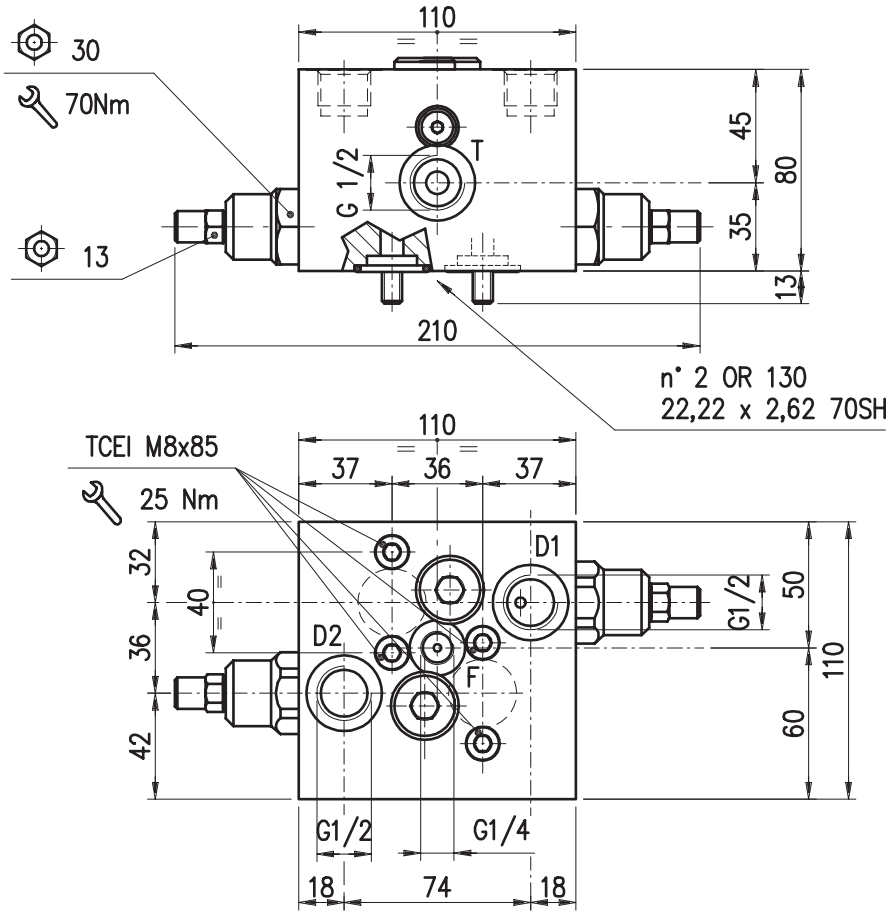
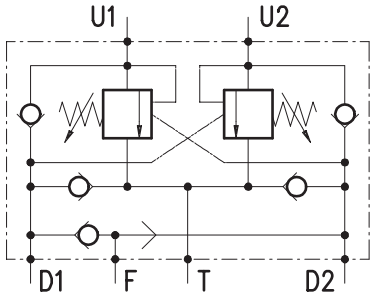
VABAL/SC/F/A 12/OMR

OLEOSTAR

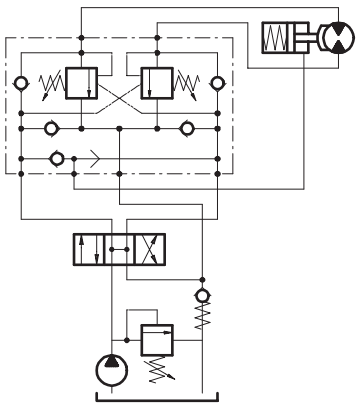
• DIMENSIONS (mm)



• HYDRAULIC DIAGRAM



• ASSEMBLY DIAGRAM



• DESCRIPTION

Cross-line, relief valves for motion control, anti-shock and anti-cavitation with connection for hydraulic brakes release, face mounting for Sauer-Danfoss motor OMR Series including OR and Screws.

• OPERATION

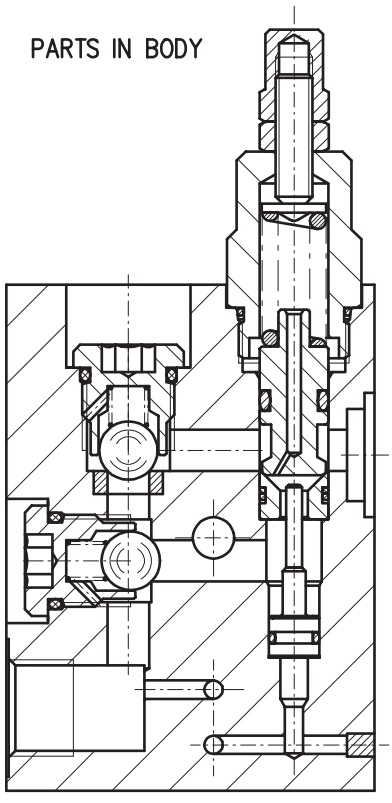
The oil flow is allowed from D1 (D2) to U1 (U2) and is stopped in the opposite way from U1 (U2) to D1 (D2) up to the spring setting value. Free oil flow from U1 (U2) to D1 (D2) is strictly possible when the pilot pressure in D2 and U2 (D1 and U1) is strong enough to pilot the valve poppet.
Use the following formula to assert the applicable pilot pressure:
(valve setting – load pressure) ÷ pilot ratio = pilot pressure
For example:
If your pilot ratio is 1:3, your setting pressure is 250 bar and your load pressure is 130 bar then you will need 30 bar pilot pressure in order to displace the load. [(250 bar – 130 bar) ÷ 3 = 40 bar)].
Counterpressure in D1 (D2) increase the setting value (1:1 ratio) of the poppet spring and negatively affect the pilot pressure (1:1 ratio).
Use of two check-valves between D1 (D2) and T avoids cavitation on the pressure line during relief operation. The special shuttle valve allows releasing of the hydraulic parking brakes.

• PERFORMANCE

Maximum flow: 40 l/min
Maximum Pressure:
- aluminium body 210 bar
- steel body 350 bar

Application range with standard springs:
- 5 - 210 bar, pressure increase= 26 bar/turn (test setting: 170 bar at 5 l/min)
- 50 - 350 bar, pressure increase= 87 bar/turn (test setting: 280 bar at 5 l/min)

• CROSS SECTION



Oil leaks from U1 (U2) to D1 (D2): 0,25 cc/minute (5 drops) at 210 bar and 80% of the spring setting value with oil viscosity of 46 cSt.
Pilot ratio:
- 1:3 Standard
- 1:1,2

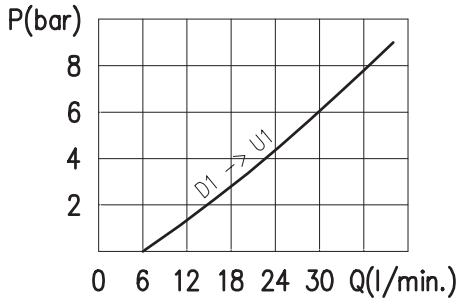
Working temperature:
- minimum -25°C max 90°C with standard BUNA N gaskets
- minimum -20°C max 200°C with optional VITON gaskets

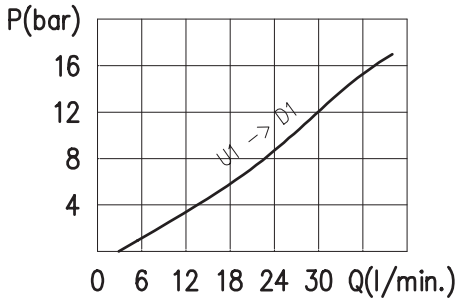
Spare parts KIT: screws and seals (Ordering code: 5KTM0OMR05)

• RECOMMANDATIONS

Fluid: best use mineral oil with viscosity ranging between 10 and 200 cSt
Filter: see page Z.9000.000.
Weight: aluminium body: 3.1 kg - steel body: 6 kg
Material: internal components made out of high-grade steel duly treated and fabricated.
For more information please ask our technical office.
Variations and modifications of technical features and dimensions are reserved. **OLEOSTAR S.p.A.** also reserves the right to stop production of each and any model listed in the catalogue with no notice.

• RATING DIAGRAMS





Oil viscosity 46 cSt

• CODE NUMBER

VABAL /SC /F/A 12/OMR/□□ . S . □□ . PG . □□ / □□

Pressure settings (bar)
TS) 5÷210
TR)50÷350 (standard)

Pilot ratio
p3) 1:3 (standard)
p1,2) 1:1,2

Check valve seat
_ See body
VRR) Hardened steel

Body material
_Aluminium
ac Steel