



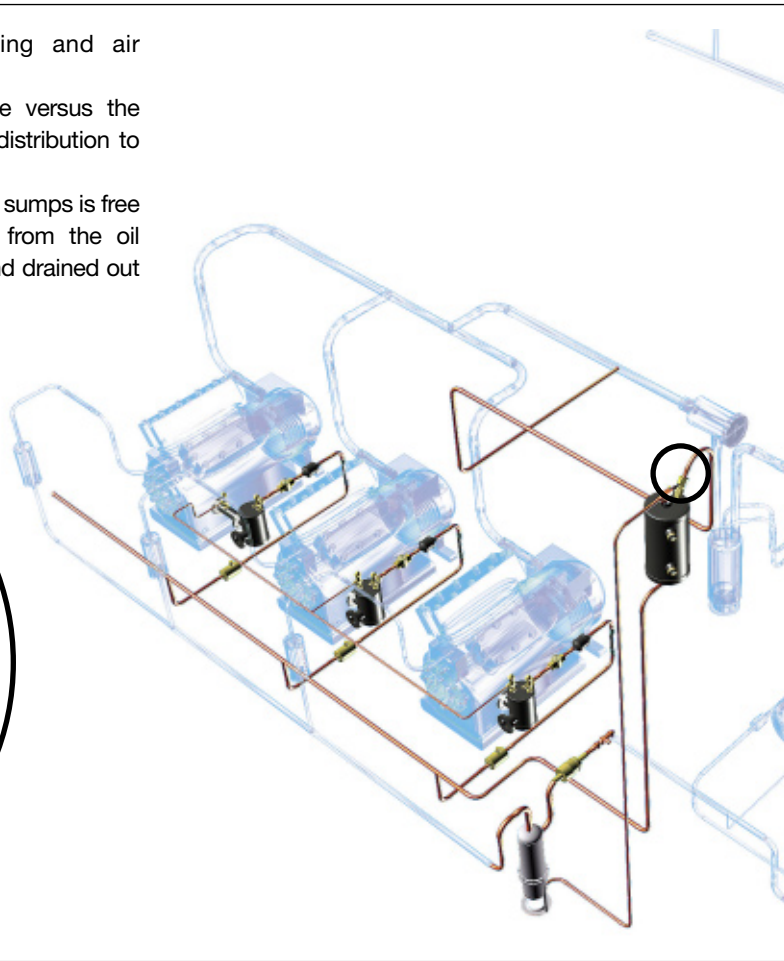
Differential valves for oil receivers

→ HCYCT (non adjustable) / HCYCTR (adjustable)

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■ Applications

- Differential valves are mounted on refrigerating and air conditioning installation oil receivers.
- They maintain permanent oil receiver overpressure versus the compressor sumps in order to ensure constant oil distribution to the compressors.
- Therefore, the oil which is returned to the compressor sumps is free from refrigerant as, should any refrigerant come from the oil separator, it would be expanded in the oil receiver and drained out to the suction line via the differential valves.



■ 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.
- Non adjustable differential valve HCYCT:
 - Brass body and internal mechanism
 - Valve spring strictly calibrated
 - PTFE gaskets.
- Adjustable differential valve HCYCTR:
 - Painted steel body with internal phosphatization
 - Connection to the 360°-adjustable oil receiver with 3/8" SAE revolving nut
 - Screwed plug perfectly sealed to prevent any accidental handling of the adjustment rod
 - Internal Neoprene® sealing gasket.

■ CARLY advantages

- HCYCT: 3 models of non adjustable differential valves with set pressures of 0.35, 1.4 and 3.5 bar.
- HCYCTR: 1 model of adjustable differential valve allowing a possible adjustment of the set pressure with a rod handled with a tool (square section of 8 mm), from 0.35 bar to 3.5 bar. Adjustment in factory : 1,4 bar.
- GOST certified products.



DTGB - 44.1-1-1-10

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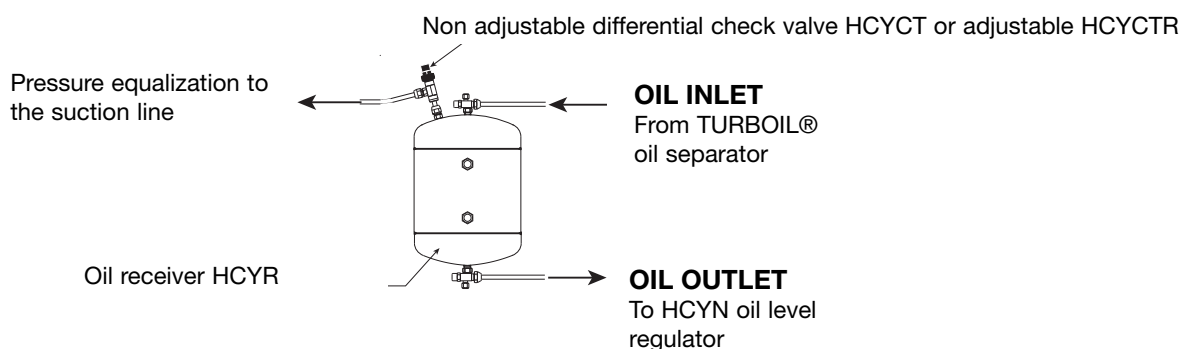
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■ Recommendations

- * The differential valves are to be mounted on the 3/8" SAE connection located in the higher part of the oil receiver, by its female connection.
- * Be sure to comply with the flow direction indicated by an arrow engraved on the body of the differential valves.
- * On some multi-compressor installations, one or several compressors can operate

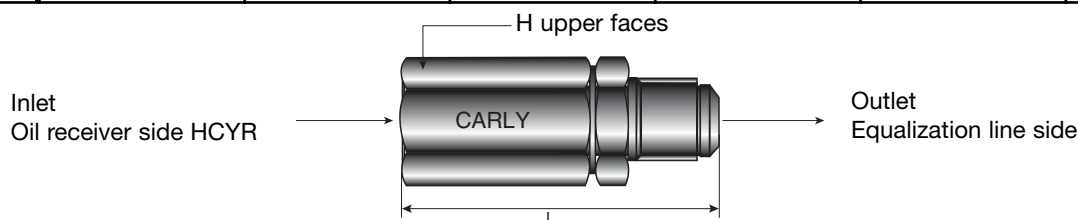
at different suction pressures; in order to ensure correct oil feeding of all compressors, it is necessary to select the differential valves so as to establish a minimum overpressure of 0.35 bar between the oil receiver and the compressor with the highest suction pressure (refer to the selection example page 48.6).

- * On installations equipped with bi-level compressors or "Booster" system, it is recommended to connect the differential valves to the intermediary level suction line.
- * For HCYCT/HCYCTR differential valves, carefully watch the correct positioning of the supplied copper seals.
- * General assembly precautions: refer to chapter 115.



■ Technical features of HCYCT non adjustable differential valves

CARLY references	Connections to screw SAE (inch)		Pressure range (bar)	Dimensions (mm)		Net weight (kg)
	Inlet Female	Outlet Male		H upper faces	L	
HCYCT 1	3/8	3/8	0,35	21	65	0,15
HCYCT 3	3/8	3/8	1,40	21	65	0,15
HCYCT 4	3/8	3/8	3,50	21	65	0,15



CARLY references	Nominal diameter	Maximal working pressure	Working pressure (1)	Maximal working temperature	Minimal working temperature	Working temperature (1)	CE Category (2)
	DN (inch)	PS (bar)	PS BT (bar)	TS maxi (°C)	TS mini (°C)	TS BT (°C)	
HCYCT 1	3/8	35	10	80	-40	-20	Art3§3
HCYCT 3	3/8	35	10	80	-40	-20	Art3§3
HCYCT 4	3/8	35	10	80	-40	-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).



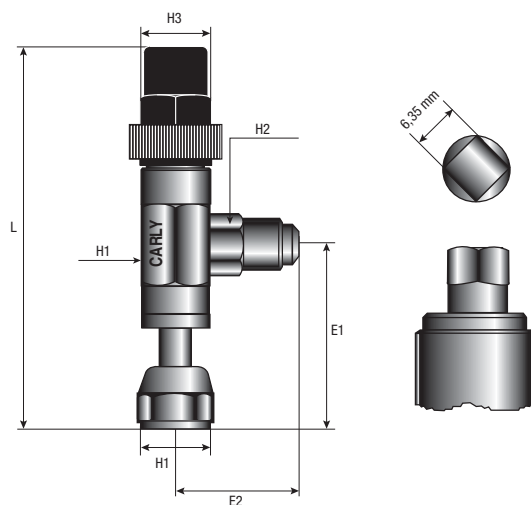
Differential valves for oil receivers

→ HCYCTR (adjustable)

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■ Technical features

CARLY references	Connections to screw SAE (inch)		Pressure range (bar)	Dimensions (mm)						Net weight (kg)
	Inlet Female	Outlet Male		H1 upper faces	H2 upper faces	H3 upper faces	L	E1	E2	
HCYCTR	3/8	3/8	0,35 à 3,50	22	17	24	125	58	39	0,2



CARLY references	Nominal diameter	Maximal working pressure	Working pressure (1)	Maximal working temperature	Minimal working temperature	Working temperature (1)	CE Category (2)
	DN (inch)	PS (bar)	PS BT (bar)	TS maxi (°C)	TS mini (°C)	TS BT (°C)	
HCYCTR	3/8	35	10	80	-40	-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).



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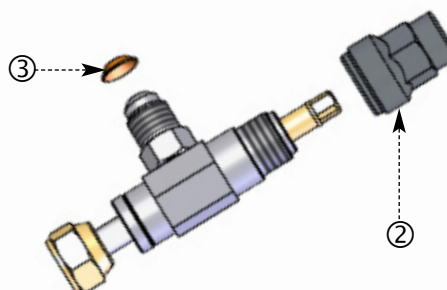
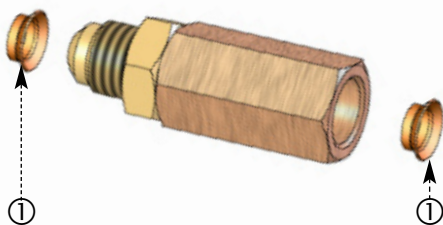
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■ Spare parts

CARLY references	Part Nb	Description	Type	Quantity
CY 15590025	1	Set of 25 taper guided copper gaskets for 3/8" SAE connection	HCYCT	1
CY 10870010	2	Plug for inspection rod	HCYCTR	1
CY 15590020	3	Set of 25 taper copper gaskets for 3/8" SAE connection	HCYCTR	1



■ Weights and packaging

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
HCYCT 1	0,16	0,15	1	50
HCYCT 3	0,16	0,15	1	50

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
HCYCT 4	0,16	0,15	1	50
HCYCTR	0,23	0,20	1	/