



## SECTION C

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hydraulic

### PUMPS

Group 0 with tang drive shaft and pressure balanced design for high volumetric efficiency, specifically designed for micro power packs.



R series: bidirectional pumps with integrated suction check valves and two front outlet ports. They can be fitted on MR type central manifold.



#### Why are pressure balanced gear pumps better than fixed clearings gear pumps?

Pressure balanced gear pumps are built with lateral pressure plates which reduce the mechanical clearings on the gears with the increase of the pressure on the outlet, thus greatly improving the fluidodynamic efficiency, reducing heat generation and energy consumption. The mechanical efficiency is kept at optimal levels too.

#### How can we mount both group 0 and group 1 pumps on the same Universal central manifold?

The group 1 pumps fits directly on the central manifold and are fixed to it by two bolts, provided together with the pump. The group 0 pumps are fitted by the adaptor plate E60513025, which adapts the pump front flange to the central manifold.

#### Why are the pump technical specifications showing three maximum pressure levels?

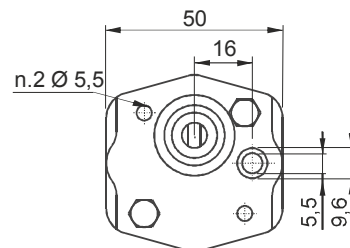
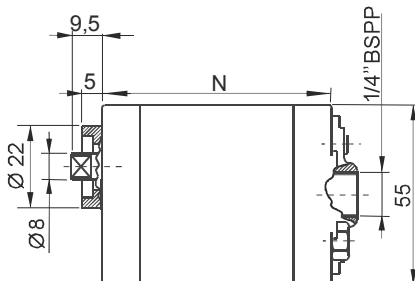
Our pumps have three ratings for the maximum allowable pressure: 1-Peak: is the maximum one and can be allowed for a maximum cycle of 2 seconds. 2-Intermittent: it can be applied on the pump for a maximum cycle of 20 seconds; 3-Continuous: it can be applied on the pump continuously.



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### STANDARD GEAR PUMPS. GROUP 0

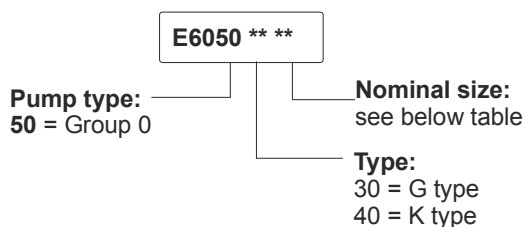


#### Main features

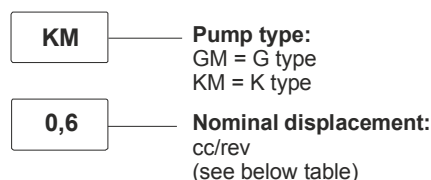
Oil temperature	-15 ÷ +80 °C
Inlet pressure	0,7 < P < 3,0 bar (absolute pressure)
Fixing bolts	2 x M5 8.8 class steel tightening torque: 5 Nm
Pressure definition	Peak pressure: cycle 2 s ON Intermittent pressure: cycle 20 s ON Continuous pressure: cycle always ON
Filtration setting	25 ÷ 50 µ

Standard rotation direction: clockwise rotation (from shaft side).  
 Counterclockwise rotation pumps can be mounted on request.  
 Ask our sales department.

#### Spare part code



#### PPM assembly code field



#### Available range

Nominal displacement (cc/rev)	Peak pressure (bar)	Intermittent pressure (bar)	Continuous pressure (bar)	Max speed (rpm)	N (mm)	Bolts* (mm)	Spare parts code	Weight (kg)
0,1	230	210	190	7000	45,5	M5x55	E60503001	0,31
0,2	200	180	160	6000	45,5	M5x55	E60504002	0,33
0,4	200	180	160	6000	47,5	M5x55	E60504004	0,35
0,6	200	180	160	6000	51,5	M5x60	E60504006	0,40
0,9	200	180	160	5000	52,5	M5x65	E60504009	0,44
1,3	200	180	160	3900	55,5	M5x65	E60504013	0,49
1,5	200	180	160	3900	57,8	M5x70	E60504015	0,51
1,9	150	130	110	3000			E60504017	0,55

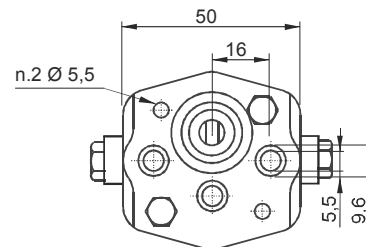
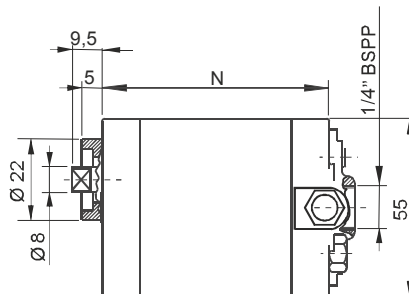
\* A proper washer is to be forecast to adapt bolt length



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### BIDIRECTIONAL GEAR PUMPS. GROUP 0

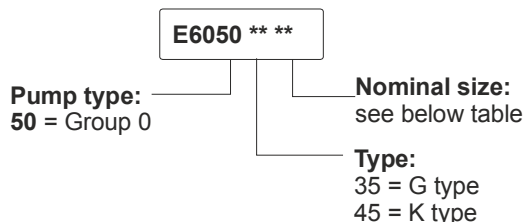


#### Main features

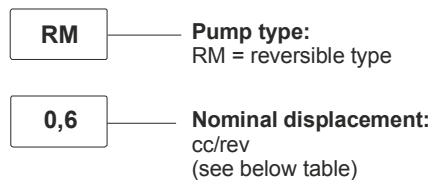
Oil temperature	-15 ÷ +80 °C
Inlet pressure	0,7 < P < 3,0 bar (absolute pressure)
Fixing bolts	2 x M5 8.8 class steel tightening torque: 5 Nm
Pressure definition	Peak pressure: cycle 2 s ON Intermittent pressure: cycle 20 s ON Continuous pressure: cycle always ON
Filtration setting	25 ÷ 50 µ

Standard rotation direction: clockwise rotation (from shaft side).  
 Counterclockwise rotation pumps can be mounted on request.  
 Ask our sales department.

#### Spare part code



#### PPM assembly code field



#### Available range

Nominal displacement (cc/rev)	Peak pressure (bar)	Intermittent pressure (bar)	Continuous pressure (bar)	Max speed (rpm)	N (mm)	Bolts* (mm)	Spare parts code	Weight (kg)
0,1	200	180	160	6000	45,5	M5x55	E60503501	0,44
0,2	200	180	160	6000	45,5	M5x55	E60504502	0,46
0,4	200	180	160	6000	47,5	M5x55	E60504504	0,48
0,6	200	180	160	6000	54,5	M5x65	E60504506	0,49
0,9	200	180	160	5000	62,4	M5x70	E60504509	0,50
1,3	200	180	160	3900	63,2	M5x70	E60504513	0,51
1,5	200	180	160	3900	64,5	M5x70	E60504515	0,52

\* A proper washer is to be forecast to adapt bolt length