

MRQA

UNLOADING VALVE

(FOR CIRCUITS WITH ACCUMULATOR)

SERIES 42

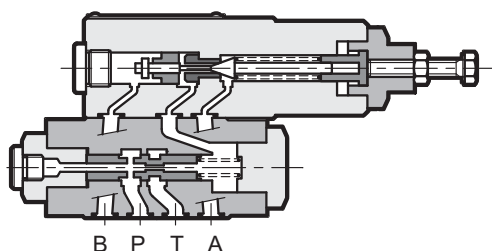
SUBPLATE MOUNTING

ISO 4401-03

p max **350** bar

Q max **40** l/min

OPERATING PRINCIPLE



- MRQA is a pressure relief and safety valve with automatic unloading. Upon reaching the set value, the valve freely unloads the pump and puts it under pressure again when the pressure values descend in the circuit to correspond to 63% or 75% of the set value.

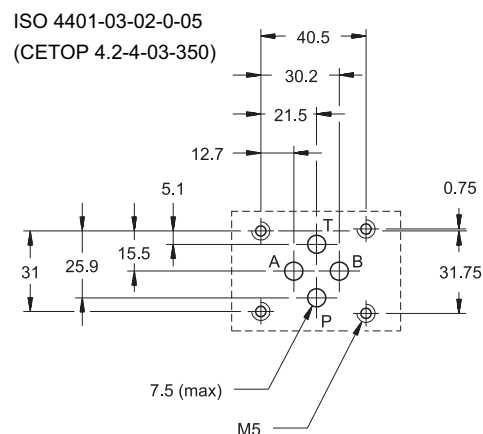
In order to assure this operation, it is necessary to use an accumulator (see hydraulic diagram) that guarantees pressure maintenance in the circuit. A check valve, incorporated in the panel or available as a plate under the valve MRQA/C, prevents the accumulator unloading through the open valve.

This system maintains the pressure in the hydraulic circuit, avoiding heating of the oil and reducing energy consumption.

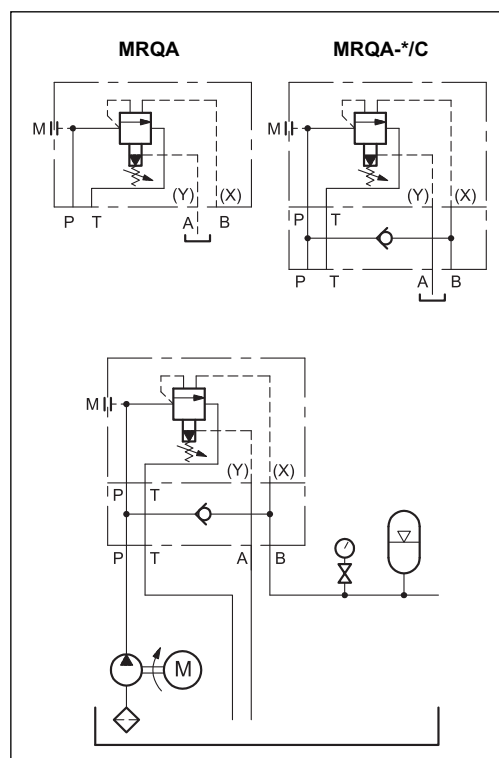
It is recommended to place the accumulator as close as possible to the MRQA, without reducing the connection size.

- The cycle time depends on the pump flow rate, the accumulator capacity and pre-charge, and the flow requirement of the system.

MOUNTING SURFACE



HYDRAULIC SYMBOLS & DIAGRAM



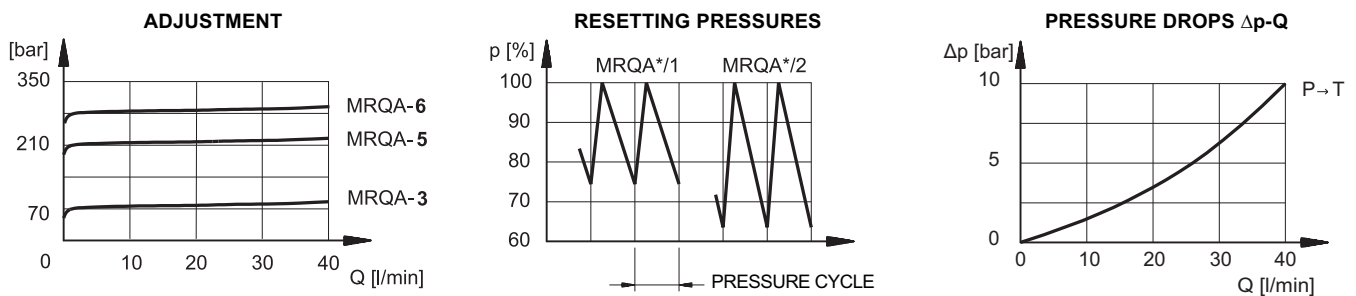
PERFORMANCE RATINGS (measured with mineral oil of viscosity 36 cSt at 50°C)

Maximum operating pressure	bar	350
Maximum flow rate	l/min	40
Ambient temperature range	°C	-20 / +60
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 ÷ 400
Fluid contamination degree	According to ISO 4406:1999 class 21/19/16	
Recommended viscosity	cSt	25
Mass: MRQA	kg	3,3
MRQA*/C		4,2

1 - IDENTIFICATION CODE

M	R	Q	A	-	/	/	/	/	42	/	
Size ISO 4401-03				Seals: omit for mineral oils V = viton for special fluids				Series No. (the overall and mounting dimensions remain unchanged from 40 to 49)			
Unloading valve											
Automatic unloading for circuits with accumulator											
Pressure adjustment range:								C = Check valve (omit if not required)			
3 = 25 ÷ 70 bar											
5 = 50 ÷ 210 bar											
6 = 100 ÷ 280 bar											
Differential pressure (values ± 2.5%)								M = Adjustment with SICBLOC knob (omit for adjustment with hexagonal head screw)			
1 = pump switch on at 75% of adjustment value											
2 = pump switch on at 63% of adjustment value											

2 - CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 50°C)



3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

4 - OVERALL AND MOUNTING DIMENSIONS

