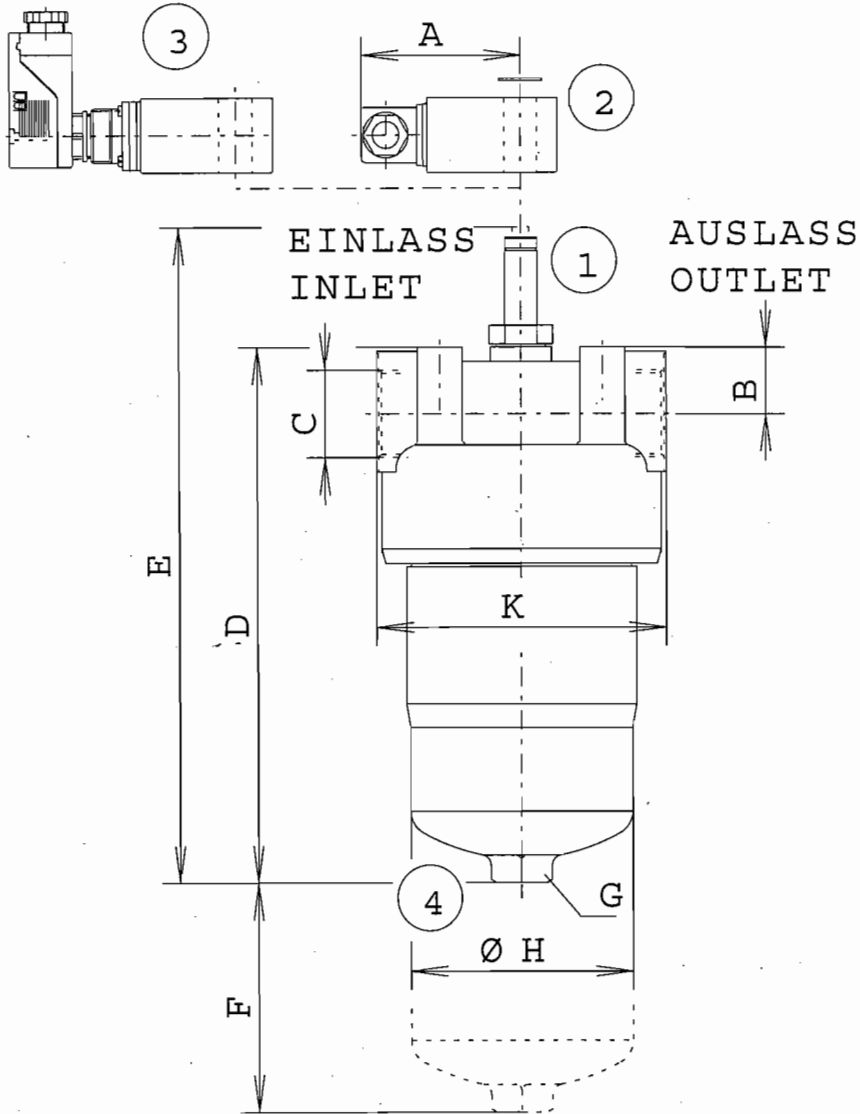


Filter housing	Pi 3630-015
Type	Pressure filter, Line filter, Single
Nom. pressure	210 bar
Proof pressure	273 bar
Nom. size	300
Temperature range	-10 °C up to 120 °C
Material	GGG / St
Material seals	NBR
Weight	14 kg
Contamin. indicator	Pis 3092
Setting point	5,0 bar
Indication	visual/electrical
Material	Ms/PA6
Max. voltage	230 V ~/=
Max. amperage	2,5 A
Max. contact load	60VA/40W
Inrush current	70 VA
Type of protection	IP 65 when inserted and secured
Type of contact	normally open/closed
Cable connection	PG 11 Ø 6-10

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or visa versa by inverting the electrical section. With the inrush current of 70 VA the indicator can trigger small contactors or contactor relays. Inductivity in the direct current may require the use of a signal eraser.

1 Filterelement	Pi 2230
Type	MAHLE Standard
Media-Microns	Sm-x 3
Delta-p max.	210 bar
Filter surface	3800 cm ²
Seals	no Seals

Fluid compatibility of the filter: HETG, HFC, HLP



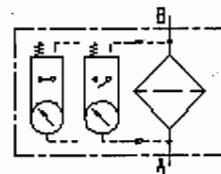
Technical Data II

- Pos 1 - Visual contamination indicator
- Pos 2 - El. upper section connector according DIN 43650
Execution: Pis 3092, 3105, 3115
- Pos 3 - El. upper section connector according DIN 43651
Execution: Pis 3102, 3122, 3110
- Pos 4 - NG 300, 450 with drain plug G 1/4-DIN 910

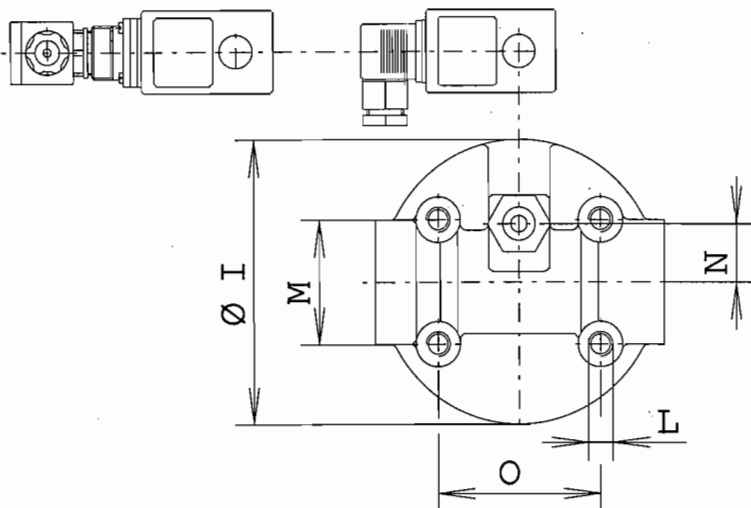
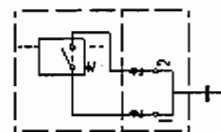
Dimensions [mm]

- A 78
- B 32
- C G 1 1/4
- D 382
- E 440
- F 110
- G SW 30
- H 109
- I 137
- K 142
- L M 12 x 16
- M 60
- N 28
- O 80

Symbol



Wiring diagram Pis 3092



Manual

INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS PI 360

Filter installation

When installing the filter make sure that sufficient space is available to remove filter element and filter bowl. Preferable the filter should be installed with the filter bowl pointing downwards. The contamination indicator must be visible.

When must the filter element be replaced?

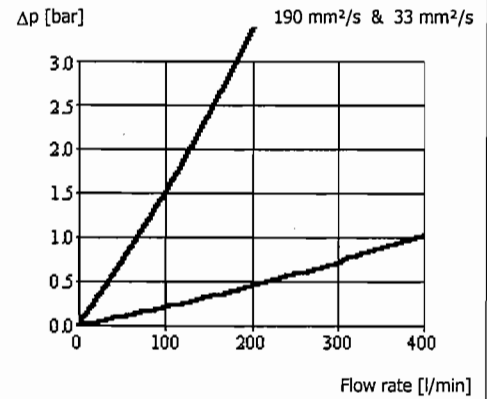
1. Filters equipped with visual and electrical contamination indicator:
During cold starts, the indicator may give a warning signal. Depress the red button of the visual indicator once again only after operating temperature has been reached. If the red button immediately pops out again and/or the electrical signal has not switched off after reaching operating temperature, the filter element must be replaced after the end of the shift.
2. Filters without contamination indicator: the filter element should be replaced after the trial run or flushing of the system. Afterwards follow instructions of the manufacturer.
3. Please always ensure that you have original MAHLE replacement elements in stock: disposable elements (Sm-x) cannot be cleaned.

Element replacement

1. Stop system and relieve filter from pressure.
2. Unscrew the filter bowl by turning counter-clockwise. Clean the bowl using a suitable cleaning solvent.
3. Remove filter element with a side-to-side motion.
4. Check O-ring and back-up ring on the filter bowl for damage. Replace, if necessary.
5. Make sure that the part number on the spare element corresponds with the part number of the filter label. Open the plastic bag and push element over the spigot in the filter head. Now remove plastic bag.
6. Complete installation by screwing on the bowl, turning clockwise until it comes to a full stop. Back off the bowl 1/8 to 1/2 turn.

Subject to technical alteration without prior notice.
Pi360-02/98k

Technical Data I



Filter housing	Pi 50040-058
Type	Return-line filter, Tank-top filter, Single
Nom. pressure	10 bar
Proof pressure	13 bar
Nom. size	400
Temperature range	-10 °C up to 120 °C
Bypass-valve	3,5 bar ± 10 %
Material	GAL / St
Material seals	NBR
Weight	6,4 kg
Contamin. indicator	Pis 3085
Setting point	2,2 bar
Indication	visual/electrical
Material	PA6.6/PA6
Max. voltage	230 V ~/=
Max. amperage	2,5 A
Max. contact load	60VA/40W
Inrush current	70 VA
Type of protection	IP 65 when inserted and secured
Type of contact	normally open/closed
Cable connection	PG 11 Ø 6-10

The electrical indicator function can be changed from the Normally Open position to the Normally Closed position or visa versa by inverting the electrical section. With the inrush current of 70 VA the indicator can trigger small contactors or contactor relays. Inductivity in the direct current may require the use of a signal eraser.

1 Filterelement	Pi 21040 RN
Type	DIN 24 550
Media-Microns	Sm-x 3
Delta-p max.	10 bar
Filter surface	8250 cm²
Seals	NBR

Fluid compatibility of the filter: HLP

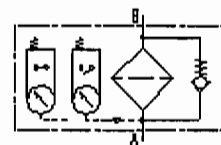
Technical Data II

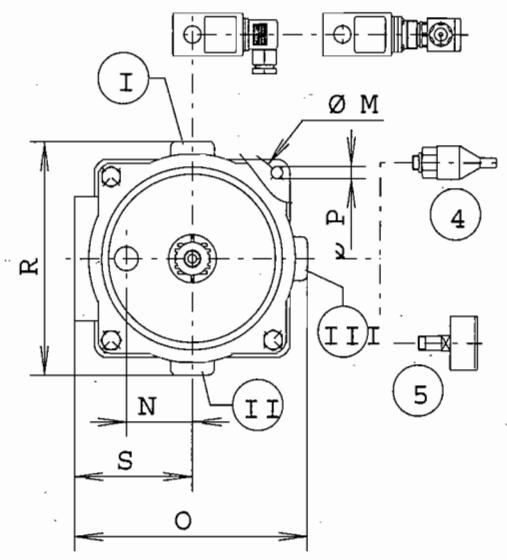
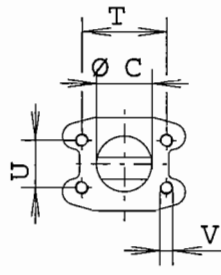
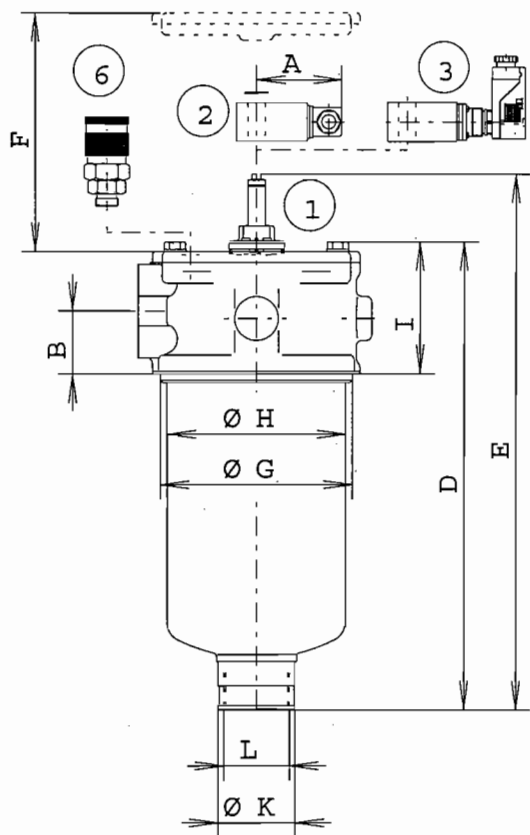
- Pos 1 - Visual contamination indicator
- Pos 2 - El. upper section connector
according DIN 43650
Execution: Pis 3085, 3106, 3125
- Pos 3 - El. upper section connector
according DIN 43651
Execution: Pis 3103, 3120, 3123
- Pos 4 - Pressure gauge
- Pos 5 - Pressure gauge 0 to 6 bar
- Pos 6 - Filling coupling
- Pos 4+5 can be mounted at I,II or III
alternatively

Dimensions [mm]

A	78
B	57
C	51
D	427
E	489
F	270
G	175,5
H	163
I	120
K	70
L	G 2
M	220
N	60
O	214
P	11
R	212
S	108
T	77,8
U	42,9
V	M 12

Symbol





Manual

INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTION PI 500

Filter installation

When installing the filter make sure that:

- a) sufficient space is available to remove filter element and filter bowl.
- b) the mounting hole in the tank top is not excessively large, to ensure proper sealing.
- c) the filter is free of tension after installation. Preferably the filter should be installed with the filter bowl pointing downwards. In this position the visual pressure indicator is accessible and visible.

When must the filter element be replaced?

1. Filters equipped with visual and/or electrical pressure indicators: During cold starts, the indicator may give a warning signal. Depress the red button of the visual indicator once again only after operating temperature has been reached. If the red button immediately pops out again and/or the electrical signal has not switched off after reaching operating temperature, the filter element must be replaced after the end of the shift.
2. Filters without pressure indicator: the filter element should be replaced after trial run or flushing of the system. Afterwards follow instructions of the manufacturer.
3. Please, always ensure that you have original MAHLE replacement elements in stock: disposable elements (Mic or Sm-x) cannot be cleaned.

Element replacement

1. Stop system and relieve filter from pressure.
2. Remove cover, screws then lift off cover.
3. Remove filter bowl and filter element by pulling upwards.
4. Remove filter element with a side-to-side motion.
5. Clean the filter bowl with a suitable fluid.
6. Check O-rings on filter cover and filter bowl for damage. Replace, if necessary.
7. Make sure that the part number on the spare element corresponds with the part number on the filter name-plate.

Subject to technical alteration without prior notice.

PI500g-02/98k