

Y-filters standard and magnetizable versions

Datasheet
0329EN  10/2021



NOT MAGNETIZABLE

MAGNETIZABLE

Inspectable Y-filters, suitable for the distribution of non-hazardous fluids (group 2, according to the PED Directive) which are safe for use with copper alloys.

The filters feature a metallic mesh, which was designed to prevent solid impurities from entering into the piping and, by depositing residues, reducing the width of the passage, thus increasing losses of pressure and oxidation.

➤ Versions and product codes

VERSION	PRODUCT CODE	CONNECTIONS	Kv
NOT magnetizable	R74AY002	G 3/8"F	3,0
	R74AY003	G 1/2"F	4,5
	R74AY004	G 3/4"F	7,0
	R74AY005	G 1"F	7,8
	R74AY006	G 1-1/4"F	15,0
	R74AY007	G 1-1/2"F	21,0
	R74AY008	G 2"F	34,0
	R74AY009	G 2-1/2"F	64,0
	R74AY010	G 3"F	81,0
	R74AY011	G 4"F	102,0
Magnetizable	R74AY103	G 1/2"F	3,5
	R74AY104	G 3/4"F	5,9
	R74AY105	G 1"F	10,0
	R74AY106	G 1-1/4"F	18,2
	R74AY107	G 1-1/2"F	20,9
	R74AY108	G 2"F	32,0

➤ Technical data

- Temperature range: 5÷110 °C (5÷90 °C if the P74M magnetic kit is installed)
- Max. working pressure for NOT magnetizable filters: 16 bar
- Max. working pressure for magnetizable filters: 30 bar
- Filtering capacity: 500 µm

Materials - NOT magnetizable filters

- Body: UNI EN 12165 - CW617N brass for 3/8"÷1 1/4"; EN 1982 - CB753S brass for 1 1/2"÷2 1/2"; UNI EN 1982 - CB491K bronze for 3", 4"
- Cap: UNI EN 12165 - CW617N brass
- O-Ring: EPDM
- Metallic mesh: AISI 304 stainless steel

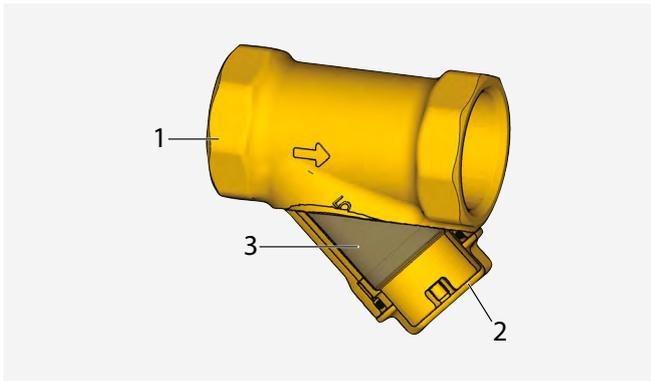
Materials - magnetizable filters

- Body and cap: UNI EN 12165 - CW617N brass
- O-Ring: EPDM
- Metallic mesh: AISI 304 stainless steel

Optionals - for magnetizable filters

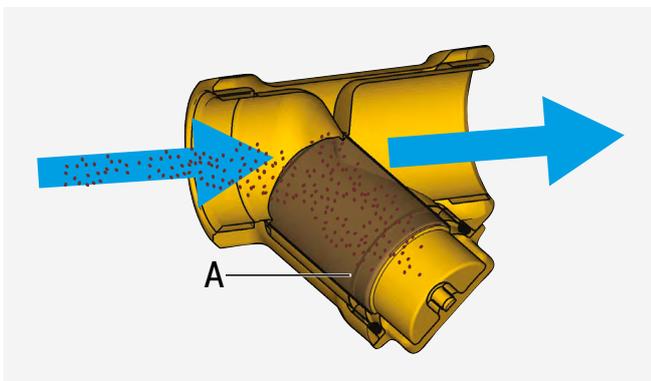
- **P74MY001:** magnetic kit for R74AY103, R74AY104 filters (length 29 mm)
- **P74MY002:** magnetic kit for R74AY105, R74AY106 filters (length 44 mm)
- **P74MY003:** magnetic kit for R74AY107, R74AY108 filters (length 55 mm)

Components



- | | |
|---|---------------|
| 1 | Filter body |
| 2 | Cap |
| 3 | Metallic mesh |

Operation



The flow enters the filter and is slowed down, allowing for the separation of the solid impurities present in the fluid.

The solid impurities are separated when they collide with the metal mesh (A), and then fall to the bottom.

The filter body is designed to make the most of the entire filtering surface, increasing the length of time for which it is functional before the mesh becomes completely dirty.

When this occurs, the filter can be extracted and cleaned under running water in order to clear the surface through which the water will pass.

NOTE. R74A magnetizable filters can be equipped with an internal magnet that helps the metallic mesh to hold the iron impurities.

Installation



The R74A filter must always be fitted upstream of all of system components which could become damaged or less effective due to the presence of impurities.

It is recommended to install shut-off valves upstream and downstream of the filter, to facilitate periodic maintenance. It is usually installed at the entrance to the water supply system before the check valve, preventers and pressure reducers.

It can also be used in closed heating circuits at the entrance to the heat generator to protect the exchanger from any impurities originating from the system.

For increased efficiency with regard to filtering and deposit of solid impurities, it is advisable to install the filter body on the horizontal piping with the filter cap facing downwards.

For correct installation, please check the flow direction indicated by the arrow stamped on the filter body.

WARNING. It is recommended that, before installing the filter, the operating conditions of the system are checked, including pressure and temperature, in order to ensure that these are included in the operating range. It is important that the filter is accessible so that any necessary maintenance can be carried out.

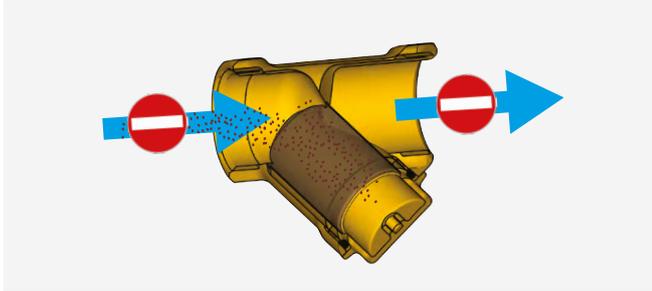
➤ Maintenance

Filter maintenance must be carried out as often as necessary, according to the level of impurities in the fluid being used.

Anyway, it is recommended that the filter is cleaned at least once a year to avoid excessive reductions in flow rate as well as the formation of irreversible build-up which necessitates the replacement of the filter mesh.

To carry out the cleaning of the metallic mesh, proceed as described below:

1) Close the shut-off valves upstream and downstream the filter.



2) Unscrew the cap and remove the metallic mesh mounted on it.

▲ WARNING. After the system filling phase is complete, the filter should be cleaned for the first time after a week of operation, to remove any obstruction from installation residue (metal shavings, sealing elements etc).

3) Clean the metallic mesh under running water, using a plastic bristle brush.

For easier cleaning, it is possible to temporarily remove the metal mesh from the cap.

Check that the surface of the filter is completely clean (where irreversible obstructions are present, or where the filter is broken, it will need to be replaced).



4) Replace the metal mesh on the cap and screw it on the filter body.

5) Open the shut-off valves upstream and downstream the filter.

➤ Conversion of R74A filters to R74M magnetic filters

Filters from the R74A series can be transformed into magnetic filters, through the installation of the P74M kit.

R74A CODE	P74M CONVERSION KIT	R74M CODE
R74AY103	+ P74MY001 =	R74MY003
R74AY104		R74MY004
R74AY105	+ P74MY002 =	R74MY005
R74AY106		R74MY006
R74AY107	+ P74MY003 =	R74MY007
R74AY108		R74MY008

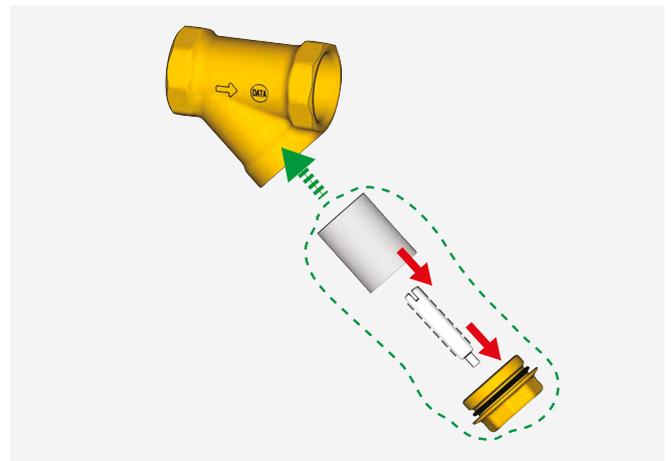
Installation of P74M kit on R74A magnetizable filters

1) Unscrew the filter cap and metallic mesh mounted on it.

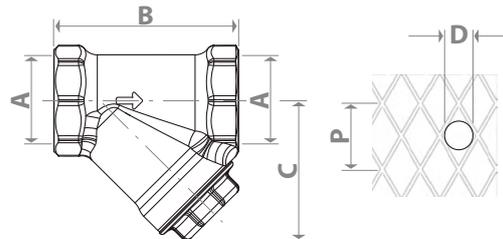
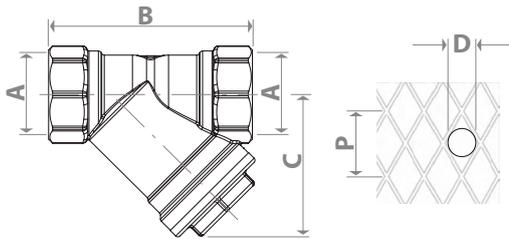
2) Screw the P74M magnet to the cap by means of the magnet male threaded screw and the female threaded connection situated inside the cap.

3) Screw the cap, equipped with metal mesh and magnet, on the filter body.

4) Apply the adhesive with the identification of the presence of magnet (provided with P74M kit) on the cap.



➤ Dimensions



PRODUCT CODE	A [mm]	B [mm]	C [mm]	P [mm]	D [μm]	N
R74AY002	G 3/8" F	48	33			
R74AY003	G 1/2" F	52	34			
R74AY004	G 3/4" F	63	42			
R74AY005	G 1" F	75	50			
R74AY006	G 1-1/4" F	91	63			
R74AY007	G 1-1/2" F	102	70	1	500	70
R74AY008	G 2" F	118	87			
R74AY009	G 2-1/2" F	150	108			
R74AY010	G 3" F	167	148	P: passage of holes D: diameter of hole inscribed N: number of holes per cm ²		
R74AY011	G 4" F	226	185			

PRODUCT CODE	A [mm]	B [mm]	C [mm]	P [mm]	D [μm]	N
R74AY103	G 1/2" F	48	35			
R74AY104	G 3/4" F	57	42			
R74AY105	G 1" F	68	52			
R74AY106	G 1-1/4" F	82	65	1	500	70
R74AY107	G 1-1/2" F	90	72	P: passage of holes D: diameter of hole inscribed N: number of holes per cm ²		
R74AY108	G 2" F	108	88			

➤ Product specifications

R74A not magnetizable

Inspectable Y filter with stainless steel basket. Female threaded connection ISO 228. Brass body UNI EN 12165 CW617N for 3/8"±1 1/4"; brass EN 1982 CB753S for 1 1/2"±2 1/2"; bronze UNI EN 1982 CB491K for 3", 4". Cap in brass UNI EN 12165 CW617N. O-Ring in EPDM. Temperature range 5÷110 °C. Max. working pressure 16 bar. Filtering capacity: 500 μm.

R74A magnetizable

Inspectable Y filter with stainless steel basket and possibility to install a magnetic kit. Female threaded connection ISO 228. Body and cap made of UNI EN 12165 CW617N brass. O-Ring in EPDM. Temperature range 5÷110 °C (5÷90 °C if the P74M magnetic kit is installed). Max. working pressure 30 bar. Filtering capacity: 500 μm.

P74M

N35H neodymium magnet with male threaded fixing screw.

For installation in R701F valves with filter, in R74A magnetizable filters or spare part for R74M magnetic filters.

NOTE. EUROPEAN DIRECTIVE 2014/68/UE.

The product illustrated in this technical specification satisfies the requirements of Directive 2014/68/UE and is exempt from CE marking, according to Article 4.3.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

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