



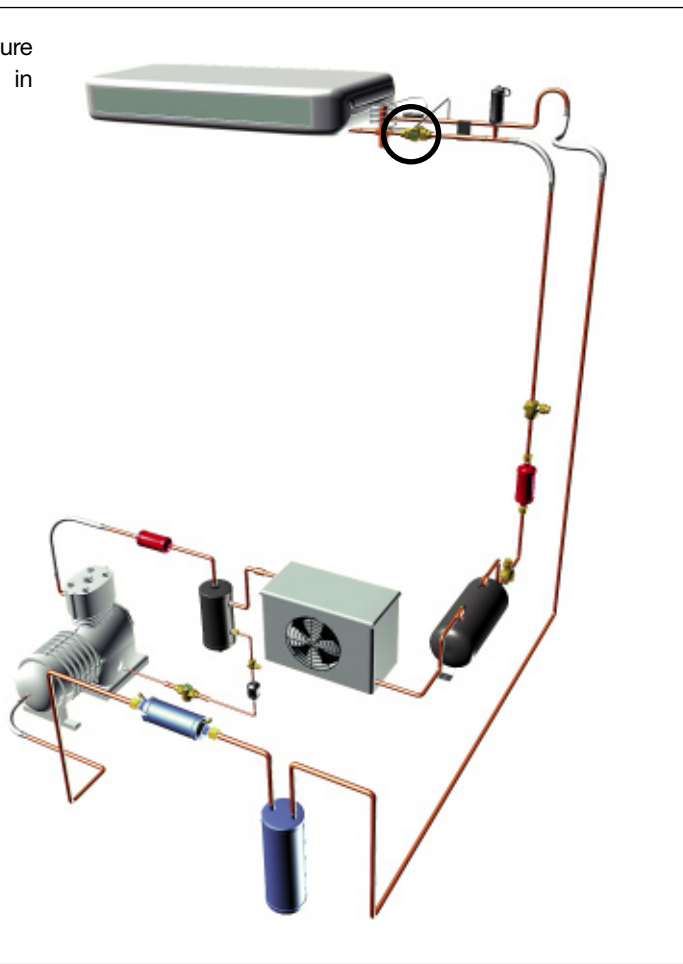
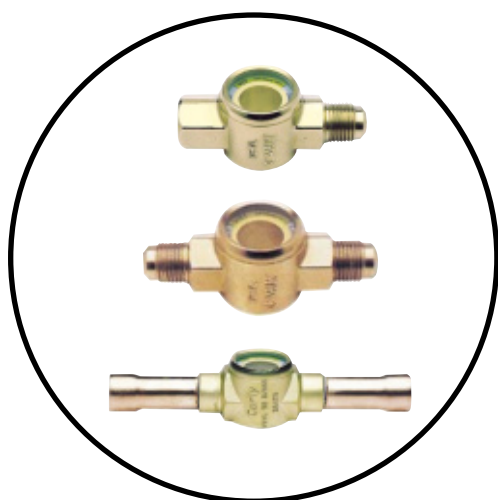
Liquid sight glasses

→ VCYL

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■ Applications

- Immediate and direct monitoring of flow, condition or moisture content of the refrigerant in its liquid or diphasic phase in refrigerating and air conditioning installations.



■ Functional features

- Products are compatible with HFCs, HCFCs, CFCs, as well as with their associated oils and additives. Products are designed for use of non-hazardous refrigerants from group 2 of PED 97/23/EC.
- Product classification in CE categories is performed using the PED 97/23/EC table, corresponding to a nominal diameter-based selection.
- Visualisation of refrigerant through glass.
- A moisture indicator sensitive to moisture and resistant to acids is positioned under the glass.
- Moisture presence is characterised by a modification of the indicator colour; this modification is reversible.
- The sight glasses die-cast brass body guarantees perfect resistance to corrosion.
- The brazed liquid sight glasses' long copper sleeves allow quick and safe brazing of connections; since the body and the glass are attached, brazing can be performed without removing the glass.

■ CARLY advantages

- The large size of the glass and the absence of a central hygroscopic tip ensure excellent visibility.
- The moisture indicator fastening system ensures protection against erosion and prevents fouling by oils and dirt present in the circuit; it also eliminates any turbulence that would hinder proper vision of the refrigerant and does not lead to any pressure drop.
- The sealed design and the seaming principle of the chosen glass ensure perfect air-tightness.
- Two very thick hexagon head bolts facilitate sight glasses positioning and handling for tightening of connections to screw.
- The male/female sight glasses to screw are provided with a guided copper gasket that allows fast and reliable positioning.
- GOST certified products.



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■ Recommendations

- * Assembly is performed on the liquid line between the filter drier and the pressure relief valve.
- * For liquid sight glasses with female connections to screw, pay attention to the correct positioning of the supplied

copper seal.
 * The indication of moisture presence is quick; in return, the moisture indicator indicates the return to normal situation a few hours only after implementation of a drying system (DCY filter drier, or CCY

HP/N or PLATINIUM 48 drying cores).
 * General assembly precautions: refer to chapter 115.

READING OF THE MOISTURE INDICATOR

Reminder of acceptable moisture rates expressed in ppm (part per million of water in the refrigerant) : DIN 8949

- R22 : → 60 ppm
- R134a : → 50 ppm
- R404A : → 50 ppm
- R507 : → 50 ppm
- R407C : → 50 ppm
- R410A : → 50 ppm

* Colour: **Green**

Normal conditions, perfectly dried circuit; the filter driers or the drying cores, in the case of replaceable core filter drier shells, are active.

* Colour: **Light green**

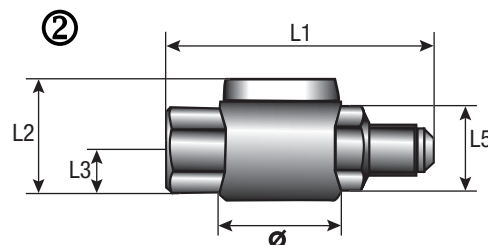
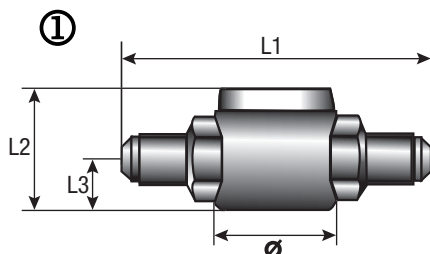
The filter driers or the drying cores, in the case of replaceable core filter drier shells, are saturating. it is necessary to quickly replace them.

* Colour: **Yellow**

The filter driers or drying cores, in the case of replaceable core filter drier shells, are entirely saturated. There is a possibility of danger, the circuit is humid and polluted; immediate intervention is required: quickly install new **DCY** sealed anti-acid filter driers or new **CCY HP / N** or **PLATINIUM 48** filtering and drying cores.

■ Technical features

CARLY references	Drawing Nb	Connections To screw SAE inch	Connections		Dimensions (mm)					Net weight (kg)
			Male / Male	Female / Male	Ø	L1	L2	L3	L5 upper faces	
VCYL 12	1	1/4	X		26	67,0	26,5	10,8	16	0,10
VCYL 13	1	3/8	X		32	82,0	29,6	12,3	24	0,20
VCYL 14	1	1/2	X		32	88,0	29,6	12,3	24	0,25
VCYL 15	1	5/8	X		32	94,0	29,6	12,3	24	0,30
VCYL 22	2	1/4		X	26	58,5	26,5	10,8	16	0,15
VCYL 23	2	3/8		X	32	69,0	29,6	12,3	24	0,20
VCYL 24	2	1/2		X	32	74,5	29,6	12,3	24	0,25
VCYL 25	2	5/8		X	32	112,8	29,6	12,3	24	0,28





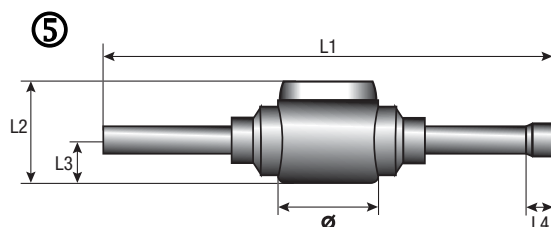
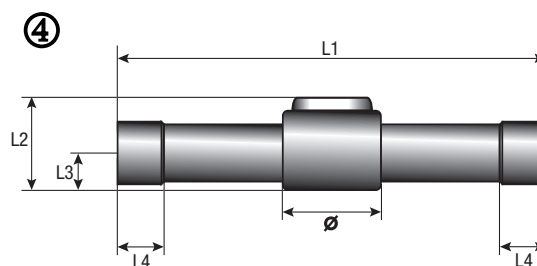
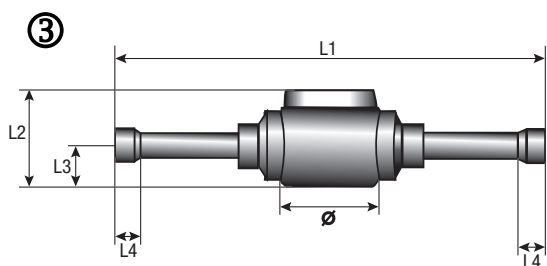
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■ Technical features

CARLY references	Connections To solder ODF inch	CARLY references	Connections To solder ODF mm	Connections		Drawing Nb	Dimensions (mm)					Net weight (kg)
				Male / Female	Female / Female		∅	L1	L2	L3	L4	
VCYL 32 S	1/4	VCYL 32 MMS	6		X	3	26	101	26,5	10,8	8	0,10
VCYL 33 S	3/8	VCYL 33 MMS	10		X	3	26	119	26,5	10,8	10	0,10
VCYL 34 S	1/2	VCYL 34 MMS	12		X	3	32	146	29,6	12,3	10	0,15
VCYL 35 S/MMS	5/8	VCYL 35 S/MMS	16		X	3	32	146	29,6	12,3	12	0,20
VCYL 36 S	3/4	VCYL 36 MMS	18		X	4	38	160	35,8	14,4	14	0,22
VCYL 37 S	7/8	VCYL 37 MMS	22		X	4	38	160	35,8	14,4	17	0,25
VCYL 39 S	1 1/8	VCYL 39 MMS	28		X	4	43	160	42,3	17,7	23	0,25
VCYL 52 S	1/4	VCYL 52 MMS	6	X		5	26	101	26,5	10,8	8	0,10
VCYL 53 S	3/8	VCYL 53 MMS	10	X		5	26	119	26,5	10,8	10	0,10
VCYL 54 S	1/2	VCYL 54 MMS	12	X		5	32	146	29,6	12,3	10	0,15
VCYL 55 S/MMS	5/8	VCYL 55 S/MMS	16	X		5	32	146	29,6	12,3	12	0,20





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■ Technical features

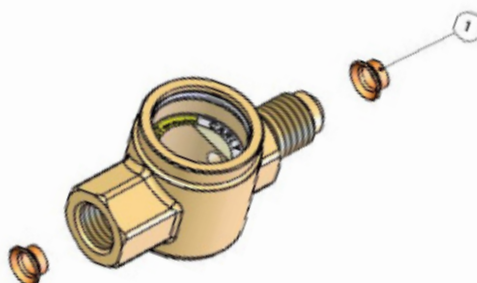
CARLY references	Nominal diameter	CARLY references	Nominal diameter	Maximal working pressure	Working pressure (1)	Maximal working temperature	Minimal working temperature	Working temperature (1)	CE Category (2)
	DN (inch)		DN (mm)	PS (bar)	PS BT (bar)	TS maxi (°C)	TS mini (°C)	TS BT (°C)	
VCYL 12	1/4			42	/	80	-20	/	Art3§3
VCYL 13	3/8			42	/	80	-20	/	Art3§3
VCYL 14	1/2			42	/	80	-20	/	Art3§3
VCYL 15	5/8			42	/	80	-20	/	Art3§3
VCYL 22	1/2			42	/	80	-20	/	Art3§3
VCYL 23	3/8			42	/	80	-20	/	Art3§3
VCYL 24	1/4			42	/	80	-20	/	Art3§3
VCYL 25	5/8			42	/	80	-20	/	Art3§3
VCYL 32 S	1/4	VCYL 32 MMS	6	42	/	80	-20	/	Art3§3
VCYL 33 S	3/8	VCYL 33 MMS	10	42	/	80	-20	/	Art3§3
VCYL 34 S	1/2	VCYL 34 MMS	12	42	/	80	-20	/	Art3§3
VCYL 35 S/MMS	5/8	VCYL 35 S/MMS	16	42	/	80	-20	/	Art3§3
VCYL 36 S	3/4	VCYL 36 MMS	18	42	/	80	-20	/	Art3§3
VCYL 37 S	7/8	VCYL 37 MMS	22	42	/	80	-20	/	Art3§3
VCYL 39 S	1 1/8	VCYL 39 MMS	28	42	/	80	-20	/	Art3§3
VCYL 52 S	1/4	VCYL 52 MMS	6	42	/	80	-20	/	Art3§3
VCYL 53 S	3/8	VCYL 53 MMS	10	42	/	80	-20	/	Art3§3
VCYL 54 S	1/2	VCYL 54 MMS	12	42	/	80	-20	/	Art3§3
VCYL 55 S/MMS	5/8	VCYL 55 S/MMS	19	42	/	80	-20	/	Art3§3

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

(2) Classification by diameter, according to PED 97/23/EC (refer to chapter 0 page 7).

■ Spare parts

CARLY references	Part N°	Description	Quantity
CY 15590015	1	Set of 25 guided taper copper gaskets for 1/4" SAE (flare) connections	1
CY 15590025	1	Set of 25 guided taper copper gaskets for 3/8" SAE (flare) connections	1
CY 15590035	1	Set of 25 guided taper copper gaskets for 1/2" SAE (flare) connections	1
CY 15590040	1	Set of 25 taper copper gaskets for 5/8" SAE (flare) connections	1





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■ Weights and packaging

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
VCYL 12	0,11	0,10	1	/
VCYL 13	0,21	0,20	1	/
VCYL 14	0,26	0,25	1	/
VCYL 15	0,31	0,30	1	8
VCYL 22	0,16	0,15	8	8
VCYL 23	0,21	0,20	8	8
VCYL 24	0,26	0,25	1	8
VCYL 25	0,29	0,28	1	/

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
VCYL 32 S & MMS	0,12	0,10	1	/
VCYL 33 S & MMS	0,12	0,10	1	/
VCYL 34 S & MMS	0,17	0,15	1	/
VCYL 35 S/MMS	0,22	0,20	1	/
VCYL 36 S & MMS	0,25	0,22	1	/
VCYL 37 S & MMS	0,28	0,25	1	/
VCYL 39 S & MMS	0,28	0,25	1	/
VCYL 52 S & MMS	0,12	0,10	1	/
VCYL 53 S & MMS	0,12	0,10	1	/
VCYL 54 S & MMS	0,17	0,15	1	/
VCYL 55 S/MMS	0,22	0,20	1	/