



**DIPLOMATIC  
HYDRAULICS**

21 220/105 ED



# RQ\*-W

## PRESSURE RELIEF VALVE

### SERIES 41

#### THREADED PORTS

**p** max **350** bar

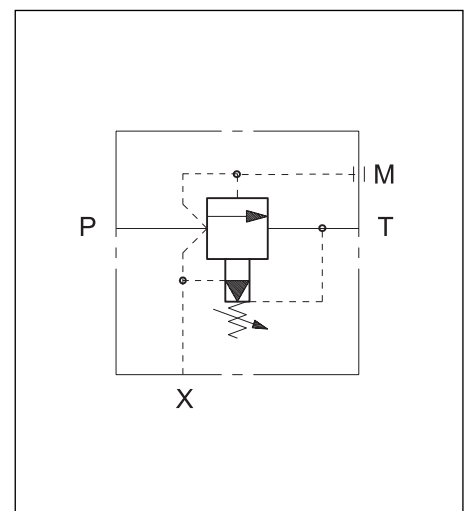
**Q** max (see performance ratings table)

#### OPERATING PRINCIPLE

- The RQ\*-W valves are pilot operated pressure relief valves with threaded ports, available in two nominal sizes for a flow rate up to 400 l/min.
- Main stage with shutter and cone seal.
- Possibility of remote piloting using port X (see par. 4).
- The valves allow the use of the entire flow of the pump even with pressure values near the set value. The wide passages allow reduced pressure drops and fluid heating due to low pressure drop across the valve.
- They are normally supplied with a hexagonal head adjustment screw. Upon request, they can be equipped with a SICBLOC adjustment knob.

| <b>PERFORMANCE RATINGS</b><br>(measured with mineral oil of viscosity 36 cSt at 50°C) |                                | RQ5-W     | RQ7-W |
|---|--------------------------------|-----------|-------|
| Maximum operating pressure  | bar                            | 350       |       |
| Maximum flow rate   | l/min                          | 250       | 400   |
| Ambient temperature range   | °C                             | -20 ÷ +50 |       |
| Fluid temperature range   | °C                             | -20 ÷ +80 |       |
| Fluid viscosity range   | cSt                            | 10 ÷ 400  |       |
| Recommended viscosity   | cSt                            | 25        |       |
| Degree of fluid contamination   | According to NAS 1638 class 10 |           |       |
| Mass  | kg                             | 4,1       | 8     |

#### HYDRAULIC SYMBOL





### 1 - IDENTIFICATION CODE

|  |          |          |          |          |          |          |           |          |
|--|----------|----------|----------|----------|----------|----------|-----------|----------|
|  | <b>R</b> | <b>Q</b> | <b>-</b> | <b>W</b> | <b>/</b> | <b>/</b> | <b>41</b> | <b>/</b> |
|--|----------|----------|----------|----------|----------|----------|-----------|----------|

Pressure control valve ————

Nominal dimension **5** = DN 25  
**7** = DN 40

Threaded ports BSP ————

Pressure adjustment range: ————

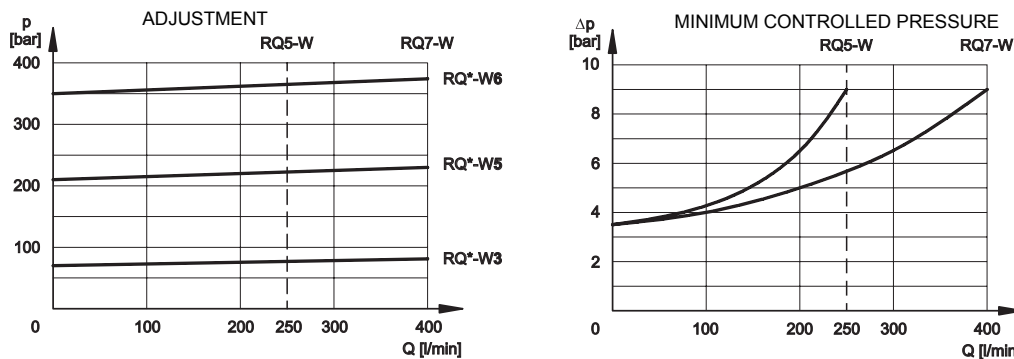
**3** = up to 70 bar  
**5** = up to 210 bar  
**6** = up to 350 bar

Seals:  
omit for mineral oils  
**V** = viton for special fluids

Series No. (the overall and mounting dimensions remain unchanged from 40 to 49)

**M** = adjustment with SICBLOC knob  
(omit for adjustment with hexagonal head screw)

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



### 3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HPL type, according to ISO 6743/3. For fluids HFD-R type (phosphate esters) use FPM seals (code V). For the use of other fluid types such as HFA, HFB, HFC, please consult our technical department.

Using fluids at temperatures higher than 70°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

dimensions in mm

|   |  |
|---|--|
| 1 | Hexagonal head adjustment screw. Spanner 13. Clockwise rotation to increase pressure |
| 2 | Remote piloting port X 1/4 BSP   |
| 3 | Outlet port T<br><b>RQ5-W</b> : 1" BSP<br><b>RQ7-W</b> : 1" 1/2 BSP                  |
| 4 | Pressure port P<br><b>RQ5-W</b> : 3/4" BSP<br><b>RQ7-W</b> : 1" 1/4 BSP              |
| 5 | Pressure gauge port 3/8 NPT  |
| 6 | SICBLOC adjustment knob. To operate, push and rotate at the same time.               |

|              | A   | B  | C  | D | ØE | F    | G    | H    | I   | L   | M  | ØN   | ØO |
|--------------|-----|----|----|---|----|------|------|------|-----|-----|----|------|----|
| <b>RQ5-W</b> | 168 | 98 | 49 | 4 | 22 | 21.5 | 44.5 | 123  | 80  | 87  | 53 | 35.5 | 46 |
| <b>RQ7-W</b> | 168 | 98 | 49 | 4 | 22 | 43   | 59.5 | 14.5 | 102 | 109 | 68 | 50   | 56 |

|  |   |
|--|---|
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