

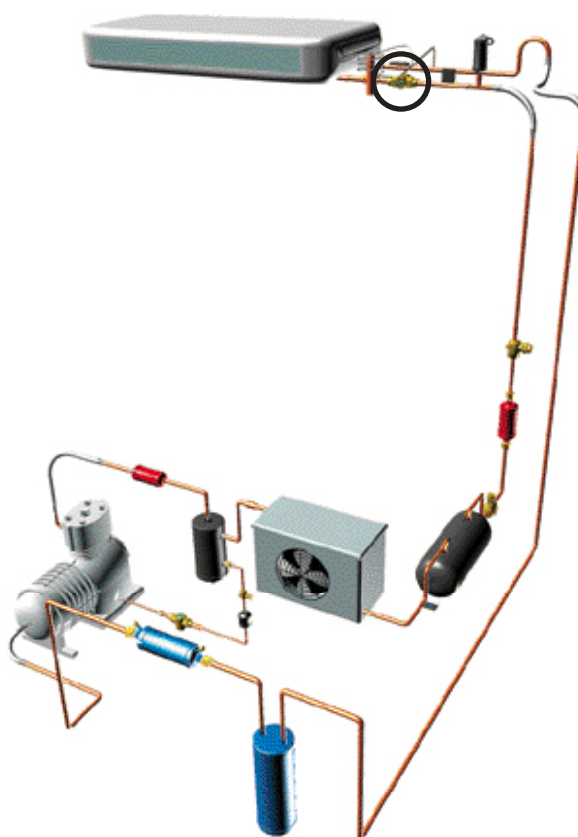
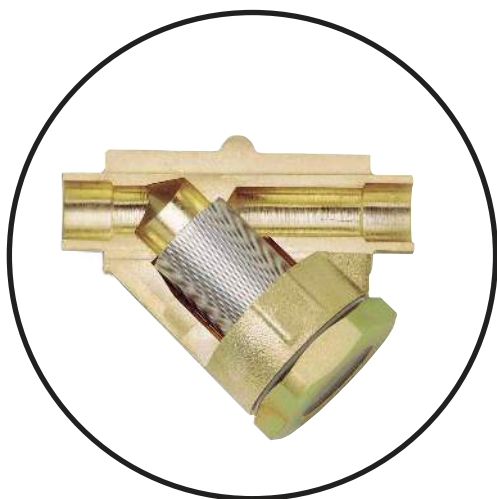


## Dirt filters

### → FILTRY (permanent use)

#### ■ Applications

- Permanent refrigerant filtering, regulation and expansion element protection in refrigerating and air conditioning installations.
- These filters are particularly suited for commercial refrigerating applications and installations with important liquid line lengths

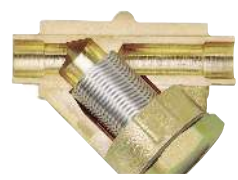


#### ■ Functional features

- Products are compatible with HCFCs, HFCs, HFOs, CO<sub>2</sub>, as well as with their associated oils and additives. Products are designed for use of non-hazardous refrigerants from group 2 of PED 2014/68/EU. To use CARLY components with fluids of the hydrocarbon group 1 and for a RANKINE organic cycle application, contact CARLY technical department.
- Product classification in CE categories is performed using the PED 2014/68/EU table, corresponding to a nominal diameter-based selection.
- Product is ergonomic for quick maintenance interventions.
- Body made of die-cast brass with brazed connection.
- Filtration preventing propagation within the circuit of particles bigger than 150 microns in standard version, with a filtration area of 16 cm<sup>2</sup>.

#### ■ CARLY advantages

- Maximal working pressure: 46 bar.
- Optional 50 microns filtering core (CY 11610050)
- The stainless steel filtrating sleeve can be removed for cleaning, without removing the filter case and without de-brazing the connections, thus allowing important time savings during maintenance operations.
- Plug can be handled with a flat spanner.
- Fastening plug in brass, can be handled with a spanner.
- Compact product for ease of assembly in reduced footprint.
- It is possible to replace the original tap of FILTRY by a sight glass with moisture indicator, CARLY reference CY 35012140.



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### ■ Warning

Before selecting or installing any component, please refer to the chapter 0 - **WARNING**.

### ■ General assembly precautions

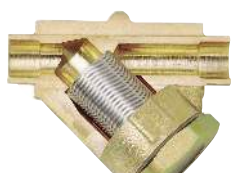
The installation of a component in a refrigeration system by a skilled professional, requires some precautions:

- Some are specific to each component, and in this case, they are specified in the **RECOMMENDATIONS SPECIFIC** part defined hereafter ;
- Other are general to all CARLY components, they are presented in the chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.
- The recommendations relating to the CARLY components for the subcritical CO<sub>2</sub> applications are also developed in

chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

### ■ Recommendations specific to dirt filters FILTRY

- FILTRY dirt filters are to be mounted on the liquid line between the receiver and the expansion element.
- The refrigerant flow direction is indicated by an arrow on filter case. It must be complied with.
- The FILTRY dirt filters have to be mounted horizontally, the part with the strainer oriented downwards.
- It is mandatory to remove the filtrating sleeve and the O-ring before assembling filter by brazing.
- After brazing, when the base temperature is sufficiently low, put the O-ring back into its recess and screw back the plug complying with a six-side key with the recommended tightening torque of 15 N.m.
- After each removal of the plug, imperatively replace the PTFE O-ring; it is preferable to position, in a first step, the filtrating sleeve in the filter case and in a second step, to screw the plug.
- Be careful to properly select the solenoid valves located downstream of the filters; their oversizing could cause liquid hammer phenomena hindering the filters' proper mechanical behaviour; these liquid hammer phenomena can originate from other sources, in long-piping installations.
- Never install filters in an area of the circuit that can be isolated.
- Never trap refrigerant in its liquid state (between a check valve and a solenoid valve, for instance).
- It is mandatory to change or to clean the filtrating sleeves with a solvent when the pressure drop measured in the FILTRY filter is too important. CARLY recommends this operation at least once a year as prevention.

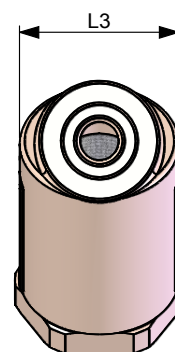
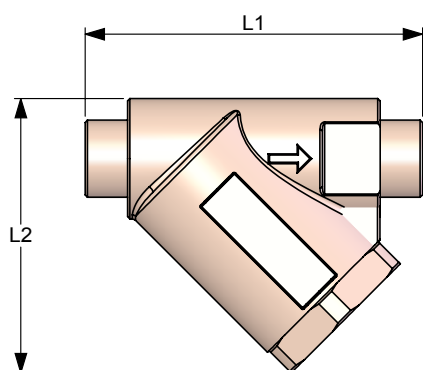


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### ■ Technical features

CARLY references	Connections to solder ODF inch	CARLY references	Connections to solder ODF mm	Filtering surface cm <sup>2</sup>	KV for standard filtration 150 μm m <sup>3</sup> /h	KV for filtration 50 μm (option) m <sup>3</sup> /h	Dimensions mm		
							L1	L2	L3
FILTRY 3 S	3/8	FILTRY 3 MMS	10	16	1,4	1	70	58	33
FILTRY 4 S	1/2	FILTRY 4 MMS	12	16	2,5	1,8	70	58	33
FILTRY 5 S/MMS	5/8	FILTRY 5 S/MMS	16	16	3,95	2,85	70	58	33



CARLY references		Maximal working pressure	Working pressure <sup>(1)</sup>	Maximal working temperature	Minimal working temperature	Working temperature <sup>(1)</sup>	CE Category <sup>(2)</sup>
		PS bar	PS BT bar	TS maxi °C	TS mini °C	TS BT °C	
FILTRY 3 S	FILTRY 3 MMS	46	15	100	-40	-30	Art4S3
FILTRY 4 S	FILTRY 4 MMS	46	15	100	-40	-30	Art4S3
FILTRY 5 S/MMS	FILTRY 5 S/MMS	46	15	100	-40	-30	Art4S3

<sup>(1)</sup> The working pressure is limited to the PS BT value when working temperature is lower than or equal to TS BT value.

<sup>(2)</sup> Classification by diameter, according to PED 2014/68/EU (refer to chapter 0).



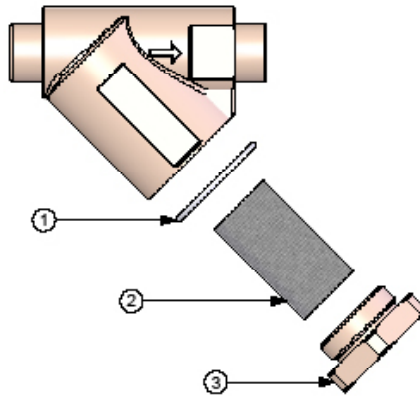
CTCY-EN - 10.1-8 / 12-2024

# Dirt filters

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### ■ Spare parts

CARLY references	Part N°	Description	Quantity
CY 15552180	1	O-ring PTFE gasket	1
CY 11610050	2	50 microns filtrating sleeve	1
CY 11610150	2	150 microns filtrating sleeve	1
CY 10850110	3	Standard fastening plug	1
CY 35012150	3	Glass without moisture indicator, gaskets included	1
CY 35012140	3	Glass with moisture indicator, gaskets included	1



### ■ Weights and packaging

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
FILTRY 3 S & MMS	0,31	0,30	16
FILTRY 4 S & MMS	0,31	0,30	16
FILTRY 5 S/MMS	0,31	0,30	16