

# LMP 900-901 series

Filters featuring filter elements designed according to DIN 24550

Maximum working pressure up to 3 MPa (30 bar) - Flow rate up to 2000 l/min



# LMP 900-901 GENERAL INFORMATION

## Filters featuring filter elements designed according to DIN 24550

### Description

#### Low & Medium Pressure filters

**Maximum working pressure up to 3 MPa (30 bar)**

**Flow rate up to 2000 l/min**

LMP900 is a range of low pressure filter with large filtration surface mainly suitable for lubrication, off-line filtration of the reservoirs and filtration equipment.

They are directly connected to the lines of the system through the hydraulic fittings.

#### Available features:

- Flanged connections up to 4", for a maximum flow rate of 2000 l/min
- In line or 90° connections, to meet any type of application
- Filter element designed in accordance with DIN 24550 regulation
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid.  
For further information, see the Contamination Management document and the dedicate leaflet.
- Bypass valve, to relieve excessive pressure drop across the filter media
- Vent ports, to avoid air trapped into the filter going into the system
- Drain ports, to remove the fluid from the housing prior the maintenance work
- Visual, electrical and electronic differential clogging indicators

#### Common applications:

- Off-line filtration of reservoirs
- Filtration systems
- Lubrication systems

### Technical data

#### Filter housing materials

- Head: Anodized aluminium
- Housing: Anodized aluminium
- Manifolds: Anodized aluminium
- Bypass valve: Steel

#### Pressure

- Test pressure: 4.5 MPa (45 bar)
- Min. Burst pressure: 9 MPa (90 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 3 MPa (30 bar)

#### Bypass valve

- Opening pressure 0.35 MPa (3.5 bar)  $\pm 10\%$
- Other opening pressures on request.

#### Number of filter elements

LMP 900-1: 1 filter element CU900

LMP 900-2: 2 filter elements CU900

#### Filter elements

Filter element designed in accordance with DIN 24550

Size: 1000

#### Filter element features

| Filter<br>LMP 900-901                                                                                     |              | Filter element<br>CU |            |
|-----------------------------------------------------------------------------------------------------------|--------------|----------------------|------------|
| $\Delta p$ Element type                                                                                   |              |                      |            |
| Element media                                                                                             | Construction | $\Delta p$ Series    | $\Delta p$ |
| A - Microfiber                                                                                            | Standard     | N                    | 20 bar     |
| M - Wire mesh                                                                                             | Standard     | N                    | 20 bar     |
| P - Paper                                                                                                 | Standard     | N                    | 20 bar     |
| Please see ordering code tables to check element $\Delta p$ series availability based on filter features. |              |                      |            |
| <b>Flow direction through the filter element:</b><br>From OUT to IN                                       |              |                      |            |

#### Seals

- Standard NBR series A
- Optional FPM series V

#### Connections

LMP 900: In-line Inlet/Outlet  
LMP 901: 90° Inlet/Outlet

#### Temperature

From -25 °C to +110 °C

#### Note

LMP 900 - 901 filters are provided for vertical mounting

### Weights [kg] and volumes [dm<sup>3</sup>]

| Filter series | Weights [kg] |      |      | Volumes [dm <sup>3</sup> ] |    |    |
|---------------|--------------|------|------|----------------------------|----|----|
|               | Length       | 1    | 2    | Length                     | 1  | 2  |
| LMP 900-901   |              | 19.2 | 30.4 |                            | 16 | 24 |

# GENERAL INFORMATION LMP 900-901

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Flow rates [l/min]

| Filter series  | Length   | Filter element design - N Series |      |      |      |      |                   |
|----------------|----------|----------------------------------|------|------|------|------|-------------------|
|                |          | A03                              | A06  | A10  | A16  | A25  | M25<br>M60<br>M90 |
| <b>LMP 900</b> | <b>1</b> | 706                              | 877  | 1264 | 1291 | 1444 | 1803              |
|                | <b>2</b> | 1100                             | 1264 | 1556 | 1573 | 1668 | 1867              |
| <b>LMP 901</b> | <b>1</b> | 715                              | 899  | 1337 | 1369 | 1552 | 2000              |
|                | <b>2</b> | 1147                             | 1337 | 1689 | 1710 | 1828 | 2081              |

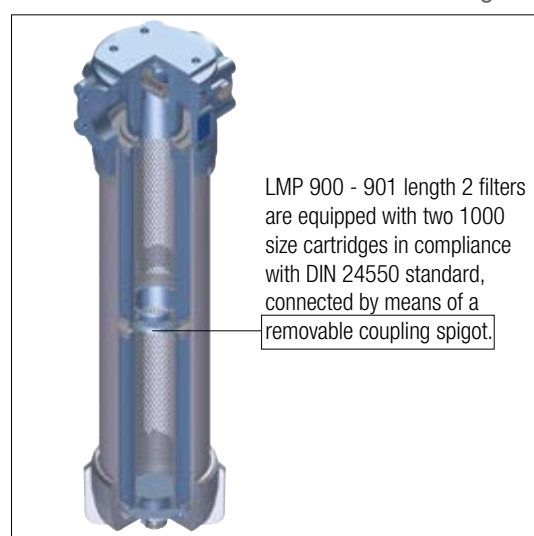
**Maximum flow rate for a complete low and medium pressure filter with a pressure drop  $\Delta p = 0.7$  bar.**

The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

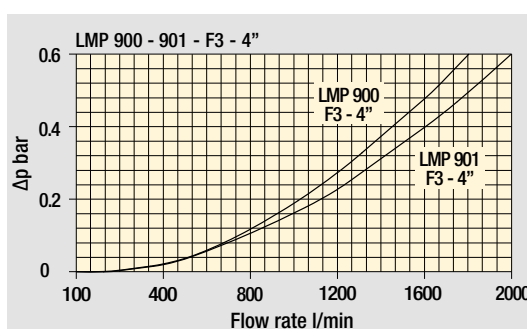
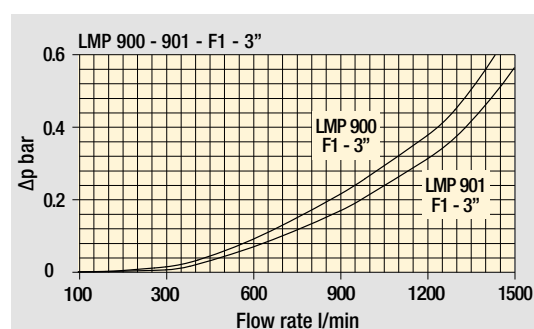
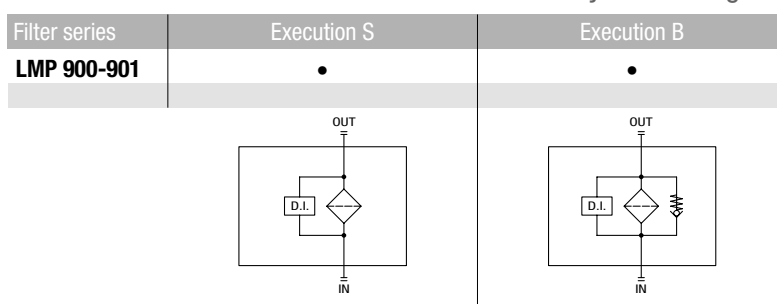
For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

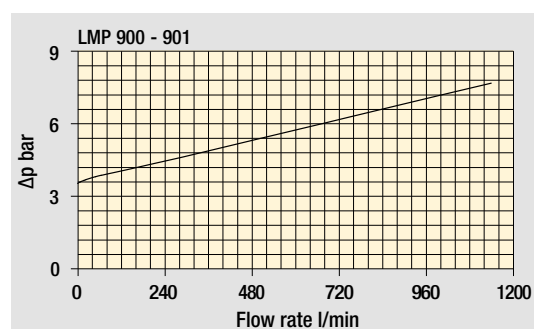
## LMP 900-901 Length 2



## Hydraulic diagram



Pressure drop  
Filter housings  $\Delta p$  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.  $\Delta p$  varies proportionally with density.

# LMP 900-901

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## Designation & Ordering code

### COMPLETE FILTER

|                                                 |  |                                                |   |   |    |     |   |     |               |
|-------------------------------------------------|--|------------------------------------------------|---|---|----|-----|---|-----|---------------|
| Series and size                                 |  | Configuration example: LMP901                  |   |   |    |     |   |     |               |
| <b>LMP900</b>   <b>LMP901</b>                   |  | 2                                              | B | A | F2 | A10 | N | P01 |               |
| Length                                          |  |                                                |   |   |    |     |   |     |               |
| 1   2                                           |  |                                                |   |   |    |     |   |     |               |
| Bypass valve                                    |  |                                                |   |   |    |     |   |     |               |
| S Without bypass                                |  | B With bypass 3.5 bar                          |   |   |    |     |   |     |               |
| Seals and treatments                            |  |                                                |   |   |    |     |   |     |               |
| A NBR                                           |  |                                                |   |   |    |     |   |     |               |
| V FPM                                           |  |                                                |   |   |    |     |   |     |               |
| Connections                                     |  |                                                |   |   |    |     |   |     |               |
| F1 3" SAE 3000 psi/M                            |  |                                                |   |   |    |     |   |     |               |
| F2 3" SAE 3000 psi/UNC                          |  |                                                |   |   |    |     |   |     |               |
| F3 4" SAE 3000 psi/M                            |  |                                                |   |   |    |     |   |     |               |
| F4 4" SAE 3000 psi/UNC                          |  |                                                |   |   |    |     |   |     |               |
| Filtration rating (filter media)                |  |                                                |   |   |    |     |   |     |               |
| A03 Inorganic microfiber 3 µm                   |  | M25 Wire mesh 25 µm                            |   |   |    |     |   |     |               |
| A06 Inorganic microfiber 6 µm                   |  | M60 Wire mesh 60 µm                            |   |   |    |     |   |     |               |
| A10 Inorganic microfiber 10 µm                  |  | M90 Wire mesh 90 µm                            |   |   |    |     |   |     |               |
| A16 Inorganic microfiber 16 µm                  |  |                                                |   |   |    |     |   |     |               |
| A25 Inorganic microfiber 25 µm                  |  |                                                |   |   |    |     |   |     |               |
| WA025 Water absorber inorganic microfiber 25 µm |  |                                                |   |   |    |     |   |     |               |
| Element Δp                                      |  | Execution                                      |   |   |    |     |   |     | Filter length |
| N 20 bar                                        |  | P01 MP Filtri standard                         |   |   |    |     |   |     | 1 2           |
|                                                 |  | P02 Maintenance from the bottom of the housing |   |   |    |     |   |     | - •           |
|                                                 |  | Pxx Customized                                 |   |   |    |     |   |     |               |

### FILTER ELEMENT

|                                                 |  |                              |   |   |     |  |
|-------------------------------------------------|--|------------------------------|---|---|-----|--|
| Element series and size                         |  | Configuration example: CU900 |   |   |     |  |
| <b>CU900</b>                                    |  | A10                          | A | N | P01 |  |
| Length                                          |  |                              |   |   |     |  |
| 1 Nr. 1 filter element                          |  |                              |   |   |     |  |
| 2 Nr. 2 filter elements                         |  |                              |   |   |     |  |
| Filtration rating (filter media)                |  |                              |   |   |     |  |
| A03 Inorganic microfiber 3 µm                   |  | M25 Wire mesh 25 µm          |   |   |     |  |
| A06 Inorganic microfiber 6 µm                   |  | M60 Wire mesh 60 µm          |   |   |     |  |
| A10 Inorganic microfiber 10 µm                  |  | M90 Wire mesh 90 µm          |   |   |     |  |
| A16 Inorganic microfiber 16 µm                  |  |                              |   |   |     |  |
| A25 Inorganic microfiber 25 µm                  |  |                              |   |   |     |  |
| WA025 Water absorber inorganic microfiber 25 µm |  |                              |   |   |     |  |
| Seals                                           |  |                              |   |   |     |  |
| A NBR                                           |  |                              |   |   |     |  |
| V FPM                                           |  |                              |   |   |     |  |
| Element Δp                                      |  | Execution                    |   |   |     |  |
| N 20 bar                                        |  | P01 MP Filtri standard       |   |   |     |  |
|                                                 |  | Pxx Customized               |   |   |     |  |

### CLOGGING INDICATORS

See page 784

|            |                                                     |
|------------|-----------------------------------------------------|
| <b>DEA</b> | Electrical differential pressure indicator          |
| <b>DEM</b> | Electrical differential pressure indicator          |
| <b>DEU</b> | Electrical differential pressure indicator          |
| <b>DLA</b> | Electrical / visual differential pressure indicator |
| <b>DLE</b> | Electrical / visual differential pressure indicator |

|            |                                                     |
|------------|-----------------------------------------------------|
| <b>DTA</b> | Electronic differential pressure indicator          |
| <b>DTI</b> | I-O Link electronic differential pressure indicator |
| <b>DVA</b> | Visual differential pressure indicator              |
| <b>DVM</b> | Visual differential pressure indicator              |

### PLUGS

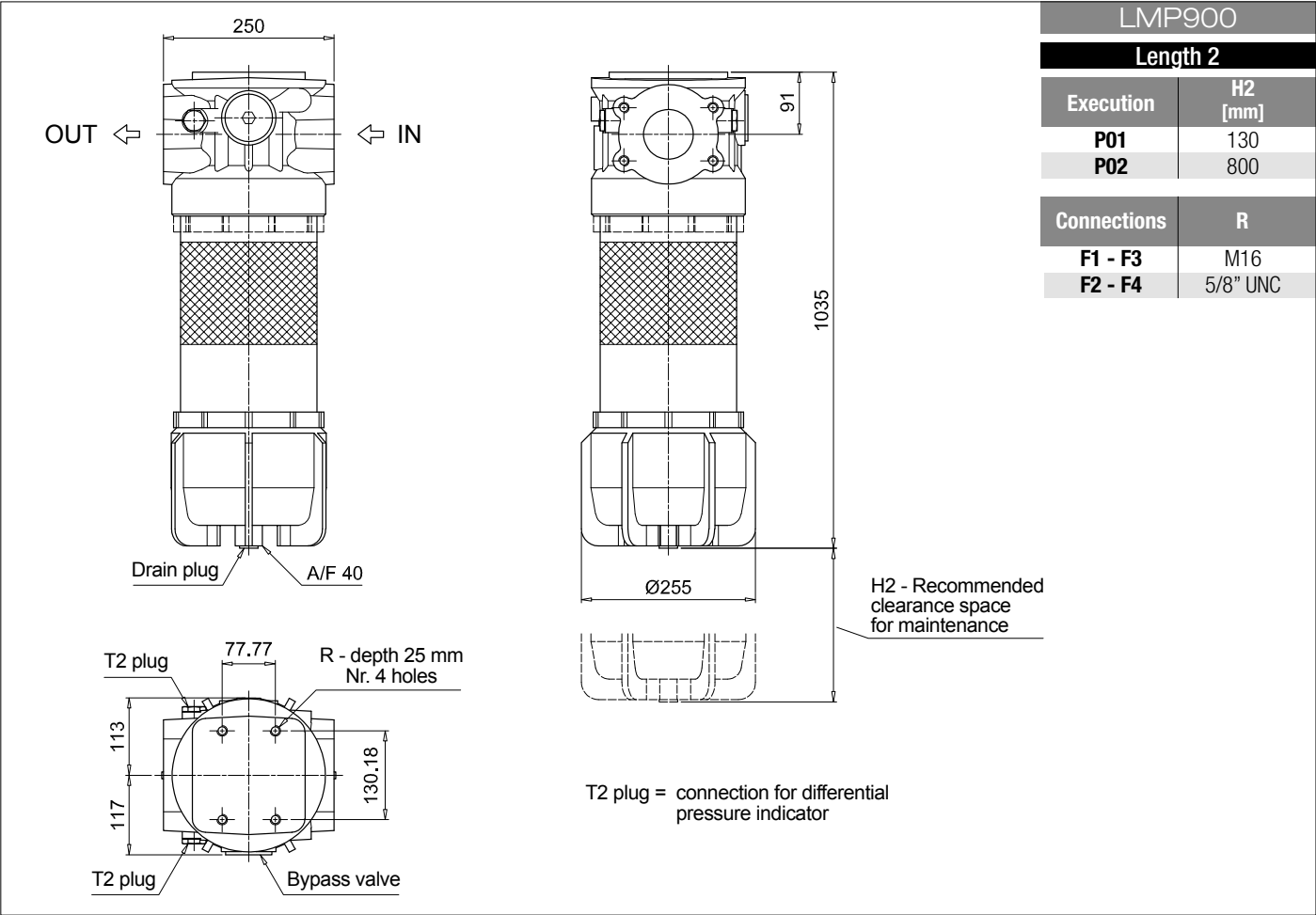
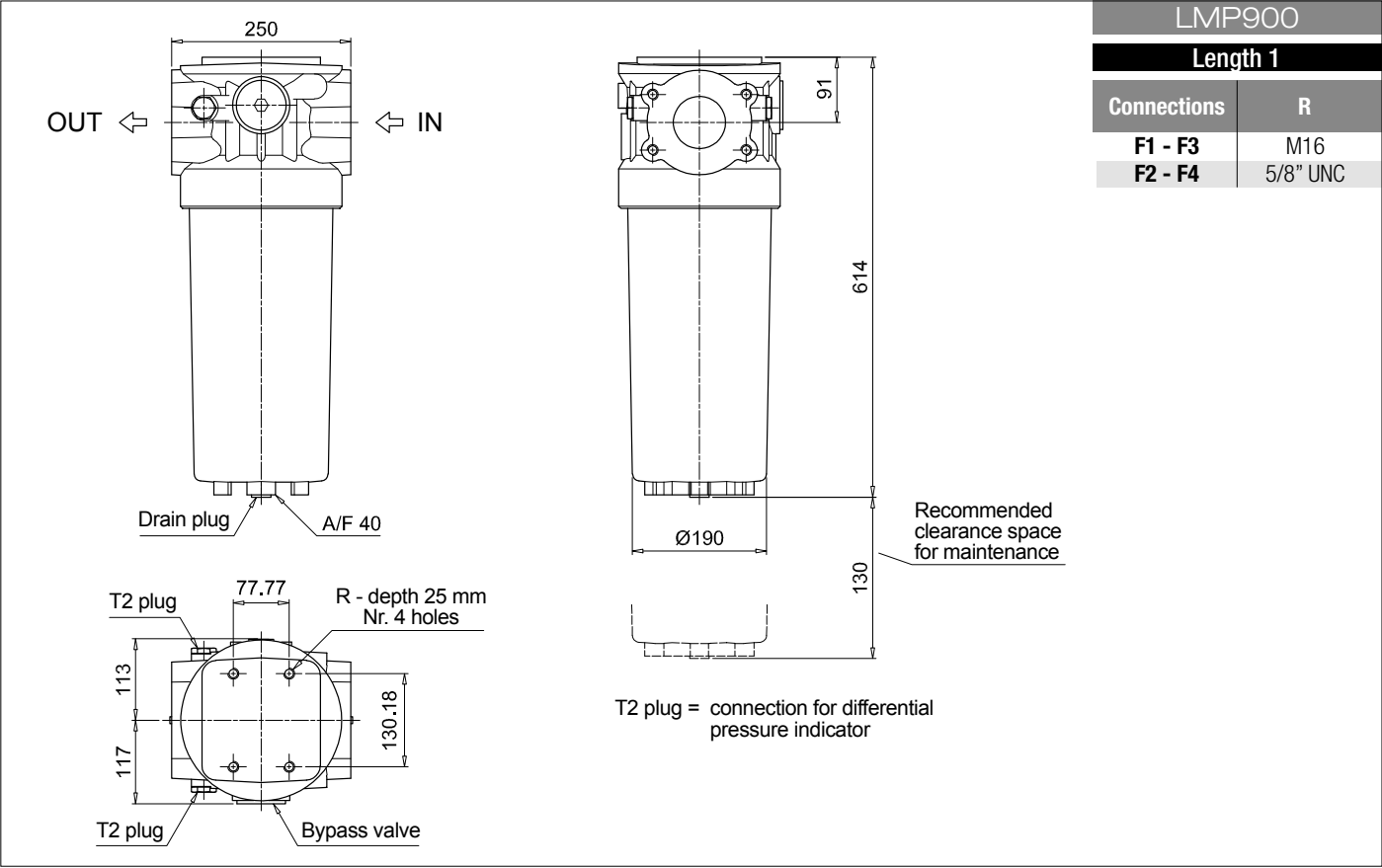
See page 807

|           |                            |
|-----------|----------------------------|
| <b>T2</b> | Plug - Filter length 1 - 2 |
|-----------|----------------------------|

### ACCESSORIES

See page 486

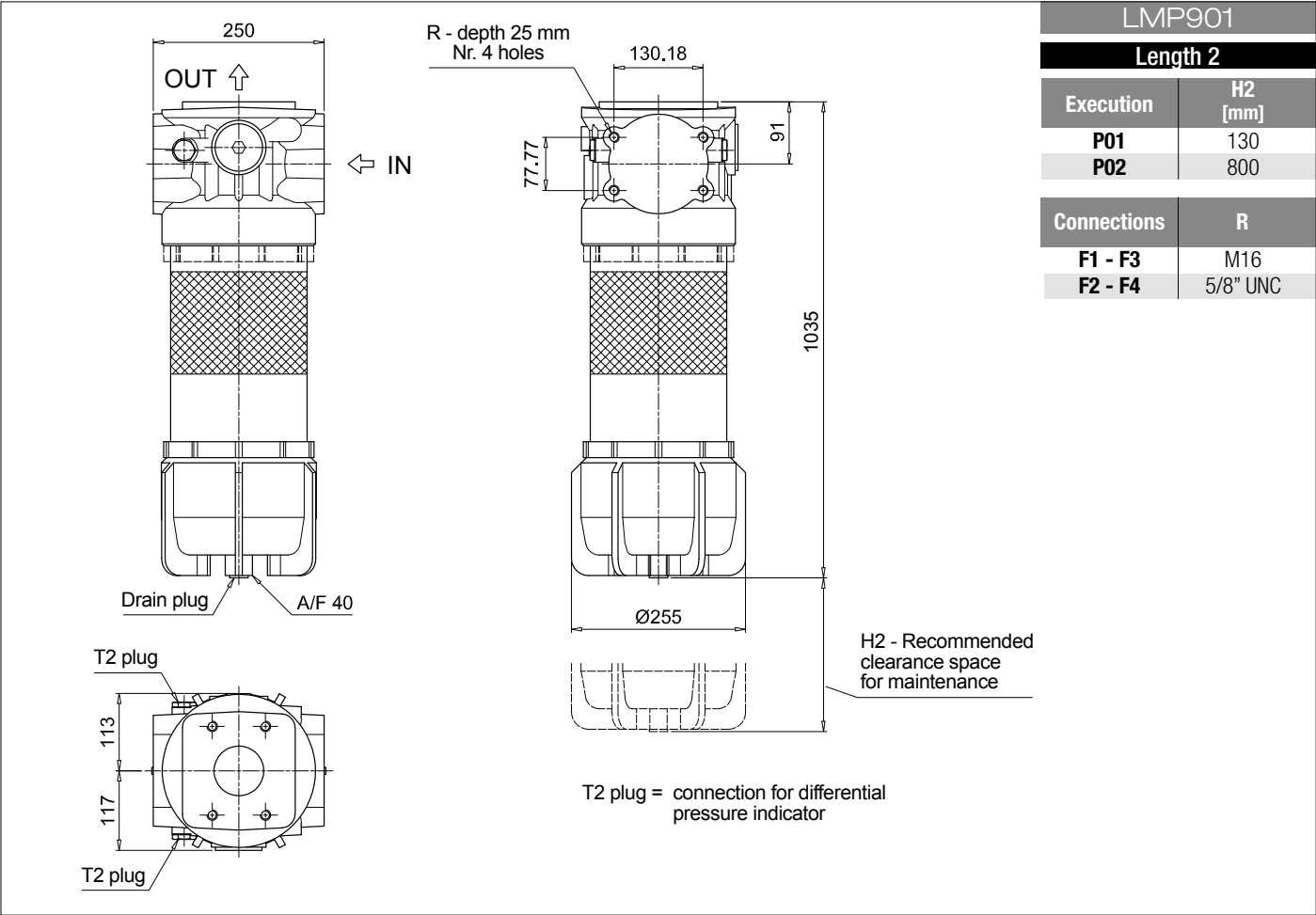
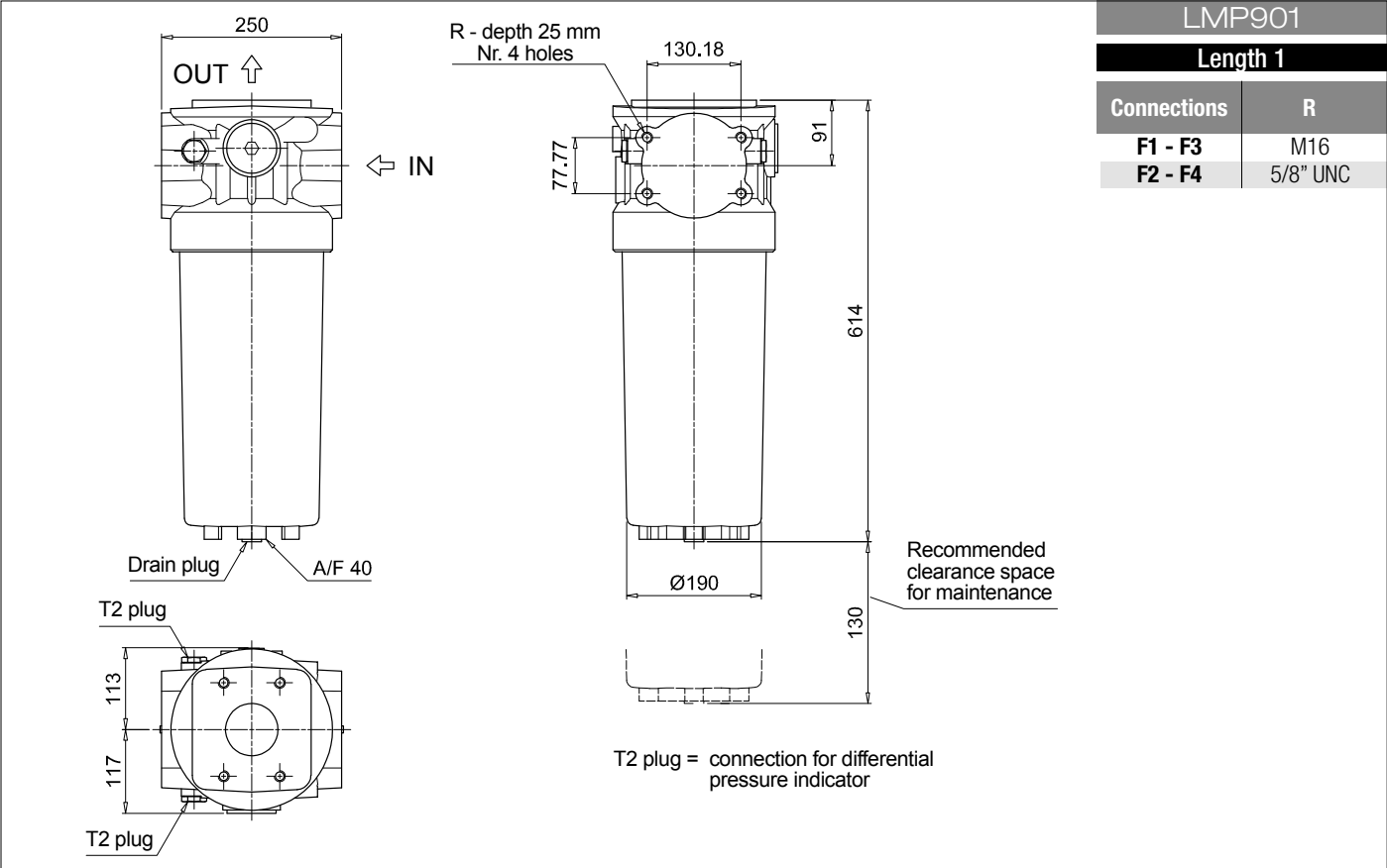
|            |                                   |
|------------|-----------------------------------|
| <b>CFA</b> | Retaining clamp - Filter length 2 |
|------------|-----------------------------------|



LMP 900-901

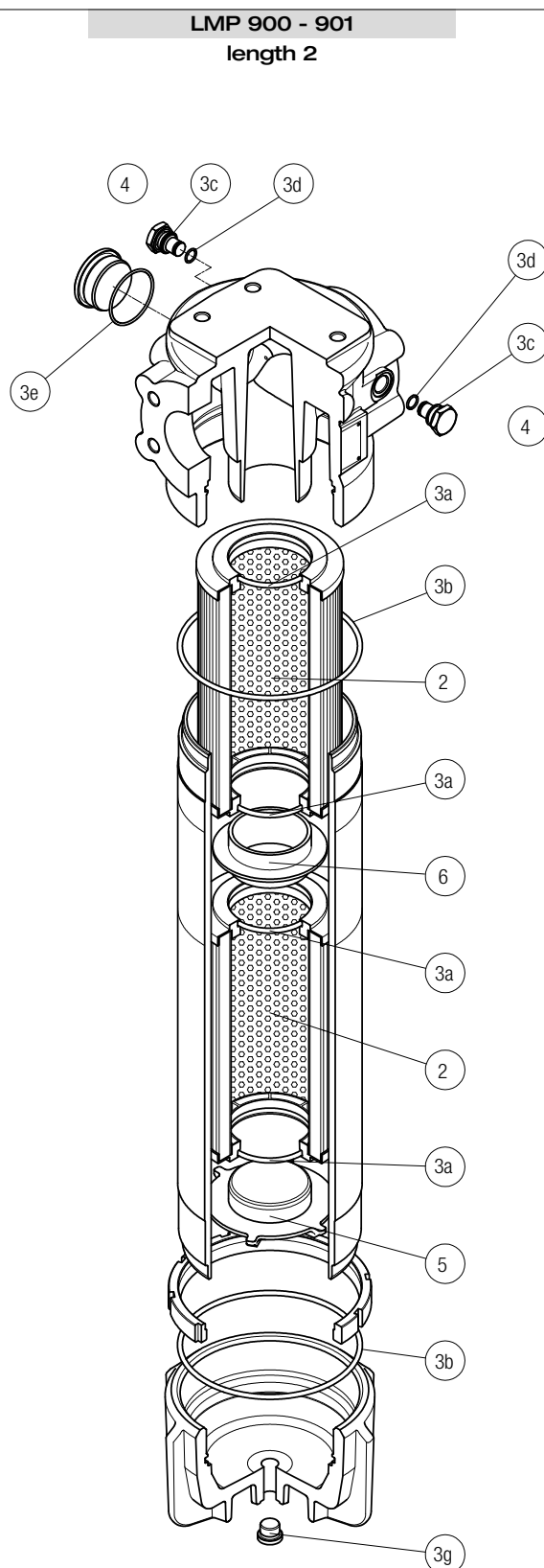
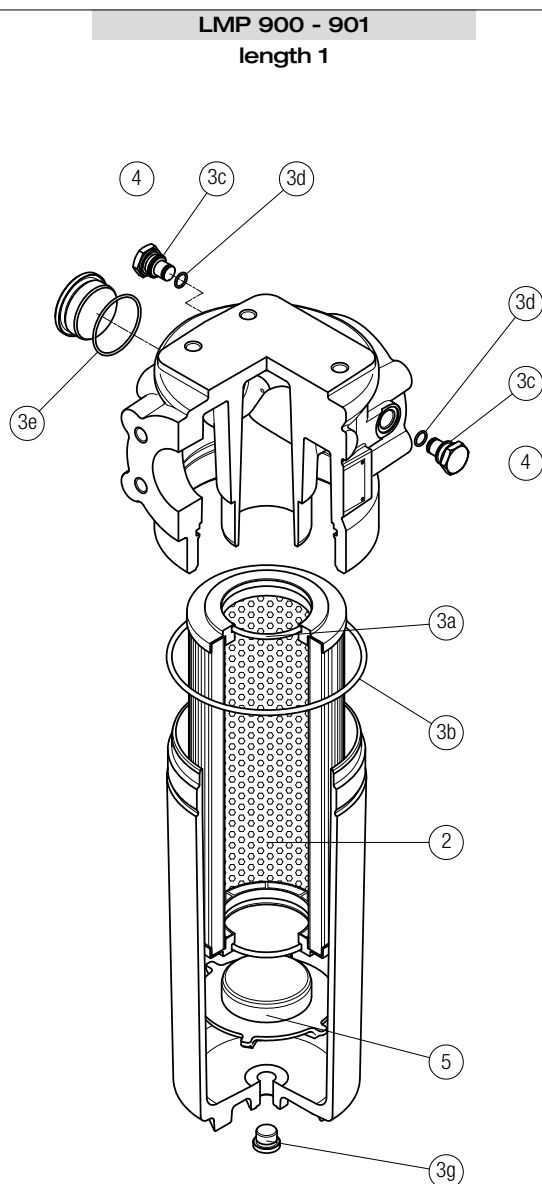
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Dimensions



# SPARE PARTS LMP 900-901

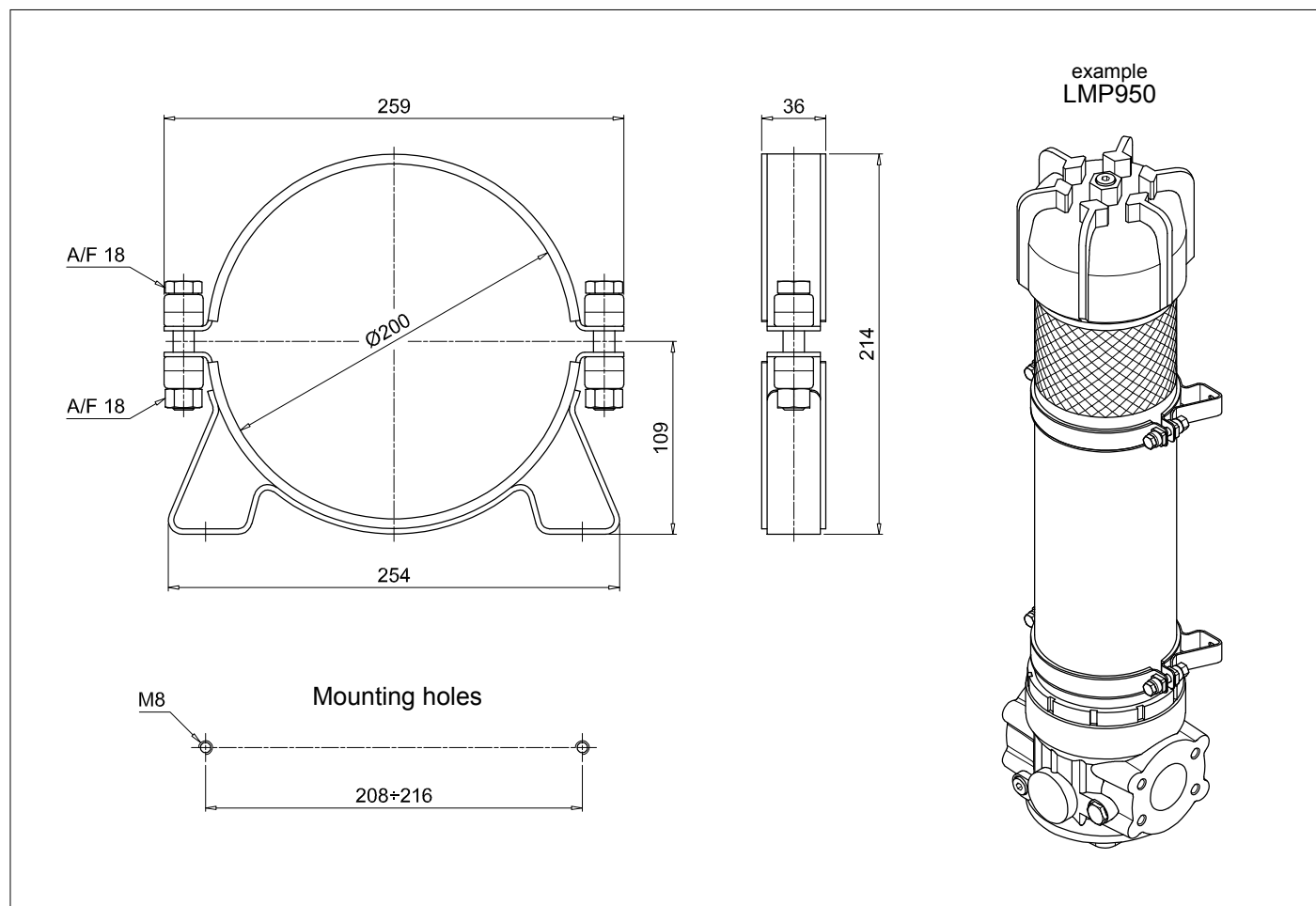
Order number for spare parts



| Item:                | 2              |                 | 3 (3a ÷ 3g) |          |          | 4      |     | 5   |                | 6        |                 |
|----------------------|----------------|-----------------|-------------|----------|----------|--------|-----|-----|----------------|----------|-----------------|
| Filter series        | Filter element |                 | Q.ty        | NBR      | FPM      | Q.ty   | NBR | FPM | Housing spigot | Q.ty     | Coupling spigot |
| LMP 900-901 length 1 | 1 pc.          | See order table | 1 pc.       | 02050363 | 02050364 | 2 pcs. | T2H | T2V | 1 pc.          | 01044104 | -               |
| LMP 900-901 length 2 | 2 pcs.         |                 | 1 pc.       | 02050365 | 02050366 | 2 pcs. |     |     | 1 pc.          | 01044099 | 1 pc.           |

# Accessories

## RETAINING CLAMP



**Series**  
**CFA** Retaining clamp

**Size**  
**20**

**Screw**  
**M** Metric

**Execution**  
**P01** MP Filtri standard

Configuration example: **CFA** **20** **M** **P01**