

# MPS series

Maximum working pressure up to 1.2 MPa (12 bar) - Flow rate up to 365 l/min



Description

Spin-on filters

Maximum working pressure up to 1.2 MPa (12 bar)  
Flow rate up to 365 l/min

MPS is a range of spin-on filters suitable to be used in suction, return and low pressure lines.  
They offer a good balance between performances, dimensions and prices.  
They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 1 1/2", for a maximum flow rate of 365 l/min
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Water removal elements (CW), to remove the free water from the hydraulic fluid
- Double connection for the cans, to fit both European and American standard elements
- Double cans fitting, to increase the life time of the filter
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical and electronic clogging indicators for suction and return applications
- Visual, electrical and electronic differential clogging indicators for low pressure applications

Common applications:

- Suction lines, Return lines, Delivery lines, in economic industrial equipment or mobile machines.
- Off-line filtration tank in economic industrial equipment or mobile machines

Technical data

Filter housing materials

- Head: Aluminium
- Bypass valve: Nylon - Steel
- Element: Zinc-Plated Steel - Painted Steel

Bypass valve

- Return filter opening pressure: 175 kPa (1.75 bar) ±10%
- Suction filter opening pressure: 30 kPa (0.3 bar) ±10%

Δp element type

- Δp: 5 bar
- Fluid flow through the filter element from OUT to IN

Seals

Standard NBR - series A

Temperature

From -20 °C to +110 °C

Note

MPS filters are provided for vertical mounting



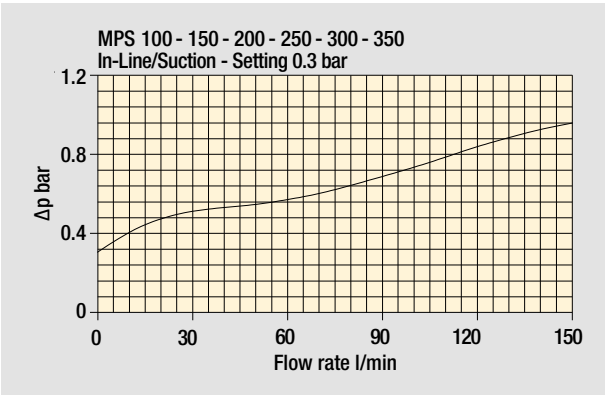
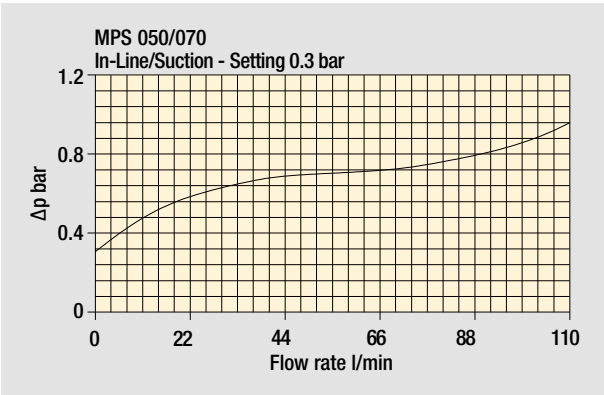
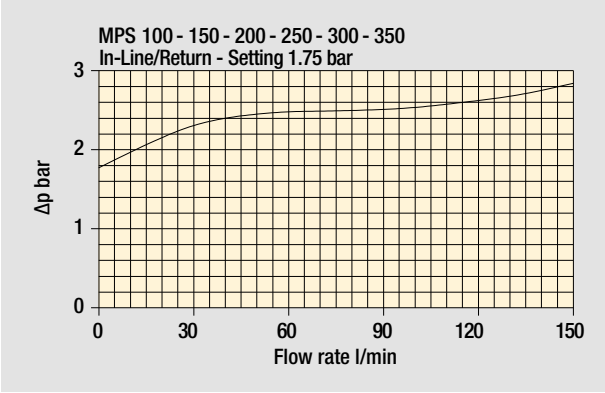
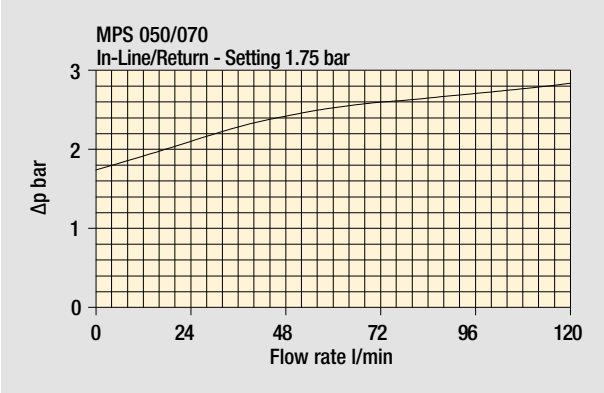
Weights [kg] and volumes [dm³]

| Filter series | Weights [kg] | Volumes [dm³] |
|---------------|--------------|---------------|
| MPS 050       | 1.00         | 0.70          |
| MPS 051       | 1.05         | 0.70          |
| MPS 070       | 1.20         | 0.95          |
| MPS 071       | 1.25         | 0.95          |
| MPS 100       | 2.10         | 1.65          |
| MPS 101       | 2.20         | 1.65          |
| MPS 150       | 2.40         | 2.00          |
| MPS 151       | 2.50         | 2.00          |
| MPS 200       | 3.90         | 3.00          |
| MPS 250       | 4.60         | 3.70          |
| MPS 300-301   | 5.30         | 3.40          |
| MPS 350-351   | 6.00         | 4.10          |

| Filter series |           |           |           |           |           |
|---------------|-----------|-----------|-----------|-----------|-----------|
| MPS 050       | •         |           |           |           |           |
| MPS 051       |           | •         |           |           |           |
| MPS 070       | •         |           |           |           |           |
| MPS 071       |           | •         |           |           |           |
| MPS 100       | •         |           |           |           |           |
| MPS 101       |           | •         |           |           |           |
| MPS 150       | •         |           |           |           |           |
| MPS 151       |           | •         |           |           |           |
| MPS 200       |           |           | •         |           |           |
| MPS 250       |           |           | •         |           |           |
| MPS 300       |           |           |           | •         |           |
| MPS 301       |           |           |           | •         | •         |
| MPS 350       |           |           |           | •         |           |
| MPS 351       |           |           |           |           | •         |
|               | Style U/P | Style U/P | Style U   | Style U/P | Style U/P |
|               |           |           |           |           |           |
|               | Style R/S | Style R/S | Style R/S | Style R/S | Style R/S |
|               |           |           |           |           |           |

## Pressure drop

Bypass valve  
pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968. Δp varies proportionally with density.

**CS** 050 - 070 - 100 - 150  
**CG - CW** 050 - 070



**CG - CW** 100 - 150

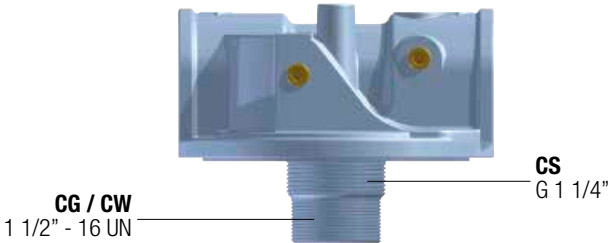
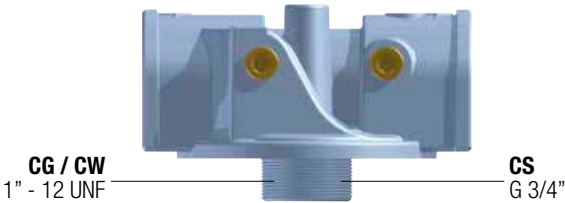


**CW**  
This series of cartridge removes water from oil while filtering the oil at the same time. Water absorbent polymers up to 800 times their own weight provide this major feature.

Water holding capacities:  
CW 050= 240 ml  
Ordering code: **CW050P10AP01**  
  
CW 150= 788 ml  
Ordering code: **CW150P10AP01**

| Thread connections |                |
|--------------------|----------------|
| Element            | Connection     |
| CS 050 - 070       | G 3/4"         |
| CS 100 - 150       | G 1 1/4"       |
| CG / CW 050 - 070  | 1" - 12 UNF    |
| CG / CW 100 - 150  | 1 1/2" - 16 UN |

| Water holding capacities CW |                                       |                                      |
|-----------------------------|---------------------------------------|--------------------------------------|
|                             | good                                  | poor                                 |
| Viscosity                   | 30/46 mm²/s (cSt)                     | > 46 mm²/s (cSt)                     |
| H <sub>2</sub> O p.p.m.     | 600/800 p.p.m.                        | > 800 p.p.m.                         |
| Flow rate                   | CW050 7/15 l/min<br>CW150 20/40 l/min | CW050 > 20 l/min<br>CW150 > 50 l/min |
| Temperature                 | 40/60 °C                              | < 30 °C                              |



# MPS MPS050 - MPS070 MPS051 - MPS071

## Designation & Ordering code

COMPLETE FILTER

Series and size

MPS050 | MPS070 With connections for clogging indicators

MPS051 | MPS071 With connections for differential indicators

Bypass valve

MPS 050 - 070 | MPS 051 - 071

R Return: 1.75 bar

S Suction: 30 kPa

U Without bypass

P Without bypass

Connections

G1 G 3/4"

G2 3/4" NPT

G3 SAE 12 - 1 1/16" - 12 UN

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example :

MPS050

R

G1

A10

A

P01

Seal

A NBR

Execution

P01 MP Filtri standard

CARTRIDGE

Cartridge series and size

CS050 | CS070

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example:

CS050

A10

A

P01

Seals

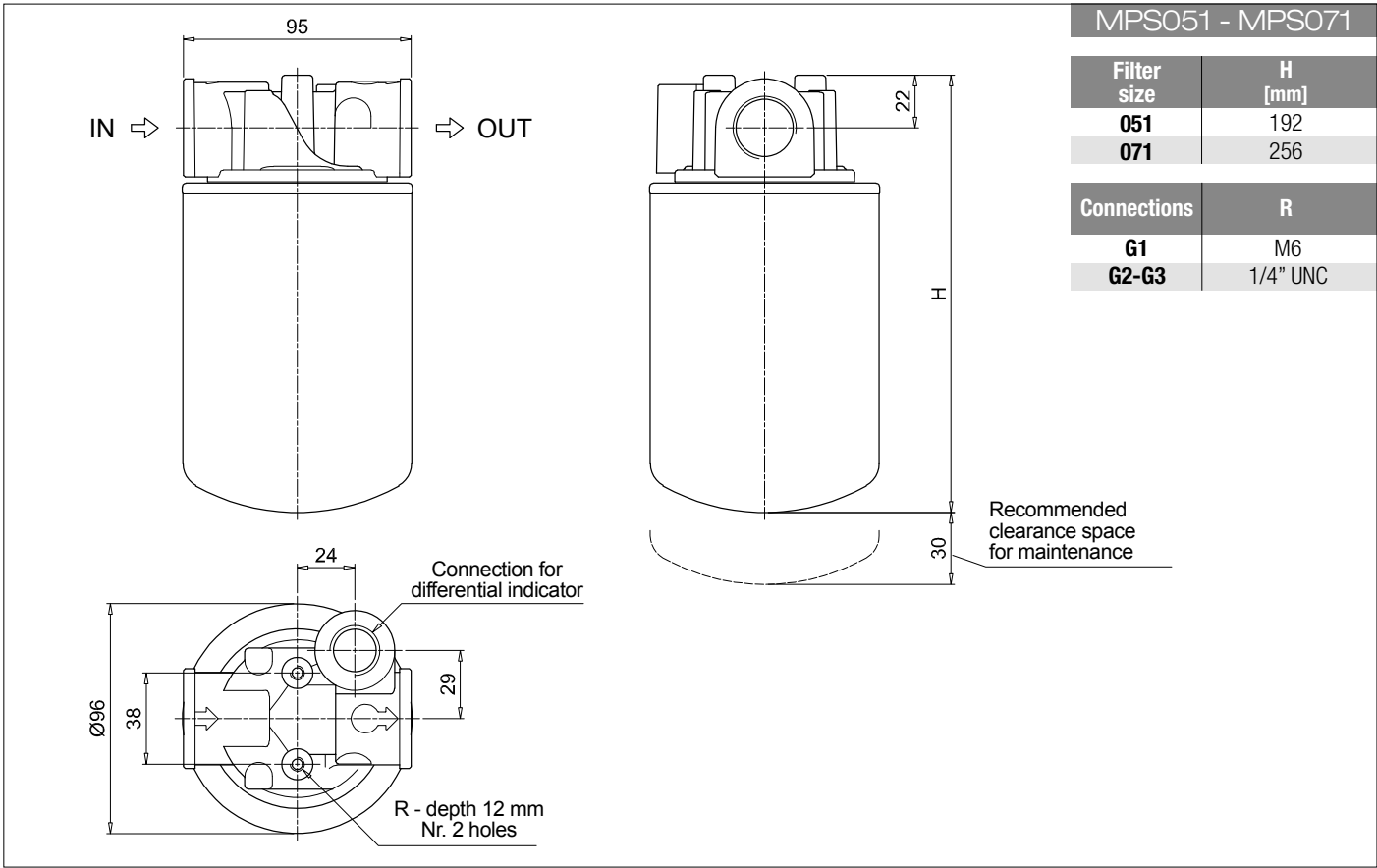
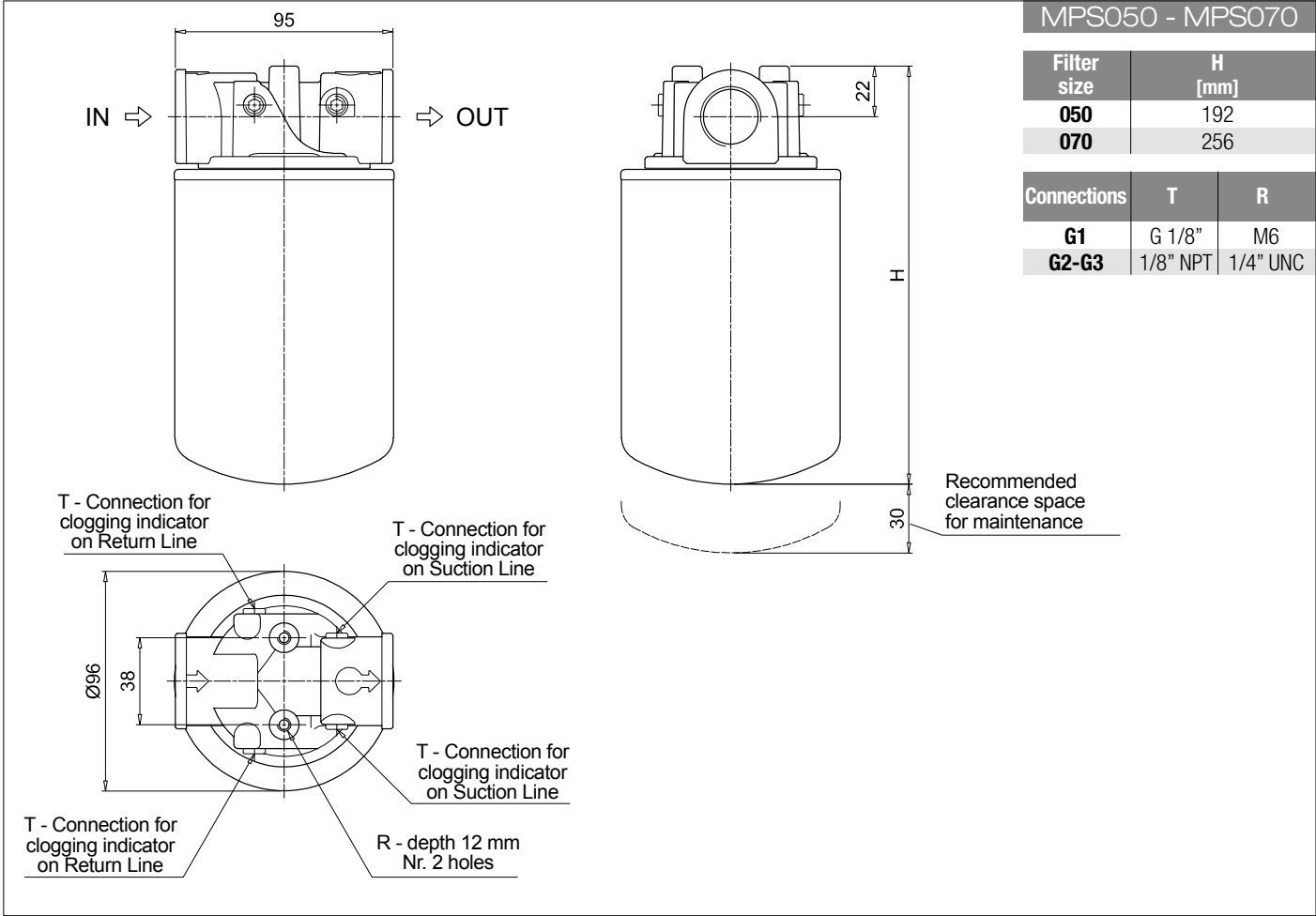
A NBR

Execution

P01 MP Filtri standard

Pxx Customized

| ACCESSORIES                         |                                                |         |                                                    |
|-------------------------------------|------------------------------------------------|---------|----------------------------------------------------|
| Clogging indicators on RETURN line  |                                                | page    | page                                               |
| BVA                                 | Axial pressure gauge                           | 315     | BEA Electrical pressure indicator 314              |
| BVR                                 | Radial pressure gauge                          | 315     | BEM Electrical pressure indicator 314              |
| BVP                                 | Visual pressure indicator with automatic reset | 316     | BLA Electrical / visual pressure indicator 314-315 |
| BVQ                                 | Visual pressure indicator with manual reset    | 316     |                                                    |
| Clogging indicators on SUCTION line |                                                | page    | page                                               |
| VVB                                 | Axial pressure gauge                           | 313     | VEB Electrical vacuum indicator 312                |
| VVS                                 | Radial pressure gauge                          | 313     | VLB Electrical/visual vacuum indicator 312         |
| Differential indicators             |                                                | page    | page                                               |
| DEA                                 | Electrical differential indicator              | 317     | DTA Electronic differential indicator 320          |
| DEM                                 | Electrical differential indicator              | 317-318 | DVA Visual differential indicator 320              |
| DLA                                 | Electrical / visual differential indicator     | 318-319 | DVM Visual differential indicator 320              |
| DLE                                 | Electrical / visual differential indicator     | 319     |                                                    |



# MPS MPS100 - MPS150 MPS101 - MPS151

## Designation & Ordering code

COMPLETE FILTER

Series and size

MPS100 | MPS150 With connections for clogging indicators

MPS101 | MPS151 With connections for differential indicators

Bypass valve

MPS 100 - 150 | MPS 101 - 151

R Return: 1.75 bar

S Suction: 30 kPa

U Without bypass

P Without bypass

Connections

G1 G 1 1/4"

G2 1 1/4" NPT

G3 SAE 20 - 1 5/8" - 12 UN

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example :

MPS100

R

G1

A10

A

P01

Seal

A NBR

Execution

P01 MP Filtri standard

CARTRIDGE

Cartridge series and size

CS100 | CS150

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example:

CS100

A10

A

P01

Seals

A NBR

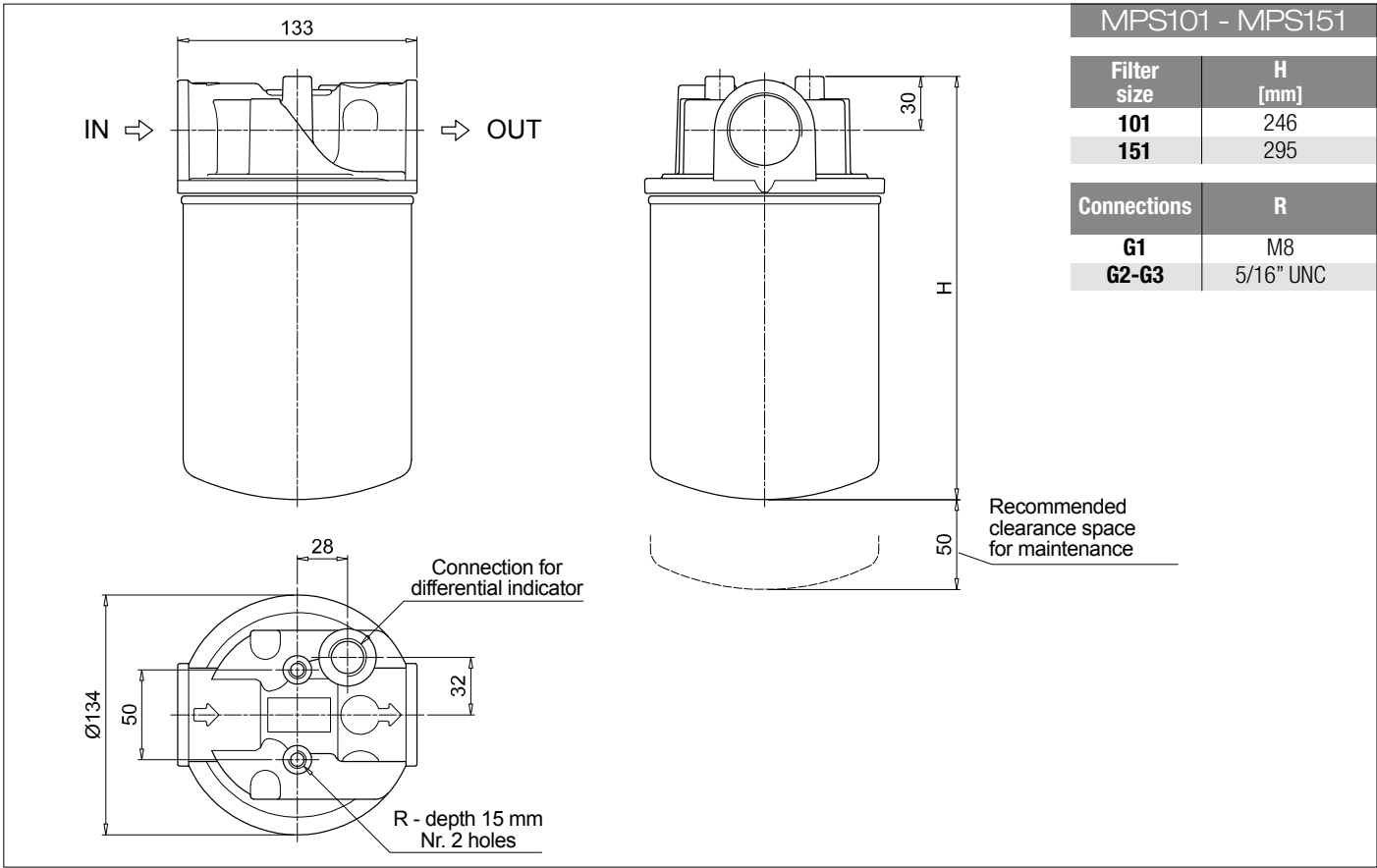
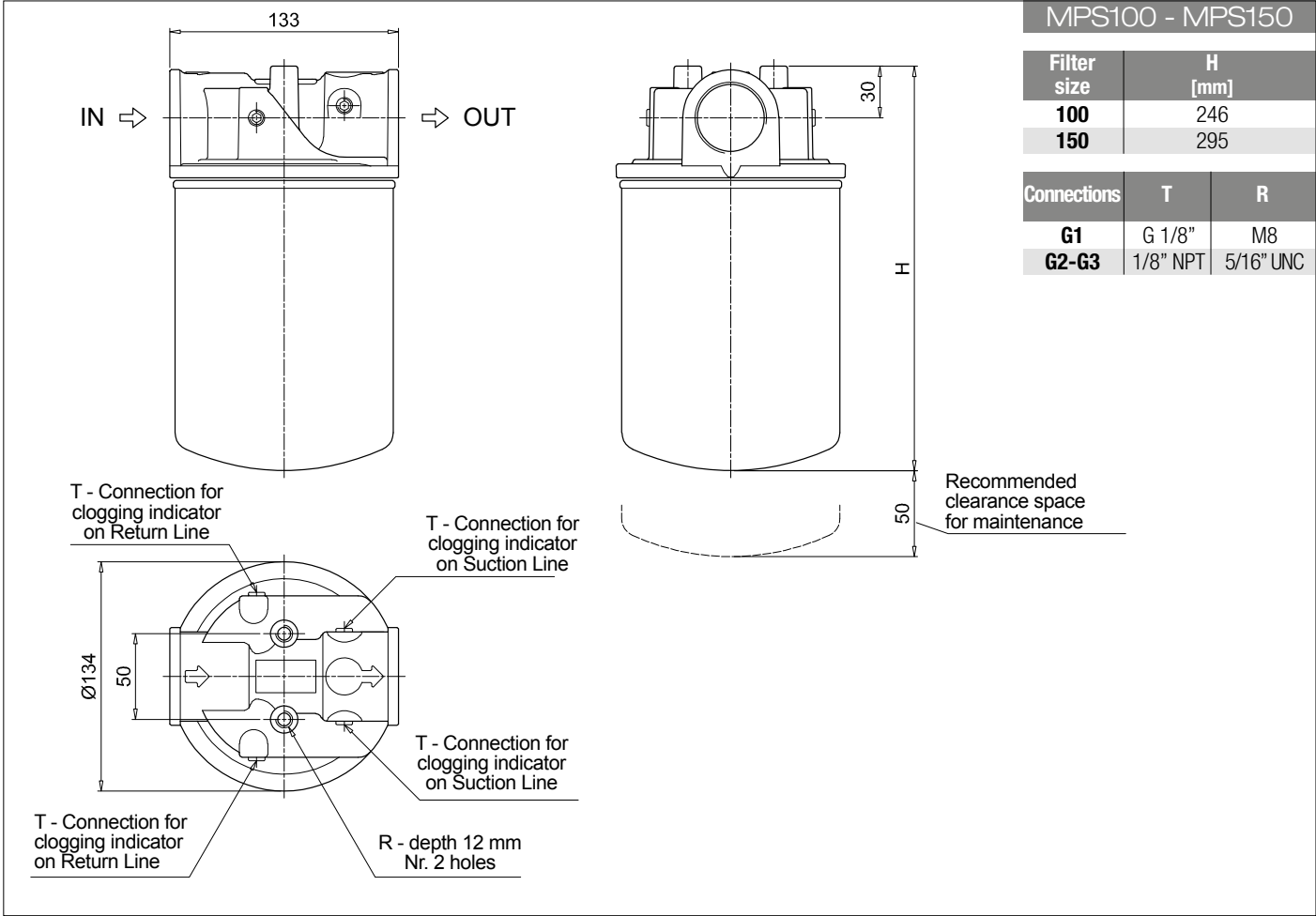
Execution

P01 MP Filtri standard

Pxx Customized

| ACCESSORIES                         |                                                |         |                                                    |
|-------------------------------------|------------------------------------------------|---------|----------------------------------------------------|
| Clogging indicators on RETURN line  |                                                | page    | page                                               |
| BVA                                 | Axial pressure gauge                           | 315     | BEA Electrical pressure indicator 314              |
| BVR                                 | Radial pressure gauge                          | 315     | BEM Electrical pressure indicator 314              |
| BVP                                 | Visual pressure indicator with automatic reset | 316     | BLA Electrical / visual pressure indicator 314-315 |
| BVQ                                 | Visual pressure indicator with manual reset    | 316     |                                                    |
| Clogging indicators on SUCTION line |                                                | page    | page                                               |
| VVB                                 | Axial pressure gauge                           | 313     | VEB Electrical vacuum indicator 312                |
| VVS                                 | Radial pressure gauge                          | 313     | VLB Electrical/visual vacuum indicator 312         |
| Differential indicators             |                                                | page    | page                                               |
| DEA                                 | Electrical differential indicator              | 317     | DTA Electronic differential indicator 320          |
| DEM                                 | Electrical differential indicator              | 317-318 | DVA Visual differential indicator 320              |
| DLA                                 | Electrical / visual differential indicator     | 318-319 | DVM Visual differential indicator 320              |
| DLE                                 | Electrical / visual differential indicator     | 319     |                                                    |





# MPS MPS200 - MPS250

## Designation & Ordering code

COMPLETE FILTER

Series and size

MPS200 | MPS250

Configuration example :

MPS200

R

G1

A10

A

P01

Bypass valve

R Return: 1.75 bar

S Suction: 30 kPa

U Without bypass

Connections

G1 G 1 1/2"

G2 1 1/2" NPT

G3 SAE 24 - 1 7/8" - 12 UN

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Seal

A NBR

Execution

P01 MP Filtri standard

CARTRIDGE

Cartridge series and size

CS100 | CS150

Configuration example:

CS100

A10

A

P01

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Seals

A NBR

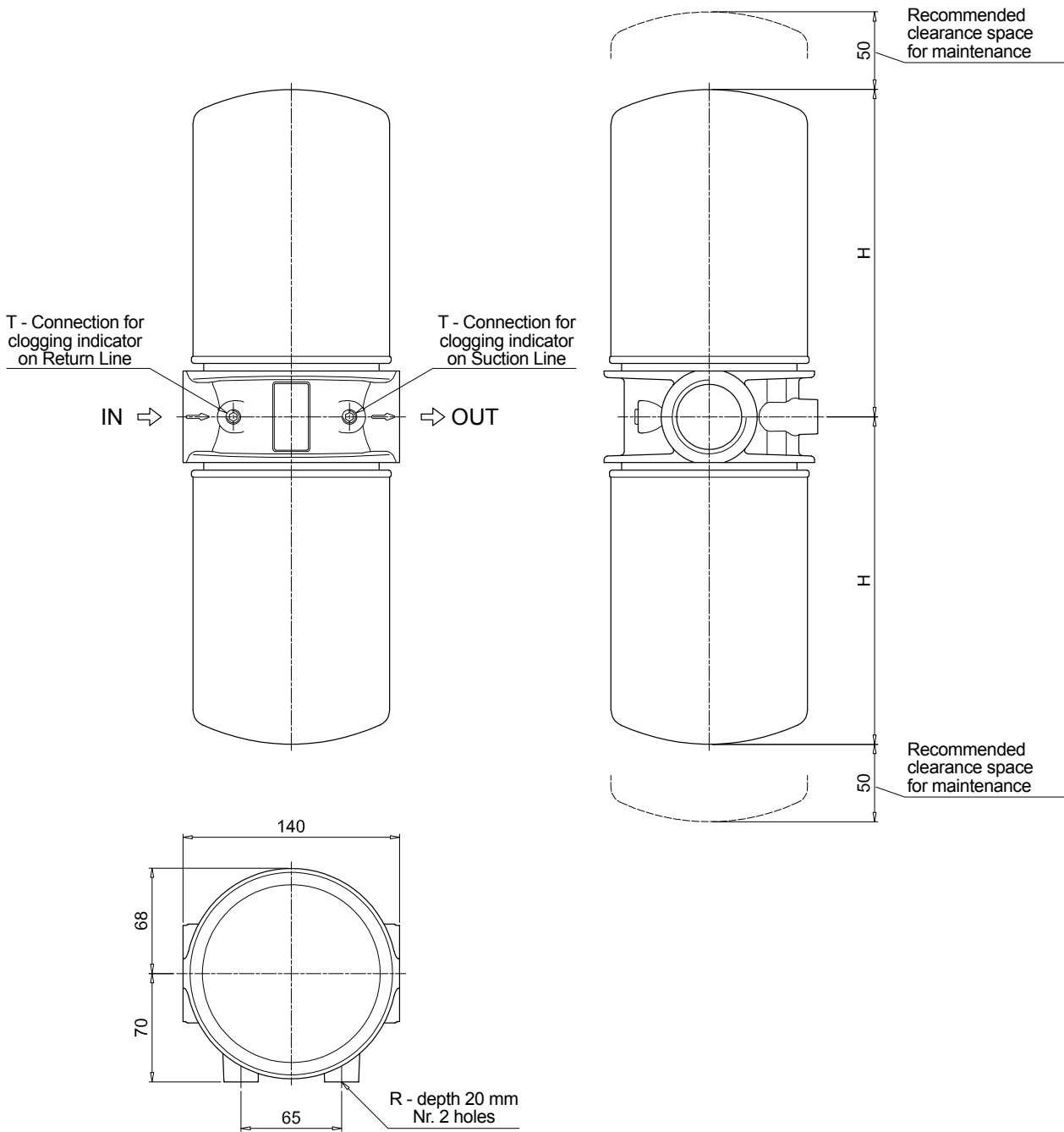
Execution

P01 MP Filtri standard

Pxx Customized

| ACCESSORIES                         |                                                |      |                                                    |
|-------------------------------------|------------------------------------------------|------|----------------------------------------------------|
| Clogging indicators on RETURN line  |                                                | page | page                                               |
| BVA                                 | Axial pressure gauge                           | 315  | BEA Electrical pressure indicator 314              |
| BVR                                 | Radial pressure gauge                          | 315  | BEM Electrical pressure indicator 314              |
| BVP                                 | Visual pressure indicator with automatic reset | 316  | BLA Electrical / visual pressure indicator 314-315 |
| BVQ                                 | Visual pressure indicator with manual reset    | 316  |                                                    |
| Clogging indicators on SUCTION line |                                                | page | page                                               |
| VVB                                 | Axial pressure gauge                           | 313  | VEB Electrical vacuum indicator 312                |
| VVS                                 | Radial pressure gauge                          | 313  | VLB Electrical/visual vacuum indicator 312         |

| MPS200 - MPS250 |          |           |
|-----------------|----------|-----------|
| Filter size     | H [mm]   |           |
| 200             | 213      |           |
| 250             | 262      |           |
| Connections     | T        | R         |
| G1              | G 1/8"   | M10       |
| G2-G3           | 1/8" NPT | 7/16" UNC |



# MPS MPS300 - MPS350 MPS301 - MPS351

## Designation & Ordering code

COMPLETE FILTER

Series and size

MPS300 | MPS350 With connections for clogging indicators

MPS301 | MPS351 With connections for differential indicators

Bypass valve

MPS 300 - 350 | MPS 301 - 351

R Return: 1.75 bar

S Suction: 30 kPa

U Without bypass

P Without bypass

Connections

G1 G 1 1/2"

G2 1 1/2" NPT

G3 SAE 24 - 1 7/8" - 12 UN

F1 1 1/2" SAE 3000 psi/M

F2 1 1/2" SAE 3000 psi/UNC

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example :

MPS300

R

F1

A10

A

P01

Seal

A NBR

Execution

P01 MP Filtri standard

CARTRIDGE

Cartridge series and size

CS100 | CS150

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Configuration example:

CS100

A10

A

P01

Seals

A NBR

Execution

P01 MP Filtri standard

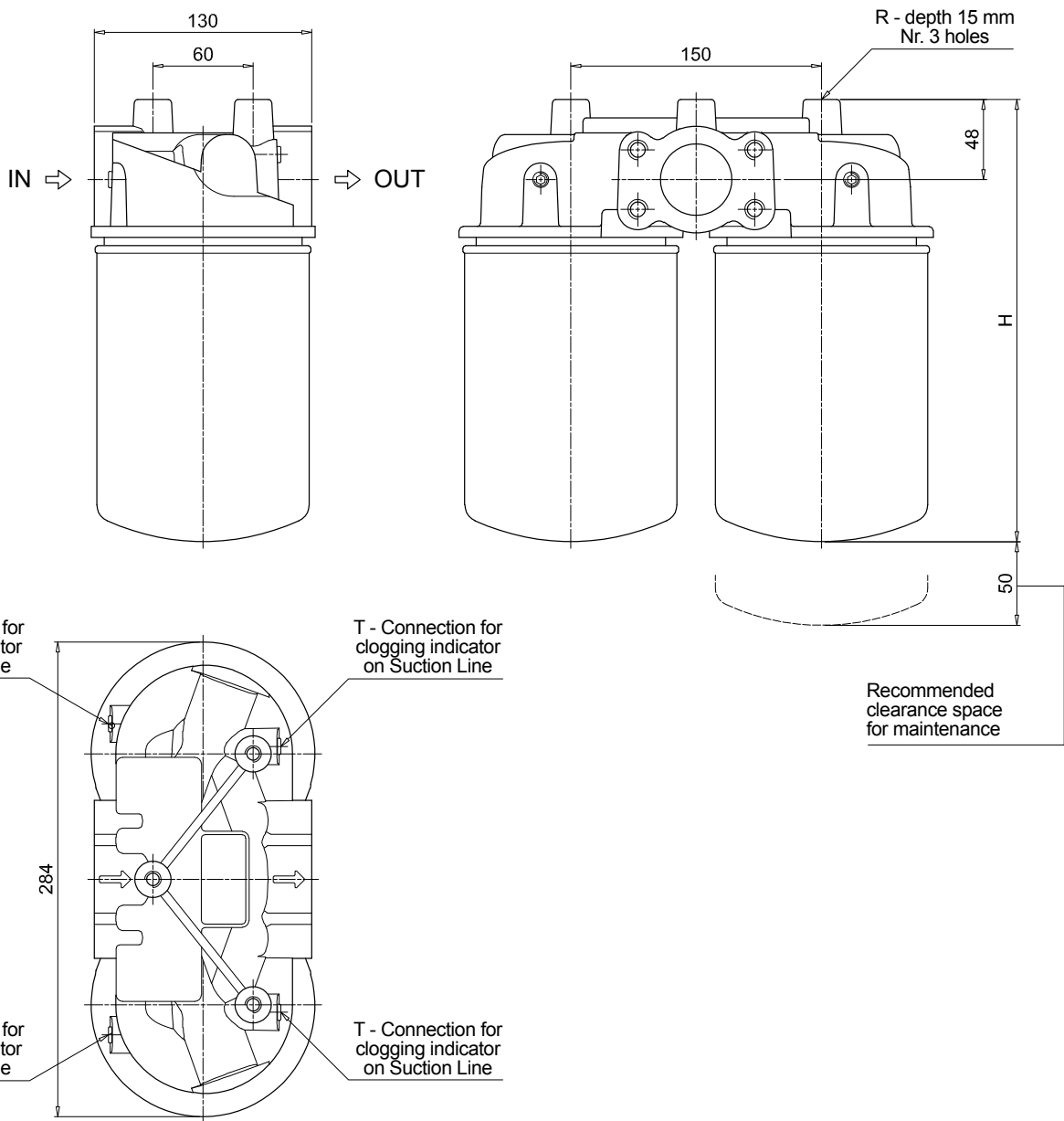
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| ACCESSORIES                         |                                                |         |                                                    |
|-------------------------------------|------------------------------------------------|---------|----------------------------------------------------|
| Clogging indicators on RETURN line  |                                                | page    | page                                               |
| BVA                                 | Axial pressure gauge                           | 315     | BEA Electrical pressure indicator 314              |
| BVR                                 | Radial pressure gauge                          | 315     | BEM Electrical pressure indicator 314              |
| BVP                                 | Visual pressure indicator with automatic reset | 316     | BLA Electrical / visual pressure indicator 314-315 |
| BVQ                                 | Visual pressure indicator with manual reset    | 316     |                                                    |
| Clogging indicators on SUCTION line |                                                | page    | page                                               |
| VVB                                 | Axial pressure gauge                           | 313     | VEB Electrical vacuum indicator 312                |
| VVS                                 | Radial pressure gauge                          | 313     | VLB Electrical/visual vacuum indicator 312         |
| Differential indicators             |                                                | page    | page                                               |
| DEA                                 | Electrical differential indicator              | 317     | DTA Electronic differential indicator 320          |
| DEM                                 | Electrical differential indicator              | 317-318 | DVA Visual differential indicator 320              |
| DLA                                 | Electrical / visual differential indicator     | 318-319 | DVM Visual differential indicator 320              |
| DLE                                 | Electrical / visual differential indicator     | 319     |                                                    |

MPS300 - MPS350

| Filter size | H [mm] |
|-------------|--------|
| 300         | 266    |
| 350         | 315    |

| Connections | T        | R         |
|-------------|----------|-----------|
| G1          | G 1/8"   | M10       |
| G2-G3       | 1/8" NPT | 7/16" UNC |
| F1          | G 1/8"   | M10       |
| F2          | 1/8" NPT | 7/16" UNC |



Dimensions

| MPS301 - MPS351 |           |
|-----------------|-----------|
| Filter size     | H [mm]    |
| 301             | 266       |
| 351             | 315       |
| Connections     | R         |
| G1              | M10       |
| G2-G3           | 7/16" UNC |
| F1              | M10       |
| F2              | 7/16" UNC |

