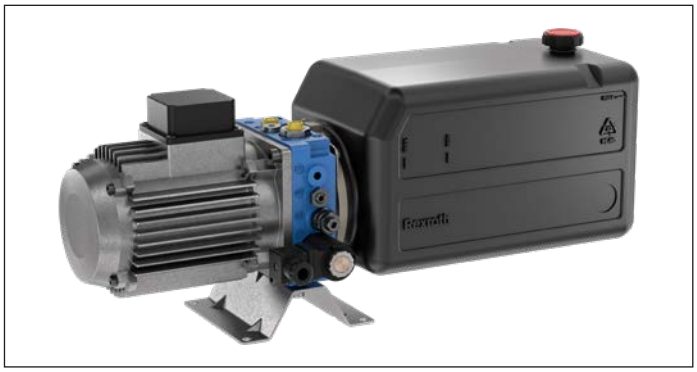
rexroth
A Bosch Company

Compact power modules
DL series

RE 18306-03
Edition: 06.26
Replaces: 01.26



Contents

Ordering details for compact power modules for dock leveller with hinged lip (manifold code 66-67)	2
Ordering details for compact power modules for dock leveller with telescopic lip (manifold code 73)	4
General Technical Data for Compact Power Module DL	6
A.C. Electric Motor Compact Mounting Style for Power Module Type DL	11
Central Manifold DL	13
Flow Restrictor	16
Coil	17
Connectors	18
Gear Pumps	19
Oil Tanks for DL	20
Mounting position	23
Terminal Box Position for A.C. Motors	23
Mounting Brackets	24

Ordering details for compact power modules for dock leveller with hinged lip (manifold code 66-67)

01	02		03		04		05		06		07		08		09
DL	____	-	____	-	___/__(___)	-	____	-	___/__	-	____	-	_____	-	__/__/___

Family

01	Power module type	**DL**

A.C. Electric motor

02	Select the required AC motor shown in the catalogue. (See page 11)	

Junction Elements

03	The code of the Junction Element is shown in the page after the selected AC motor.	

Central Manifold

04	Central Manifold with Pressure range Sequence Valve + Request Setting of the Relief Valve DB in Bar in brackets + Request setting of the sequence valve V2 in Bar in brackets.	

Flow restrictor

05	Select the required setting of flow restrictor on B line (see page 16)	

Coil Model and Connector

06	Choose the required coil Voltage and the required Connector. (See page 17)	

Gear pumps

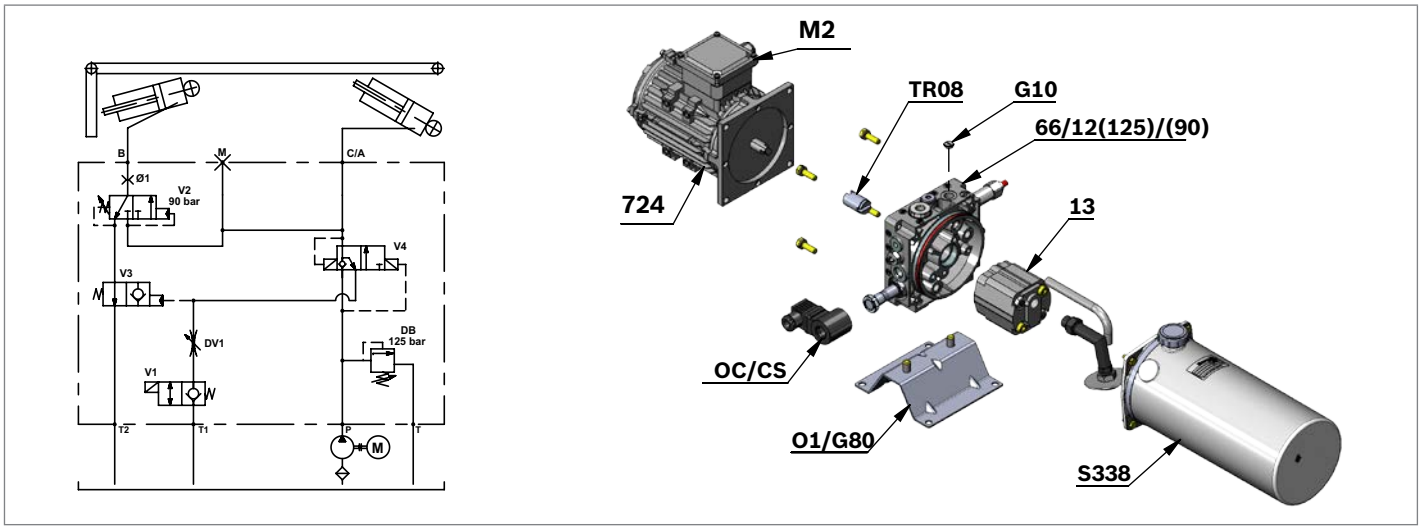
07	Select the required pump. (See page 19)	

Oil Tank

08	Select the required Oil Tank (See page 20)	

Mounting Position and Mounting Brackets

09	Select the required working position of the Power Module and the position of the terminal box of the motor. If needed select a Mounting Bracket (See pages 23-24)	



Example of Ordering Details

01	02		03		04		05		06		07		08		09
DL	**724**	**-**	**TR08**	**-**	**66 / 12 (125)/(90)**	**-**	**G10**	**-**	**OC/CS**	**-**	**13**	**-**	**S338**	**-**	**O1 / M2/G80**
Power module type	AC Electric motor		Junction Element		Central Manifold with Pressure range Sequence Valve + Request Setting of the Relief Valve DB in Bar in brackets + Request setting of the sequence valve V2 in Bar in brackets		Setting of flow restrictor on B line		Coil Model and Connector		Gears pump		Oil Tank		Mounting Position and Mounting Brackets

Ordering details for compact power modules for dock leveller with telescopic lip (manifold code 73)

01	02		03		04		05		06		07		08		09
DL	____	-	____	-	___/__(___)	-	____	-	___/__	-	____	-	_____	-	__/__/___

Family

01	Power module type	**DL**

A.C. Electric motor

02	Select the required AC motor shown in the catalogue. (See page 11)	

Junction Elements

03	The code of the Junction Element is shown in the page after the selected AC motor.	

Central Manifold

04	Central Manifold with Pressure range Relief Valve + Request Setting of the Relief Valve DB1 in Bar in brackets + Request setting of the Relief Valve DB2 in Bar in brackets.	

Flow restrictor

05	Select if needed the setting of flow restrictor on B line (see page 16)	

Coil Model and Connector

06	Choose the required coil Voltage and the required Connector. (See page 17)	

Gear pumps

07	Select the required pump. (See page 19)	

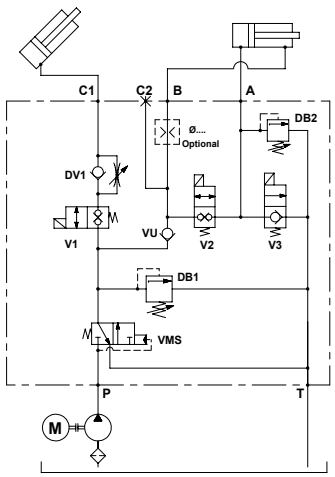
Oil Tank

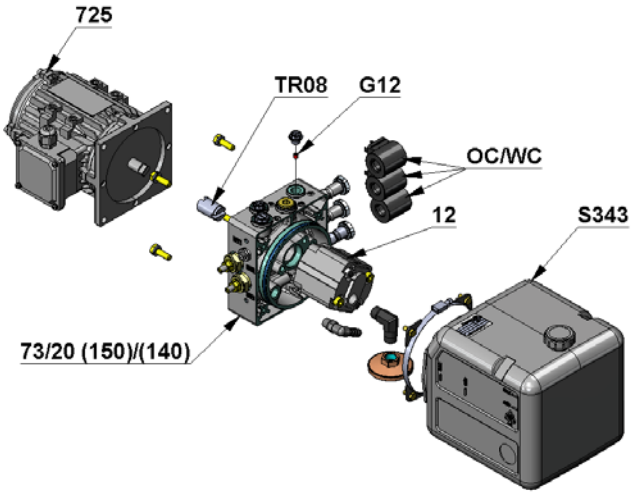
08	Select the required Oil Tank (See page 20)	

Mounting Position and Mounting Brackets

09	Select the required working position of the Power Module and the position of the terminal box of the motor. If needed select a Mounting Bracket (See pages 23-24)	

Ordering details for compact power modules for dock leveller with telescopic lip (manifold code 73)





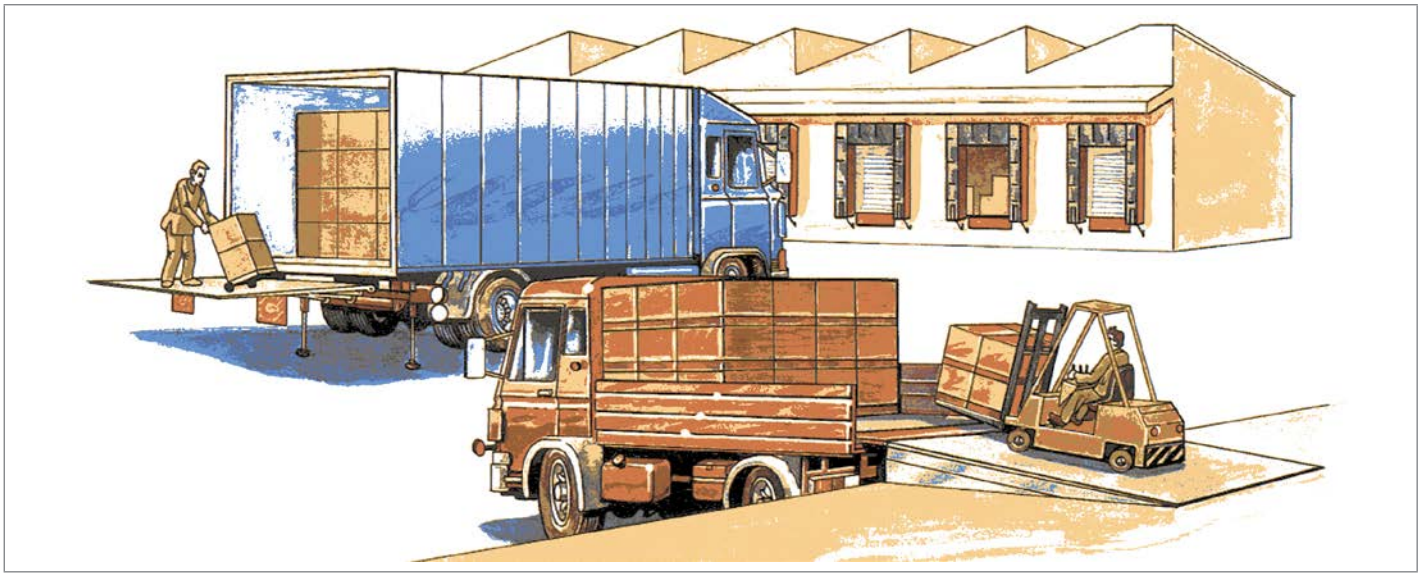
Example of Ordering Details

01	02		03		04		05		06		07		08		09
DL	**725**	**-**	**TR08**	**-**	**73 / 20 (150)/(140)**	**-**	**G12**	**-**	**OC/WC**	**-**	**12**	**-**	**S343**	**-**	**O1/G00**
Power module type	AC Electric motor		Junction Element		Central Manifold with Pressure range Relief Valve + Request Setting of the Relief Valve DB1 in Bar in brackets + Request setting of the Relief Valve DB2 in Bar in brackets.		Setting of flow restrictor on B line		Coil Model and Connector		Gears pump		Oil Tank		Mounting Position and Mounting Brackets

General Technical Data for Compact Power Module DL

Application description:

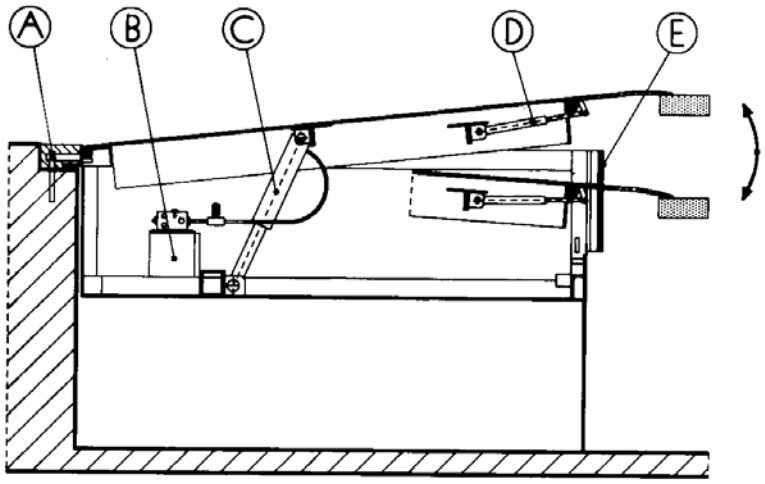
A Dock leveller is a structure which is typically fixed at the doors of the warehouse to load/unload goods. It's used as a crossing bridge by Forklift, Transpallet etc, between the floor of the warehouse and the truck. (Picture 1)



◄ **Picture 1 (Example of dock leveller)**

Hydraulic system description:

In a Dock leveller the hydraulic system is characterized by a main single acting cylinder C (in some case 2 single acting cylinders connect to the same ports of the compact power module) for the lifting function and a single acting cylinder to move the lip D in case of Dock leveller with a hinged lip (picture 2-3) or a double acting cylinder in case of Dock leveller with a telescopic lip. (Picture 4)



◄ **Picture 2 (typical Hydraulic Dock leveller scheme)**

A) Dock leveller anchorage
B) Compact Power Module
C) Single acting cylinder to lift the dock leveller
D) Lip movement cylinder
E) Rubber protection

How the system works:

Hydraulic Dock leveller with Single acting cylinders hinged lip (Picture 3)

Lifting phase: By switching on the electric motor, the gear pump pushes oil into the system and with the raising of the pressure the V4 valve changes over giving the possibility for the oil to push the main lifting cylinder connected to the port C/A; The solenoid valve V1 must always be energized or the system doesn't work.

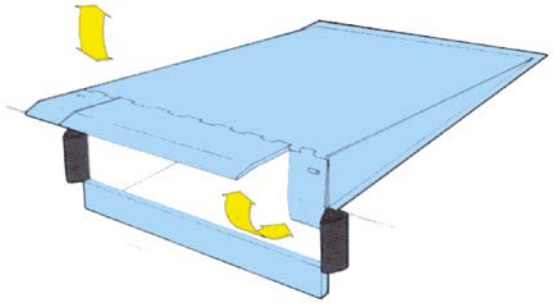
When the main lifting cylinder arrives at the end of the run, the pressure increases and allows for the opening of the V2 sequence valve that starts to put oil into the hinged lip single acting cylinder connected to the port B; The opening speed is set by the dimension of the orifice Ø....

Lowering phase: By stopping the electric motor, the V4 valve changes over on to the normal position, so the oil goes to the return line, crossing the V1 and through the throttle valve DV1 which maintains a backpressure on the system that causes the changing over of the V3 valve that guarantees a backpressure on the lip single acting cylinder and for this reason the lip remains lifted while the main single acting cylinder lowers down. When the main singleacting cylinder stops lowering, leaning on the truck, the pressure on the system is out and automatically the V3 valve goes on the normal position, allowing the oil to run on the return line and allowing the lip to lean on to the track. The Dock leveller remains free to swing to compensate the differences on the truck level during the loading/unloading operations.

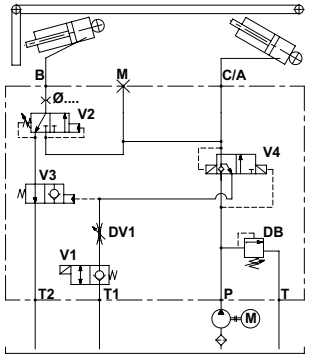
Closing phase: To close the Dock leveller you need to restart the motor by lifting the main cylinder (in consequence the lip cylinder is going to close with a setting speed set by the orifice Ø...).

When the lip is completely close the motor can be switched off and the Dock leveller returns to the normal position.

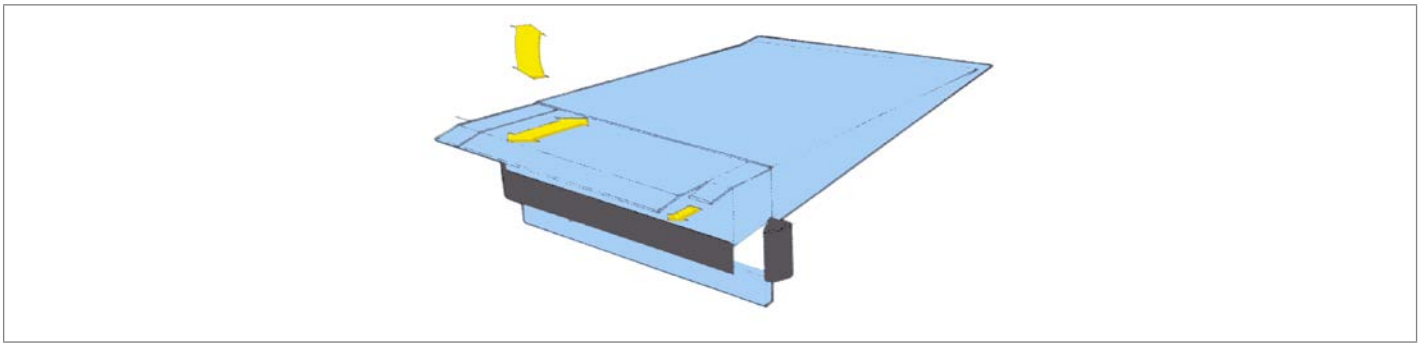
The V1 solenoid valve normally is connected to the emergency push button of the system. Pushing the emergency button the V1 valve return in closed position keeping the cylinder in position.



◄ **Picture 3 (Hydraulic hinged lip Dock leveller)**



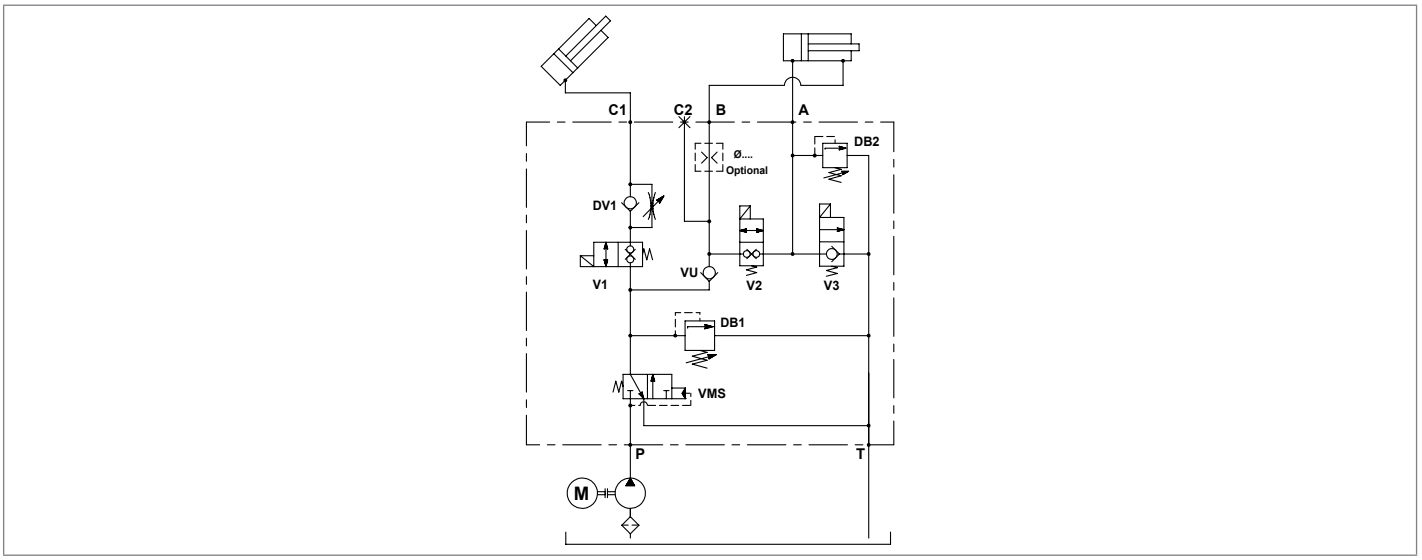
◄ **Scheme 1**



◄ **Picture 4 (Hydraulic telescopic lip Dock leveller)**

Hydraulic Dock leveller with double acting cylinder telescopic lip (Picture 4).
Opening phase: On the opening phase you need to switch on the electric motor energizing simultaneously the V1 (1) solenoid valve. The VMS valve changes over and the main cylinder connected to port C lifts: When the main cylinder arrives at the required position, we energize the V2 (2) solenoid valve and in consequence the telescopic lip double acting cylinder comes out in a regenerative mode between the A zone and B zone. When the telescopic lip arrives at the end of stroke the motor is switched off and all the solenoid valves are switched off too, so that the Dock leveller is completely open. The lip exit speed is controlled by the orifice Ø1.2 (optional).

Lowering phase: With the motor switched off the Dock leveller starts to lower itself energizing the V1 (1) solenoid valve which moves the main cylinder, which lowers down until it is leaning itself on the truck. The lowering speed is controlled by the STM12-VU valve.
The VM2 relief valve that is located on the double acting cylinder A line works as an antishock during the lip exit phase and also as protection of the same in case of an occasional bump as the truck stops.
Closing phase. To bring back the Dock leveller to the sleeping position, we need to repeat the opening phase to lift the Dock leveller from the truck and after to retract back the lip we need to energize the V3 (3) solenoid valve which puts the double acting chamber A on the return line.



◄ **Scheme 2**

Power module selection
Choose the circuit which meets your application requirements.
Take note of all dimensions resulting from the basic components chosen for your application.
NOTE: dimensions may vary slightly and should be confirmed by CH, if the assembly is to be installed in a space with narrow clearance.
The tank capacity and the tank dimensions need to be large enough to assure proper pump suction: there must always be a reserve of oil in the tank when all cylinders are fully extended and avoid overflow when cylinders are fully retracted.
The tank must be evaluated also for best separation of air from oil, and for settling down oil contamination. It should be placed in a space with, at least, natural ventilation and it should permit enough heat dissipation to prevent high fluid temperature.
Select the electric motor by evaluating the power needed and the motor compliance with the heat developed during the expected run time (or „duty cycle“).

Hydraulic fluid for compact power module
Mineral oil based hydraulic fluids suitable for hydraulic systems can be used; they should have physical lubricating and chemical properties as specified by:
- MINERAL OIL BASED HYDRAULIC FLUIDS HL (DIN 51524 part 1)
- MINERAL OIL BASED HYDRAULIC FLUIDS HL P(DIN 51524 part 2)

For use of environmentally friendly fluids please consult CH.

Fluid viscosity, Temperature range of the operating fluid, Ambient temperature
The fluid viscosity should remain within the range 10 to 300 cSt (centistokes); recommended 15 to 120 cSt .
Permissive cold start viscosity is maximum 2000 cSt .
The fluid temperature should remain within the range -15°C nd 80°C (5°F and 176°F).
Note: For compact power module with plastic tank the fluid temperature should remain within the range -15°C and 70°C (5°F and 158°F).
Ambient temperature -15°C +40°C (5°F and 104°F).

Fluid cleanliness requirements and maintenance
We recommend a cleanliness of the operating fluid according to ISO 4406 Class 20/18/15 or cleaner.
All components of the hydraulic circuit , including hoses and actuators, must be flushed and cleaned before assembling, because the compact power module has a suction filter only.
The hydraulic fluid should be replaced after the first 50 hours, and then every 1000 hours, or, at least, once a year.

Power module installation
The mounting position is basically unrestricted; just avoid installations that could compromise the pump suction, Typically in these applications the Compact Power Module is assembled in horizontal position. It is recommended to support the power module on vibration dampening blocks when the mounting structure is expected to vibrate.

Wiring and starting-up
The cable size and lenght from the power source to the electric motor should be selected in order to avoid voltage drop.
It is strictly forbidden to allow the backwards rotation of the pump even at the first starting: to prevent reverse rotation, the wiring polarities must be correctly connected.
Caution: when energized, the surface temperature of the electric motor could reach temperature levels of 60-80°C (140-176°F): care should be taken to avoid any accidental contact of people with the motor surface.

A.C. Motors
The tolerances on the nominal voltage are:
Single phase motor: 230V +/-5% - Three phase motor: 230-400V +/-10%.
Protection degree : IP54 (protection against dust and water splash).
Insulation class: F (155°C) (311°F).
All motors are aluminum alloy die cast without painting.

Central Manifolds
The Central Manifolds shown in the catalogue are made in die cast aluminium alloy or extruded aluminum alloy AL 2011 (Al-Cu5.5Pb0.4Bi0.4 UNI 9002/5).. The validation of the Central Manifolds follows a lifetest with 250 bar (3625 psi) pulsed pressure repeated for 300.000 cycles.

Built-in valves
The valves used in the central manifolds are manufactured using steel with high mechanical strength. Surface treatments protect the exposed parts to the external environment. Standard seals are NBR (BUNA-N) with backup rings in PTFE. The cartridge valves with “leak proof seat design” have an average leakage of 10-15 drops/minute (< 1 cm3/minute (0.06 in3/min)) at the maximum pressure using fluid ISO VG46 at 40°C (104°F). The

validation of the cartridge valves follows a life-test at pulsed maximum pressure (indicated for each valve) repeated for 500.000 cycles.
All the solenoid cartridge valves are fitted with protective O-Rings installed between the pole tube and the coil. These O-Rings protect the internal parts from condensation and contaminants , which could cause malfunction.
All the solenoid cartridge valves are designed for operating in D.C..
Power supply in A.C. requires a connector with bridge rectifier included.

External Gear Pumps

CH offers a wide range of External Gear Pumps to cover different kind of applications. The standard version are suitable for the biggest part of applications. All the pumps are pressure compensated to guarantee the best efficiency.

Oil Tanks

In this catalogue you will find a wide selection of steel and plastic tanks available as a standard product. Steel tanks have Black paint finish and are suitable for operating temperature range -15°C / +80°C (5°F / 176°F). Plastic tanks are obtained in one piece in order to avoid welded parts that are weak points at extreme temperature and vibrations. Plastic tanks are suitable for operating temperature range -15°C / +70°C (5°F / 158°F).
Note: even if the plastic tank mounting system is designed to avoid oil leakage the tank must be securely anchored when fitted in mobile equipment and when subject to shocks and heavy vibrations. Please check that the anchorages do not stress or deform the tank.

European machine directive 2006/42/CE

According to the Machine Directive2006/42/CE, a complete power module, made available to the European market, is define as “partly completed machinery”.
Instead, the power module sub-assemblies (motor, pump, reservoir, central manifold, ...), when not assembled into a complete power pack, are considered “components” which can be employed in a “machinery” or a “partly completed machinery”. In this case, the CH components and sub-assemblies must be fitted in compliance with all the relevant technical data sheet applicable to the product, and shall not be operated, adjusted or disassembled before the complete machinery where they are incorporated has been declared to be in compliance with the Machine Directive 2006/42/CE.

Note

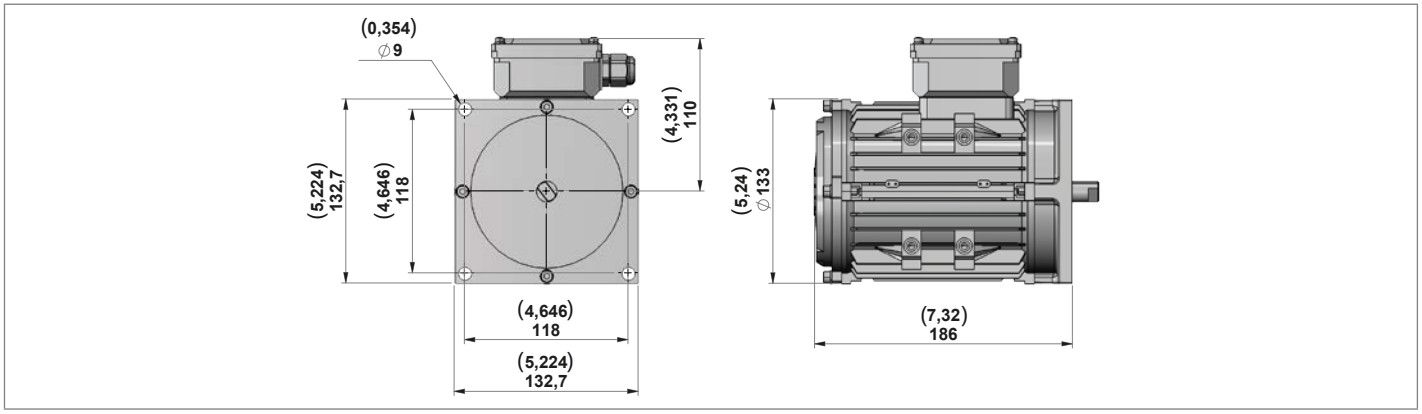
All the components shown in the catalogue ARE NOT suitable for use in potentially explosive atmosphere. ATEX 2014/34/EU

Technical information

Below you will find the most common equations used in hydraulics:

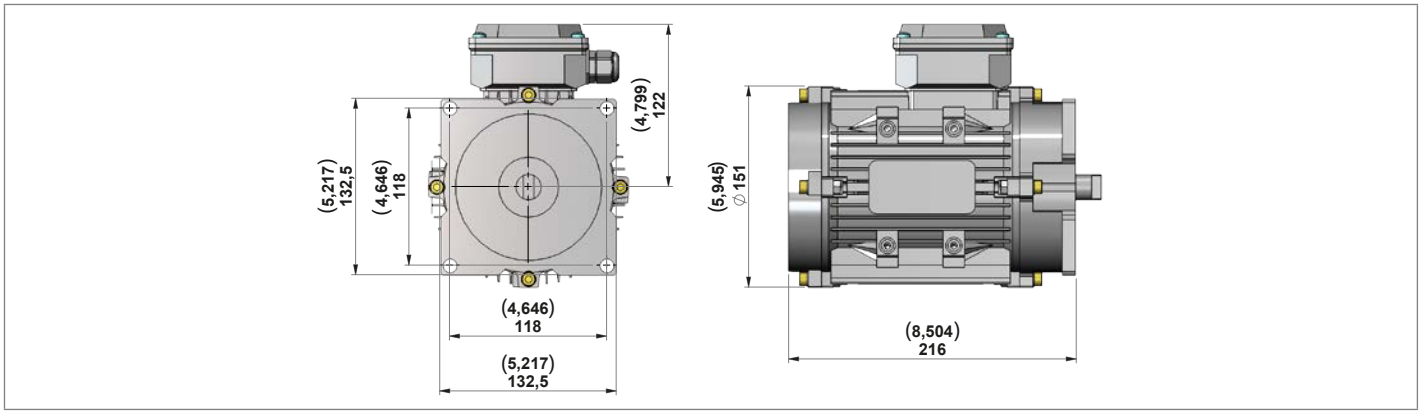
	Common Units	Symbols	Equations
Flow	l/min	Q	$Q = \frac{D \times n}{1000} \times 0{,}95$
Operating pressure	bar	P	$P = \frac{F}{0{,}1 \times A}$
Internal diameter hydraulic cylinder	mm	d	–
Area of hydraulic cylinder	mm^2	A	$A = \frac{\Pi \times d^2}{4}$
Piston force	N	F	–
Drive shaft	rev/min	n	–
Power requirement for motor	kW	N	$N = \frac{P \times Q}{612}$
Pump displacement	cm^3/rev	D	–
Torque requirement	Nm	M	$M = \frac{D \times d^2}{62{,}8 \times 0{,}87}$

A.C. Electric Motor Compact Mounting Style



2 Poles Three Phase Current Motors 230/400V 50/60Hz IP55 (2760 rpm at 50Hz) Size IEC 71

Code	Type	Material Number	Power (kW)	Power (hp)	Duty Cycle	Thermal Switch
724	C1622S1085M	R930090690	0,75	1	S3 30%	no
724T	C1622S1368M	R930100887	0,75	1	S3 30%	yes
725	C1622S1083M	R930090688	1,1	1,5	S3 30%	no
725T	C1622S1374M	R930100888	1,1	1,5	S3 30%	yes



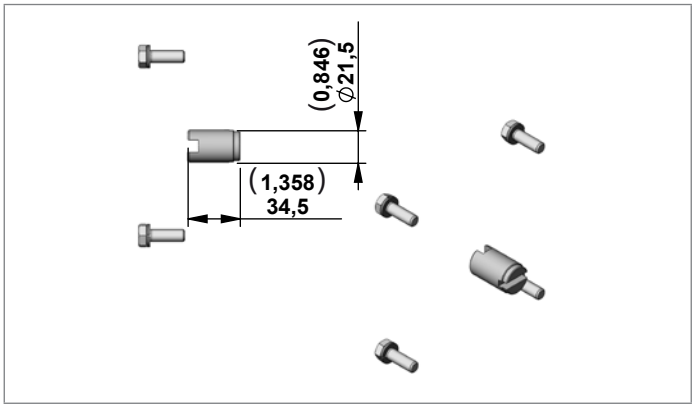
2 Poles Three Phase Current Motors 230/400V 50/60Hz IP55 (2820 rpm at 50Hz) Size IEC 80

Code	Type	Material Number	Power (kW)	Power (hp)	Duty Cycle	Thermal Switch
826T	C1622S1410M	R930070558	1,5	2	S3 20%	yes
827T	C1622S1409M	R930070557	2,2	3	S3 15%	yes
828T	C1622S1417C	R932011319	3,6	4,8	S3 7%	yes

Note
The motors shown in these tables are a selection of our range.
In case of needs of different technical characteristics PLEASE CONTACT OUR SALES DEPARTEMENT.
The electric motors with compact mounting style shown in this pages are delivered by different certified suppliers.
This means the indicated dimensions could change a little, depending on which manufacturer will be assembled.
On the CPM the choice of the manufacturer is based on our stock availability.

Junction Elements for A.C. Electric Motor Compact Mounting Style

TR08

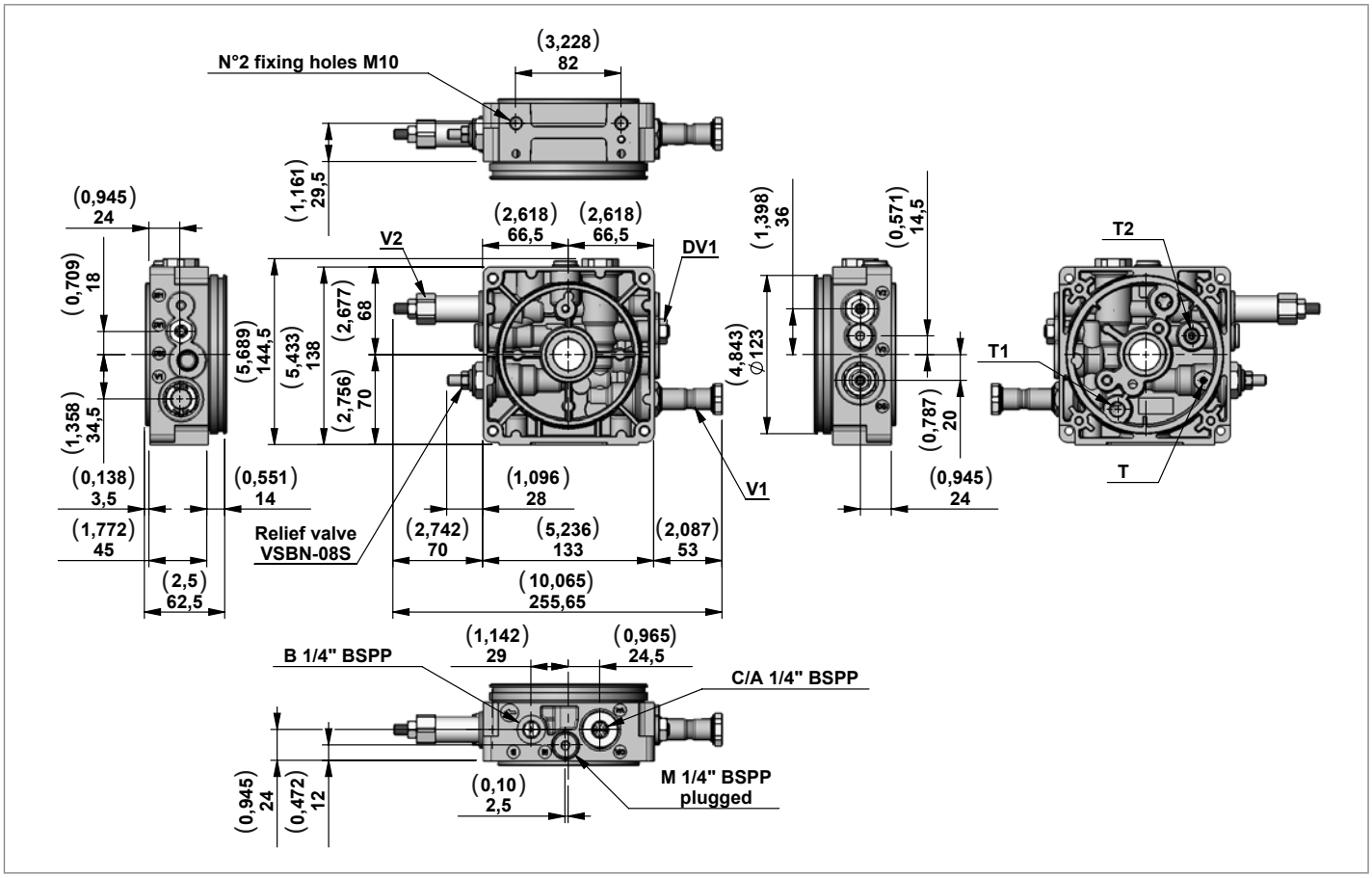


Junction Elements for manifolds MT

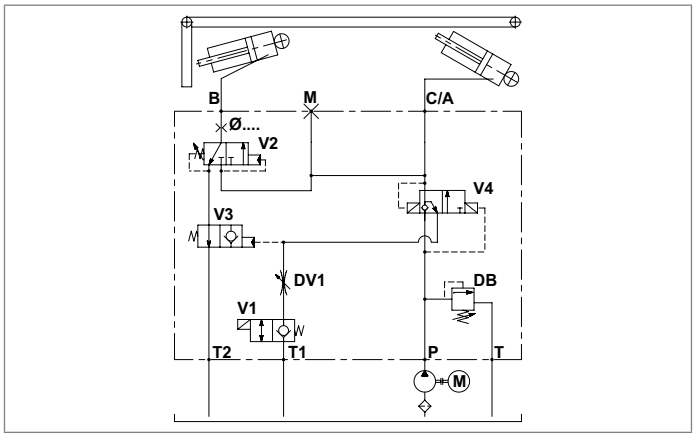
Code	Motor Codes	Type	Material Number
TR08	724-724T-725-725T-826T-827T-828T	K01KE970TR008	R932001900

Central Manifold DL

66

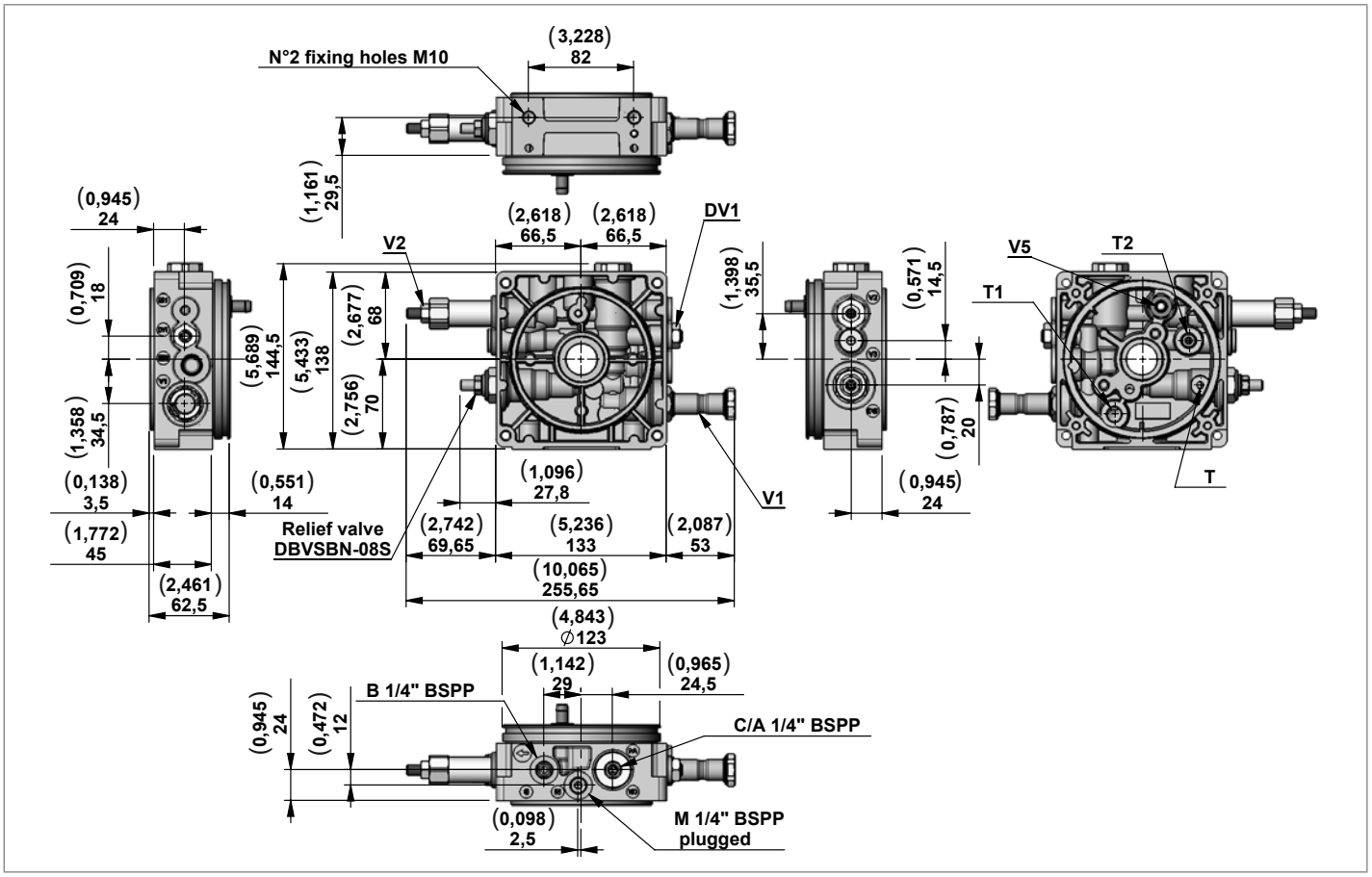


▼ **Manifold Hydraulic Diagram**

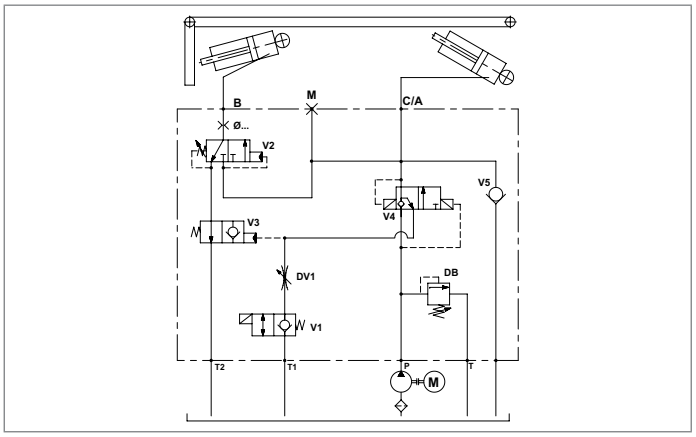


Manifold code with Sequence Valve pressure range	Pressure range Relief Valve DB bar (psi)	Pressure range Sequence Valve V2 bar (psi)	Type	Material Number
66/12	90-250 (1305-3626)	30-120 (435-1740)	766C120NG	R930052303
66/17	90-250 (1305-3626)	60-170 (870-2465)	766C150NG	R930052304

67

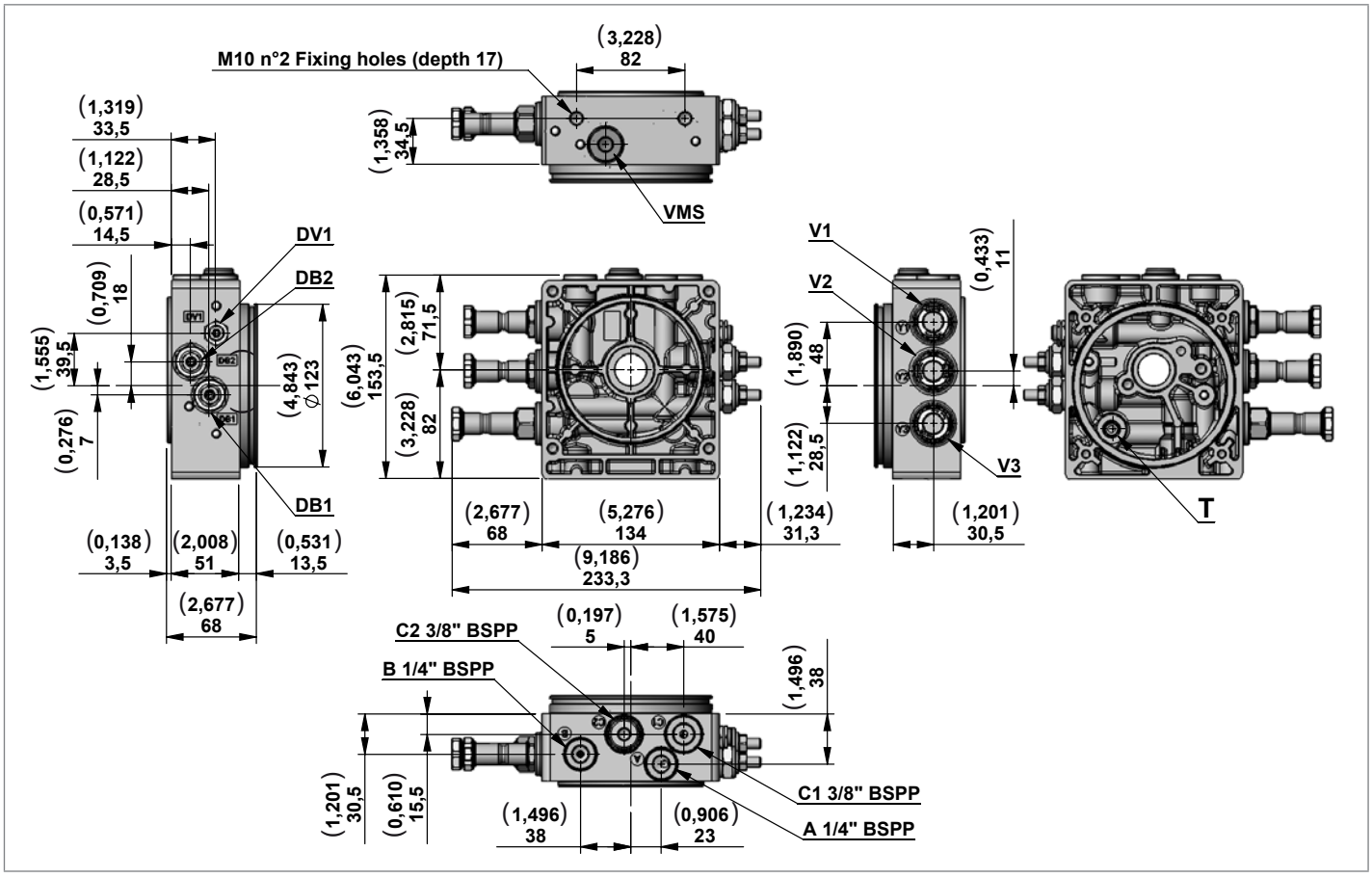


▼ **Manifold Hydraulic Diagram**

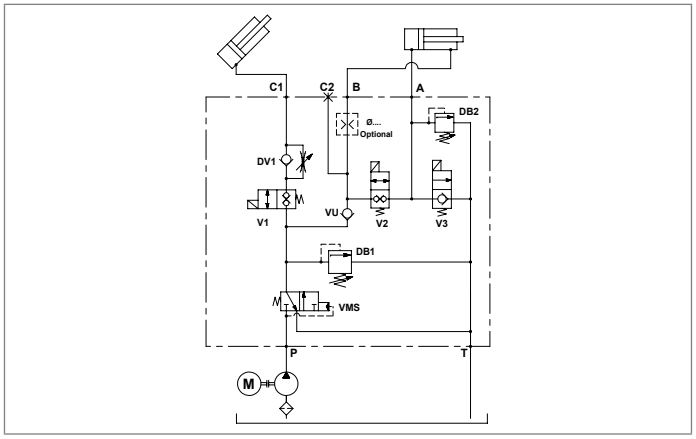


Manifold code with Sequence Valve pressure range	Pressure range Relief Valve DB bar (psi)	Pressure range Sequence Valve V2 bar (psi)	Type	Material Number
67/12	90-250 (1305-3626)	30-120 (435-1740)	767C120NG	R930052305
67/17	90-250 (1305-3626)	60-170 (870-2465)	767C150NG	R930052306

73



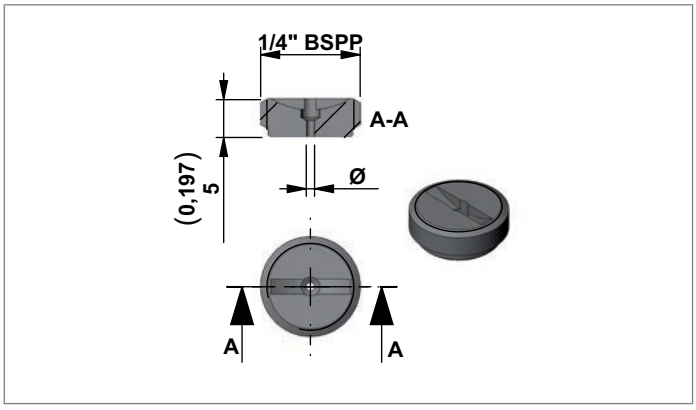
▼ **Manifold Hydraulic Diagram**



Manifold code with Relief Valve pressure range	Pressure range Relief Valve VM1 bar (psi)	Pressure range Relief Valve VM2 bar (psi)	Type	Material Number
73/20	90-250 (1305-3626)	90-250 (1305-3626)	773C150NG	R930052310

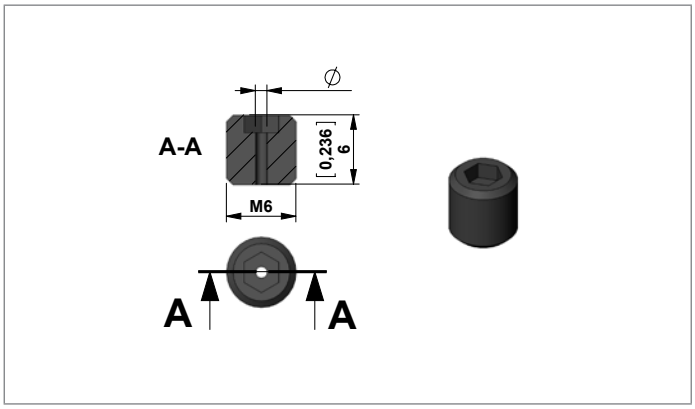
Flow Restrictor

Flow restrictor for manifold code 66-67



Code	Ø of flow restrictor mm	Material Number
G00	Without flow restrictor	
G07	0,7	R930046181
G08	0,8	R930051905
G11	1,1	R930046182
G13	1,3	R930046183
G15	1,5	R930046184
G18	1,8	R930046185

Flow restrictor for manifold code 73



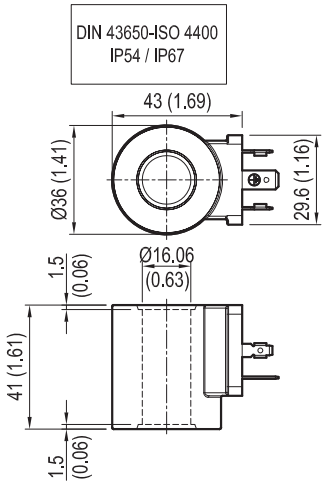
Code	Ø of flow restrictor mm	Material Number
G00	Without flow restrictor	
G08	0,8	R930006600
G1	1	R930028268
G12	1,2	R930028256
G14	1,4	R930028267

Coil

Coil D36 - CLASS H - 20 W

Technical Data
Weight: 0.18 kg (0.40 lbs)
Power: 20 W
Heat insulation Class H: 180°C (356°F)
Ambient temperature range: -30/+90°C (-22/+194°F)

Further performance limits in terms of temperature and voltage fluctuations: please refer to data sheet of the solenoid valve where D36 coil is mounted.



Coils D36 DIN 43650

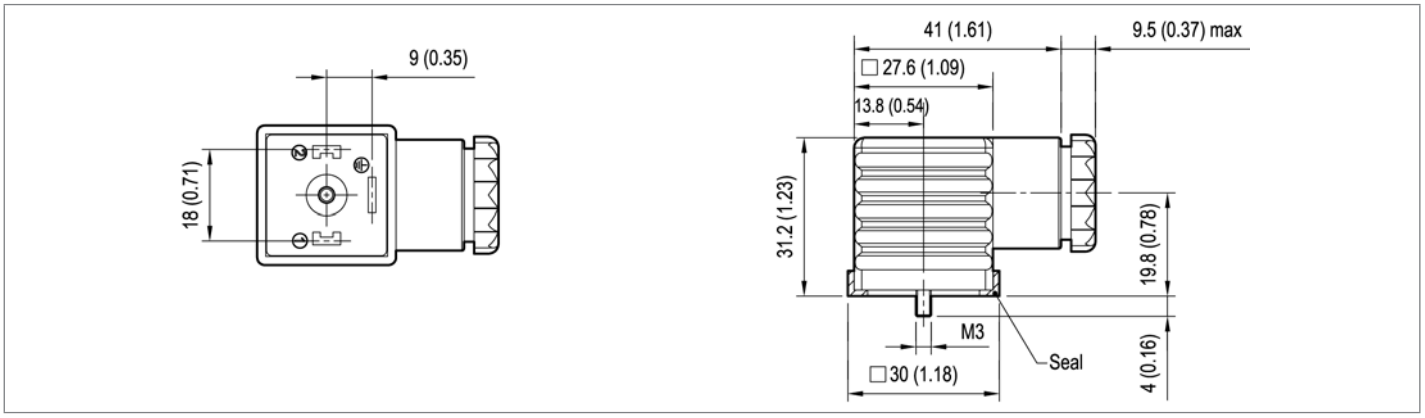
CODE	VOLTAGE	HEAT INSULATION CLASS	TYPE	MATERIAL NUMBER
OB	12 Volts D.C.	H (180 °C) (356 °F)	OD02360130OB00	R901393412
OC	24 Volts D.C.	H (180 °C) (356 °F)	OD02360130OC00	R901393577
AH*	205 Volts D.C.	H (180 °C) (356 °F)	OD02360130AH00	R901394231

Note
* AH version especially designed in cases of AC supply voltage 220 AC to be used in conjunction with connector with circuit including wave rectifier. Ambient temperature range for AH versions: -30°C / + 75°C

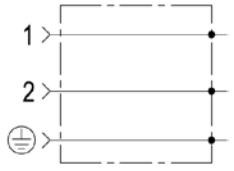
Connectors

CONNECTOR IP67 - EN175000 (DIN 4350-A) / ISO 4400

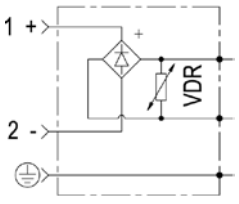
Ambient temperature - Standard		°C (°F)	- 20 to + 60 (-4 to +140°F)
Type of protection according to DIN 40050			IP67 with cable socket mounted and locked
Operating voltage		V	Choose the proper ordering code according to the circuit
Maximum operating current	Standard	A	16
	With rectifier	A	1
Number of pins			2 + PE
Clamping range for cables having an outer diameter of		mm (inch)	5, up to 10 (0,2 up to 0,4)
Cable entry			Pg9 / Pg11 (unified)
Maximum cable cross-section		mm^2 ($inch^2$)	1.5 (0,002)



Standard Circuit

Code	Colour	Cable entry	Type	Material Number	
WC	Without Connector				
CS	black	Pg9 / Pg11	OD016901000000	R934004344	

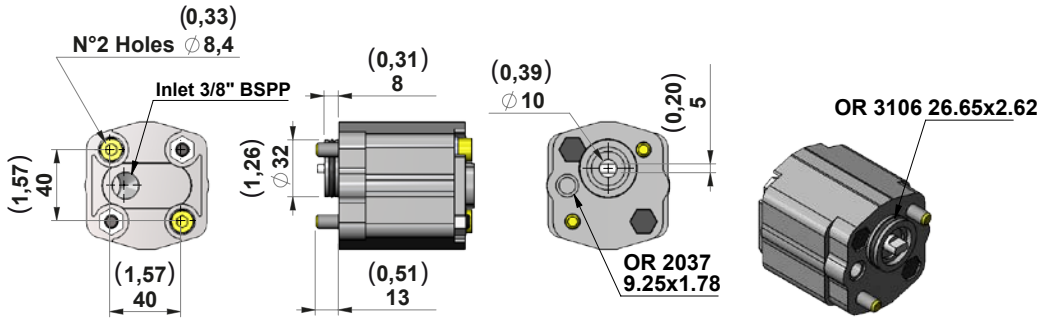
Circuit with VDR + Wave Rectifier

Code	Voltage V		Diode Capacity I max	Colour	Cable entry	Type	Material Number	
	AC	DC						
CR	230	/	1A	black	Pg9 / Pg11	OD01690201OZ00	R934004353	

Note
Diode with capacity max 1 Amp.

Gear Pumps

Gear Pumps Group 1



P2: intermittent max Pressure.

P3: peak Max Pressure (max 2 seconds)

Code	Displacement cc/rev	Flow at 1500 rpm l/min (gpm)	P2 bar (psi)	P3 bar (psi)	Type	Material Number
10	0,8	1,2	230	250	K01CV640060BD	R930075794
11	1,3	2	230	250	K01CV640070BD	R930075795
12	1,6	2,4	230	250	K01CV640080BD	R930075796
13	2,1	3,2	230	250	K01CV640090BD	R930075797
14	2,7	4	230	250	K01CV640100BD	R930075798
15	3,2	4,8	230	250	K01CV640110BD	R930075799
16	3,7	5,6	230	250	K01CV640120BD	R930075800

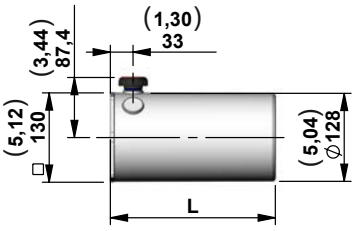
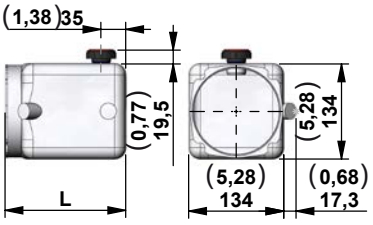
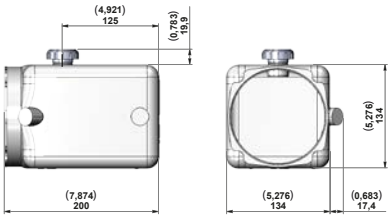
Note

All pumps have anti-clockwise rotation.

Oil Tanks for DL

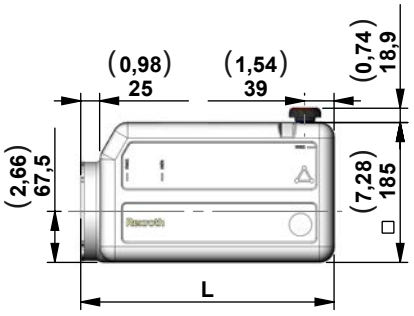
Technical Data for Plastic Tanks

Temperature range	°C (°F)	-15....+70 (5....158)
Materials		PE=Polyethylene - PP=Polypropilene

Code	Tank capacity l (USgal)	Useable capacity l (USgal)	L mm (inch)	Material	Type	Material Number	Drawing
S335	1,0 (0,26)	0,7 (0,18)	140 (5,51)	PP	K01K3976SE372	R932002035	
S336	1,8 (0,48)	1,2 (0,32)	180 (7,09)	PP	K01K3976SE373	R932002036	
S337	2,5 (0,66)	1,7 (0,45)	240 (9,45)	PP	K01K3976SE374	R932002037	
S338	3,0 (0,79)	2,3 (0,61)	285 (11,22)	PP	K01K3976SE375	R932002038	
For these tanks is necessary to use the O-RING Ø112x3 code: C000191000 R-Number: R932000190							
S247	1,8 (0,48)	1,6 (0,42)	170 (6,71)	PE	K01K3976SE271	R932002017	
S248	2,5 (0,66)	2,2 (0,58)	240 (9,45)	PE	K01K3976SE272	R932002018	
For these tanks is necessary to use special seal Code: C0001S2168A R-Number: R930071663							
S453	2,3 (0,61)	2,0 (0,53)	200 (7,87)	PE	K01K3976SE509	R930102112	
For this tank is necessary to use special seal Code: C0001S2168A R-Number: R930071663							

Plastic Tanks

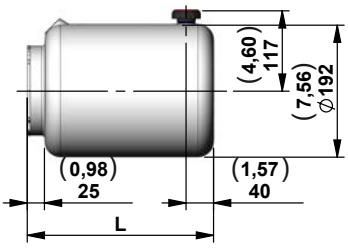
Code	Tank capacity l (USgal)	Useable capacity l (USgal)	L mm (inch)	Material	Type	Material Number	Drawing
S448	4 (1,06)	3 (0,79)	205 (8,07)	PE	K01K3976SE504	R930101539	
S343	5 (1,32)	3,8 (1)	230 (9,05)	PE	K01K3976SE380	R932002039	
S450	6 (1,59)	4,5 (1,19)	265 (10,43)	PE	K01K3976SE506	R930101541	
S413	7 (1,85)	5,5 (1,45)	310 (12,20)	PE	K01K3976SE439	R932007873	
S415	8 (2,11)	6,5 (1,72)	335 (13,19)	PE	K01K3976SE441	R932006036	
S316	9 (2,38)	7,3 (1,93)	365 (14,37)	PE	K01K3976SE351	R932002031	



For these tanks is necessary to use special seal Code: C0001S2168A R-Number: R930071663

Plastic Tanks

Code	Tank capacity l (USgal)	Useable capacity l (USgal)	L mm (inch)	Material	Type	Material Number	Drawing
S374	5 (1,32)	4 (1,06)	219 (8,62)	PE	K01K3976SE415	R932002042	
S376	7 (1,85)	5,4 (1,43)	271 (10,67)		K01K3976SE417	R932002044	
S378	8 (2,11)	6,6 (1,74)	323 (12,72)		K01K3976SE419	R932002046	

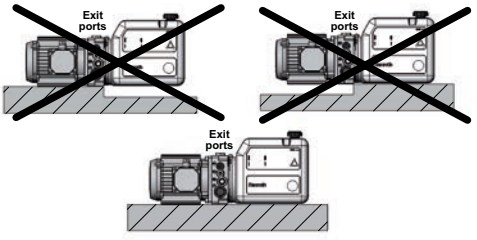


For these tanks is necessary to use special seal Code: C0001S2168A R-Number: R930071663

Assembly Kit for Plastic Tank - DL

Oil Tank	Code for DL	Material Number
S335 - S336 - S337 - S338	K2501VT016	R932007391
S247 - S248 - S453	K2501VT015	R932008244
S448 - S343 - S450 - S413 - S415 - S316 - S374 - S376 - S378	K2501VT026	R930053718

Please make sure that the tank and motor are mounted correctly

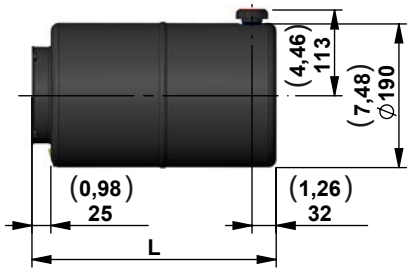


Dimensions [mm (inches)]

Technical Data for steel Tanks

Temperature range	°C (°F)	-15....+70 (5....158)
Materials		Steel
Colors		Black paint finish

Code	Tank capacity l (USgal)	Useable capacity l (USgal)	L mm (inch)	Type	Material Number
S03SD	5,0 (1,32)	4,0 (1,06)	219 (8,62)	K01K3976SE005SD	R932007901

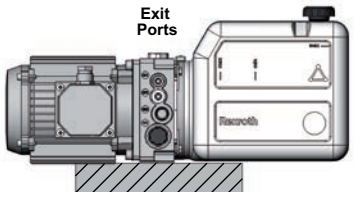


For this tank is necessary to use the O-RING Ø110.7x3.35 code: 110201203000000
R-Number: R932000188

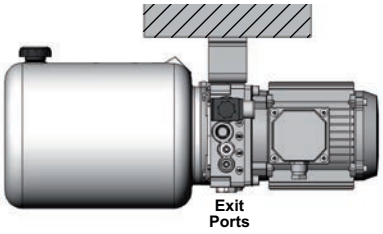
Mounting position

Mounting position	
Code	**Image**
01	1
02	2

1



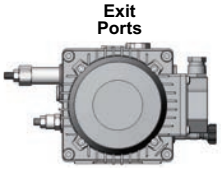
2



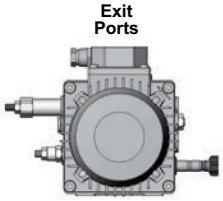
Terminal Box Position for A.C. Motors

Terminal Box Position for A.C. Motors	
Code	**Image**
–	6
M2	7
M3	8
M4	9

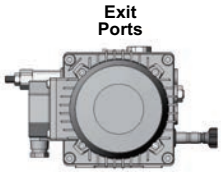
6-Standard



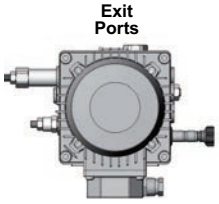
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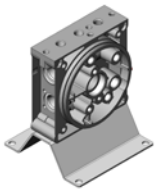
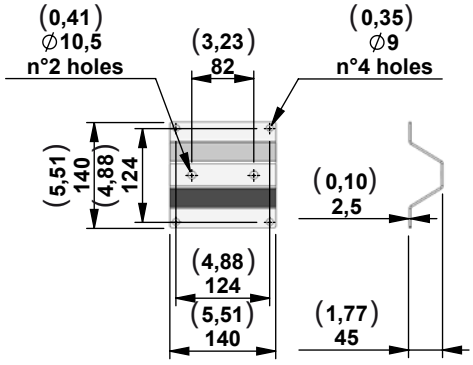
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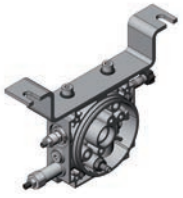
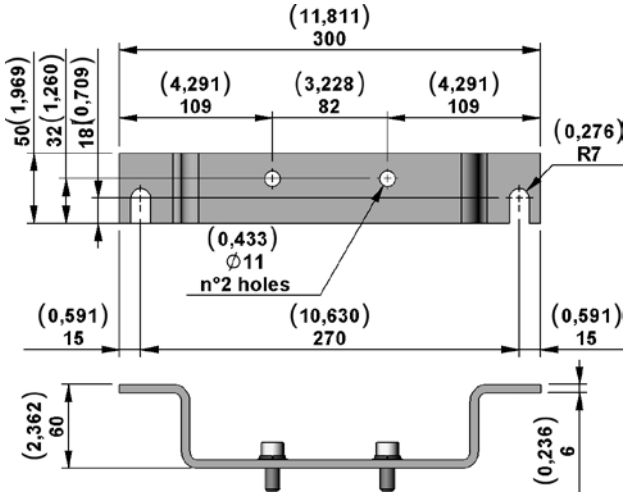


9



Mounting Brackets

Code	Central manifold	Type	Material number		
G80	DL	K01F331514000	R932009395		

Code	Central manifold	Type	Material number		
G87	DL	K01K331523000	R932010187		

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