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# SERIES



**MPFILTRI®**

# Production programme



## Contamination monitoring products

- Particle counters calibrated to ISO 11171
- On-line and In-line counting up to 400 bar
- Bottle sampler options
- Remote operating capability - Windows based software package



## Suction filters

- Flow rates to 620 l/min

### Mounting:

- Tank immersed
- In-line
- In tank with shut off valve
- In tank with flooded suction



## Return Filters

- Flow rates to 1500 l/min
- Pressure to 20 bar

### Mounting:

- In-line
- Tank top
- In single and duplex designs



## Pressure Filters

- Flow rates to 700 l/min
- Pressure from 110 bar to 420 bar

### Mounting:

- In-line
- Manifold
- In single and duplex designs



## Spin-On Filters

- Flow rates to 300 l/min
- Pressure 35 bar

### Mounting:

- In-line
- Tank top



## Stainless Steel Pressure Filters

- Flow rates to 100 l/min
- Pressure from 350 bar to 700 bar

Mounting:

- In-line
- Manifold
- In single and duplex designs



## In-line filters

- Flow rates to 3000 l/min
- Pressures to 60 bar

Mounting:

- In-line
- Parallel manifold version
- In single and duplex designs



## Filtration units

- Flow rates from 15 l/min to 200 l/min
- In static and mobile style



## Accessories

- Oil filler and air breather plugs
- Optical and electrical level gauges
- Pressure gauge valve selectors
- Pipe fixing brackets
- Pressure gauges



## Mechanical Products

- Aluminium bell housings for motors from 0.12 kW to 400 kW
- Couplings in aluminium - cast iron - steel
- Damping rings
- Support feet
- Aluminium tanks
- Inspection doors

# Contents



## Tank immersed suction filters

Page 6



## Oil filler and air breather plugs

Page 10



## Breather filters

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## Filler plugs

Page 40



## Visual level indicators

Page 46



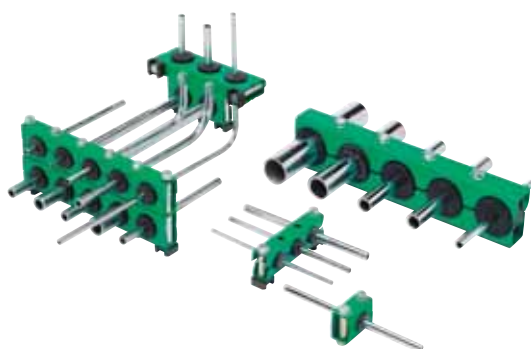
## Pressure gauge selectors

Page 60



## Oil tank fixing flange FTA - FTR

Page 66



## Multifix fixing clamps

Page 68

# STR

## Tank immersed suction strainers



# Flow rates to 900 l/min

# Series STR

STR (Materials)

- 1 - Connection: Nylon
- 2 - Support tubes: Galvanised steel
- 3 - Cap: Nylon
- 4 - Valve: Nylon - Steel

### Filtration

- M60 - 60 micron
- M90 - 90 micron
- M250 - 250 micron

### Bypass valves

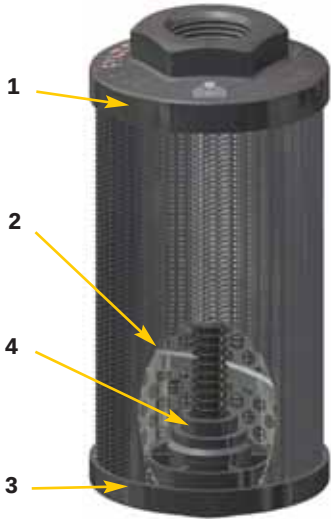
- Opening pressure: 30 kPa ± 10%

### Temperature

- From -25°C to +110°C

Oil flow from exterior to interior.

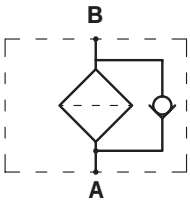
STR with bypass



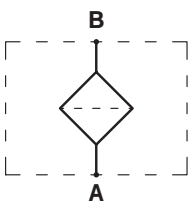
STR without bypass



Style B



Style S

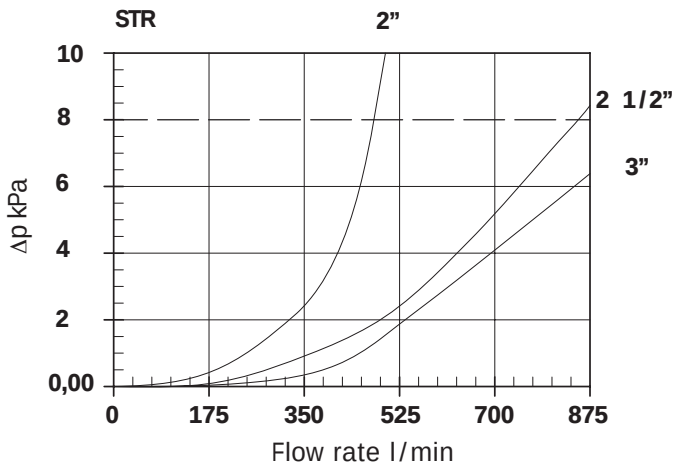
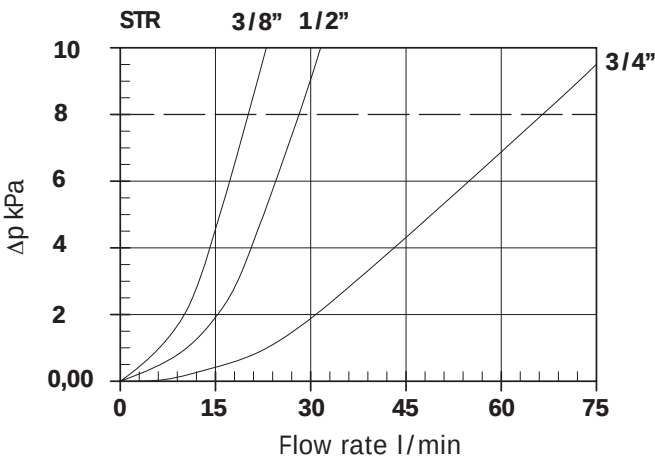
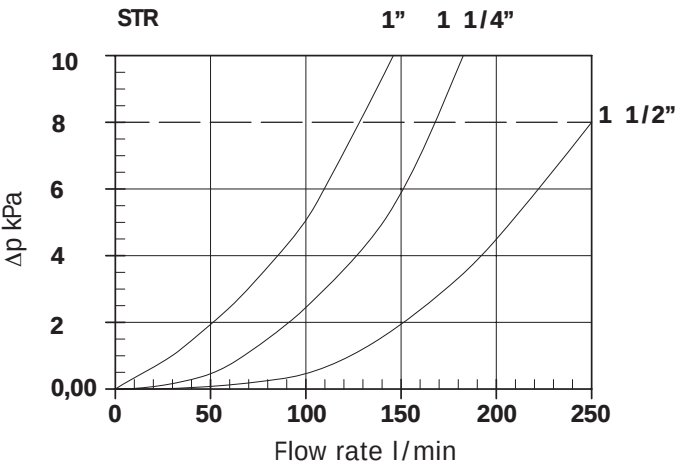


### Compatibility

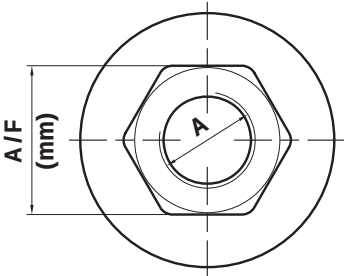
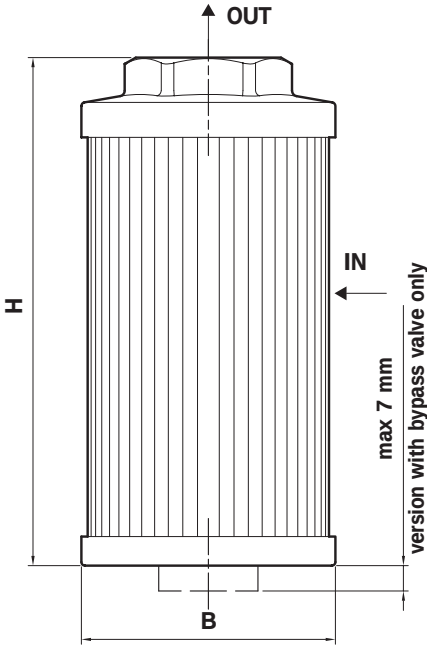
- To ISO 2943; valid for mineral oils (type HHHMHRHVHG to ISO 6743/4) and synthetic fluids (type HS-HFDR-HFDS-HFDU to ISO 6743/4).
- For aqueous emulsions (type HFAE-HFAS to ISO 6743/4) and other fluids different from those indicated, contact Engineering - Sales Department.

### Filter body Δp pressure drop

The curves are plotted using mineral oil reference viscosity 30 mm²/s (cSt) to ISO 3968.



Dimensions



| Size     | A          | B (mm) | H (mm) | A/F (mm) | Weight (kg.) |
|----------|------------|--------|--------|----------|--------------|
| 045-1 G1 | G 3/8"     |        |        |          | 0,15         |
| 045-1 G2 | 3/8" NPT   | 46     | 105    |          | 0,15         |
| 045-2 G1 | G 1/2"     |        |        |          | 0,19         |
| 045-2 G2 | 1/2" NPT   |        |        | 30       | 0,19         |
| 050-1 G1 | G 3/8"     |        |        |          | 0,11         |
| 050-1 G2 | 3/8" NPT   | 52     | 79     |          | 0,11         |
| 050-2 G1 | G 1/2"     |        |        |          | 0,11         |
| 050-2 G2 | 1/2" NPT   |        |        |          | 0,11         |
| 065-1 G1 | G 1/2"     |        |        |          | 0,19         |
| 065-1 G2 | 1/2" NPT   |        | 110    |          | 0,19         |
| 065-2 G1 | G 3/4"     |        |        |          | 0,22         |
| 065-2 G2 | 3/4" NPT   | 65     |        |          | 0,22         |
| 065-3 G1 | G 3/4"     |        |        |          | 0,24         |
| 065-3 G2 | 1" NPT     |        | 144    |          | 0,24         |
| 065-4 G1 | G 1"       |        |        |          | 0,22         |
| 065-4 G2 | 1" NPT     |        |        | 41       | 0,22         |
| 070-1 G1 | G 1/2"     |        |        |          | 0,18         |
| 070-1 G2 | 1/2" NPT   |        | 95     |          | 0,18         |
| 070-2 G1 | G 3/4"     |        |        |          | 0,17         |
| 070-2 G2 | 3/4" NPT   | 70     |        |          | 0,17         |
| 070-3 G1 | G 3/4"     |        |        |          | 0,22         |
| 070-3 G2 | 3/4" NPT   |        | 141    |          | 0,22         |
| 070-4 G1 | G 1"       |        |        |          | 0,24         |
| 070-4 G2 | 1" NPT     |        |        |          | 0,24         |
| 086-1 G1 | G 1 1/2"   |        |        |          | 0,33         |
| 086-1 G2 | 1 1/2" NPT |        | 143    |          | 0,33         |
| 086-2 G1 | G 2"       |        |        |          | 0,30         |
| 086-2 G2 | 2" NPT     |        |        |          | 0,30         |
| 086-3 G1 | G 1 1/2"   |        |        |          | 0,43         |
| 086-3 G2 | 1 1/2" NPT | 86     | 201    |          | 0,43         |
| 086-4 G1 | G 2"       |        |        |          | 0,40         |
| 086-4 G2 | 2" NPT     |        |        |          | 0,40         |
| 086-5 G1 | G 1 1/2"   |        |        |          | 0,53         |
| 086-5 G2 | 1 1/2" NPT |        | 261    |          | 0,53         |
| 086-6 G1 | G 2"       |        |        |          | 0,50         |
| 086-6 G2 | 2" NPT     |        |        |          | 0,50         |
| 100-1 G1 | G 1 1/4"   |        | 137    | 69       | 0,47         |
| 100-1 G2 | 1 1/4" NPT |        |        |          | 0,47         |
| 100-2 G1 | G1 1/4"    |        |        |          | 0,58         |
| 100-2 G2 | 1 1/4" NPT |        |        |          | 0,58         |
| 100-3 G1 | G 1 1/2"   |        |        |          | 0,55         |
| 100-3 G2 | 1 1/2" NPT | 99     | 227    |          | 0,55         |
| 100-4 G1 | G 2"       |        |        |          | 0,51         |
| 100-4 G2 | 2" NPT     |        |        |          | 0,51         |
| 100-5 G1 | G 1 1/2"   |        | 137    |          | 0,43         |
| 100-5 G2 | 1 1/2" NPT |        |        |          | 0,43         |
| 140-1 G1 | G 1 1/2"   |        |        |          | 0,70         |
| 140-1 G2 | 1 1/2" NPT |        | 160    |          | 0,70         |
| 140-2 G1 | G 2"       |        |        |          | 0,68         |
| 140-2 G2 | 2" NPT     |        |        |          | 0,68         |
| 140-3 G1 | G 2"       |        |        |          | 0,94         |
| 140-3 G2 | 2" NPT     | 130    | 262    |          | 0,94         |
| 140-4 G1 | G 2 1/2"   |        |        |          | 1,10         |
| 140-4 G2 | 2 1/2" NPT |        | 272    | 101      | 1,10         |
| 140-5 G1 | G 3"       |        |        |          | 1,0          |
| 140-5 G2 | 3" NPT     |        |        |          | 1,0          |
| 140-6 G1 | G 3"       |        | 330    |          | 1,17         |
| 140-6 G2 | 3" NPT     |        |        |          | 1,17         |

Suction  
filter

STR

Example: STR

| 1           | 2           | 3           | 4           | 5           |
|-------------|-------------|-------------|-------------|-------------|
| <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| 070-4       | S           | G1          | M90         | P01         |

| Box Qty | 1 - Part NO | Size   |
|---------|-------------|--------|
| 12      | 045-1       | 3/8"   |
| 12      | 045-2       | 1/2"   |
| 12      | 050-1       | 3/8"   |
| 12      | 050-2       | 1/2"   |
| 6       | 065-1       | 1/2"   |
| 6       | 065-2       | 3/4"   |
| 6       | 065-3       | 1"     |
| 6       | 065-4       | 1"     |
| 6       | 070-1       | 1/2"   |
| 6       | 070-2       | 3/4"   |
| 6       | 070-3       | 3/4"   |
| 6       | 070-4       | 1"     |
| 6       | 086-1       | 1 1/2" |
| 6       | 086-2       | 2"     |
| 6       | 086-3       | 1 1/2" |
| 6       | 086-4       | 2"     |
| 6       | 086-5       | 1 1/2" |
| 6       | 086-6       | 2"     |
| 6       | 100-1       | 1 1/4" |
| 6       | 100-2       | 1 1/4" |
| 6       | 100-3       | 1 1/2" |
| 6       | 100-4       | 2"     |
| 6       | 100-5       | 1 1/2" |
| -       | 140-1       | 1 1/2" |
| -       | 140-2       | 2"     |
| -       | 140-3       | 2"     |
| -       | 140-4       | 2 1/2" |
| -       | 140-5       | 3"     |
| -       | 140-6       | 3"     |

2 - Valve

|              |             |
|--------------|-------------|
| <div>S</div> | Without     |
| <div>B</div> | With bypass |

3 - Connection

|               |            |
|---------------|------------|
| <div>G1</div> | BSP thread |
| <div>G2</div> | NPT thread |

4 - Filter element

|                 |           |
|-----------------|-----------|
| <div>M60</div>  | Wire mesh |
| <div>M90</div>  | Wire mesh |
| <div>M250</div> | Wire mesh |

5 - Options

|                |             |
|----------------|-------------|
| <div>P01</div> | MP Standard |
|----------------|-------------|

# OIL FILLER AND AIR BREATHER FILLER CAPS



The complete series of oil filter and breather filler caps makes it possible to meet all market demands. Metal and plastic styles suitable for use on mobile equipment are available.

Filler caps perform a dual function, air filtration at the tank inlet and prefiltration of the fluid by means of the strainer, in order to prevent the ingress of foreign material into the tank during filling and top-up operations.

Correct operation of breather filters makes for longer life of the filter cartridges installed in the hydraulic circuit, and in applications where high level of contamination are present.

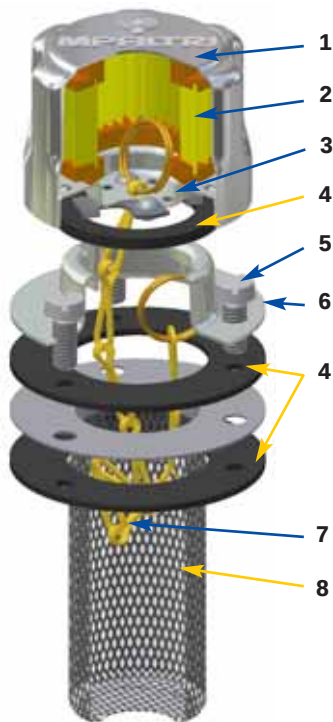
## **Temperature**

- from -25° to +100°C

## **Compatibility**

- NBR seals and Cork Gasket, compatible with:  
Mineral oils to ISO 2943 · aqueous emulsions  
Synthetic fluids, glycol water.
- FPM seals, compatible with:  
Synthetic fluids type HS-HFDR-HFDS-HFDU.

Dimensions



TA46 B (Materials)

- 1 - Cover: Chrome plated steel
- 2 - Breather filter: Resin impregnated cellulose
- 3 - 6 - Flange: Galvanised Steel
- 4 - Seals: NBR  
Cork Gasket
- 5 - Screws: Galvanised Steel
- 7 - Chain, ring: Brass
- 8 - Strainer: Galvanised Steel

Flow rates with Δp: 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 μm       | 150   |
| 10 μm      | 200   |

Weight

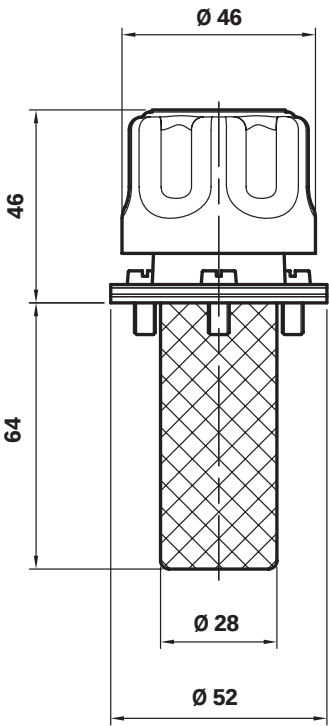
TA 46: 0,100 kg

TA 46 B

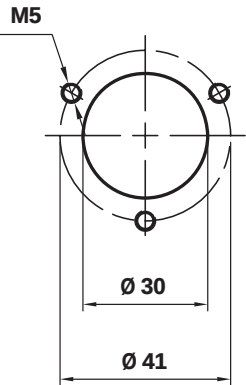
Bayonet connection  
Non-removable strainer



Bayonet connection



Reservoir  
holes



Ordering information

Filler caps  
series

TA46

Example: TA46

| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B                        | 03                       | A                        | 0                        | C                        | 1                        | P01                      |

1 - Connection to reservoir

|                          |                                |
|--------------------------|--------------------------------|
| <input type="checkbox"/> | Flange with bayonet connection |
|--------------------------|--------------------------------|

2 - Filter element

|                          |       |
|--------------------------|-------|
| <input type="checkbox"/> | 3 μm  |
| <input type="checkbox"/> | 10 μm |

3 - Seals

|                          |             |
|--------------------------|-------------|
| <input type="checkbox"/> | NBR         |
| <input type="checkbox"/> | Cork Gasket |

4 - Valves

|                          |         |
|--------------------------|---------|
| <input type="checkbox"/> | Without |
|--------------------------|---------|

5 - Variants

|                          |            |
|--------------------------|------------|
| <input type="checkbox"/> | Standard   |
| <input type="checkbox"/> | With chain |

6 - Strainer

|                          |                  |
|--------------------------|------------------|
| <input type="checkbox"/> | Without strainer |
| <input type="checkbox"/> | L= 65 mm         |

7 - Options

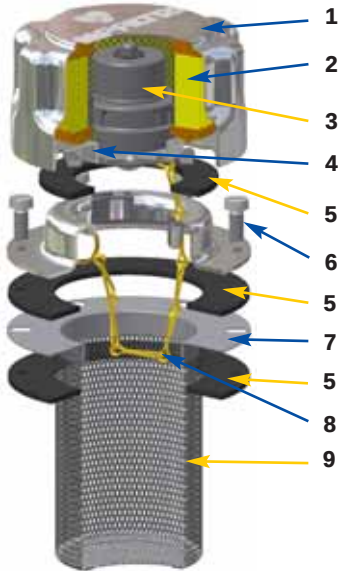
|                          |             |
|--------------------------|-------------|
| <input type="checkbox"/> | MP Standard |
|--------------------------|-------------|

Series

TA 80

Metal filler /

breather filler caps



- TA80 B / D (Materials)
- 1 - Cover: Chrome plated steel
  - 2 - Breather filter: Resin impregnated cellulose
  - 3 - Pressurisation valve:
    - Bodies: Nylon
    - End cap-disk: Galvanised Steel
    - Spring: Steel
    - Seals: NBR
  - 4 - Flange and anti-slosh feature: Galvanised Steel
  - 5 - Seals: Cork Gasket
    - NBR
  - 6 - Screws and washers: Galvanised Steel
  - 7 - Flange: Galvanised Steel
  - 8 - Chain, ring: Brass
  - 9 - Strainer TA80B: Galvanised Steel

Flow rates with  $\Delta p$ : 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 $\mu m$  | 450   |
| 10 $\mu m$ | 550   |

**Weight**  
 Strainer L 80 mm: 0,330 Kg  
 Strainer L 150 mm: 0,350 Kg

TA 80 B

Bayonet connection

Non-removable strainer



TA 80 B

Bayonet connection

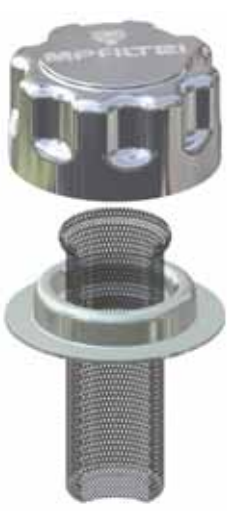
With Padlock Hasp



TA 80 D

Bayonet connection

Removable strainer



TA80B00....P01

Bayonet connection

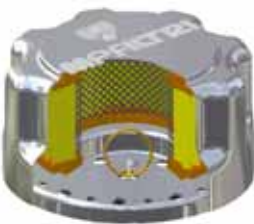
Closed filler cap without filter element



TA80B10....P01

Bayonet connection

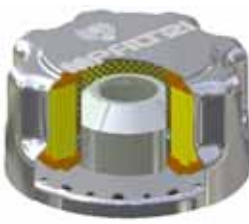
Filler cap with filter element



TA80B03.9..P01

Bayonet connection

Filler cap with anti-slosh feature and filter element



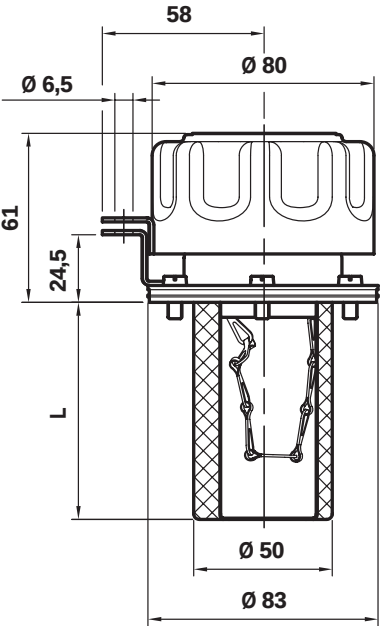
TA80B10.1..P01

Bayonet connection

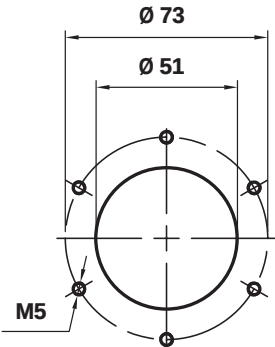
Filler cap with pressurisation valve and filter element



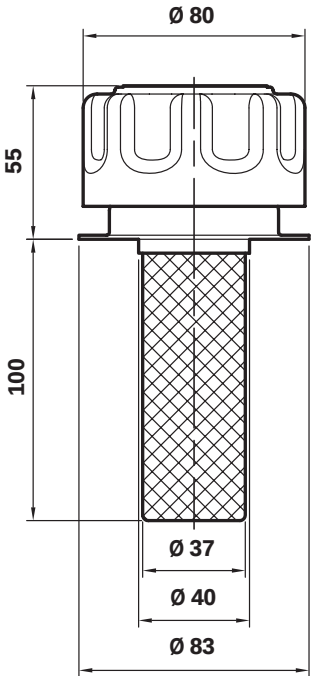
Bayonet connection



Reservoir holes



Weld flange



Ordering information

Filler caps series

TA80

Example: TA80

|                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B                        | 03                       | A                        | 1                        | L                        | 2                        | P01                      |

1 - Connection to reservoir

|                            |                                |
|----------------------------|--------------------------------|
| <input type="checkbox"/> B | Flange with bayonet connection |
| <input type="checkbox"/> D | Weld flange                    |

2 - Filter element

|                             |                                   |
|-----------------------------|-----------------------------------|
| <input type="checkbox"/> 00 | Without filter (Blank filler cap) |
| <input type="checkbox"/> 03 | 3 µm                              |
| <input type="checkbox"/> 10 | 10 µm                             |

3 - Seals

|                            |             |
|----------------------------|-------------|
| <input type="checkbox"/> A | NBR         |
| <input type="checkbox"/> B | Cork Gasket |

4 - Valves

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <input type="checkbox"/> 0 | Without                                               |
| <input type="checkbox"/> 1 | 0,3 bar pressurisation valve<br>(only with seals NBR) |
| <input type="checkbox"/> 2 | 0,7 bar pressurisation valve<br>(only with seals NBR) |
| <input type="checkbox"/> 9 | Anti-slosh feature (only with filter element 3 µm)    |

5 - Variants

|                            |                                     |
|----------------------------|-------------------------------------|
| <input type="checkbox"/> 0 | Standard                            |
| <input type="checkbox"/> L | With Padlock Hasp (B versions only) |

6 - Strainer

|                            |                             |
|----------------------------|-----------------------------|
| <input type="checkbox"/> 0 | Without strainer            |
| <input type="checkbox"/> 1 | L= 80 mm (B versions only)  |
| <input type="checkbox"/> 2 | L= 150 mm (B versions only) |
| <input type="checkbox"/> 3 | L= 100 mm (D versions only) |

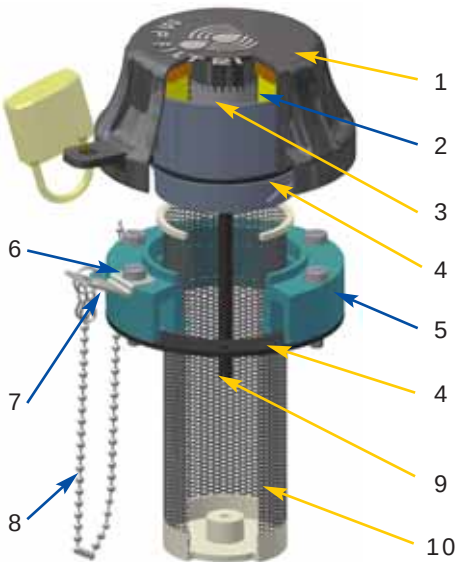
7 - Options

|                              |             |
|------------------------------|-------------|
| <input type="checkbox"/> P01 | MP Standard |
|------------------------------|-------------|

Series

TAP 90

Nylon filler /  
breather filler caps



- TAP90 (Materials)
- 1 - Cover/ringnut: Nylon
  - 2 - Breather filter: Resin impregnated cellulose  
Polyurethane
  - 3 - Pressurisation valve:  
Nylon  
Galvanised Steel  
NBR
  - 4 - Seal: NBR
  - 5 - Flange B: Nylon
  - 6 - Screws: Galvanised Steel
  - 7 - Padlock hasp: Galvanised Steel
  - 8 - Chain, ring: Brass
  - 9 - Dipstick: Phosphated steel
  - 10 - Strainer: Galvanised Steel/Nylon

Flow rate with Δp: 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 μm       | 450   |
| 10 μm      | 550   |

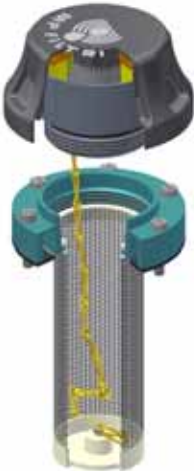
Weight  
Strainer L 120 mm: 0,180 Kg  
Strainer L 250 mm: 0,210 Kg

**TAP90 B.....**  
Flange with  
bayonet connection



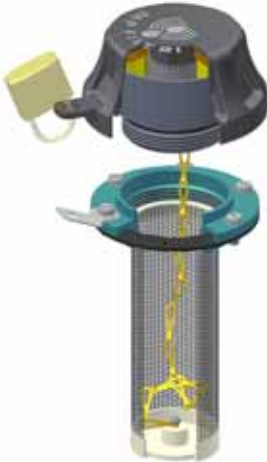
External chain

**TAP90 R.....**  
Flange with  
M52x2 connection



Internal chain

**TAP90 F.....**  
Flange with spigot  
DIN 24557 Connection  
M52x2



Internal chain

**TAP90 C.....**  
Weld riser  
Connection  
M52x2



Weld riser in  
galvanised steel,  
internal chain

**TAP90 B-C-R-F**  
With dipstick



**TAP90 B-C-R-F**  
Closed filler cap without  
filter element



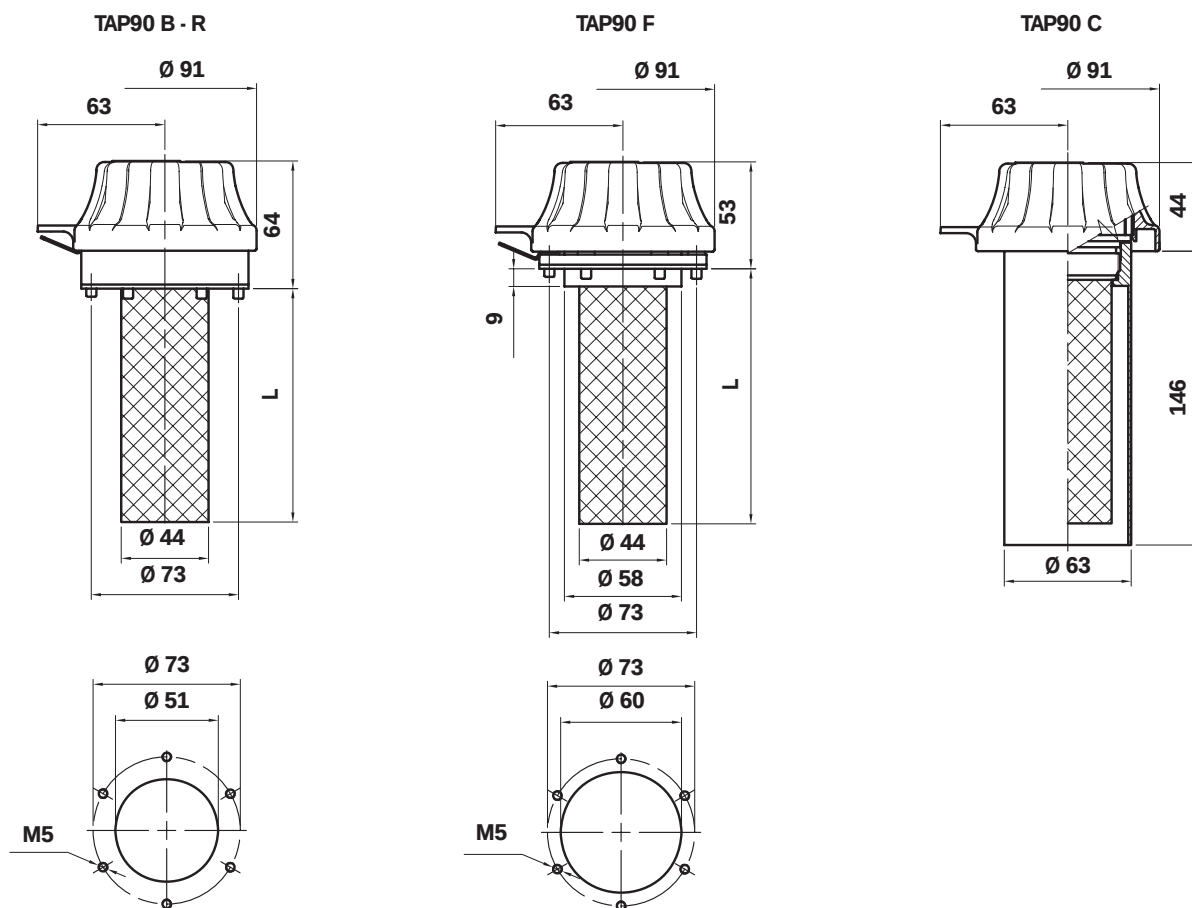
**TAP90 B-C-R-F**  
Filler cap with filter  
element



**TAP90 B-C-R-F**  
Filler cap with  
pressurisation valve



# Dimensions



## Filler caps series TAP90

Example: TAP90

| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B                        | 03                       | A                        | 1                        | 0                        | 5                        | P01                      |

### 1 - Connection to reservoir

|                            |                                                               |
|----------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> B | Flange with bayonet connection                                |
| <input type="checkbox"/> C | Weld riser (M52X2 version only)                               |
| <input type="checkbox"/> F | Flange with threaded M52x2 connection Spigot Ø 60 (DIN 24557) |
| <input type="checkbox"/> R | Flange with M52X2 threaded connection                         |

### 2 - Filter element

|                             |                                   |
|-----------------------------|-----------------------------------|
| <input type="checkbox"/> 00 | Without filter (Blank filler cap) |
| <input type="checkbox"/> 03 | 3 µm                              |
| <input type="checkbox"/> 10 | 10 µm                             |

### 3 - Seals

|                            |     |
|----------------------------|-----|
| <input type="checkbox"/> A | NBR |
|----------------------------|-----|

### 4 - Valves

|                            |                              |
|----------------------------|------------------------------|
| <input type="checkbox"/> 0 | Without                      |
| <input type="checkbox"/> 1 | 0.3 bar pressurisation valve |
| <input type="checkbox"/> 2 | 0.7 bar pressurisation valve |

In the version with chain the L= 120 strainer features a press fitting.

### 5 - Variantes

|                            |                                                                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 0 | Standard                                                                                                                                     |
| <input type="checkbox"/> L | With Padlock Hasp                                                                                                                            |
| <input type="checkbox"/> A | With Dipstick                                                                                                                                |
| <input type="checkbox"/> C | With Chain external for connection B<br>With Chain internal for connection C-F-R (with strainer only)                                        |
| <input type="checkbox"/> D | With Padlock Hasp and chain external for raccordement B<br>With Padlock Hasp and chain internal for raccordements C-F-R (with strainer only) |
| <input type="checkbox"/> E | Dipstick and chain external (only connection B)                                                                                              |
| <input type="checkbox"/> F | Dipstick and Padlock Hasp                                                                                                                    |
| <input type="checkbox"/> G | Dipstick, Padlock Hasp and chain external (only connection B)                                                                                |

### 6 - Strainer

|                            |                  |
|----------------------------|------------------|
| <input type="checkbox"/> 0 | Without strainer |
| <input type="checkbox"/> 1 | L= 120 mm        |
| <input type="checkbox"/> 3 | L= 250 mm        |

INOX strainer on request

### 7 - Options

|                              |             |
|------------------------------|-------------|
| <input type="checkbox"/> P01 | MP Standard |
|------------------------------|-------------|

# Series TAP 114

Nylon filler /  
breather caps



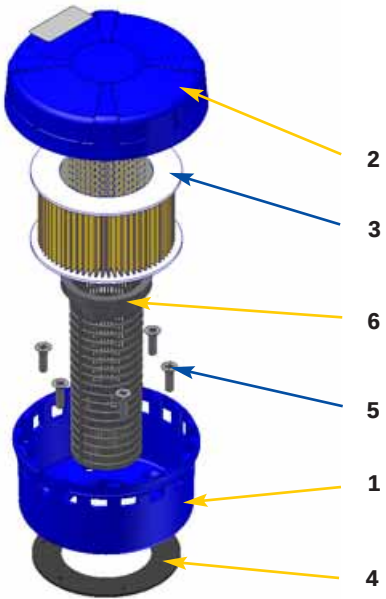
Example  
TAP114

Length 1



Example  
TAP114

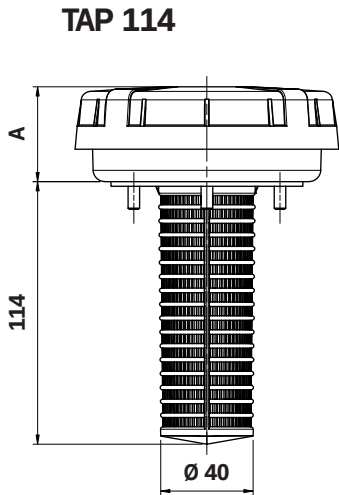
Length 2



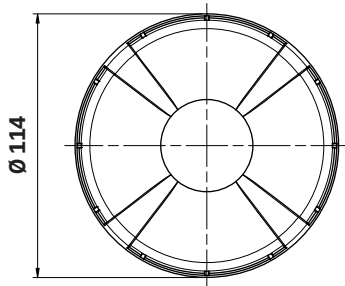
TAP114 (Materials)

- 1 - Flange: Nylon
- 2 - Cover: Nylon
- 3 - Breather filter: Resin impregnated cellulose
- 4 - Seal: NBR
- 5 - Screws: Galvanised Steel
- 6 - Strainer: Nylon

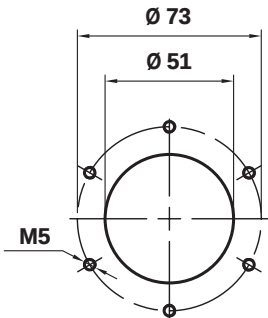
## Dimensions



| Lenght | A  |
|--------|----|
| 1      | 41 |
| 2      | 56 |



### Reservoir holes

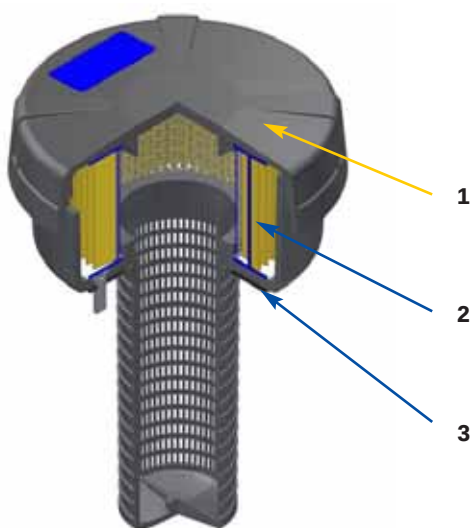


Flow rates with  $\Delta p$ : 0,02 bar

| Length 1   |         |
|------------|---------|
| Filtration | l / min |
| 10 $\mu m$ | 1450    |

| Length 2   |         |
|------------|---------|
| Filtration | l / min |
| 10 $\mu m$ | 1600    |

| Weight              |
|---------------------|
| TAP 114 1: 0,185 Kg |
| TAP 114 2: 0,200 Kg |



TAP 114 spare parts

| Item. | Description         | Qty | Filler cap series<br>TAP 114 |                 |
|-------|---------------------|-----|------------------------------|-----------------|
| 1     | Complete filler cap | 1   | See order table              |                 |
| 2     | Filter Element      | 1   | See order table              |                 |
| 3     | Seal                | 1   | NBR<br>01026306              | FPM<br>01026332 |

Ordering information

Filler cap series  
TAP114  
Example: TAP114

1

2

3

4

5

2

L10

A

1

P01

Filter Element  
A114  
Example: A114

1

2

5

2

L10

P01

1 - Length

1

2

2 - Filter element

L10

Resin impregnated cellulose 10 µm

3 - Seal

A

NBR

4 - Strainer

0

Without strainer

1

L= 114 mm

5 - Options

P01

MP Filtri standard

# Series TAP 115

Nylon filler /  
breather filler caps



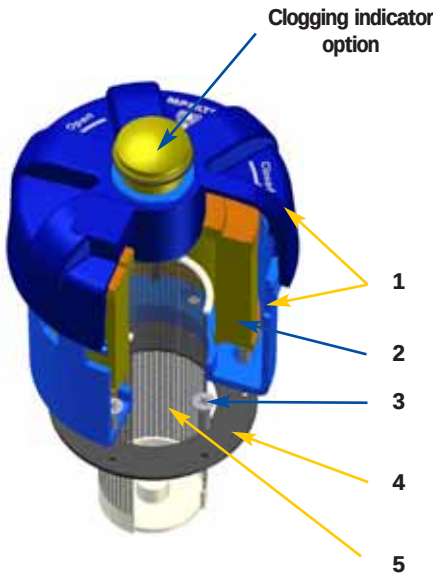
Example  
TAP115

Length 1  
Without Indicator



Example  
TAP115

Length 2  
With Indicator



TAP115 (Materials)

- 1 - Cover/Flange: Nylon
- 2 - Breather filter: Resin impregnated cellulose/Microfibre
- 3 - Seals: NBR  
FPM
- 4 - Screws: Galvanised Steel
- 5 - Strainer: Galvanised Steel/Nylon

Clogging indicator

Set pressure: - 0,062 bar ± 10 %

Manual reset

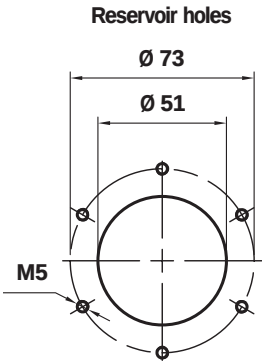
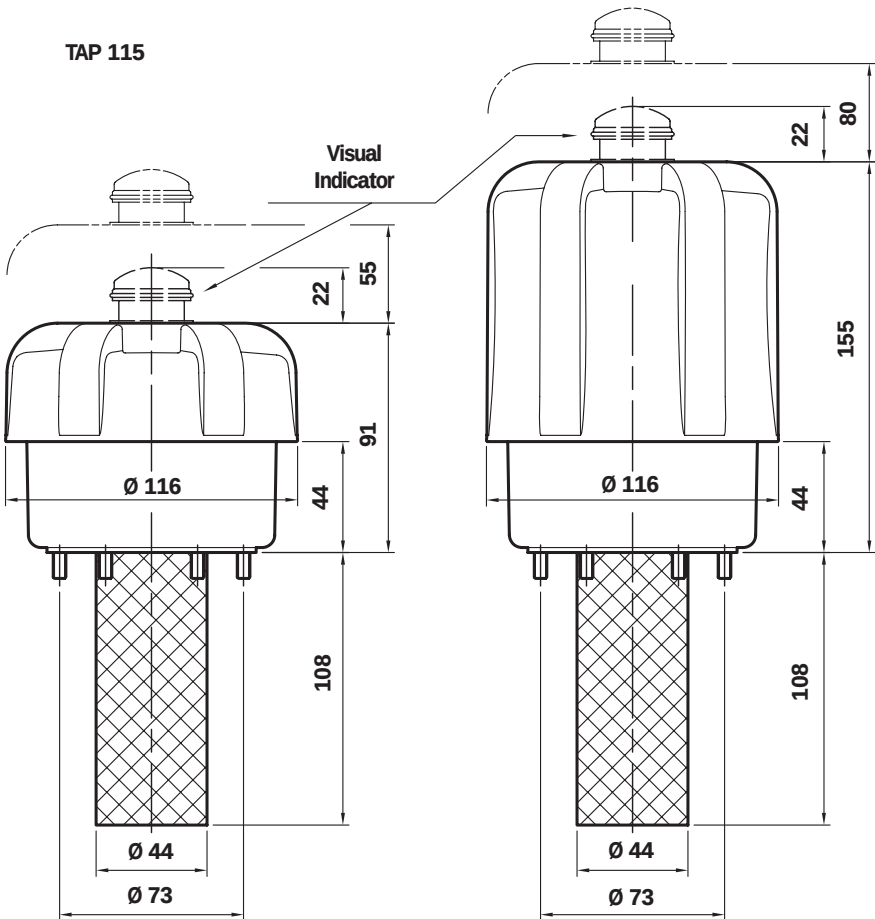
## Dimensions

Flow rates with Δp: 0,02 bar

| Length 1   |       |
|------------|-------|
| Filtration | l/min |
| 3 µm       | 1600  |
| 10 µm      | 2000  |
| Length 2   |       |
| Filtration | l/min |
| 3 µm       | 2150  |
| 10 µm      | 2150  |

Weight

TAP 115 1: 0,460 Kg  
TAP 115 2: 0,585 Kg



Changing the filter  
element in  
TAP 115 series filler caps

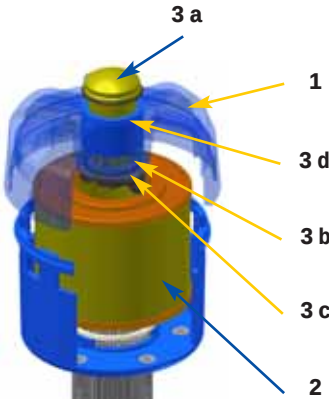
- 1 Thoroughly clean the filler cap and adjacent parts.
- 2 Unscrew and raise the cover.



- 3 Renew the filter element and screw the cover fully home into the cartridge (DO NOT OVER TIGHTEN).

TAP 115 spare parts

| Pos. | Description              | Q.ty | Filler cap series TAP 115 |                 |
|------|--------------------------|------|---------------------------|-----------------|
| 1    | Complete filler cap      | 1    | See order table           |                 |
| 2    | Filter Element           | 1    | See order table           |                 |
| 3    | Indicator Kit            | 1    | NBR<br>02005187           | FPM<br>02005188 |
| 3a   | Visual indicator         | 1    | S62P01                    |                 |
| 3b   | Seal                     | 1    | OR 3106 Ø 26,64 X 2,62    |                 |
| 3c   | Indicator securing screw | 1    | 01022670                  |                 |
| 3d   | O-R indicator            | 1    | O-R 2112 Ø 28,3 x 1,78    |                 |



Ordering information

|                                 |                          |                          |                          |                          |                          |                          |                          |
|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Filler caps<br>series<br>TAP115 | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
|                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                                 | 2                        | F                        | A03                      | A                        | 1                        | B                        | P01                      |
| Example: TAP115                 |                          |                          |                          |                          |                          |                          |                          |
| Filter<br>Element<br>A115       | 1                        | 3                        | 7                        |                          |                          |                          |                          |
|                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                          |                          |                          |                          |
|                                 | 2                        | A03                      | P01                      |                          |                          |                          |                          |
| Example: A115                   |                          |                          |                          |                          |                          |                          |                          |

1 - Length

☐ 1

☐ 2

2 - Connection

☐ F

 Flange

3 - Filter element

☐ L10

 Resin impregnated cellulose 10 µm

☐ A03

Inorganic microfibre 3 µm

4 - Seals

☐ A

 NBR

☐ V

FPM

5 - Strainer

☐ 0

 Without

☐ 1

L= 120 mm

6 - Indicator

☐ A

 Without

☐ B

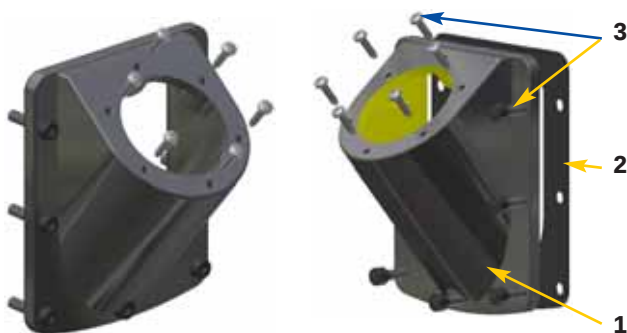
 Visual indicator

7 - Options

☐ P01

 MP Standard

**Series SMF**  
**Nylon inclined flange**



## SMF (Materials)

**1 - Flange: Nylon**

## 2 - Seals: NBR

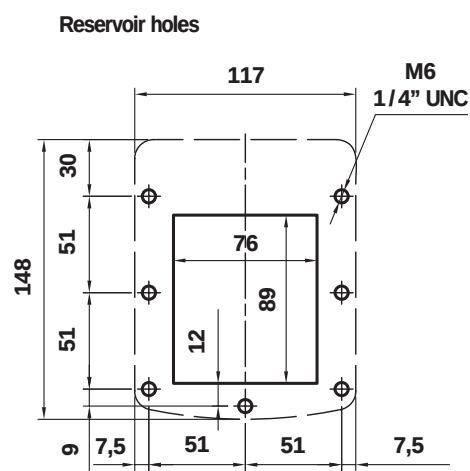
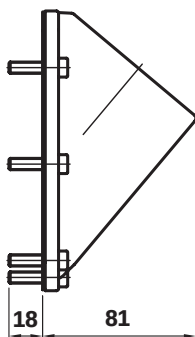
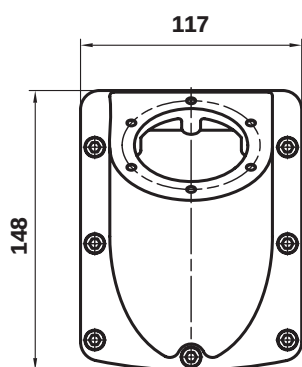
### Cork Gasket

**3 - Screws: Galvanised/Phosphated steel**

## Weight

SMF: 0,325 Kg

## Dimensions



## Ordering information

|                       | 1                                                                                   | 2                                                                                   | 3                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>SMF 1</b>          |  |  |  |
| <b>Example: SMF 1</b> | M                                                                                   | A                                                                                   | P01                                                                                 |

### 1 - Connection to reservoir



### Fixing with Metric screws

### Fixing with UNC screws

## 2 - Seals



NBR

### Cork Gasket

### 3 - Options



MP Standard

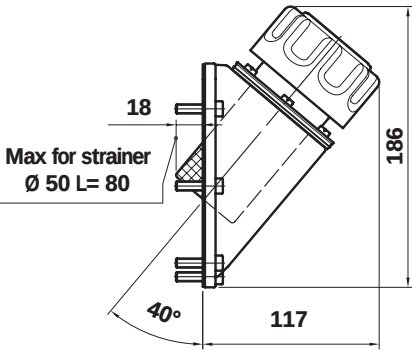
- Nylon inclined flange
- Metal filler / breather filler caps

Series

TAF 80

Dimensions

TAF 80 B



For tank hole see “SMF 1”  
page 18.



Flow rate with Δp: 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 µm       | 450   |
| 10 µm      | 550   |

Weight  
TAF 80: 0,655 Kg

Ordering information

TAF80

Example: TAF80

1

2

3

4

5

6

7

8

B

03

A

1

L

1

M

P01

1 - Filler cap connection

B

Flange with bayonet connection

2 - Filter element

00

03

10

Without filter (Blank filler cap)

3 µm

10 µm

3 - Seals

A

B

NBR

Cork Gasket

4 - Pressurisation valve

0

1

2

9

Without

0.3 bar pressurisation valve

0.7 bar pressurisation valve

Anti-slosh feature (only with filter element 3 µm)

Only with seal NBR

5 - Variants

0

L

Standard

With Padlock Hasp

6 - Strainer

0

1

Without

L= 80 mm

7 - Connection to reservoir

M

U

Fixing with Metric screws

Fixing with UNC screws

8 - Options

P01

MP Standard

Series

TAF 90

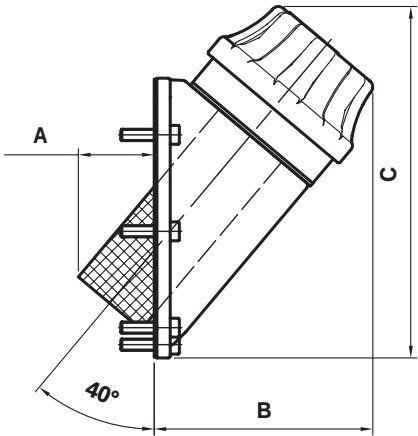
- Nylon inclined flange
- Nylon filler / breather filler caps

Dimensions

TAF 90 ...



TAF 90 B - R - F



Flow rate with  $\Delta p$ : 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 $\mu m$  | 450   |
| 10 $\mu m$ | 550   |

Weight

TAF 90: 0,535 Kg

| TYPE        | A  | B   | C   |
|-------------|----|-----|-----|
| TAF90 B - R | 40 | 116 | 186 |
| TAF90 F     | 48 | 109 | 178 |

For tank hole see “SMF 1”  
page 18.

Ordering information

TAF90

1

2

3

4

5

6

7

8

Example: TAF90

B

03

A

1

L

1

M

P01

1 - Filler cap connection

- B

Flange with bayonet connection
- F

Flange with threaded connection M52x2  
Spigot  $\varnothing$  60 (DIN 24557)
- R

Flange with threaded connection M52x2

2 - Filter element

- 00

Without filter (Blank filler cap)
- 03

3  $\mu m$
- 10

10  $\mu m$

3 - Seals

- A

NBR

4 - Pressurisation valve

- 0

Without
- 1

0.3 bar pressurisation valve
- 2

0.7 bar pressurisation valve

5 - Variants

- 0

Standard
- L

With Padlock Hasp
- C

With Chain external for connection **B**  
With Chain internal for connection **F-R** (with strainer only)
- D

With Padlock Hasp and chain external for raccordement **B**  
With Padlock Hasp and chain internal for raccordements **F-R** (with strainer only)

6 - Strainer

- 0

Without
- 1

L= 120 mm

7 - Connection to reservoir

- M

Fixing with Metric screws
- U

Fixing with UNC screws

8 - Options

- P01

MP Standard

- Nylon inclined flange
- Nylon filler / breather filler caps

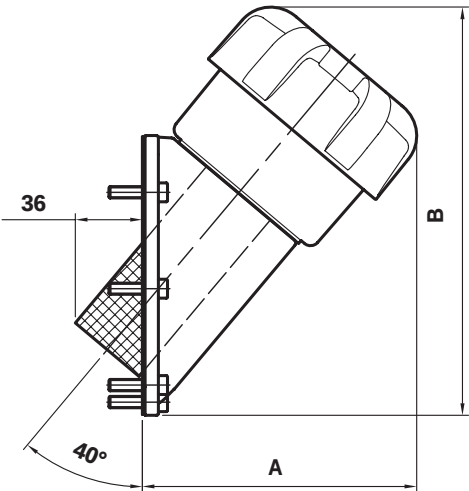
# Series TAF 115

## Dimensions

TAF 1151 F



TAF 115



Flow rate with  $\Delta p$ : 0,02 bar

| Length 1            |       | Length 2            |       |
|---------------------|-------|---------------------|-------|
| Filtration          | l/min | Filtration          | l/min |
| 3 $\mu m$           | 1600  | 3 $\mu m$           | 2150  |
| 10 $\mu m$          | 2000  | 10 $\mu m$          | 2150  |
| Weight              |       | Weight              |       |
| TAF 115 1: 0,785 Kg |       | TAF 115 2: 0,910 Kg |       |

| Length | A   | B   |
|--------|-----|-----|
| 1      | 145 | 216 |
| 2      | 187 | 266 |

For tank hole see “SMF 1”  
page 18.

## Ordering information

|                 |                          |                          |                          |                          |                          |                          |                          |                          |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>TAF115</b>   | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        | 8                        |
|                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: TAF115 | 2                        | F                        | A03                      | A                        | 1                        | B                        | M                        | P01                      |

1 - Filler cap length

1

2

2 - Connection

F

Flange

3 - Filter element

L10

Resin impregnated cellulose 10  $\mu m$

A03

Inorganic microfibre 3  $\mu m$

4 - Seals

A

NBR

V

FPM

5 - Strainer

0

Without

1

L= 120 mm

6 - Indicator

A

Without

B

Visual indicator

7 - Connection to reservoir

M

Fixing with Metric screws

U

Fixing with UNC screws

8 - Options

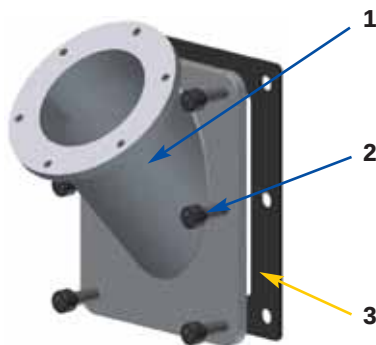
P01

MP Standard

# Series SML

## Aluminium inclined flange

Aluminium inclined  
flange



SML (Materials)

1 - Flange: Aluminium

2 - Screws: Phosphated steel

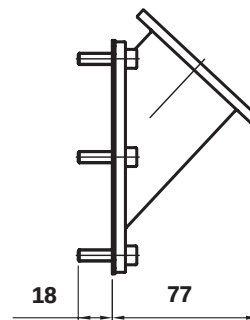
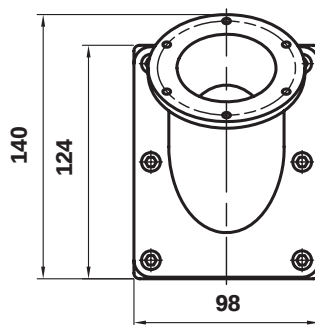
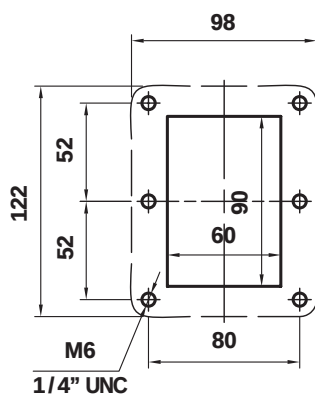
3 - Seals: NBR

Cork Gasket

Weight

SML: 0,380 Kg

## Dimensions



## Ordering information

SML 1      1      2      3  
Example: SML 1    M    A    P01

### 1 - Connection to reservoir



Fixing with Metric screws

Fixing with UNC screws

### 2 - Seals



NBR

Cork Gasket

### 3 - Options



MP Standard

- Aluminium inclined flange
- Metal filler / breather filler caps

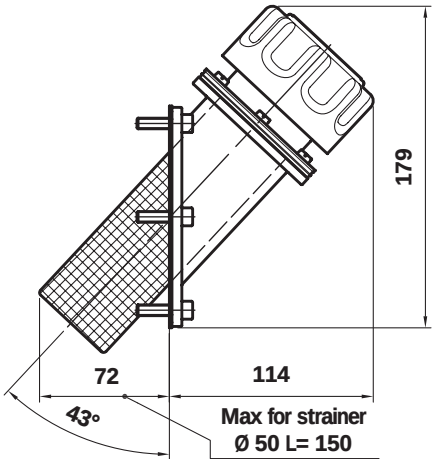
Series

TAL 80

Dimensions



TAL 80 B



For tank hole see “SML 1”  
page 22.

Flow rate with Δp: 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 µm       | 450   |
| 10 µm      | 550   |

Weight

TAL 80 1: 0,710 Kg

Ordering information

|                |             |             |             |             |             |             |             |             |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                | 1           | 2           | 3           | 4           | 5           | 6           | 7           | 8           |
| TAL80          | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| Example: TAL80 | B           | 03          | A           | 1           | L           | 2           | M           | P01         |

1 - Filler cap connection

|              |                                |
|--------------|--------------------------------|
| <div>B</div> | Flange with bayonet connection |
|--------------|--------------------------------|

2 - Filter element

|               |                                   |
|---------------|-----------------------------------|
| <div>00</div> | Without filter (Blank filler cap) |
| <div>03</div> | 3 µm                              |
| <div>10</div> | 10 µm                             |

3 - Seals

|              |             |
|--------------|-------------|
| <div>A</div> | NBR         |
| <div>B</div> | Cork Gasket |

4 - Pressurisation valve

|              |                                                    |                      |
|--------------|----------------------------------------------------|----------------------|
| <div>0</div> | Without                                            | } Only with seal NBR |
| <div>1</div> | 0.3 bar pressurisation valve                       |                      |
| <div>2</div> | 0.7 bar pressurisation valve                       |                      |
| <div>9</div> | Anti-slosh feature (only with filter element 3 µm) |                      |

5 - Variants

|              |                   |
|--------------|-------------------|
| <div>0</div> | Standard          |
| <div>L</div> | With padlock hasp |

6 - Strainer

|              |           |
|--------------|-----------|
| <div>0</div> | Without   |
| <div>1</div> | L= 80 mm  |
| <div>2</div> | L= 150 mm |

7 - Connection to reservoir

|              |                           |
|--------------|---------------------------|
| <div>M</div> | Fixing with Metric screws |
| <div>U</div> | Fixing with UNC screws    |

8 - Options

|                |             |
|----------------|-------------|
| <div>P01</div> | MP Standard |
|----------------|-------------|

# Series TAL 90

## Dimensions

TAL 90 ...



Flow rate with  $\Delta p$ : 0,02 bar

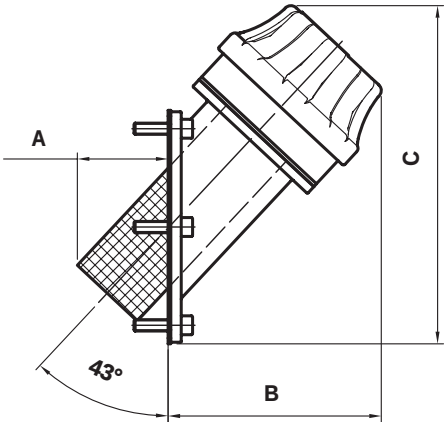
| Filtration | l / min |
|------------|---------|
| 3 $\mu m$  | 450     |
| 10 $\mu m$ | 550     |

Weight

TAL 90: 0,560 Kg

- Aluminium inclined flange
- Nylon filler / breather filler caps

TAL 90 B - R - F



| TYPE        | A  | B   | C   |
|-------------|----|-----|-----|
| TAL90 B - R | 48 | 113 | 179 |
| TAL90 F     | 56 | 106 | 171 |

For tank hole see "SML 1" page 22.

## Ordering information

|                |                          |                          |                          |                          |                          |                          |                          |                          |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| TAL90          | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        | 8                        |
|                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: TAL90 | B                        | 03                       | A                        | 1                        | L                        | 1                        | M                        | P01                      |

### 1 - Filler cap Connection

|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| <input type="checkbox"/> B | Flange with bayonet connection                                            |
| <input type="checkbox"/> F | Flange with threaded connection M52x2 Spigot $\varnothing$ 60 (DIN 24557) |
| <input type="checkbox"/> R | Flange with threaded connection M52x2                                     |

### 2 - Filter element

|                             |                                   |
|-----------------------------|-----------------------------------|
| <input type="checkbox"/> 00 | Without filter (Blank filler cap) |
| <input type="checkbox"/> 03 | 3 $\mu m$                         |
| <input type="checkbox"/> 10 | 10 $\mu m$                        |

### 3 - Seals

|                            |     |
|----------------------------|-----|
| <input type="checkbox"/> A | NBR |
|----------------------------|-----|

### 4 - Pressurisation valve

|                            |                              |
|----------------------------|------------------------------|
| <input type="checkbox"/> 0 | Without                      |
| <input type="checkbox"/> 1 | 0.3 bar pressurisation valve |
| <input type="checkbox"/> 2 | 0.7 bar pressurisation valve |

### 5 - Variants

|                            |                                                                                                                                            |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 0 | Standard                                                                                                                                   |
| <input type="checkbox"/> L | With Padlock Hasp                                                                                                                          |
| <input type="checkbox"/> C | With Chain external for connection B<br>With Chain internal for connection F-R (with strainer only)                                        |
| <input type="checkbox"/> D | With Padlock Hasp and chain external for raccordement B<br>With Padlock Hasp and chain internal for raccordements F-R (with strainer only) |

### 6 - Strainer

|                            |           |
|----------------------------|-----------|
| <input type="checkbox"/> 0 | Without   |
| <input type="checkbox"/> 1 | L= 120 mm |

### 7 - Connection to reservoir

|                            |                           |
|----------------------------|---------------------------|
| <input type="checkbox"/> M | Fixing with Metric screws |
| <input type="checkbox"/> U | Fixing with UNC screws    |

### 8 - Options

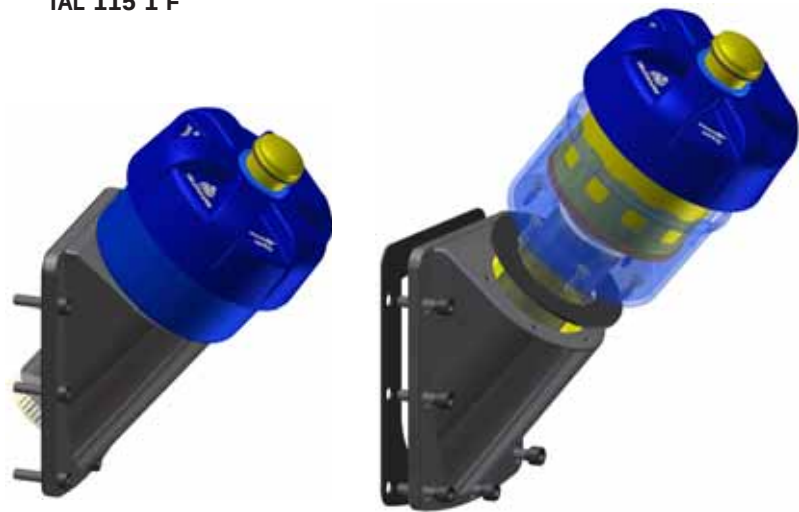
|                              |             |
|------------------------------|-------------|
| <input type="checkbox"/> P01 | MP Standard |
|------------------------------|-------------|

- Aluminium inclined flange
- Nylon filler / breather filler caps

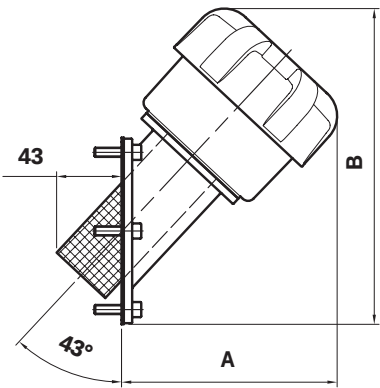
# Series TAL 115

## Dimensions

TAL 115 1 F



TAL 115



Flow rate with  $\Delta p$ : 0,02 bar

| Length 1            |       | Length 2            |       |
|---------------------|-------|---------------------|-------|
| Filtration          | l/min | Filtration          | l/min |
| 3 $\mu m$           | 1600  | 3 $\mu m$           | 2150  |
| 10 $\mu m$          | 2000  | 10 $\mu m$          | 2150  |
| Weight              |       | Weight              |       |
| TAL 115 1: 0,840 Kg |       | TAL 115 2: 0,965 Kg |       |

| Length | A   | B   |
|--------|-----|-----|
| 1      | 143 | 209 |
| 2      | 187 | 257 |

For tank hole see "SML 1"  
page 22.

## Ordering information

| TAL115          | 1 | 2 | 3   | 4 | 5 | 6 | 7 | 8   |
|-----------------|---|---|-----|---|---|---|---|-----|
| Example: TAL115 | 2 | F | A03 | A | 1 | B | M | P01 |

### 1 - Filler cap length

|   |
|---|
| 1 |
| 2 |

### 2 - Connection

|   |        |
|---|--------|
| F | Flange |
|---|--------|

### 3 - Filter element

|     |                                        |
|-----|----------------------------------------|
| L10 | Resin impregnated cellulose 10 $\mu m$ |
| A03 | Inorganic microfibre 3 $\mu m$         |

### 4 - Seals

|   |     |
|---|-----|
| A | NBR |
| V | FPM |

### 5 - Strainer

|   |           |
|---|-----------|
| 0 | Without   |
| 1 | L= 120 mm |

### 6 - Indicator

|   |                  |
|---|------------------|
| A | Without          |
| B | Visual indicator |

### 7 - Connection to reservoir

|   |                           |
|---|---------------------------|
| M | Fixing with Metric screws |
| U | Fixing with UNC screws    |

### 8 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Series

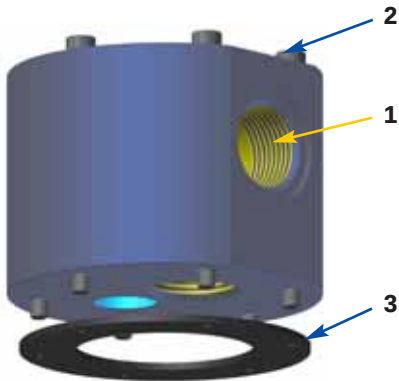
ATS

Universal adapter for oil filling to reservoir.

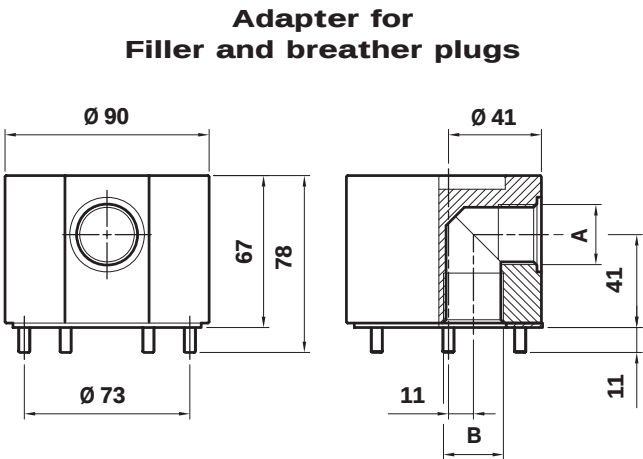
Possible use with oil filter/air breather filler caps type:

- TA 80
- TAP 90
- TAP 115
- SCS 100 F

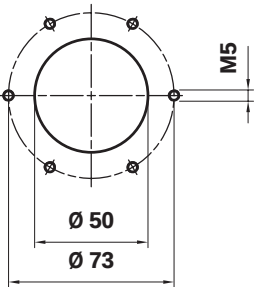
Dimensions



- ATS (Materials)
- 1 - Adapter: Anodised Aluminium
  - 2 - Screws: Steel
  - 3 - Seals: NBR  
FPM  
Cork Gasket
- Weight  
ATS: 1 Kg



Reservoir  
holes



| Connection | A      | B             |
|------------|--------|---------------|
| G1         | G 3/4" | G 3/4"        |
| G2         | SAE 12 | 1 1/16" 12 UN |

Ordering information

Adapter for  
filler caps  
ATS 1

Example: ATS 1

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| 1                    | 2                    | 3                    |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| G1                   | A                    | P01                  |

1 - Connection

|                      |                        |
|----------------------|------------------------|
| <input type="text"/> | G 3/4"                 |
| <input type="text"/> | SAE 20 (1 1/16" 12 UN) |

2 - Seals

|                      |             |
|----------------------|-------------|
| <input type="text"/> | NBR         |
| <input type="text"/> | Cork Gasket |
| <input type="text"/> | FPM         |

3 - Options

|                      |             |
|----------------------|-------------|
| <input type="text"/> | MP Standard |
|----------------------|-------------|

# AIR BREATHES FILTERS



The comprehensive series of breather filters makes it possible to meet all market demands. Metal and plastic styles suitable for use on mobile equipment are available.

The function of breather filters is to intercept environmental contamination.

The correct use of breather filters ensures longer life of filter cartridges installed in the hydraulic circuit, and in applications where high level of contamination are present.

The use of breather filters calls for the simultaneous installation of plugs for filling and topping up fluids; it is recommended to use plugs complete with strainer for correct prefiltration of the fluid. If the filler plug is equipped with a filter, the filtration degree must be the same as that of the breather filter.

## Temperature

- from -25° to +100°C

## Compatibility

- NBR seals and Cork Gasket, compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, glycol water.
- FPM seals, compatible with:  
Synthetic fluids type HS-HFDR-HFDS-HFDU.

Ordering information

TA46G-N...P01

With filter



Flow rate with Δp: 0,02 bar

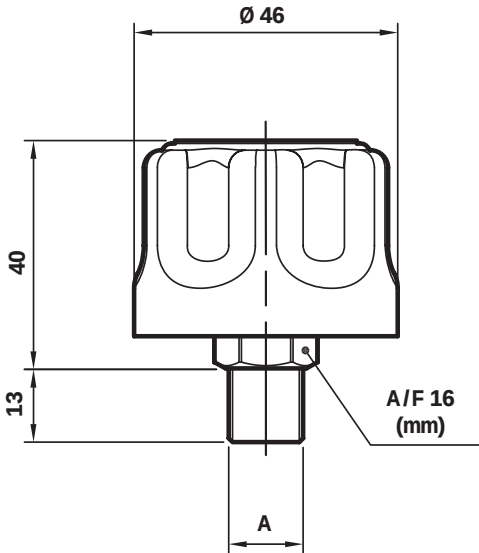
| Filtration | l/min |
|------------|-------|
| 3 μm       | 150   |
| 10 μm      | 200   |

Weight

TA 46: 0,110 kg

Dimensions

Threaded connection



| Connection | A        |
|------------|----------|
| G          | G 1/4"   |
| N          | 1/4" NPT |

| Breather filter | 1                        | 2                        | 3                        |
|-----------------|--------------------------|--------------------------|--------------------------|
| TA46            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: TA46   | G                        | 03                       | P01                      |

1 - Connection to reservoir

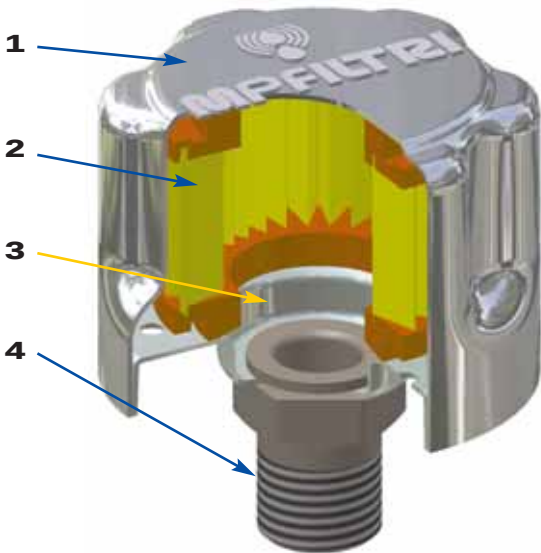
|                            |          |
|----------------------------|----------|
| <input type="checkbox"/> G | G 1/4"   |
| <input type="checkbox"/> N | 1/4" NPT |

3 - Options

|                              |             |
|------------------------------|-------------|
| <input type="checkbox"/> P01 | MP Standard |
|------------------------------|-------------|

2 - Filter element

|                             |       |
|-----------------------------|-------|
| <input type="checkbox"/> 03 | 3 μm  |
| <input type="checkbox"/> 10 | 10 μm |



- TA46 G - N (Materials)
- 1 - Cover: Chrome plated steel
  - 2 - Breather filter: Resin impregnated cellulose  
Polyurethane/Stainless steel
  - 3 - Flange: Galvanised Steel
  - 4 - Threaded connection: Phosphated Steel

Series

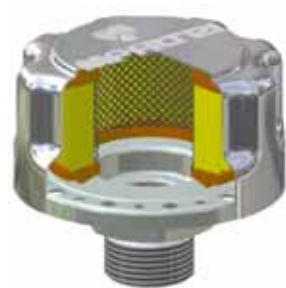
TA 80

Metal breather filter

Ordering information

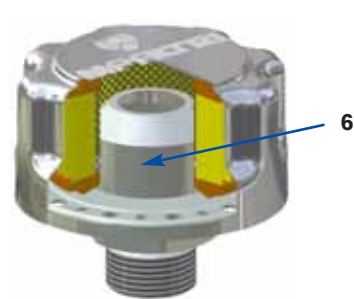
TA80G.....P01

With filter



TA80G03.9P01

With anti-slosh feature



TA80G...A...P01

With filter and  
pressurisation valve



|                 |                          |                          |                          |                          |                          |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Breather filter | 1                        | 2                        | 3                        | 4                        | 5                        |
| TA80            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: TA80   | G                        | 03                       | A                        | 1                        | P01                      |

1 - Connection to reservoir

|                            |          |
|----------------------------|----------|
| <input type="checkbox"/> G | G 3/4"   |
| <input type="checkbox"/> N | 3/4" NPT |

5 - Options

|                              |             |
|------------------------------|-------------|
| <input type="checkbox"/> P01 | MP Standard |
|------------------------------|-------------|

2 - Filter element

|                             |       |
|-----------------------------|-------|
| <input type="checkbox"/> 03 | 3 µm  |
| <input type="checkbox"/> 10 | 10 µm |

3 - Seal

|                            |                        |
|----------------------------|------------------------|
| <input type="checkbox"/> 0 | Without                |
| <input type="checkbox"/> A | NBR (pressurised only) |

4 - Valves

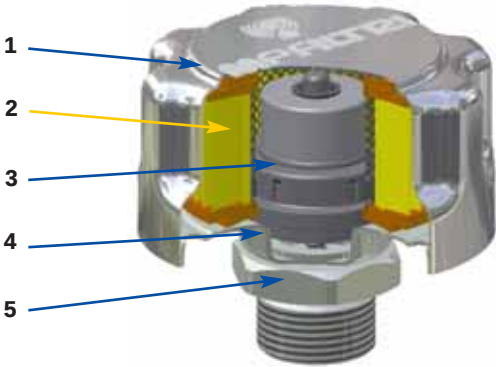
|                            |                                                    |
|----------------------------|----------------------------------------------------|
| <input type="checkbox"/> 0 | Without                                            |
| <input type="checkbox"/> 1 | 0.3 bar pressurisation valve                       |
| <input type="checkbox"/> 2 | 0.7 bar pressurisation valve                       |
| <input type="checkbox"/> 9 | Anti-slosh feature (only with filter element 3 µm) |

Flow rate with Δp: 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 µm       | 450   |
| 10 µm      | 550   |

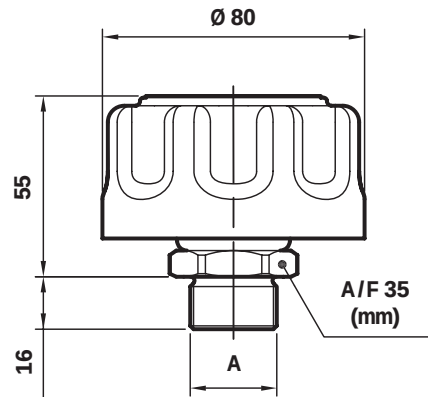
Weight  
TA 80: 0,350 Kg

TA80



Dimensions

Threaded connection



| Connection | A        |
|------------|----------|
| G          | G 3/4"   |
| N          | 3/4" NPT |

- TA80 G (Materials)
- 1 - Cover: Chrome plated steel
  - 2 - Breather filter: Resin impregnated cellulose  
Polyurethane
  - 3 - Pressurisation valve: Nylon  
Galvanised Steel  
NBR
  - 4 - Flange: Galvanised Steel
  - 5 - Threaded connection: Galvanised Steel
  - 6 - Anti-slosh feature: Galvanised Steel

Ordering information

|                |             |             |             |             |             |             |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Air breathers  | 1           | 2           | 3           | 4           | 5           | 6           |
| TAP90          | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| Example: TAP90 | G           | 03          | 0           | 1           | L           | P01         |

1 - Connection to reservoir

|              |          |
|--------------|----------|
| <div>G</div> | M52x2    |
| <div>H</div> | G 1 1/2" |
| <div>L</div> | G 1 1/4" |
| <div>M</div> | 3/4"NPT  |
| <div>N</div> | 1"NPT    |
| <div>Q</div> | G 3/4"   |

2 - Filter element

|               |       |
|---------------|-------|
| <div>03</div> | 3 µm  |
| <div>10</div> | 10 µm |

3 - Seal

|              |         |
|--------------|---------|
| <div>0</div> | Without |
| <div>A</div> | NBR     |

4 - Pressurisation valve

|              |                              |
|--------------|------------------------------|
| <div>0</div> | Without                      |
| <div>1</div> | 0.3 bar pressurisation valve |
| <div>2</div> | 0.7 bar pressurisation valve |

5 - Variants

|              |                                |
|--------------|--------------------------------|
| <div>0</div> | Standard                       |
| <div>A</div> | With Dipstick                  |
| <div>L</div> | With Padlock Hasp              |
| <div>F</div> | With Dipstick and Padlock Hasp |

6 - Options

|                |             |
|----------------|-------------|
| <div>P01</div> | MP Standard |
|----------------|-------------|

TAP 90 G  
With filter



TAP90 (Materials)

- 1 - Cover/ringnut: Nylon
- 2 - Breather filter: Resin impregnated cellulose  
Polyurethane
- 3 - Seal: NBR

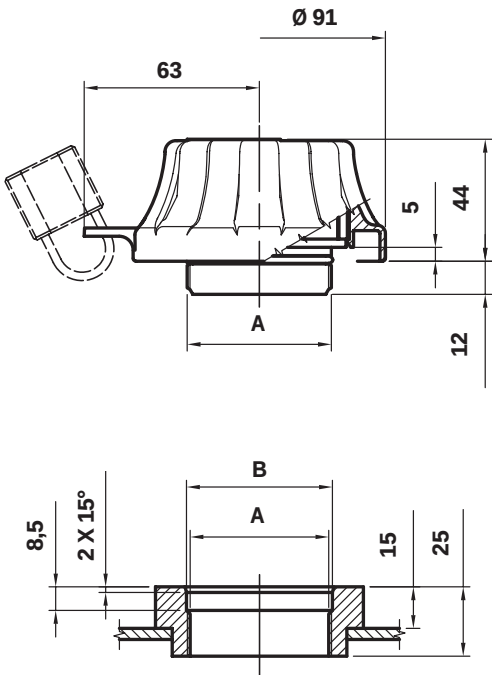
Flow rate with  $\Delta p$ : 0,02 bar

| Filtration | l/min |
|------------|-------|
| 3 µm       | 450   |
| 10 µm      | 550   |

Weight  
TAP 90: 0,130 Kg

Dimensions

TAP 90 for connection on weld flange



|   | A        | B      |
|---|----------|--------|
| G | M52x2    | Ø 52,5 |
| H | G 1 1/2" | Ø 48,5 |
| L | G 1 1/4" | Ø 42   |
| M | 3/4" NPT | -      |
| N | 1" NPT   | -      |
| Q | G 3/4"   | -      |

TAP G  
With Pressurisation



TAP G  
With Dipstick



# SAP

## Series 054 - 075

Nylon breather filter

### SAP 054 - 075



SAP 054 - 075 (Materials)

- 1 - Cover: Nylon
- 2 - Connection: Nylon
- 3 - Filter element: Resin impregnated cellulose

Flow rate with  $\Delta p$ : 0,02 bar

| Filtration     | l/min |
|----------------|-------|
| <b>SAP 054</b> |       |
| 3 $\mu m$      | 200   |
| 10 $\mu m$     | 250   |
| <b>SAP 075</b> |       |
| 3 $\mu m$      | 350   |
| 10 $\mu m$     | 400   |

#### Weights

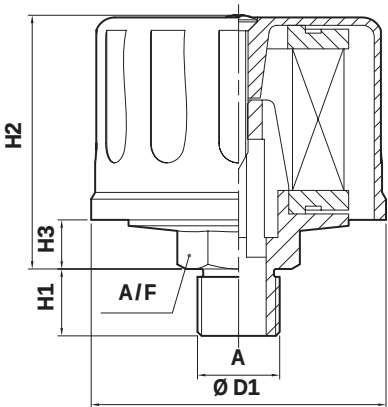
SAP 054: 0,060 Kg  
SAP 075: 0,150 Kg

### Ordering information

| Breather filter | 1                        | 2                        | 3                        | 4                        | 5                        |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>SAP</b>      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Example: SAP    | 075                      | G4                       | L10                      | A                        | P01                      |
| Filter element  | 1                        | 3                        |                          |                          |                          |
| Example:        | A7                       | L10                      |                          |                          |                          |

| 1 - Size                     | Filter                       | Filter element              | 3 - Filter element           |                                        |
|------------------------------|------------------------------|-----------------------------|------------------------------|----------------------------------------|
|                              | <input type="checkbox"/> 054 | <input type="checkbox"/> A4 | <input type="checkbox"/> L03 | Resin impregnated cellulose 3 $\mu m$  |
|                              | <input type="checkbox"/> 075 | <input type="checkbox"/> A7 | <input type="checkbox"/> L10 | Resin impregnated cellulose 10 $\mu m$ |
| 2 - Connessione al serbatoio |                              |                             | 4 - Seal                     |                                        |
|                              | <b>SAP 054</b>               | <b>SAP 075</b>              | <input type="checkbox"/> A   | NBR                                    |
| <input type="checkbox"/> G1  | G 3/8"                       | G 1/2"                      | <b>5 - Opzioni</b>           |                                        |
| <input type="checkbox"/> G2  | G1/2"                        | G 3/4"                      |                              |                                        |
| <input type="checkbox"/> G3  | -                            | -                           |                              |                                        |
| <input type="checkbox"/> G4  | 1/2" NPT                     | 1/2" NPT                    |                              |                                        |
| <input type="checkbox"/> G5  | -                            | 3/4" NPT                    |                              |                                        |
|                              |                              |                             | <input type="checkbox"/> P01 | MP Filtri                              |

## Dimensions



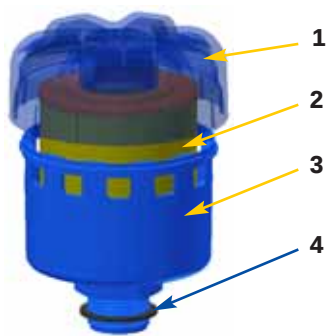
Connection to reservoir " A "

| Type SAP | G1     | G2     | G3 | G4       | G5       |
|----------|--------|--------|----|----------|----------|
| 054      | G 3/8" | G 1/2" | -  | 1/2" NPT | -        |
| 075      | G 1/2" | G 3/4" | -  | 1/2" NPT | 3/4" NPT |

Dimensions

| Type SAP | D1 | H1   | H2 | H3 | A/F (mm) |
|----------|----|------|----|----|----------|
| 054 G1   | 54 | 13,5 | 51 | 8  | 22       |
| 054 G2   |    |      |    |    | 27       |
| 054 G4   |    |      |    |    |          |
| 075 G1   | 75 | 17   | 64 | 9  | 32       |
| 075 G2   |    |      |    |    | 27       |
| 075 G4   |    |      |    |    | 32       |
| 075 G5   |    |      |    |    |          |

Nylon breather filter



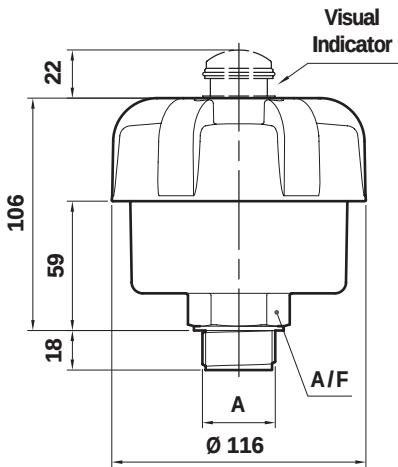
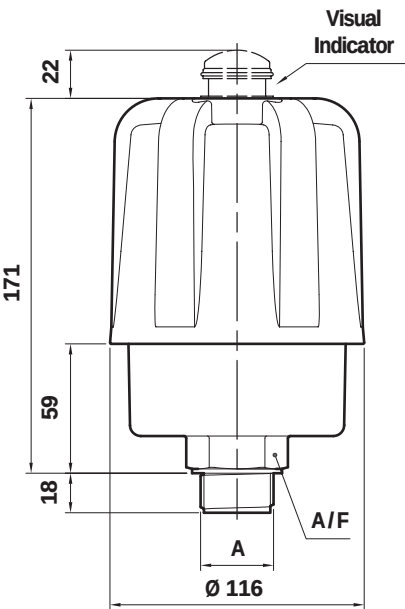
SAP115 (Materials)

- 1 - Cover: Nylon
- 2 - Breather filter: Resin impregnated cellulose  
Inorganic microfibre
- 3 - Connection: Nylon
- 4 - Seals: NBR  
FPM



Clogging indicator

Set pressure: - 0.062 bar ± 10 %  
Manual reset



Series  
SAP  
115

Ordering information

Breather filter  
SAP115

Example: SAP115

Filter element  
A115

Example: A115

1 - Length

|   |
|---|
| 1 |
| 2 |

2 - Connection

|   |          |
|---|----------|
| A | G 1"     |
| B | M33x2    |
| C | G 1 1/2" |

3 - Filter element

|     |                                   |
|-----|-----------------------------------|
| L10 | Resin impregnated cellulose 10 µm |
| A03 | Inorganic microfibre 3 µm         |

4 - Seals

|   |     |
|---|-----|
| A | NBR |
| V | FPM |

|                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2                        | A                        | A03                      | A                        | 1                        | B                        | P01                      |

5 - Variants

|   |                         |
|---|-------------------------|
| 0 | Without                 |
| 1 | With anti-slosh feature |

6 - Indicator

|   |                  |
|---|------------------|
| A | Without          |
| B | Visual indicator |

7 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Flow rate with Δp: 0,02 bar

| TYPE     | Filtration | I/min     | I/min     |
|----------|------------|-----------|-----------|
|          |            | SAP 115 1 | SAP 115 2 |
| G 1"     | L10        | 2170      | 2800      |
|          | A03        | 1830      | 2800      |
| G 1 1/2" | L10        | 2330      | 3000      |
|          | A03        | 1995      | 3000      |

Weight

SAP 115 1: 0,410 Kg  
SAP 115 2: 0,525 Kg

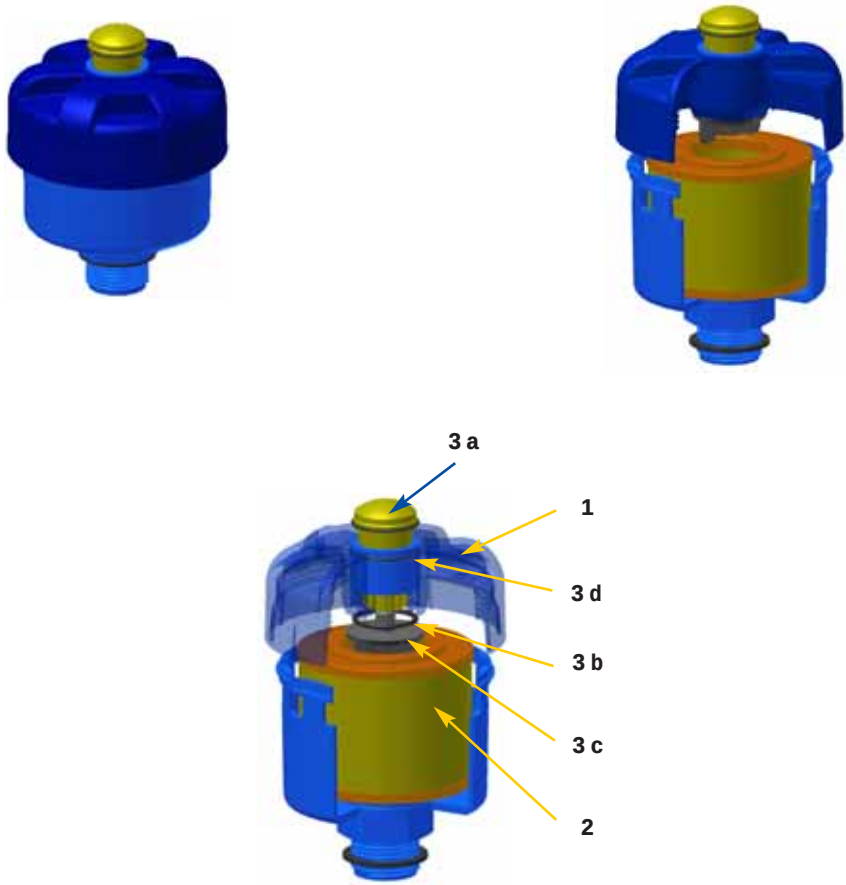
Dimensions

| Connection | A        | A/F (mm) |
|------------|----------|----------|
| A          | G 1"     | 41       |
| B          | M33x2    | 41       |
| C          | G 1 1/2" | 55       |

Changing the filter  
element in breather filters  
series SAP 115

- 1 Thoroughly clean the plug and adjacent parts.

2 Unscrew and raise the cover.
- 3 Renew the filter element and screw the cover fully home into the cartridge (DO NOT OVER TIGHTEN).



SAP 115 spare parts

| Pos. | Description              | Q.ty | Plug series<br>SAP 115  |                 |
|------|--------------------------|------|-------------------------|-----------------|
| 1    | Complete plug            | 1    | See order table         |                 |
| 2    | Filter Element           | 1    | See order table         |                 |
| 3    | Indicator Kit            | 1    | NBR<br>02005187         | FPM<br>02005188 |
| 3a   | Visual indicator         | 1    | S62P01                  |                 |
| 3b   | Seal                     | 1    | O-R 3106 Ø 26,64 X 2,62 |                 |
| 3c   | Indicator securing screw | 1    | 01022670                |                 |
| 3d   | O-R indicator            | 1    | OR 2112 Ø 28,3 x 1,78   |                 |

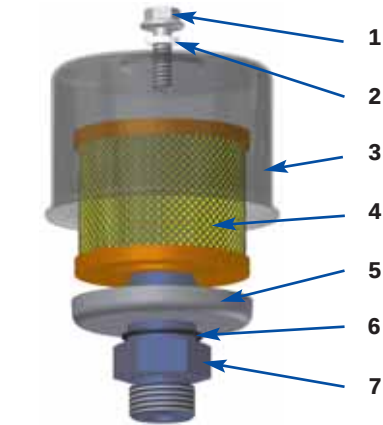
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Series

SA

SA

Ordering information



SA (Materials)

- 1 - Screw: Galvanised Steel
- 2 - Washer: Teflon
- 3 - Cover: Steel
- 4 - Filter element: Plastisol  
Galvanised steel mesh  
Resin impregnated cellulose
- 5 - Ring: Galvanised Steel
- 6 - Seal: NBR
- 7 - Connection: Anodised Aluminium  
Galvanised Steel

Breather filter

SA

Example: SA

Filter element

Example:

1

2

3

4

5

1

3

075

G4

L10

A

P01

A7

L10

1 - Size

Filter

Filter element

3 - Filter element

4 - Seal

5 - Options

036

053

075

115

145

185

A05

A5

A7

A8

A10

A11

L03

L10

S

A

P01

Resin impregnated cellulose 10 µm  
(036 excluded)

Resin impregnated cellulose 10 µm

Without

NBR

MP Standard

2 - Connection to reservoir

| Type | G1       | G2     | G3     | G4         | G5       | G6       |
|------|----------|--------|--------|------------|----------|----------|
| 036  | G 1/4"   | G 3/8" | G 1/2" | 1/4" NPT   | 3/8" NPT | 1/2" NPT |
| 053  | G 1/4"   | G 3/8" | -      | 1/4" NPT   | 3/8" NPT | -        |
| 075  | G 1/2"   | G 3/4" | -      | 1/2" NPT   | 3/4" NPT | -        |
| 115  | G 1"     | -      | -      | 1" NPT     | -        | -        |
| 145  | G 1 1/2" | -      | -      | 1 1/2" NPT | -        | -        |
| 185  | G 2 1/2" | -      | -      | 2 1/2" NPT | -        | -        |

Connection to reservoir " A "

| Type | G1       | G2     | G3     | G4         | G5       | G6       | Weight (Kg) |
|------|----------|--------|--------|------------|----------|----------|-------------|
| 036  | G 1/4"   | G 3/8" | G 1/2" | 1/4" NPT   | 3/8" NPT | 1/2" NPT | 0,080       |
| 053  | G 1/4"   | G 3/8" | -      | 1/4" NPT   | 3/8" NPT | -        | 0,150       |
| 075  | G 1/2"   | G 3/4" | -      | 1/2" NPT   | 3/4" NPT | -        | 0,260       |
| 115  | G 1"     | -      | -      | 1" NPT     | -        | -        | 0,400       |
| 145  | G 1 1/2" | -      | -      | 1 1/2" NPT | -        | -        | 0,590       |
| 185  | G 2 1/2" | -      | -      | 2 1/2" NPT | -        | -        | 1,220       |

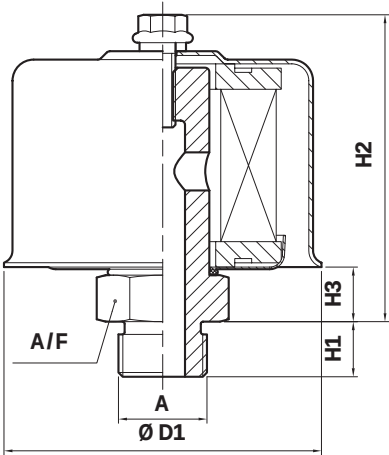
Dimension

| Type   | D1  | H1 | H2   | H3   | A/F (mm) |
|--------|-----|----|------|------|----------|
| 036    | 36  | 13 | 36,5 | 9    | 22       |
| 053    | 53  | 13 | 52,5 | 7    | 22       |
| 075 G1 | 75  | 13 | 68,5 | 11,5 | 27       |
| 075 G2 |     | 17 |      |      | 32       |
| 075 G4 |     | 15 |      |      | 27       |
| 075 G5 |     | 20 |      |      | 32       |
| 115    | 115 | 17 | 80   | 11   | 38       |
| 145    | 145 | 25 | 115  | 13   | 55       |
| 185    | 185 | 25 | 164  | 23   | 80       |

Flow rate with Δp: 0,02 bar

| Type | 3 µm l/min | 10 µm l/min |
|------|------------|-------------|
| 036  | -          | 140         |
| 053  | 250        | 250         |
| 075  | 350        | 400         |
| 115  | 800        | 850         |
| 145  | 1800       | 1850        |
| 185  | 2300       | 2500        |

Dimensions





SCS XXX C

SCS (Materials)  
Riser: Galvanised steel

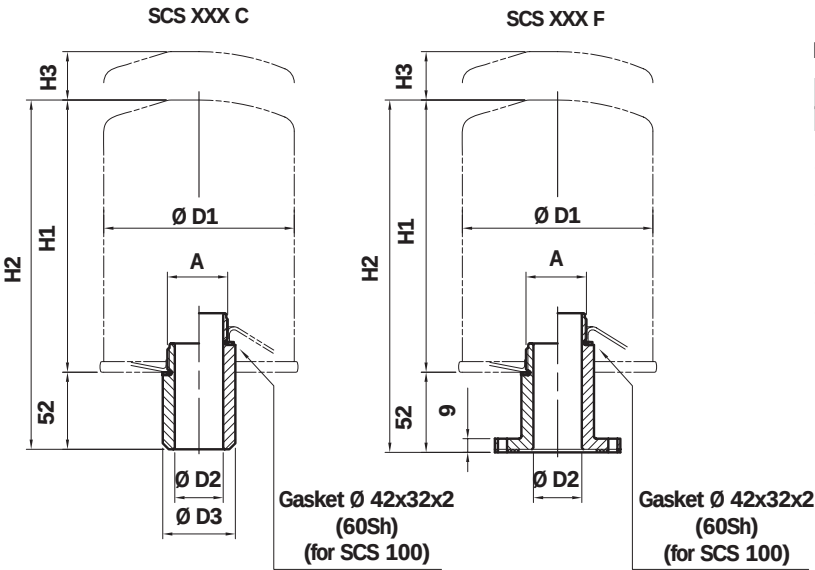
Flow rate with Δp: 0,02 bar

| Type    | Flitration l/min |      |
|---------|------------------|------|
|         | P10              | A03  |
| SCS 050 | A10              | 550  |
|         |                  | 515  |
|         |                  | 530  |
| SCS 070 | P10              | 550  |
|         | A03              | 515  |
|         | A10              | 530  |
| SCS 100 | P10              | 1415 |
|         | A03              | 1300 |
|         | A10              | 1330 |
| SCS 150 | P10              | 1415 |
|         | A03              | 1300 |
|         | A10              | 1330 |



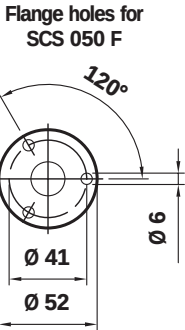
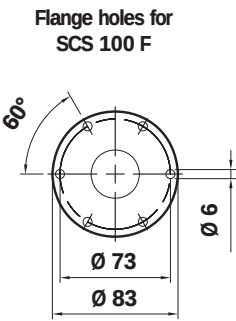
SCS XXX F

Dimensions



Dimension SCS - CS - CG

| Type     | D1  | H1  | H2  | H3 | Weight (Kg) |
|----------|-----|-----|-----|----|-------------|
| CS/CG050 | 96  | 143 | 195 | 20 | 0,73        |
| CS/CG070 | 96  | 210 | 262 | 20 | 0,95        |
| CS100    | 129 | 180 | 232 | 25 | 1,3         |
| CS150    | 129 | 220 | 272 | 25 | 1,6         |
| CG100    | 129 | 180 | 232 | 30 | 1,3         |
| CG150    | 129 | 265 | 317 | 30 | 1,6         |



SCS Riser dimensions

| Type        | A            | D2 | D3 | Weight (Kg) |
|-------------|--------------|----|----|-------------|
| SCS050...G1 | G 3/4"       | 18 | 32 | 0,200       |
| SCS050...G2 | 1" 12 UN     | 18 | 32 | 0,265       |
| SCS100...G1 | G 1 1/4"     | 32 | 48 | 0,450       |
| SCS100...G2 | 1 1/2" 16 UN | 32 | 48 | 0,645       |

Riser with  
Filter  
element  
SCS

2

3

4

5

6

7

Example: SCS    050    F    G1    A10    A    P01

Riser  
only  
SCS

2

3

4

6

7

Example: SCS    050    F    G1    A    P01

Filter  
element

1

2

5

6

7

Example:    CS    050    A10    A    P01

1 - Filter element type

- CS

CG
- Connection ISO 228  
for SCS.....G1

Connection A.S.A.  
for SCS.....G2

2 - Size

- 050

070

100

150
- Riser assembly excluded

Riser assembly excluded

3 - Connection to reservoir

- C

F
- Weld riser

Flange riser

4 - Threaded connection

- G1
- G 3/4" for SCS 050/070

G 1 1/4" for SCS 100/150

G1 with filter elements series CS

- G2
- 1" - 12 UN for SCS 050/070

1 1/2" - 16 UN for SCS 100/150

G2 with filter elements series CG

5 - Filter element

- A03

A10

P10
- Inorganic microfibre

Inorganic microfibre

Resin impregnated cellulose

6 - Seal

- A

V
- NBR

FPM

7 - Options

- P01
- MP Standard

# FILLER CAPS



The series TK range of filler caps is composed of styles with breather filter, dipstick for measuring the reservoir fluid level and anti-slosh fins to prevent spillage of oil from the reservoir on mobile equipment.

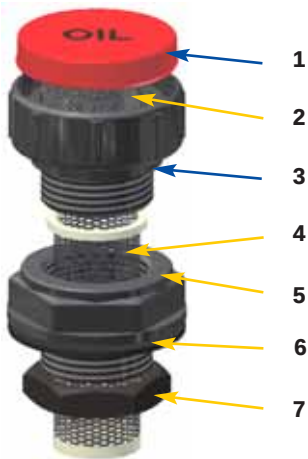
## Temperature

- from -25° to +100°C

## Compatibility

- Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, glycol water.

Dimensions



TC50 ((Materials)

- 1 - Cover: Nylon
- 2 - Breather filter: Galvanised steel wire
- 3 - Filler cap: Nylon
- 4 - Strainer: Galvanised Steel/Nylon  
AISI 304 Stainless steel/Nylon
- 5 - Collar: Nylon
- 6 - Seal: Inorganic fibre
- 7 - Ringnut: Phosphated steel

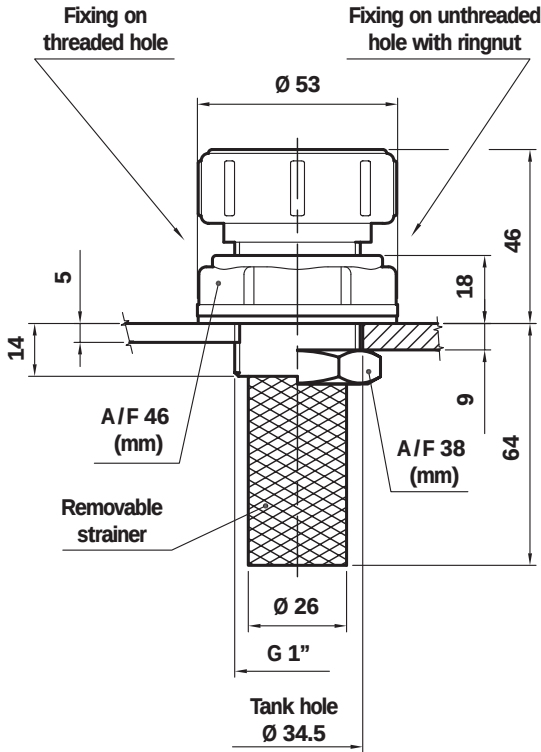
TC50G1.....P01

Threaded reservoir



TC50GA.....P01

Unthreaded hole in reservoir



Weight  
TC 50 G1: 0,070 Kg  
TC 50 GA: 0,100 Kg

Codice per l'ordinazione

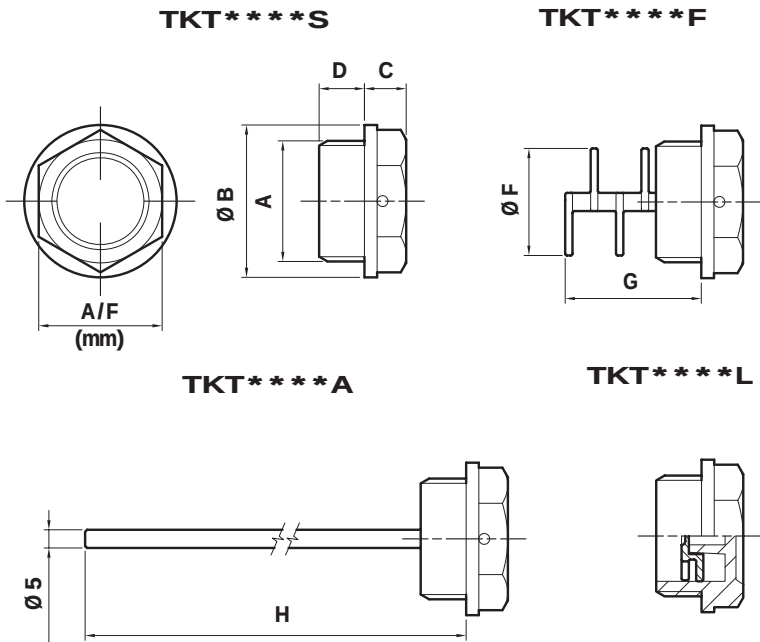
|                           |                                      |             |                                      |             |             |             |             |
|---------------------------|--------------------------------------|-------------|--------------------------------------|-------------|-------------|-------------|-------------|
| <b>Filler</b>             |                                      |             |                                      |             |             |             |             |
| <b>filler caps</b>        |                                      |             |                                      |             |             |             |             |
| <b>series</b>             |                                      |             |                                      |             |             |             |             |
| <b>TC50</b>               |                                      |             |                                      |             |             |             |             |
| <b>Example: TC50</b>      | <b>1</b>                             | <b>2</b>    | <b>3</b>                             | <b>4</b>    | <b>5</b>    | <b>6</b>    | <b>7</b>    |
|                           | <div></div>                          | <div></div> | <div></div>                          | <div></div> | <div></div> | <div></div> | <div></div> |
|                           | <b>G1</b>                            | <b>L90</b>  | <b>P</b>                             | <b>R</b>    | <b>0</b>    | <b>C70</b>  | <b>P01</b>  |
| <b>1 - Connection</b>     | <b>5 - Cover wording</b>             |             |                                      |             |             |             |             |
| <div><b>G1</b></div>      | G 1"                                 |             | <div><b>0</b></div> Oil              |             |             |             |             |
| <div><b>GA</b></div>      | With ringnut                         |             | <div><b>N</b></div> Neutral          |             |             |             |             |
| <b>2 - Filter element</b> | <b>6 - Strainer</b>                  |             |                                      |             |             |             |             |
| <div><b>L90</b></div>     | Steel                                |             | <div><b>C70</b></div> Strainer L= 70 |             |             |             |             |
| <b>3 - Seals</b>          | <div><b>I70</b></div> Strainer L= 70 |             |                                      |             |             |             |             |
| <div><b>P</b></div>       | Inorganic fibre                      |             | <div><b>S</b></div> Without strainer |             |             |             |             |
| <b>4 - Cover colour</b>   | <b>7 - Options</b>                   |             |                                      |             |             |             |             |
| <div><b>R</b></div>       | Red                                  |             | <div><b>P01</b></div> MP Standard    |             |             |             |             |
| <div><b>G</b></div>       | Yellow                               |             |                                      |             |             |             |             |



- TKT (Materials)
- 1 - Body: Nylon
  - 2 - Seals: NBR  
Inorganic fibre
  - 3 - Labyrinth: Nylon
  - 4 - Anti-slosh feature: Nylon
  - 5 - Dipstick: Phosphated steel

Quantity per pack  
Number of Parts

TKT 25



| Size | A        | Ø B | C    | A/F (mm) | D    | Ø F  | G    | H     |
|------|----------|-----|------|----------|------|------|------|-------|
| G13  | G 1/4"   | 20  | 7    | 17       | 9    | -    | -    | 206   |
| G16  | G 3/8"   | 22  | 8    | 18       | 10   | 13,5 | 33   | 207   |
| G20  | G 1/2"   | 28  | 8    | 22       | 11   | 17,5 | 34   | 208   |
| G26  | G 3/4"   | 35  | 9    | 27       | 12   | 23,5 | 35   | 209   |
| G33  | G 1"     | 42  | 11,5 | 34       | 12,5 | 29,5 | 37,5 | 202,5 |
| G42  | G 1 1/4" | 52  | 12   | 42       | 13   | 38   | 40   | 203   |
| G48  | G 1 1/2" | 58  | 14   | 47       | 13   | 38   | 38   | 203   |
| G60  | G 2"     | 74  | 14   | 64       | 20   | -    | -    | 200   |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10÷15 Nm.

Threaded  
round  
filler caps

TKT  
Example: TKT

1 - Size

|     |          |
|-----|----------|
| G13 | G 1/4"   |
| G16 | G 3/8"   |
| G20 | G 1/2"   |
| G26 | G 3/4"   |
| G33 | G 1"     |
| G42 | G 1 1/4" |
| G48 | G 1 1/2" |
| G60 | G 2"     |

2 - Colour

|   |             |
|---|-------------|
| N | Black nylon |
|---|-------------|

3 - Cover wording

|   |         |
|---|---------|
| N | Neutral |
| O | Oil     |

|                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G20                      | N                        | O                        | A                        | F                        | F                        | P01                      |

Ordering information

4 - Seal

|   |                                          |
|---|------------------------------------------|
| A | NBR<br>x TKT***F and TKT***A             |
| B | Inorganic fibre<br>x TKT***S and TKT***L |

5 - Style

|   |                  |
|---|------------------|
| S | Without breather |
| F | Breather hole    |

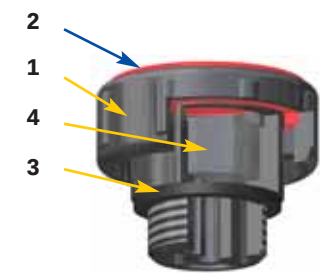
6 - Accessories

|   |                                              |
|---|----------------------------------------------|
| S | Without                                      |
| A | Standard dipstick                            |
| F | Anti-slosh feature<br>(except G13-G60)       |
| L | Labyrinth filter<br>(except G33-G42-G48-G60) |

7 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

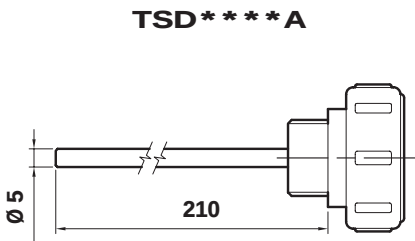
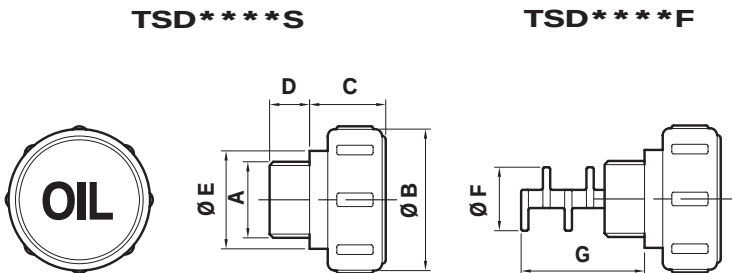
Dimensions



- TSD (Materials)
- 1 - Body: Nylon
  - 2 - Cover: Nylon
  - 3 - Seal: NBR
  - 4 - Filter: Galvanised steel
  - 5 - Anti-slosh feature: Nylon
  - 6 - Dipstick: Phosphated steel



Quantity per pack  
Number of Parts  
TSD 25



| Size | A        | Ø B | C    | D  | Ø E | Ø F  | G  |
|------|----------|-----|------|----|-----|------|----|
| G16  | G 3/8"   | 35  | 21   | 10 | 23  | 13,5 | 36 |
| G20  | G 1/2"   | 39  | 21   | 11 | 27  | 17,5 | 36 |
| G26  | G 3/4"   | 45  | 21   | 12 | 33  | 23,5 | 37 |
| G33  | G 1"     | 51  | 24,5 | 13 | 39  | 29,5 | 44 |
| G42  | G 1 1/4" | 66  | 29,5 | 14 | 54  | 38   | 47 |
| G48  | G 1 1/2" | 66  | 29,5 | 14 | 54  | 38   | 47 |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10÷15 Nm.

Ordering information

Threaded  
round  
filler caps  
TSD

Example: TSD

1 - Size

|     |          |
|-----|----------|
| G16 | G 3/8"   |
| G20 | G 1/2"   |
| G26 | G 3/4"   |
| G33 | G 1"     |
| G42 | G 1 1/4" |
| G48 | G 1 1/2" |

2 - Cover colour

|   |        |
|---|--------|
| R | Red    |
| Y | Yellow |

3 - Cover wording

|   |         |
|---|---------|
| N | Neutral |
| O | Oil     |
| G | Gasoil  |

|                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 6                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G20                      | R                        | O                        | A                        | A                        | F                        | P01                      |

4 - Seal

|   |     |
|---|-----|
| A | NBR |
|---|-----|

5 - Filter

|   |                             |
|---|-----------------------------|
| A | Steel                       |
| O | Without (for "Gasoil" only) |

6 - Accessories

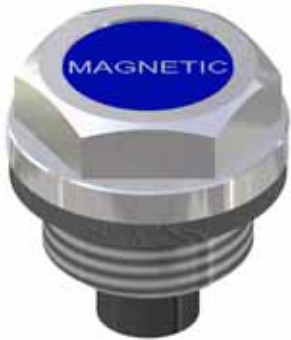
|   |                    |
|---|--------------------|
| S | Without            |
| A | Standard dipstick  |
| F | Anti-slosh feature |

7 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

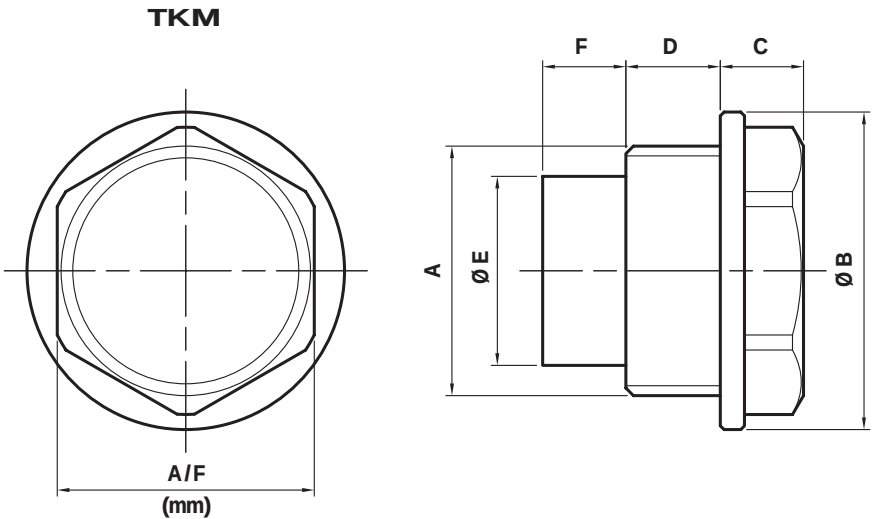
Series

TKM



- TKM (Materials)
- Body: Aluminium
- Seal: Inorganic fibre
- Temperature**
- from -25° to +100°C
- Compatibility**
- Only mineral oils to ISO 2943

Dimensions



| Size | A      | Ø B | C   | D    | Ø E | F  | A/F (mm) |
|------|--------|-----|-----|------|-----|----|----------|
| G13  | G 1/4" | 19  | 4,5 | 7    | 9,5 | 6  | 15       |
| G16  | G 3/8" | 22  | 8   | 9    | 8   | 6  | 18       |
| G20  | G 1/2" | 28  | 8   | 9    | 10  | 8  | 22       |
| G26  | G 3/4" | 35  | 9   | 10   | 12  | 11 | 27       |
| G33  | G 1"   | 42  | 11  | 12,5 | 25  | 11 | 37       |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10÷15 Nm.

Ordering information

Threaded  
round  
plug  
TKM

Example: TKM

1

G20

2

B

3

P01

1 - Size

|     |        |
|-----|--------|
| G13 | G 1/4" |
| G16 | G 3/8" |
| G20 | G 1/2" |
| G26 | G 3/4" |
| G33 | G 1"   |

2 - Seals

|   |                 |
|---|-----------------|
| B | Inorganic fibre |
|---|-----------------|

3 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

# VISUAL LEVEL INDICATORS



## LV...

The level indicators series is available for both static and mobile applications; the construction materials used make it possible to guarantee service with wide temperature variations and compatibility with all hydraulic fluids. Series LV... level indicators are available with fixing centre distance from 76 to 1000 mm.

## LVK

This level indicator series is available with electric alarm and visual and electrical temperature switches, level indicators are available with fixing centre distance from 76 to 254 mm.

## LC...

LC... series sight plugs allow visibility of the fluid contained in the reservoirs, showing the level and also any changes in transparency and emulsion.

These indicators are available in three configurations, with transparent plastic body and with black body, and an aluminum body version. Fixing to reservoirs with unthreaded holes or reduced thickness can be achieved using series LCC/T equipped with expansion kit.

### Temperature

- LVA: from -25° to +100°C
- LVU: from -25° to +70°C
- LVU: from -25° to +100°C (only with pyrex lens)
- LVK/LC...: from -20° to +80°C

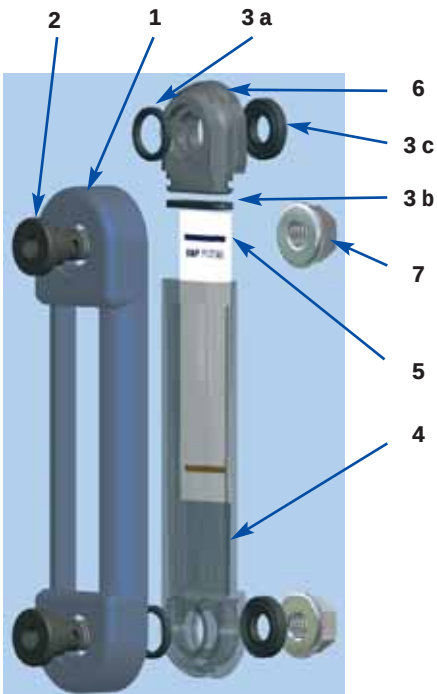
### Compatibility

#### LVA/LVK/LVU

- NBR seals and Cork Gasket, compatible with: Mineral oils to ISO 2943 - aqueous emulsions Synthetic fluids, glycol water.
- FPM seals, compatible with: Synthetic fluids type HS-HFDR-HFDS-HFDU.

#### LC...

- Mineral oils to ISO 2943 - aqueous emulsions Synthetic fluids, glycol water.



LVA (Materials)

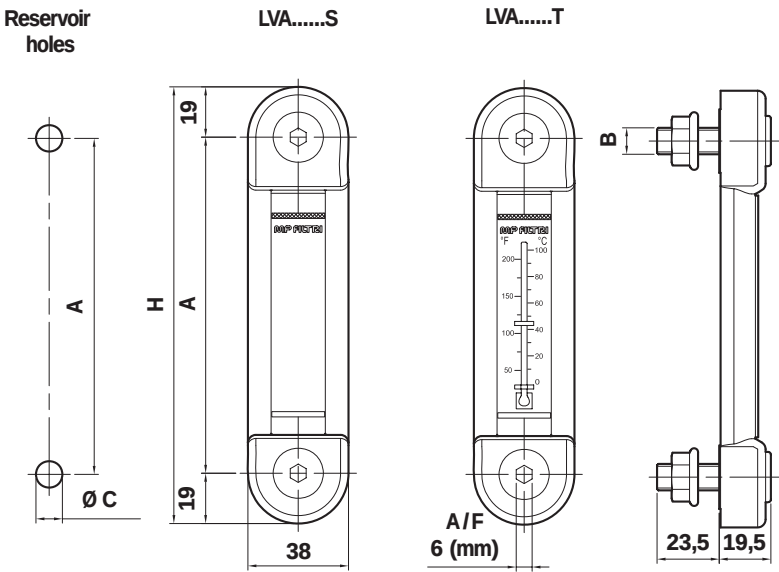
- 1 - Cover: Polyamide
- 2 - Screws: Phosphated steel
- 3 - Seals: NBR  
FPM
- 4 - Lens: Polyamide
- 5 - Nameplate: Painted aluminium
- 6 - Terminal cap: Nylon
- 7 - Nuts: Galvanised steel

Quantity per pack  
Number of Parts

|     |    |
|-----|----|
| LVA | 10 |
|-----|----|

Screw tightening torque: 15Nm

Dimensions



| Size  | A   | H   | Weight (Kg) |
|-------|-----|-----|-------------|
| LVA10 | 76  | 114 | 0,13        |
| LVA20 | 127 | 165 | 0,18        |
| LVA30 | 254 | 292 | 0,23        |

| Type        | B        | C    |
|-------------|----------|------|
| LVA.....M10 | M10      | 10,5 |
| LVA.....M12 | M12      | 12,5 |
| LVA.....U38 | 3/8" UNC | 10   |
| LVA.....U12 | 1/2" UNC | 13,5 |

LVA20T.....S01

Ordering information



LVA

Example: LVA

1 - Size

2 - Accessories

3 - Seals

1

20

2

T

3

A

4

P

5

M10

6

S01

10

20

30

S

T

A

V

Without thermometer

With thermometer

NBR

FPM

4 - Cover

5 - Connection

6 - Options

P

M10

M12

U38

U12

S01

S02

Cover polyamide

Screws M10

Screws M12

Screws 3/8" UNC

Screws 1/2" UNC

With nuts - Tag MP Filtri

Without nuts - Tag MP Filtri

Series

LVK

Description

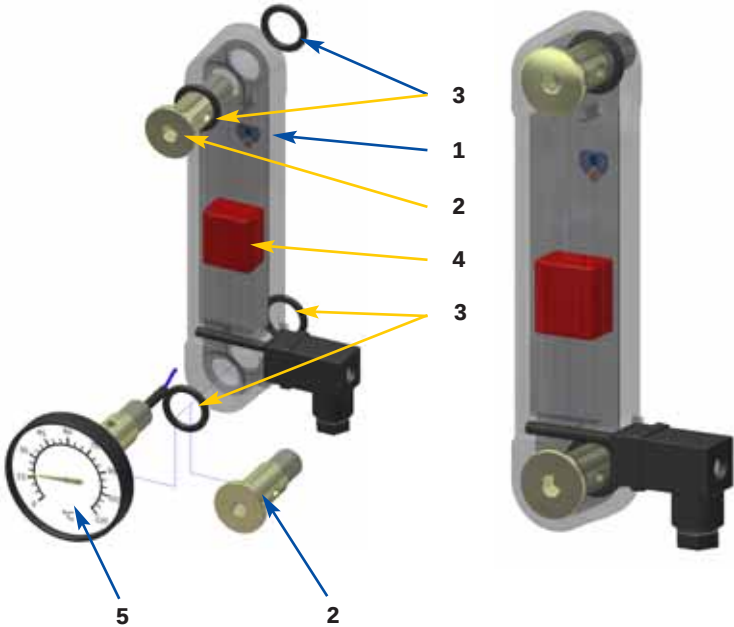
Visual/electric level indicator with temperature controls for both static and mobile applications. Completely transparent, it provides a view of the fluid over the entire length, both from the front and on both sides.

The quality and thickness, 4 millimetres, of the construction material provides the utmost dependability and mechanical strength without any need for additional protection.

LVK (Materials)

- 1 - Body: Polyamide
- 2 - Screws: Nickel plated brass (Standard)  
AISI 316 (Option)
- 3 - Seals: NBR (Standard)  
FPM (Option)
- 4 - Float: Polyamide
- 5 - Sensor thermometer: Screw + thermometer

**Temperatures:** from -20°C to +80°C  
**Screw tightening torque:** 10Nm

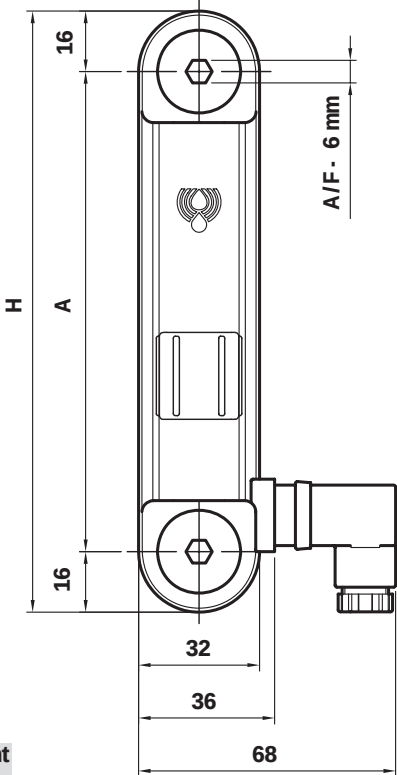
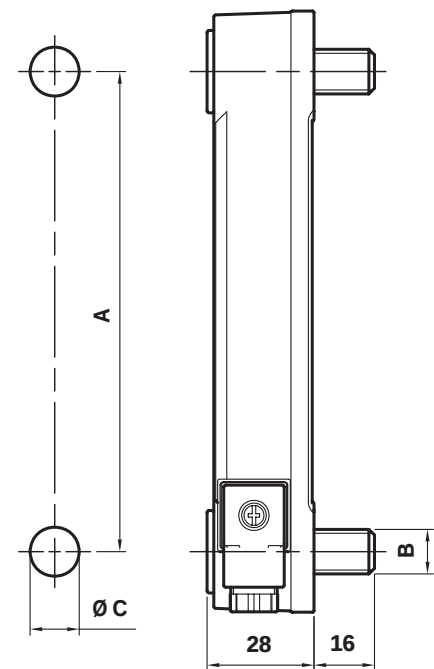


Compatibility

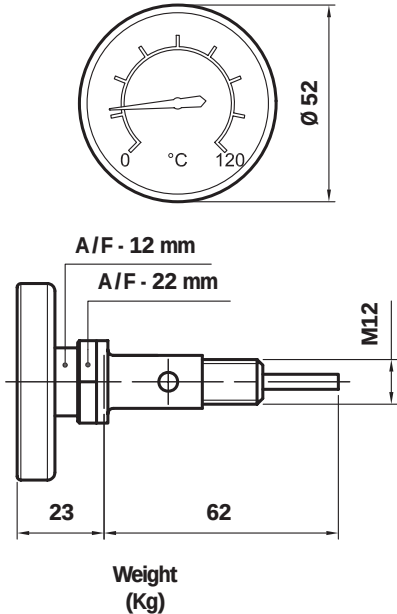
- NBR seals, compatible with:  
Mineral oils to ISO 2943 · aqueous emulsions  
Synthetic fluids, glycol water.
- FPM seals, compatible with:  
Synthetic fluids type HS-HFDR-HFDS-HFDU.

Dimensions

Reservoir holes



Sensor thermometer



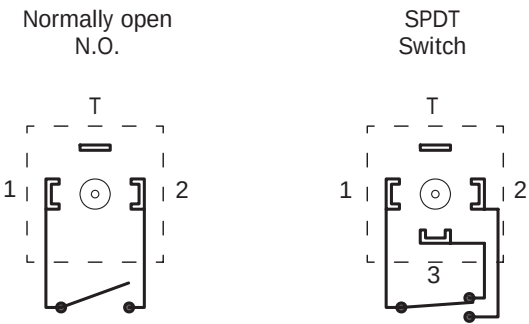
| Size  | A   | H   | Weight (Kg) |
|-------|-----|-----|-------------|
| LVK10 | 76  | 108 | 0,14        |
| LVK20 | 127 | 159 | 0,17        |
| LVK30 | 254 | 286 | 0,25        |

| Type        | B   | C    |
|-------------|-----|------|
| LVK.....M10 | M10 | 10,5 |
| LVK.....M12 | M12 | 12,5 |

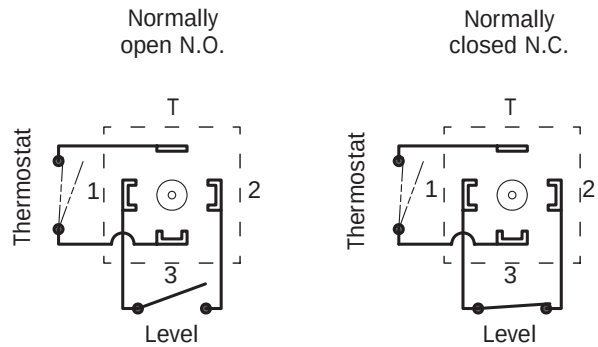
|      |       |                                    |
|------|-------|------------------------------------|
| TV12 | 0,100 | Kit Sensor thermometer + Screw M12 |
|------|-------|------------------------------------|

Combination of available electrical contacts

Electrical contact with no liquid

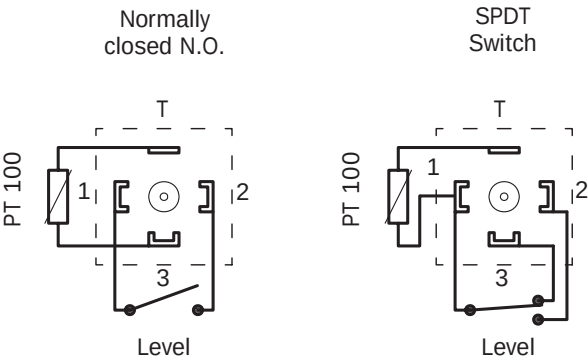


Electrical contact with no liquid + thermostat

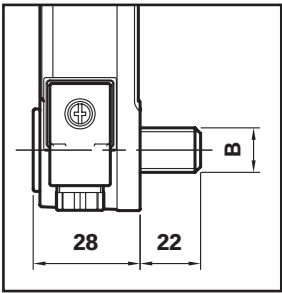


Available thermostated contact N.C. - N.O. in both setups

Electrical contact with no liquid + PT 100



Dimension inferior screw electrical contact + thermostated or PT 100



Thermostat electrical specifications

Voltage: 250 V Switchable

Frequency: 50 Hz

Load values: 4.0 A.  $\cos \varphi$  0.6 (IMOT)

6,3 A.  $\cos \varphi$  1 (IN)

Max load: 10 A.  $\cos \varphi$  1

Switching temperature: 50°C - 60°C - 70°C

Tolerances:  $\pm$  5°C

Electrical specifications

|                               | Contact with no liquid |        |
|-------------------------------|------------------------|--------|
|                               | N.O.<br>N.C.           | Switch |
| D.C. Switchable Power         | 40 W                   | 20 W   |
| D.C. current intensity - A.C. | 40 V.A.                | -      |
| Switchable voltage            | 2 A                    | 1 A    |
| Voltage switchable            | 230 V                  | 150 V  |

|              |             |             |             |             |             |             |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | 1           | 2           | 3           | 4           | 5           | 6           | 7           |
| LVK          | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| Example: LVK | 20          | A           | M12         | 1           | S           | S           | P01         |

1 - Size

10

20

30

2 - Seal

A

NBR

3 - Connection

M10

Screws M10

M12

Screws M12 (Standard)

4 - Electrical contacts with no liquid\*

1

N.A.

2

N.C.

3

Switch SPDT

5 - Style

S

Standard

T

Thermostatted

P

PT 100

Only for connection M12

6 - Thermostated

S

Standard Without

1

50° N.A.

2

60° N.A.

3

70° N.A.

5

50° N.C.

6

60° N.C.

7

70° N.C.

Only for style T

7 - Options

P01

MP Standard

\* Available electrical contacts see page 49

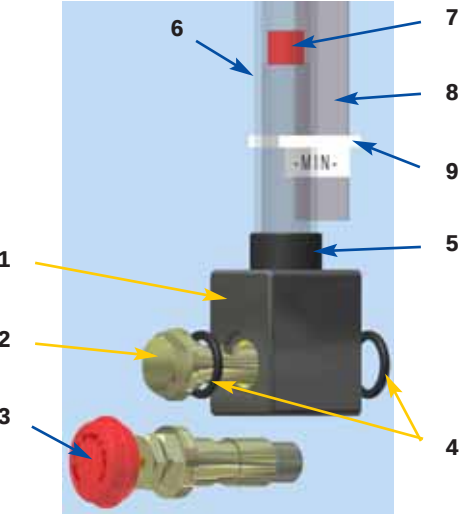
Accessories / Options\*

|          |                                            |
|----------|--------------------------------------------|
| TV12     | Kit w/ Sensor thermometer Screw M12        |
| M10 X    | Kit w/ Screws M10 stainless steel AISI 316 |
| M12 X    | Kit w/ Screws M12 stainless steel AISI 316 |
| 02050432 | Kit w/ FPM seals                           |

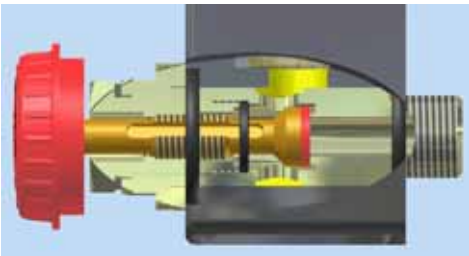
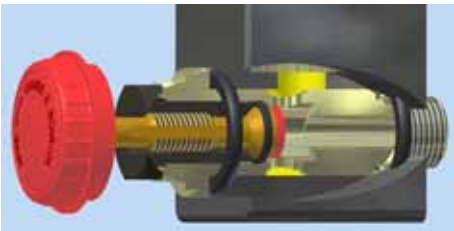
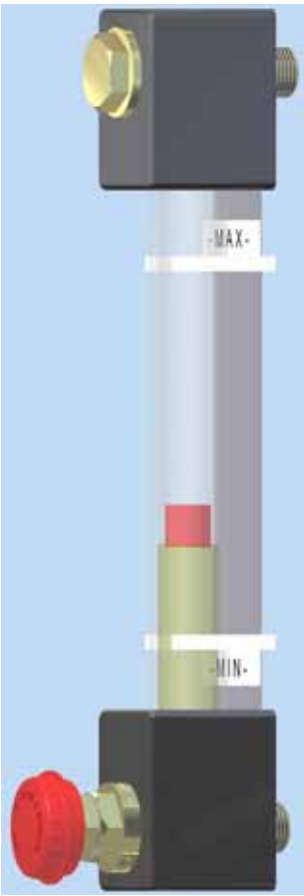
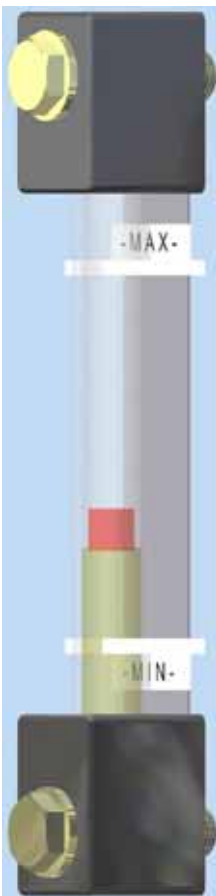
\* All the accessories are supplied separately from code LVK

Series

LVU



- LVU (Materials)
- 1 - Head: Nylon
  - 2 - Connection G 3/8": Nickel plated brass
  - 3 - G 3/8" valve: Steel
  - 4 - Seal: NBR
  - 5 - Pipe Seal: NBR
  - 6 - Pipe: Acrylic  
Pyrex
  - 7 - Float: Nylon
  - 8 - Protection: Aluminium
  - 9 - Clamps MIN - MAX: Nylon



Open the valve completely.

Allows the oil to flow from the reservoir to the level tube.

**ATTENTION** - The intermediate valve opening or closing position allows the oil to flow from the reservoir to the exterior.

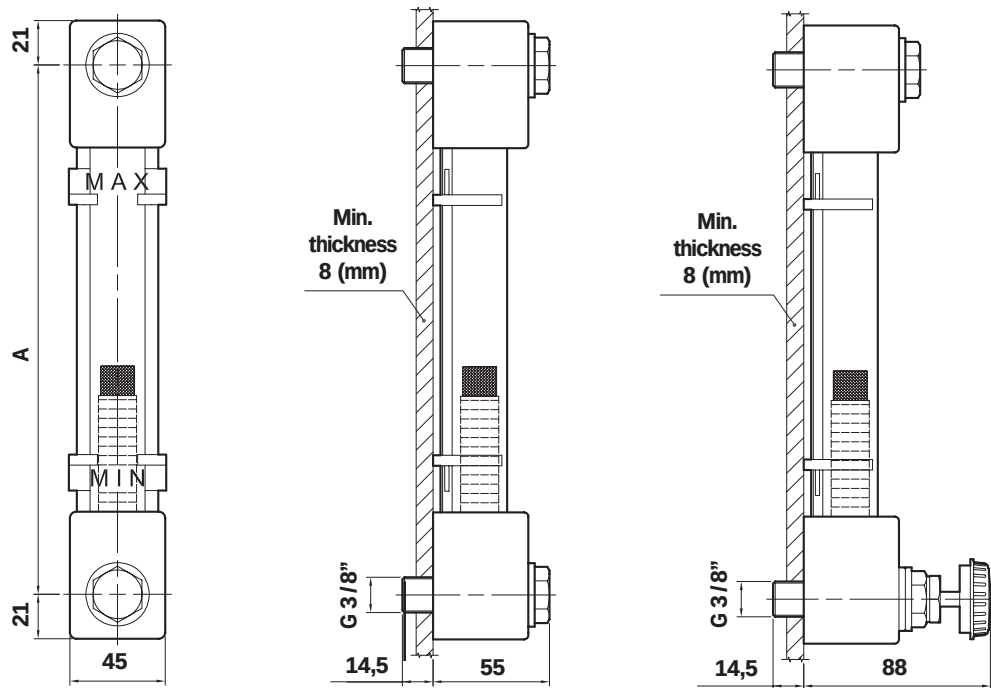
Close the valve fully.

Stops the oil flow from the reservoir to the level tube.

Allows the oil to be discharged from the level tube to an external container.

LVU.....10

LVU.....20



LVU spare parts

| Pos. | Description                  | Q.ty | LVU                       |
|------|------------------------------|------|---------------------------|
| 1    | Seals kit                    | 1    | 02050130                  |
| 4    | O-Ring                       | 4    | OR 4181<br>Ø 20,22 x 3,53 |
| 2    | Fixing element kit series 10 | 1    | 02049014                  |
| 2    | G 3/8" connection            | 2    |                           |
| 3    | Fixing element kit series 20 | 1    | 02049015                  |
| 2    | G 3/8" connection            | 1    |                           |
| 3    | G 3/8" bibcock               | 1    |                           |

| Weights | Version U (Kg) | Version S (Kg) |
|---------|----------------|----------------|
| 0500    | 0,780          | 0,580          |
| 1000    | 1,150          | 0,790          |
| 1500    | 1,550          | 1,100          |
| 2000    | 1,950          | 1,400          |

| Size | A (mm) |
|------|--------|
| 0500 | 500    |
| 1000 | 1000   |
| 1500 | 1500   |
| 2000 | 2000   |

Ordering information

Visual level indicator series LVU

Example: LVU

1

2

3

4

5

0500

U

A

10

P01

1 - Size

|      |                                  |
|------|----------------------------------|
| 0500 | Dimension "A" in mm              |
| 1000 | Dimension "A" in mm              |
| 1500 | Dimension "A" in mm              |
| 2000 | Max. dimension "A" in mm         |
| XXXX | Dimension "A" in mm (on request) |

2 - Variants

|   |                                             |
|---|---------------------------------------------|
| S | Standard                                    |
| U | "U" protection                              |
| P | "U" protection + Pyrex lens (max size 1500) |

3 - Seal

|   |     |
|---|-----|
| A | NBR |
|---|-----|

4 - Filter

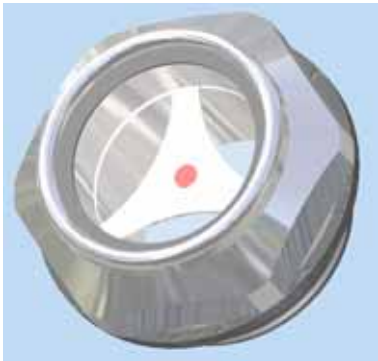
|    |                               |
|----|-------------------------------|
| 10 | 2 G 3/8" connections          |
| 20 | 1 G 3/8" connection + 1 valve |

3 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Series

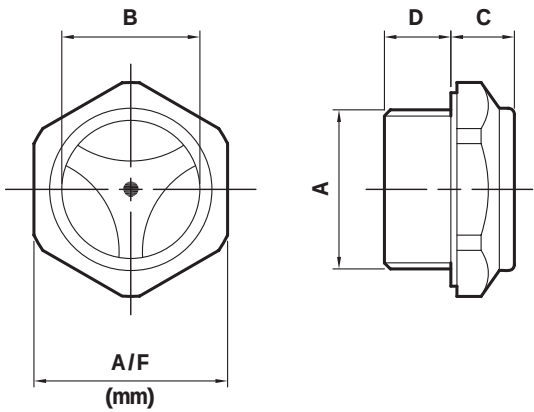
LCP\*\*\*M



- LCP\*\*\*M\*\* (Materials)
- 1 - Body: Aluminium
  - 2 - Lens: Thermoplastic
  - 3 - Contrast screen: Nylon
  - 4 - Seal: Inorganic fibre

Dimensions

LCP\*\*\*M\*\*



| Size | A      | B  | C  | D  | A/F (mm) |
|------|--------|----|----|----|----------|
| G20  | G 1/2" | 16 | 9  | 10 | 27       |
| G26  | G 3/4" | 20 | 10 | 12 | 32       |
| G33  | G 1"   | 25 | 11 | 14 | 40       |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10÷15 Nm.

Spare parts

| Size | Seal Inorg. fibre |
|------|-------------------|
| G20  | 1.026.902         |
| G26  | 1.026.903         |
| G33  | 1.026.905         |

Ordering information

Threaded sight plug

LCP\*\*\*M

Example: LCP

1 - Size

|     |        |
|-----|--------|
| G20 | G 1/2" |
| G26 | G 3/4" |
| G33 | G 1"   |

2 - Material

|   |                   |
|---|-------------------|
| M | Metal (Aluminium) |
|---|-------------------|

|     |   |   |   |     |
|-----|---|---|---|-----|
| 1   | 2 | 3 | 4 | 5   |
|     |   |   |   |     |
| G20 | M | C | B | P01 |

3 - Accessories

|   |        |
|---|--------|
| C | Baffle |
|---|--------|

4 - Seal

|   |                 |
|---|-----------------|
| B | Inorganic fibre |
|---|-----------------|

3 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Quantity per pack  
Number of Parts

|         |    |
|---------|----|
| LCP / M | 25 |
|---------|----|

Series

LCP\*\*\*N



Standard view

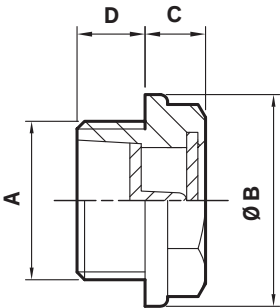
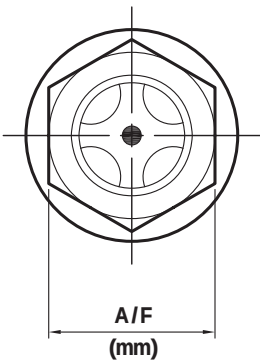


With view contrast and Expansion kit

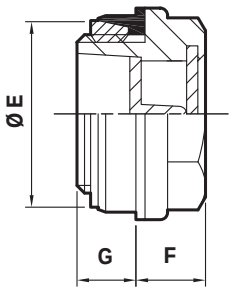
- LCP\*\*\*N\*\*\*\*\* (Materials)
- 1 - Body: Nylon
  - 2 - Lens: Thermoplastic
  - 3 - Contrast screen: Nylon
  - 4 - Seals: NBR  
Inorganic fibre
  - 5 - Expansion kit: Brass - NBR

Dimensions

LCP\*\*\*N\*\*S



LCP\*\*\*N\*\*K



| Size | A        | Ø B | C    | D    | A/F (mm) | Ø E  | F    | G    |
|------|----------|-----|------|------|----------|------|------|------|
| G13  | G 1/4"   | 20  | 7    | 9    | 17       | -    | -    | -    |
| G16  | G 3/8"   | 22  | 8    | 9    | 18       | 19,5 | 9,2  | 7,8  |
| G20  | G 1/2"   | 28  | 8    | 9    | 22       | 25,5 | 9,2  | 7,8  |
| G26  | G 3/4"   | 35  | 9    | 10   | 27       | 29,5 | 10,5 | 8,5  |
| G33  | G 1"     | 42  | 11,5 | 12,5 | 34       | 39   | 13   | 11   |
| G42  | G 1 1/4" | 52  | 12   | 13   | 42       | 49   | 13,5 | 11,5 |
| G48  | G 1 1/2" | 58  | 14   | 13   | 47       | 54   | 15,5 | 11,5 |
| G60  | G 2"     | 74  | 14   | 20   | 64       | -    | -    | -    |

Spare parts

| Size | Expansion kit |
|------|---------------|
| -    | -             |
| G16  | 2026020       |
| G20  | 2026021       |
| G26  | 2026019       |
| G33  | 2026023       |
| G42  | 2026025       |
| G48  | 2026026       |
| -    | -             |

N.B. Recommended tightening torque 10 Nm.

Ordering information

Threaded  
sight  
plug  
LCP\*\*\*N  
Example: LCP

|                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1                        | 2                        | 3                        | 4                        | 5                        | 6                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G20                      | N                        | C                        | A                        | K                        | P01                      |

1 - Size

|     |          |
|-----|----------|
| G13 | G 1/4"   |
| G16 | G 3/8"   |
| G20 | G 1/2"   |
| G26 | G 3/4"   |
| G33 | G 1"     |
| G42 | G 1 1/4" |
| G48 | G 1 1/2" |
| G60 | G 2"     |

2 - Material

|   |             |
|---|-------------|
| N | Black nylon |
|---|-------------|

3 - Accessories

|   |                          |
|---|--------------------------|
| S | Standard view (G13 only) |
| C | Baffle                   |

4 - Seal

|   |                 |
|---|-----------------|
| A | NBR (only K)    |
| B | Inorganic fibre |

Quantity per pack  
Number of Parts

LCP/N 25

Ø hole for Expansion kit

| Size | Diameter |
|------|----------|
| G16  | Ø 20     |
| G20  | Ø 26     |
| G26  | Ø 30     |
| G33  | Ø 40     |
| G42  | Ø 50     |
| G48  | Ø 55     |

5 - Expansion kit

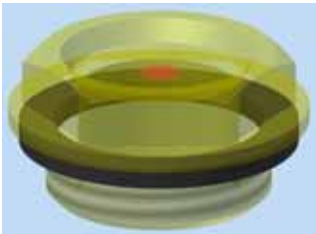
|   |                                |
|---|--------------------------------|
| S | Without                        |
| K | Expansion kit (for except G13) |

6 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Series

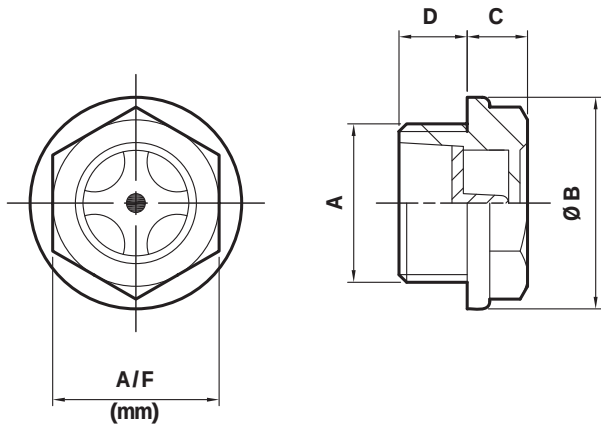
LCP\*\*\*T



- LCP\*\*\*T\*\*\* (Materials)
- 1 - Body: Polyammide
  - 2 - Contrast screen: Nylon
  - 3 - Seal: NBR

Dimensions

LCP\*\*\*T\*\*\*



| Size | A        | Ø B  | C   | D   | A/F (mm) |
|------|----------|------|-----|-----|----------|
| G13  | G 1/4"   | 19   | 4,5 | 7   | 15       |
| G16  | G 3/8"   | 21,7 | 5   | 7,5 | 17       |
| G20  | G 1/2"   | 27   | 5,5 | 8   | 21       |
| G26  | G 3/4"   | 32,8 | 6   | 9   | 26       |
| G33  | G 1"     | 39,8 | 6,5 | 10  | 32       |
| G42  | G 1 1/4" | 52   | 12  | 13  | 42       |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10 Nm.

Ordering information

Threaded  
sight  
plug  
LCP\*\*\*T

Example: LCP

1 - Size

|     |          |
|-----|----------|
| G13 | G 1/4"   |
| G16 | G 3/8"   |
| G20 | G 1/2"   |
| G26 | G 3/4"   |
| G33 | G 1"     |
| G42 | G 1 1/4" |

2 - Material

|   |            |
|---|------------|
| T | Polyammide |
|---|------------|

3 - Accessories

|   |                           |
|---|---------------------------|
| S | Without baffle            |
| C | Baffle (G26-G33-G42 only) |

4 - Seal

|   |     |
|---|-----|
| A | NBR |
|---|-----|

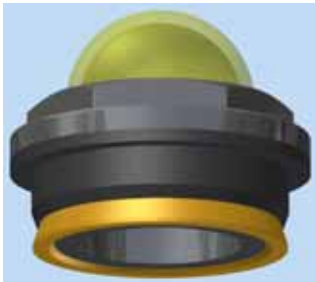
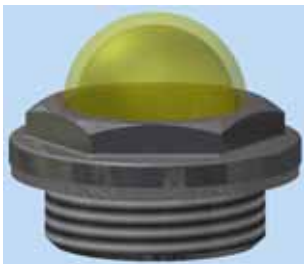
5 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Quantity per pack  
Number of Parts

|       |    |
|-------|----|
| LCP/T | 25 |
|-------|----|

Series **LCC\*\*\*N**

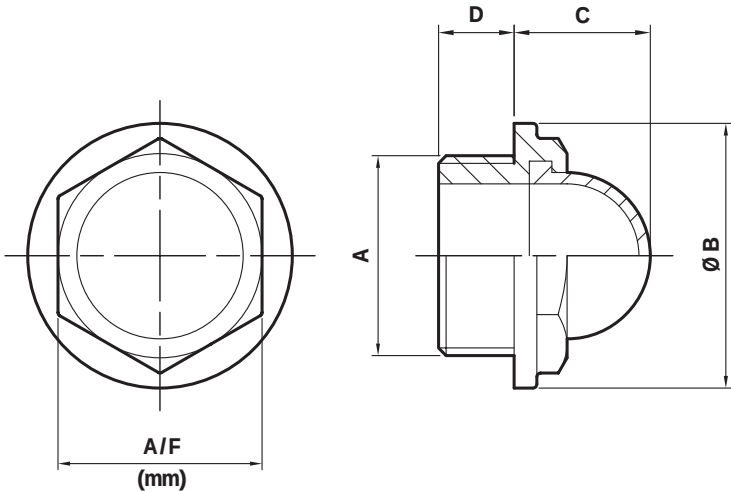


LCC\*\*\*N\*\*\*\*\* (Materials)

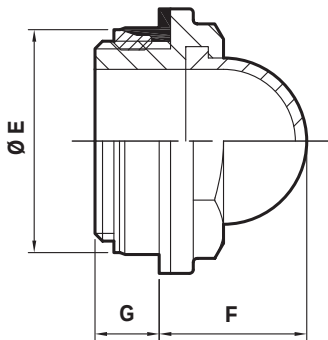
- 1 - Body: Nylon
- 2 - Lens: Polyammide
- 3 - Contrast screen: Nylon
- 4 - Seals: NBR  
Inorganic fibre
- 5 - Expansion kit: Brass - NBR

Dimensions

LCC\*\*\*N\*\*\*S



LCC\*\*\*N\*\*\*K



Spare parts

| Size | A        | Ø B | C    | D    | A/F (mm) | Ø E  | F    | G    | Size | Expansion kit |
|------|----------|-----|------|------|----------|------|------|------|------|---------------|
| G20  | G 1/2"   | 28  | 15,5 | 9,5  | 22       | 25,5 | 16,7 | 8,3  | G20  | 2026021       |
| G26  | G 3/4"   | 35  | 18   | 10   | 27       | 29,5 | 19,5 | 8,5  | G26  | 2026019       |
| G33  | G 1"     | 42  | 22   | 12   | 34       | 39   | 23,5 | 10,5 | G33  | 2026023       |
| G42  | G 1 1/4" | 52  | 28   | 13   | 44       | 49   | 29,5 | 11,5 | G42  | 2026025       |
| G48  | G 1 1/2" | 58  | 31   | 13,5 | 50       | 54   | 32,5 | 12   | G48  | 2026026       |
| G60  | G 2"     | 74  | 37   | 20   | 64       | -    | -    | -    | -    | -             |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10 Nm.

Ordering information

Quantity per pack  
Number of Parts

LCC / N 25

Ø hole for Expansion kit

| Size | Diameter |
|------|----------|
| G20  | Ø 26     |
| G26  | Ø 30     |
| G33  | Ø 40     |
| G42  | Ø 50     |
| G48  | Ø 55     |

Threaded  
sight  
plug

LCC\*\*\*N

Example: LCC

1 - Size

|     |          |
|-----|----------|
| G20 | G 1/2"   |
| G26 | G 3/4"   |
| G30 | G 7/8"   |
| G33 | G 1"     |
| G42 | G 1 1/4" |
| G48 | G 1 1/2" |
| G60 | G 2"     |

2 - Material

|   |             |
|---|-------------|
| N | Black nylon |
|---|-------------|

|     |   |   |   |     |
|-----|---|---|---|-----|
| 1   | 2 | 3 | 4 | 5   |
|     |   |   |   |     |
| G26 | N | A | K | P01 |

3 - Seal

|   |                 |
|---|-----------------|
| A | NBR (K only)    |
| B | Inorganic fibre |

4 - Expansion

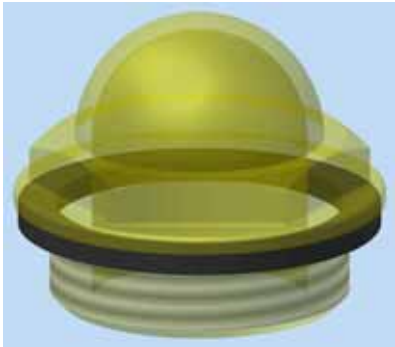
|   |               |
|---|---------------|
| S | Without       |
| K | Expansion kit |

5 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Series

LCC\*\*\*T

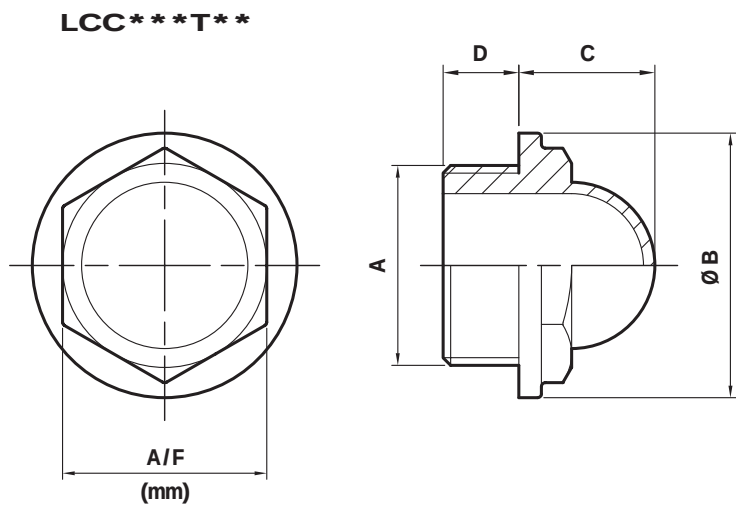


LCC\*\*\*T\*\* (Materials)

1 - Body: Polyammide

2 - Seal: NBR

Dimensions



| Size | A      | Ø B  | C    | D   | A/F (mm) |
|------|--------|------|------|-----|----------|
| G13  | G 1/4" | 19   | 10,5 | 7   | 15       |
| G16  | G 3/8" | 21,7 | 12   | 7,5 | 17       |
| G20  | G 1/2" | 27   | 14,5 | 8   | 21       |
| G26  | G 3/4" | 32,8 | 17   | 9   | 26       |
| G33  | G 1"   | 39,8 | 20,5 | 10  | 32       |

N.B. Seals thickness 2 mm.  
Recommended tightening torque 10 Nm.

Ordering information

Threaded  
sight  
plug

LCC\*\*\*T

Example: LCC

1 - Size

|     |        |
|-----|--------|
| G13 | G 1/4" |
| G16 | G 3/8" |
| G20 | G 1/2" |
| G26 | G 3/4" |
| G33 | G 1"   |

2 - Material

|   |            |
|---|------------|
| T | Polyammide |
|---|------------|

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 1           | 2           | 3           | 4           |
| <div></div> | <div></div> | <div></div> | <div></div> |
| G20         | T           | A           | P01         |

3 - Seal

|   |     |
|---|-----|
| A | NBR |
|---|-----|

4 - Options

|     |             |
|-----|-------------|
| P01 | MP Standard |
|-----|-------------|

Quantity per pack  
Number of Parts

|       |    |
|-------|----|
| LCC/T | 25 |
|-------|----|

# PRESSURE GAUGE SELECTORS



Gauge isolator valves are designed to protect pressure gauges from pressure shocks when the pressure reading is not required; after each reading setting the selector to the closed position serves to depressurise the pressure gauge by means of the T fitting connected to the reservoir. 3 and 6-way pressure gauge selectors perform the same function as the gauge isolator valves, allowing pressure values from different parts of the system to be read using a single pressure gauge.

## Working pressure

- 400 bar

## Temperature

- from -25° to +100°C

## Compatibility

- NBR seals, compatible with:  
Mineral oils to ISO 2943 · aqueous emulsions  
Synthetic fluids, glycol water.
- FPM seals, compatible with:  
Synthetic fluids type HS-HFDR-HFDS-HFDU.

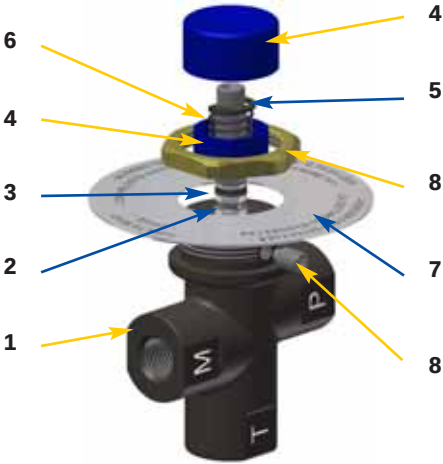
Series

EM1 - A

Instructions for using gauge

isolators series:

EM1 "A"



EM1-A (Materials)

- 1 - Body: Cast iron
- 2 - Pin: Steel
- 3 - Seals: NBR - FPM
- 4 - Knob/Cover: Nylon
- 5 - Stop ring: Steel
- 6 - Spring: Steel
- 7 - Nameplate: Aluminium
- 8 - Nut-Screw: Galvanised steel

Weight  
EM1-A: 0,410 Kg



- 1  
Button not pressed: pressure gauge isolated.
- 2  
Button pressed: pressure gauge reading.
- 3  
Button pressed and turned (either to left or right): button remains in position and pressure gauge measures pressure continuously.
- 4  
To isolate the pressure gauge from pressure reading, turn the button until it returns to the not pressed position.

Ordering information

Pressure  
gauge  
isolator  
EM1

Example: EM1

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 1           | 2           | 3           | 4           |
| <div></div> | <div></div> | <div></div> | <div></div> |
| A           | G1          | A           | P01         |

1 - Mounting type

|              |                             |
|--------------|-----------------------------|
| <div>A</div> | Panel mounting with hex nut |
|--------------|-----------------------------|

2 - Connections

|               |                     |
|---------------|---------------------|
| <div>G1</div> | G 1/4"              |
| <div>G2</div> | 1/4" NPT            |
| <div>G3</div> | SAE 5 (1/2" 20 UNF) |

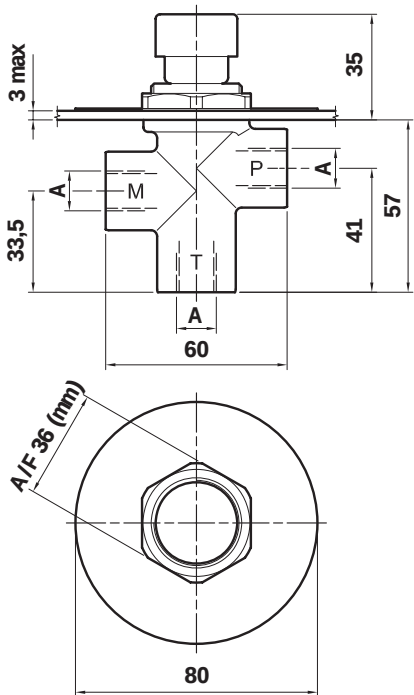
3 - Seal

|              |     |
|--------------|-----|
| <div>A</div> | NBR |
| <div>V</div> | FPM |

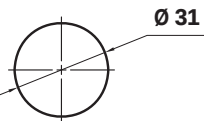
4 - Options

|                |             |
|----------------|-------------|
| <div>P01</div> | MP Standard |
|----------------|-------------|

Dimensions



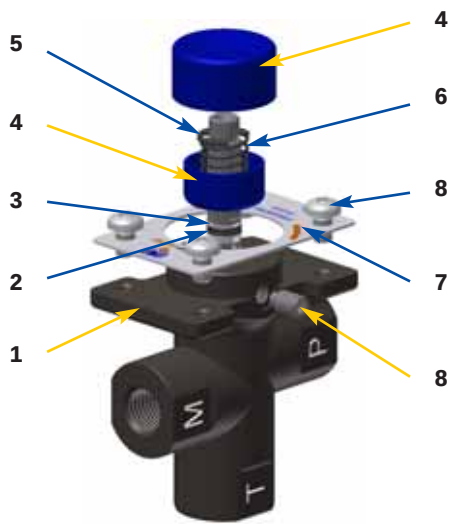
Mounting holes



| Type | A                   |
|------|---------------------|
| G1   | G 1/4"              |
| G2   | 1/4" NPT            |
| G3   | SAE 5 (1/2" 20 UNF) |

Series

EM1 - B



EM1-B (Materials)

- 1 - Body: Cast iron
- 2 - Pin: Steel
- 3 - Seals: NBR - FPM
- 4 - Knob/Cover: Nylon
- 5 - Stop ring: Steel
- 6 - Spring: Steel
- 7 - Nameplate: Aluminium
- 8 - Nut-Screw: Galvanised steel

WeightMounting type  
EM1-B: 0,440 Kg



Specifications for using gauge  
isolators series:  
EM1 “B”

- 1  
Button not pressed: pressure gauge isolated.
- 2  
Button pressed: pressure gauge reading.
- 3  
Button pressed and turned  
(either to left or right): button remains in  
position and pressure gauge measures  
pressure continuously.
- 4  
To isolate the pressure gauge from  
pressure reading, turn the  
button until it returns to the not pressed  
position.

Ordering information

Pressure  
gauge  
isolator  
EM1

Example: EM1

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 1           | 2           | 3           | 4           |
| <div></div> | <div></div> | <div></div> | <div></div> |
| B           | G1          | A           | P01         |

1 - Mounting type

|              |                            |
|--------------|----------------------------|
| <div>B</div> | Panel mounting with screws |
|--------------|----------------------------|

3 - Seal

|              |     |
|--------------|-----|
| <div>A</div> | NBR |
| <div>V</div> | FPM |

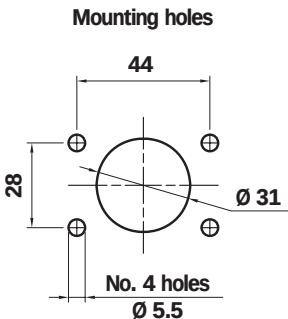
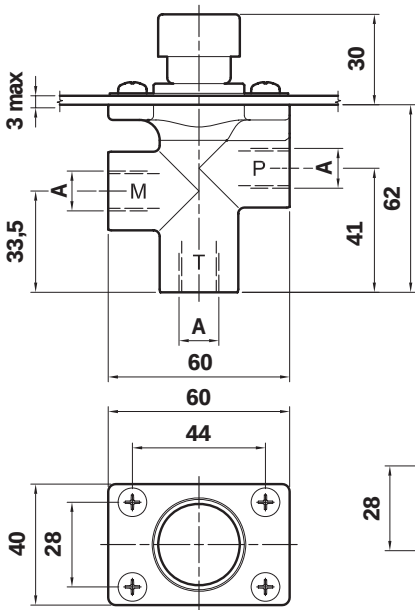
2 - Connections

|               |                     |
|---------------|---------------------|
| <div>G1</div> | G 1/4"              |
| <div>G2</div> | 1/4" NPT            |
| <div>G3</div> | SAE 5 (1/2" 20 UNF) |

4 - Options

|                |             |
|----------------|-------------|
| <div>P01</div> | MP Standard |
|----------------|-------------|

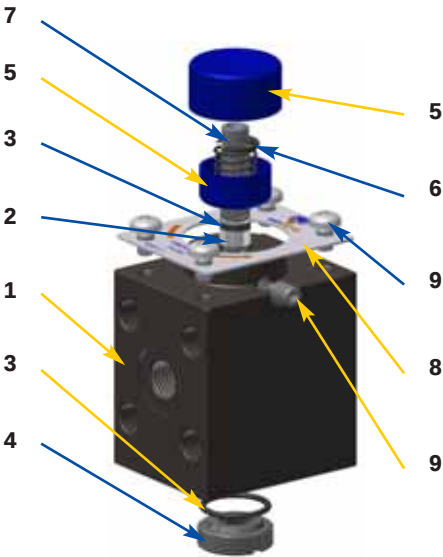
Dimensions



|      |                     |
|------|---------------------|
| Type | A                   |
| G1   | G 1/4"              |
| G2   | 1/4" NPT            |
| G3   | SAE 5 (1/2" 20 UNF) |

Serie

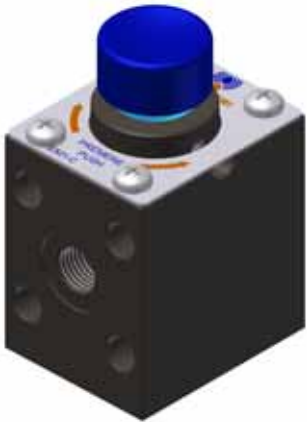
EM1 - C



EM1-C (Materials)

- 1 - Body: Cast iron
- 2 - Pin: Steel
- 3 - Seals: NBR - FPM
- 4 - Plug: Anodised Aluminium
- 5 - Knob/Cover: Nylon
- 6 - Stop ring: Steel
- 7 - Spring: Steel
- 8 - Nameplate: Aluminium
- 9 - Screw: Galvanised steel

Weight  
EM1-C: 1,0 Kg



Instructions for using gauge iso-

lators series:

EM1 "C"

- 1  
Button not pressed: pressure gauge isolated.
- 2  
Button pressed: pressure gauge reading.
- 3  
Button pressed and turned (either to left or right): button remains in position and pressure gauge measures pressure continuously.
- 4  
To isolate the pressure gauge from pressure reading, turn the button until it returns to the not pressed position.

Ordering information

Pressure gauge isolator

EM1

Example: EM1

1 - Mounting type

**C** Universal

2 - Connections

- G1** G 1/4"
- G2** 1/4" NPT
- G3** SAE 5 (1/2" 20 UNF)

- |   |    |   |     |
|---|----|---|-----|
| 1 | 2  | 3 | 4   |
|   |    |   |     |
| C | G1 | A | P01 |

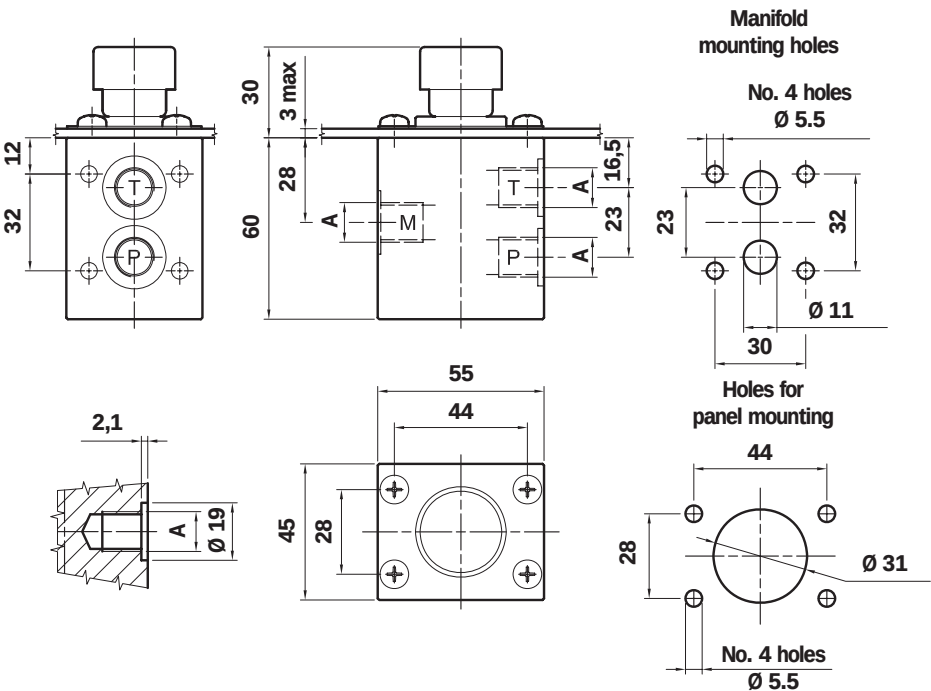
3 - Seal

- |  |     |
|--|-----|
|  | NBR |
|  | FPM |

4 - Options

- |  |             |
|--|-------------|
|  | MP Standard |
|--|-------------|

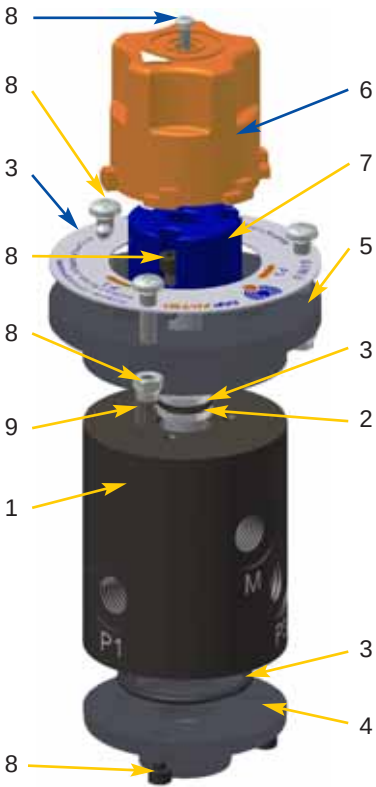
Dimensions



| Type | A                   |
|------|---------------------|
| G1   | G 1/4"              |
| G2   | 1/4" NPT            |
| G3   | SAE 5 (1/2" 20 UNF) |

Series

SVM



- SVM (Materials)
- 1 - Body: Cast iron

2 - Pin: Steel

3 - Seals: NBR - FPM

4 - Cover: Anodised Aluminium

5 - Flange: Anodised Aluminium

6 - Knob: Nylon

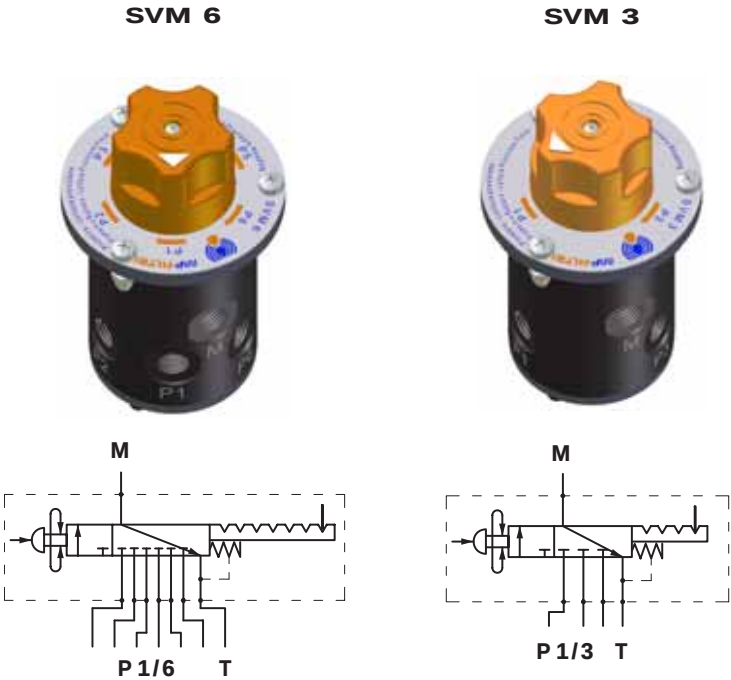
7 - Ringnut: Nylon

8 - Screws-Nuts: Galvanised /Phosphated steel

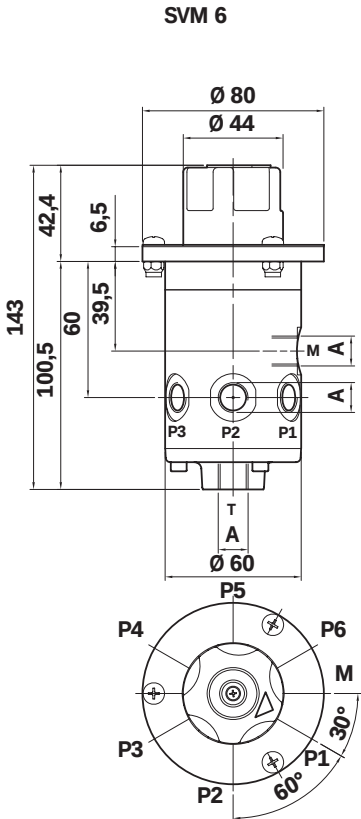
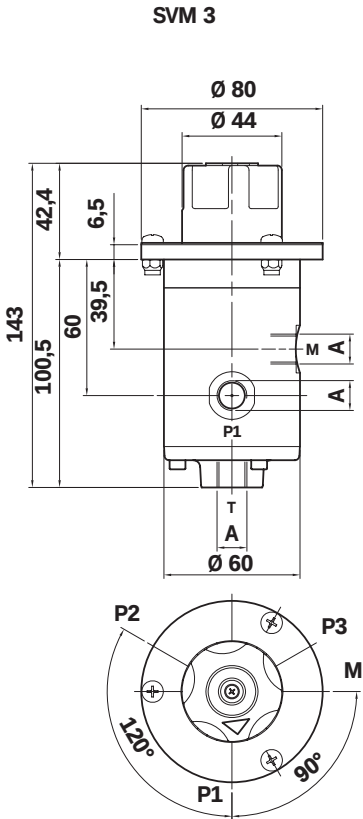
9 - Pin: Steel

Weights  
SVM 3: 1,547 Kg  
SVM 6: 1,507 Kg

Hydraulic schematics



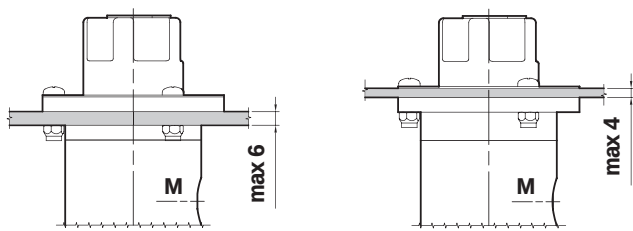
Dimensions



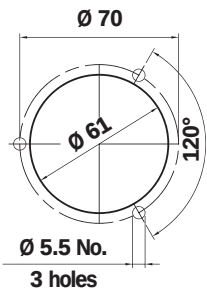
Ø 60

| Type | A                   |
|------|---------------------|
| G1   | G 1/4"              |
| G2   | 1/4" NPT            |
| G3   | SAE 5 (1/2" 20 UNF) |

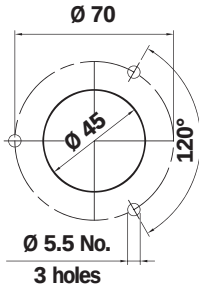
Mounting holes



Type A



Type B



Instructions for using gauge  
isolators series:  
SVM



- 1  
Knob not pressed: pressure gauge isolated.
- 2  
Turn the knob to select the pressure value.
- 3  
Knob pressed: pressure gauge reading.
- 4  
Knob pressed and turned: the knob remains in position and pressure gauge measures pressure continuously.
- 5  
To isolate the pressure gauge from pressure reading, turn the button until it returns to the not pressed position.

Ordering information

Selector  
for  
pressure gauge  
SVM

Example: SVM

| 1                        | 2                        | 3                        | 4                        |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6                        | G1                       | A                        | P01                      |

1 - Number of connections

|                          |                |
|--------------------------|----------------|
| <input type="checkbox"/> | Pressure ports |
| <input type="checkbox"/> | Pressure ports |

2 - Connections

|                          |                     |
|--------------------------|---------------------|
| <input type="checkbox"/> | G 1/4"              |
| <input type="checkbox"/> | 1/4" NPT            |
| <input type="checkbox"/> | SAE 5 (1/2" 20 UNF) |

3 - Seal

|                          |     |
|--------------------------|-----|
| <input type="checkbox"/> | NBR |
| <input type="checkbox"/> | FPM |

4 - Options

|                          |             |
|--------------------------|-------------|
| <input type="checkbox"/> | MP Standard |
|--------------------------|-------------|

# OIL TANK FIXING FLANGE

## FTA - FTR



FT flanges make it possible to fix suction and return lines on the reservoir cover. Fitting a flexible insert allows separation of pipes. Both rigid pipes and flexible hoses can be separated from the reservoir walls, absorbing vibration and reducing plant noise emissions.

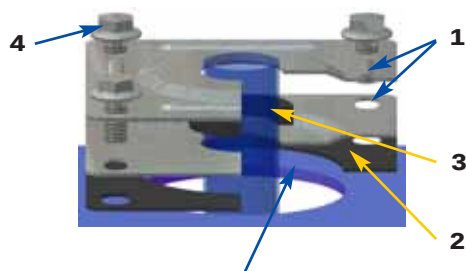
### Temperature

- from -25° to +100°C

### Compatibility

- NBR seals and Cork Gasket, compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, glycol water.

### FTA



**Drill the panel:**

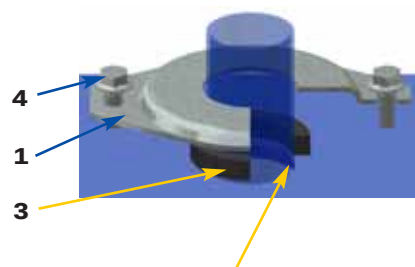
Ø 105 for types from 1215 ÷ 3842  
Ø 145 for types from 4850 ÷ 8789

### FTA - FTR (Materials)

- 1 - Flange: Galvanised steel
- 2 - Flange seal: Inorganic fibre
- 3 - Tube seal: NBR
- 4 - Screw: Galvanised steel

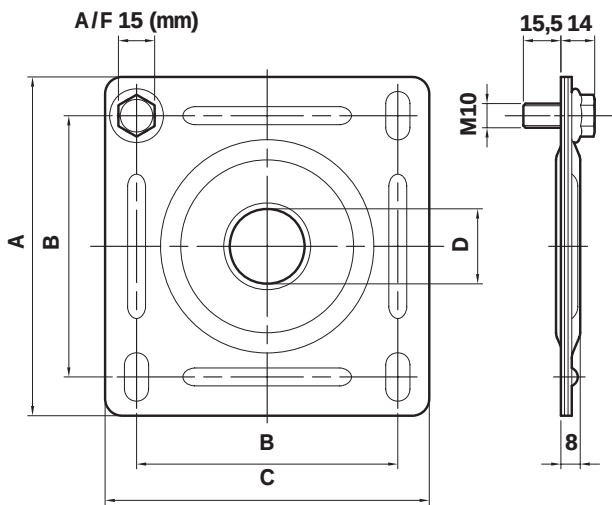
- 1 - Flexible element
- 2 - Seal

### FTR



**Drill the panel max 2 mm more than the pipe Ø**

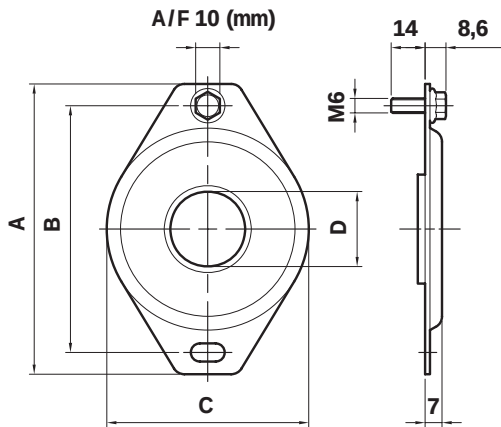
FTA



| Type     | A   | B   | C   | Ø D   | Weight (Kg) |
|----------|-----|-----|-----|-------|-------------|
| FTA 1215 | 140 | 108 | 134 | 12÷15 | 0,590       |
| FTA 1620 | 140 | 108 | 134 | 16÷20 | 0,570       |
| FTA 2225 | 140 | 108 | 134 | 22÷25 | 0,550       |
| FTA 2630 | 140 | 108 | 134 | 26÷30 | 0,530       |
| FTA 3235 | 140 | 108 | 134 | 32÷35 | 0,500       |
| FTA 3842 | 140 | 108 | 134 | 38÷42 | 0,520       |
| FTA 4850 | 190 | 159 | 184 | 48÷50 | 0,920       |
| FTA 6061 | 190 | 159 | 184 | 60÷61 | 0,900       |
| FTA 7577 | 190 | 159 | 184 | 75÷77 | 0,860       |
| FTA 8789 | 190 | 159 | 184 | 87÷89 | 0,830       |

N.B. Tightening torque MAX 20 Nm.

FTR



| Type     | A   | B   | C    | Ø D   | Weight (Kg) |
|----------|-----|-----|------|-------|-------------|
| FTR 0610 | 71  | 54  | 39,5 | 6÷10  | 0,045       |
| FTR 1215 | 71  | 54  | 39,5 | 12÷15 | 0,043       |
| FTR 1620 | 71  | 54  | 39,5 | 16÷20 | 0,040       |
| FTR 2225 | 120 | 102 | 83,5 | 22÷25 | 0,100       |
| FTR 2630 | 120 | 102 | 83,5 | 26÷30 | 0,103       |
| FTR 3235 | 120 | 102 | 83,5 | 32÷35 | 0,098       |
| FTR 3842 | 120 | 102 | 83,5 | 38÷42 | 0,095       |
| FTR 4850 | 120 | 102 | 83,5 | 48÷50 | 0,090       |
| FTR 6061 | 120 | 102 | 83,5 | 60÷61 | 0,085       |

N.B. Tightening torque MAX 20 Nm.

Ordering information

Suction line flange  
FTA

Example: FTA

1 - Size

| Ø Pipe<br>Min - Max |         |
|---------------------|---------|
| 1215                | 12 - 15 |
| 1620                | 16 - 20 |
| 2225                | 22 - 25 |
| 2630                | 26 - 30 |
| 3235                | 32 - 35 |
| 3842                | 38 - 42 |
| 4850                | 48 - 50 |
| 6061                | 60 - 61 |
| 7577                | 75 - 77 |
| 8789                | 87 - 89 |

|      |   |   |     |
|------|---|---|-----|
| 1    | 2 | 3 | 4   |
|      |   |   |     |
| 2630 | G | A | P01 |

2 - Flange seal

|  |                 |
|--|-----------------|
|  | Inorganic fibre |
|--|-----------------|

3 - Pipe seal

|  |     |
|--|-----|
|  | NBR |
|--|-----|

4 - Options

|  |             |
|--|-------------|
|  | MP Standard |
|--|-------------|

Return line flange  
FTR

Example: FTR

1 - Size

| Ø Pipe<br>Min - Max |         |
|---------------------|---------|
| 0610                | 6 - 10  |
| 1215                | 12 - 15 |
| 1620                | 16 - 20 |
| 2225                | 22 - 25 |
| 2630                | 26 - 30 |
| 3235                | 32 - 35 |
| 3842                | 38 - 42 |
| 4850                | 48 - 50 |
| 6061                | 60 - 61 |

|      |   |   |     |
|------|---|---|-----|
| 1    | 2 | 3 | 4   |
|      |   |   |     |
| 2630 | O | A | P01 |

2 - Flange seal

|  |         |
|--|---------|
|  | Without |
|--|---------|

3 - Pipe seal

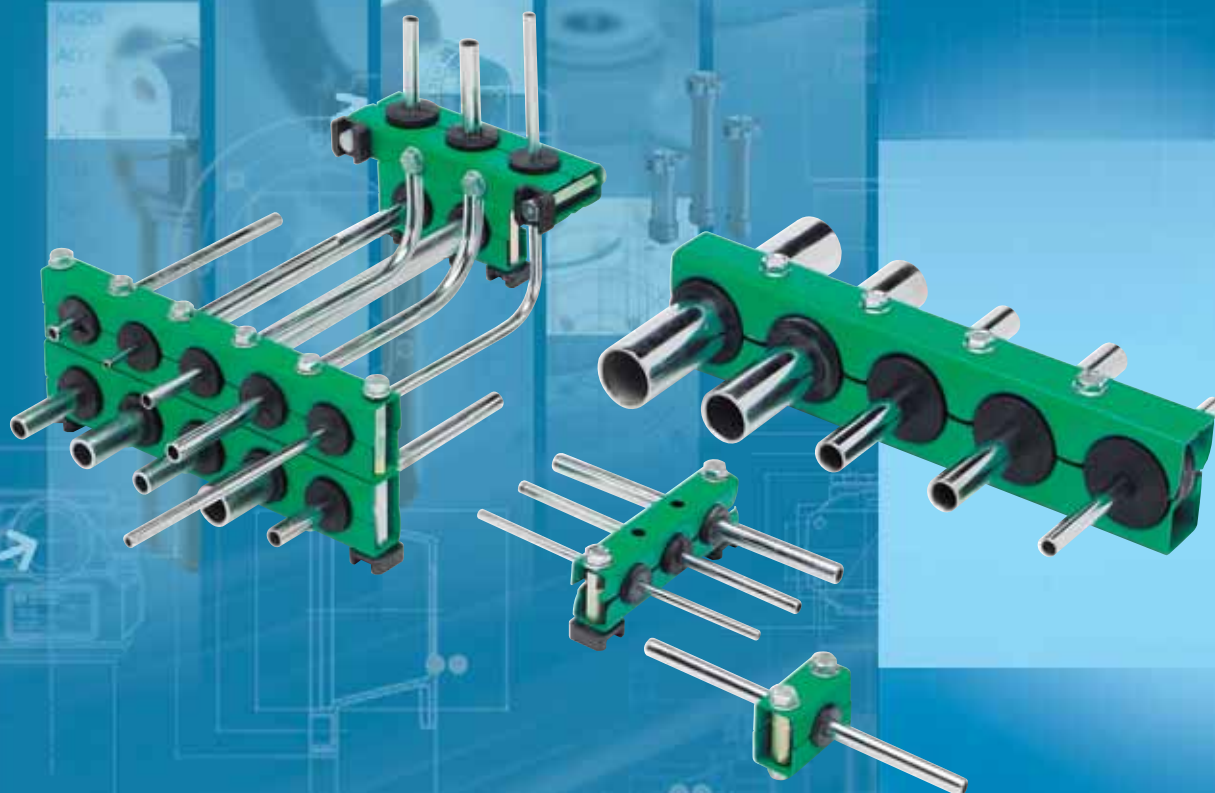
|  |     |
|--|-----|
|  | NBR |
|--|-----|

4 - Options

|  |             |
|--|-------------|
|  | MP Standard |
|--|-------------|

# MULTIFIX

## FIXING CLAMPS



MULTIFLEX fixing clamps are particularly suitable when a series of pipelines must be installed requiring neat and high precision installation. These brackets make it possible to install various pipelines of different types and diameters, rapidly, easily, and, more importantly, economically.

MULTIFIX clamps support, guide, and absorb impact and vibration, protecting the pipes and dispensing with the need for complex and unsightly mounting systems with angle clamps etc.

An orderly layout facilitates maintenance resulting in significant savings in running costs; it also allows intuitive visual design of the plant, which can be assembled easily even without specialised labour.

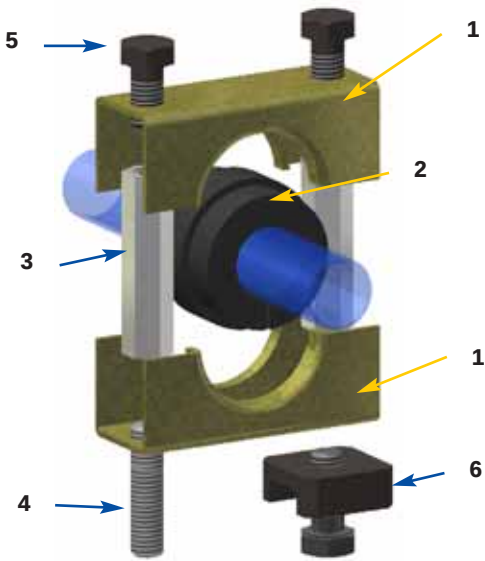
### **Temperature**

- from -25° to +100°C

### **Compatibility**

- NBR seals and Cork Gasket, compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, glycol water.

SFT Single

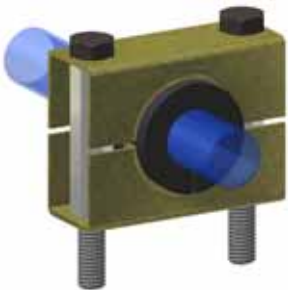


SFT (Materials)

- 1 - Pair of brackets: Galvanised steel
- 2 - Bush: NBR
- 3 - Spacer: Steel
- 4 - Studs: Steel
- 5 - Screws: Steel
- 6 - Foot + screw: Steel

Ordering information

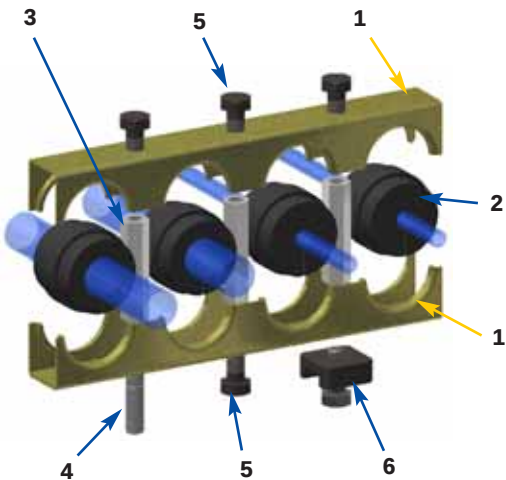
|            | Size         |
|------------|--------------|
| 1 - SFT    | 38 - 51 - 78 |
| 2 - B      | 38 - 51 - 78 |
| 3 - D      | 38 - 51 - 78 |
| 4 - P      | 38 - 51 - 78 |
| 5 - Screws | Steel        |
| 6 - W      | 38 - 51 - 78 |



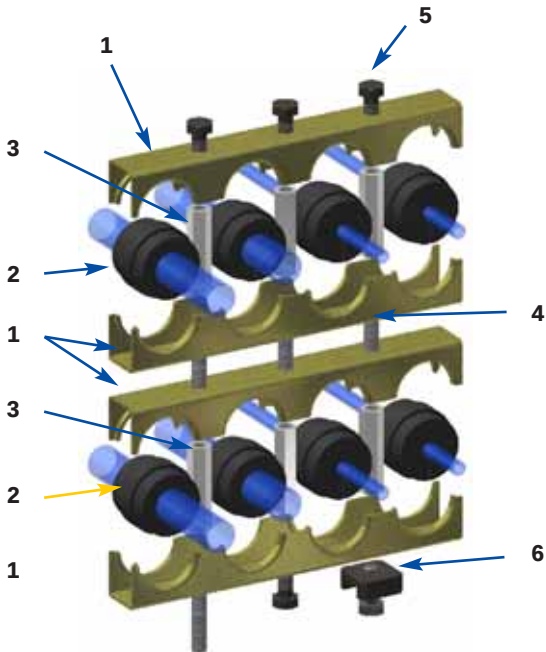
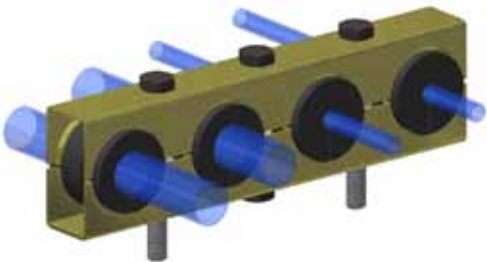
Fixing with threaded holes



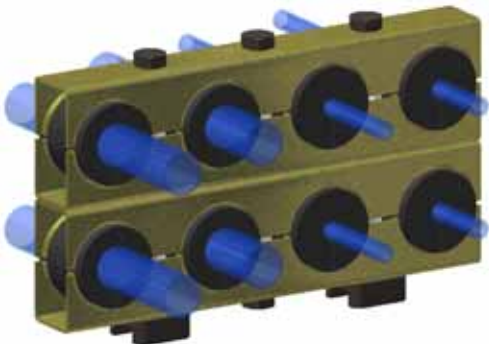
Fixing with welded foot



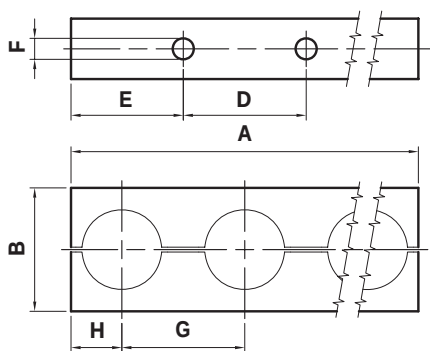
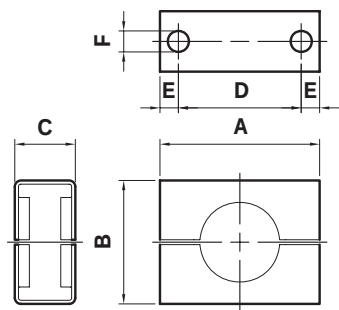
SFT Modular



SFT Modular and Stacked

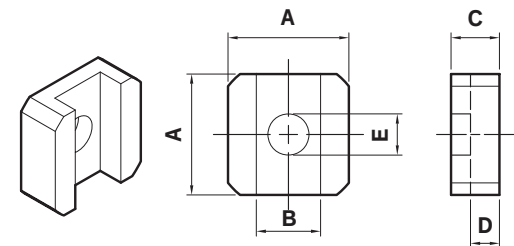


Dimensions

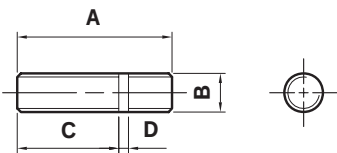


| Ordering information | A  | B  | C  | D    | E   | F    | Weights (Kg) |
|----------------------|----|----|----|------|-----|------|--------------|
| SFT 38 1             | 56 | 38 | 25 | 38,1 | 9   | 8,7  | 0,07         |
| SFT 51 1             | 66 | 51 | 25 | 50,8 | 7,5 | 8,7  | 0,09         |
| SFT 78 1             | 95 | 78 | 41 | 76,2 | 9,5 | 11,1 | 0,34         |

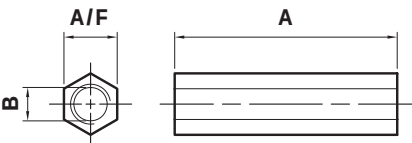
| Ordering information | A    | B  | C  | D    | E  | F    | G    | H  | Weights (Kg) |
|----------------------|------|----|----|------|----|------|------|----|--------------|
| SFT 38 26            | 982  | 38 | 25 | 38,1 | 34 | 8,7  | 38,1 | 15 | 1,04         |
| SFT 51 19            | 956  | 51 | 25 | 50,8 | 47 | 8,7  | 50,8 | 21 | 1,25         |
| SFT 78 16            | 1213 | 78 | 41 | 76,2 | 72 | 11,1 | 76,2 | 35 | 4,14         |



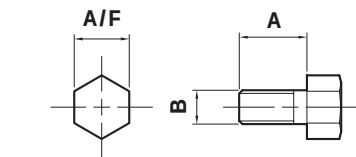
| Foot | SFT 38/51 | SFT 78 |
|------|-----------|--------|
| A    | 25        | 32     |
| B    | 13,3      | 17,5   |
| C    | 10        | 12     |
| D    | 6         | 8      |
| E    | 8,5       | 11     |



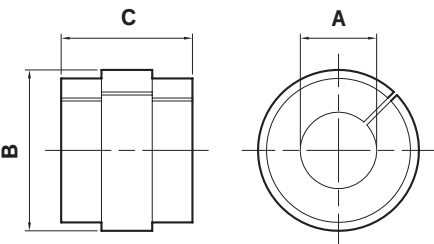
| Stud | SFT 38/51 | SFT 78 |
|------|-----------|--------|
| A    | 32        | 38     |
| B    | M8        | M10    |
| C    | 21        | 22     |
| D    | 2         | 2      |



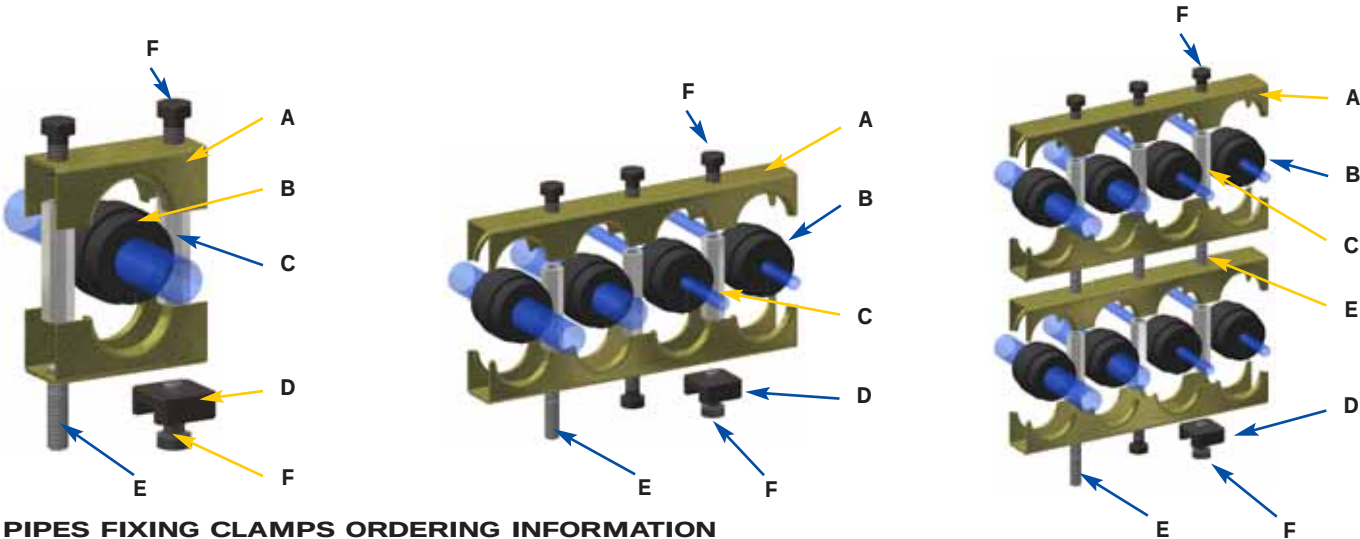
| Spacer | SFT 38 | SFT 51 | SFT 78 |
|--------|--------|--------|--------|
| A      | 33     | 46     | 72     |
| B      | M8     | M8     | M10    |
| A/F    | 11     | 11     | 13     |



| Screw | SFT 38/51 | SFT 78 |
|-------|-----------|--------|
| A     | 16        | 30     |
| B     | M8        | M10    |
| A/F   | 13        | 17     |



|          |               | Bushes   |               | SFT 78   |               |
|----------|---------------|----------|---------------|----------|---------------|
|          |               | Bushes   |               | B = Ø 59 | C = 45<br>Ø A |
|          |               | SFT 51   |               |          |               |
| Bushes   |               | B = Ø 38 | C = 31<br>Ø A |          | 8             |
| SFT 38   |               |          |               |          | 10            |
| B = Ø 25 | C = 31<br>Ø A |          | 6             |          | 12            |
|          |               |          | 8             |          | 15            |
|          |               |          | 8             |          | 18            |
|          |               |          | 10            |          | 22            |
|          | 6             |          | 12            |          | 25            |
|          | 8             |          | 15            |          | 28            |
|          | 10            |          | 18            |          | 33            |
|          | 12            |          | 22            |          | 35            |
|          | 15            |          | 25            |          | 42            |
|          | 18            |          | 28            |          | 50            |



PIPES FIXING CLAMPS ORDERING INFORMATION

A

SFT

Example: SFT

1

2

3

51

19

P01

1 - Size

38

51

78

2 - No. of tube connections

Single style

1

All sizes / Single hole

Multiple style

26

Size 38 / No. holes: 26

19

Size 51 / No. holes: 19

16

Size.78 / No. holes: 16

xx

On request

3 - Options

P01

MP Standard

ORDERING INFORMATION FOR ACCESSORIES FOR: SFT

| " B " Pipe bushes |          |          |              |                 |
|-------------------|----------|----------|--------------|-----------------|
| Size 38           | Size 51  | Size 78  | Øe Pipe (mm) | Øe Pipe (inch)  |
| B38 6             | B51 6    | -        | 6            | 1/4"            |
| B38 8             | B51 8    | B78 8    | 8            | 5/16"           |
| B38 10            | B51 10   | B78 10   | 10           | 3/8"            |
| B38 1214          | B51 1214 | B78 1214 | 12 - 14      | 1/2"            |
| B38 1516          | B51 1516 | B78 1516 | 15 - 16      | 5/8"            |
| B38 1820          | B51 1820 | B78 1820 | 18 - 20      | 3/4"            |
|                   | B51 22   | B78 22   | 22           | 7/8"            |
|                   | B51 25   | B78 25   | 25           | 1"              |
|                   | B51 28   | -        | 28           | -               |
|                   |          | B78 2830 | 28 - 30      | 1 1/8"          |
|                   |          | B78 33   | 33           | 1 1/4"          |
|                   |          | B78 3538 | 35 - 38      | 1 3/8" - 1 1/2" |
|                   |          | B78 42   | 42           | 1 3/4"          |
|                   |          | B78 50   | 50           | 2"              |

Example: B 51 1516

| " C " Spacer |                |
|--------------|----------------|
| D38M         | Size 38 Metric |
| D51M         | Size 51 Metric |
| D78M         | Size 78 Metric |
| D38U         | Size 38 UNC    |
| D51U         | Size 51 UNC    |
| D78U         | Size 78 UNC    |

Example: D 51 M

| " D " Foot |                |
|------------|----------------|
| W3851      | Size 38 and 51 |
| W78        | Size 78        |

Example: W 3851

| " E " Stud |                       |
|------------|-----------------------|
| P3851M     | Size 38 and 51 Metric |
| P78M       | Size 78 Metric        |
| P3851U     | Size 38 and 51 UNC    |
| P78U       | Size 78 UNC           |

Example: P3851 M

| " F " Screw |                       |
|-------------|-----------------------|
| V3851M      | Size 38 and 51 Metric |
| V78M        | Size 78 Metric        |
| V3851U      | Size 38 and 51 UNC    |
| V78U        | Size 78 UNC           |

Example: V 3851 M