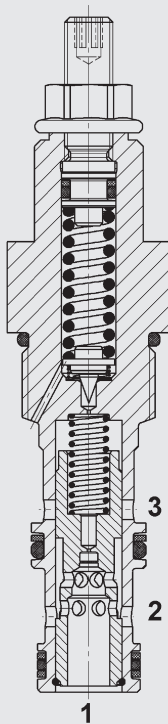


## FUNCTION



The pressure control valve is a pilot operated, spring loaded spool valve, which keeps the pressure at the consumer constant.

If the pressure exceeds the set value on the pressure spring, the pilot stage opens and oil flows from the back of the main spool to tank port 3.

Due to the resulting pressure difference, the main spool moves against the return spring and allows oil to flow from port 2 to port 1. This occurs until the system pressure is equal to the spring pressure and the valve closes again.

If the pressure at port 1 suddenly rises due to external force, the valve relieves this pressure to tank port 3 (maximum pressure relief).

**Attention:** Pressures at port 3 is added to the set pressure.

## Pressure Reducing Valve spool type, pilot Operated Metric Cartridge – 350 bar DRM10130P-01

### FEATURES

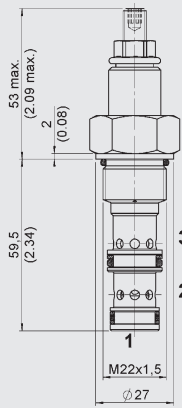
- Excellent stability throughout the entire flow range
- Adjustable throughout flow range
- Screen protected metering orifice enhances safety
- Optional spring ranges up to 350 bar
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

### SPECIFICATIONS\*

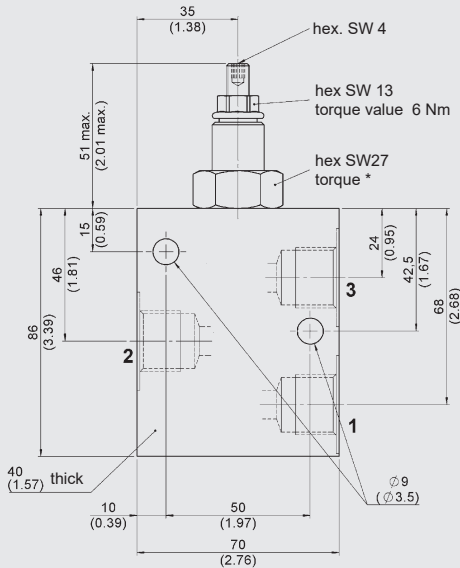
|                                    |                                                                                                                                                                        |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating pressure:                | max. 350 bar                                                                                                                                                           |
| Nominal flow:                      | max. 150 l/min                                                                                                                                                         |
| Operating pressure ranges:         | 8 to 35 bar<br>8 to 60 bar<br>8 to 125 bar<br>8 to 230 bar<br>12 to 350 bar                                                                                            |
| Pilot flow:                        | < 500 cm <sup>3</sup> /min at 350 bar                                                                                                                                  |
| Media operating temperature range: | min. -30 °C to max. +100 °C                                                                                                                                            |
| Ambient temperature range:         | min. -30 °C to max. +100 °C                                                                                                                                            |
| Operating fluid:                   | Hydraulic oil to DIN 51524 Part 1, 2 and 3                                                                                                                             |
| Viscosity range:                   | min. 10 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s                                                                                                              |
| Filtration:                        | Class 21/19/16 according to ISO 4406 or cleaner                                                                                                                        |
| MTTF <sub>d</sub> :                | 150 - 1200 years, according to DIN EN ISO 13849-1                                                                                                                      |
| Installation:                      | No orientation restrictions                                                                                                                                            |
| Materials:                         | Valve body: steel<br>Spool: hardened and ground steel<br>Seals: NBR (standard)<br>FKM (optional, media temperature range -20 °C to +120 °C)<br>Coil: steel / polyamide |
| Cavity:                            | 10130                                                                                                                                                                  |
| Weight:                            | 0.25 kg                                                                                                                                                                |

\* see "Conditions and instructions for valves" in brochure 53.000

## DIMENSIONS



\*Torque:  
 Steel manifold  
 (ultimate tensile strength < 360 N/mm<sup>2</sup>):  
 55 Nm  
 Aluminium manifold  
 (ultimate tensile strength < 330 N/mm<sup>2</sup>):  
 45 Nm  
 (tool acc. to DIN EN ISO 6789,  
 tool type II class A or B)  
 For further informations see brochure  
 No. 53.000  
 "Conditions and instructions for valves"



millimeter  
 subject to technical modifications

## MODEL CODE

**DRM10130P - 01 - C - N - 350 - V 230**

**Basic model**  
 Pressure reducing valve, metric

**Type**  
 01 = standard

**Body and ports\***  
 C = cartridge only

**Seals**  
 N = NBR (standard)  
 V = FKM

**Pressure setting range**

035 = 8 to 35 bar  
 060 = 8 to 60 bar  
 125 = 8 to 125 bar  
 230 = 8 to 230 bar  
 350 = 12 to 350 bar

**Type of adjustment**

V = Allen head (hex. 5/32")  
 H = Knob adjustment  
 F = Factory preset, non adjustable  
 K = Allen head (hex. 5/32") with protective cap

**Cracking pressure setting**

No details = no setting, spring relaxed  
 230 = cracking pressure specified by customer in bar

## Standard models

| Model code            | Part No. |
|-----------------------|----------|
| DRM10130P-01-C-N-060V | 3124335  |
| DRM10130P-01-C-N-230V | 3124337  |
| DRM10130P-01-C-N-350V | 3124348  |

## \*Standard in-line bodies

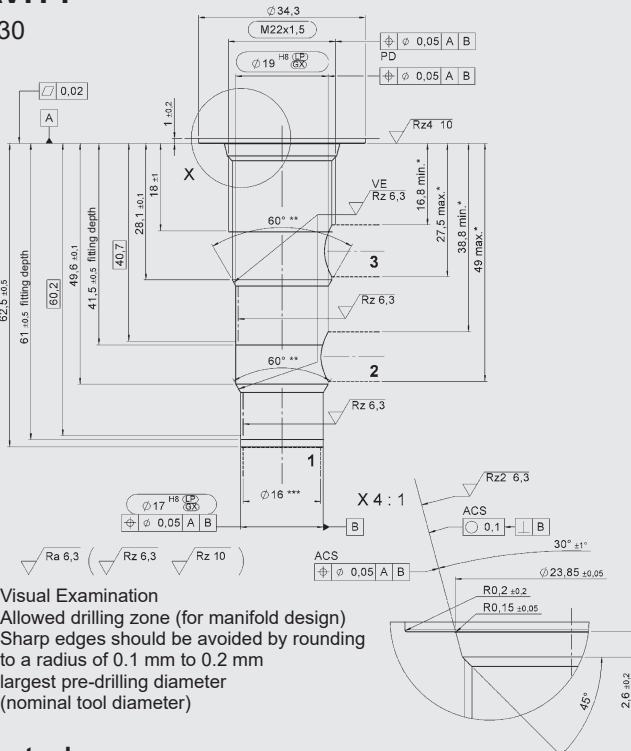
| Code          | Part No. | Material           | Ports   | Pressure |
|---------------|----------|--------------------|---------|----------|
| R10130-01X-01 | 395238   | Steel, zinc-plated | G1/2"   | 350 bar  |
| R10130-01X-01 | 395239   | Steel, zinc-plated | M22x1.5 | 350 bar  |

## Seal kits

| Code                | Material | Part No. |
|---------------------|----------|----------|
| FS METRISCH 1013./N | NBR      | 4079549  |
| FS METRISCH 1013./V | FKM      | 4079594  |

## CAVITY

10130



VE = Visual Examination

\* Allowed drilling zone (for manifold design)  
 \*\* Sharp edges should be avoided by rounding  
 to a radius of 0.1 mm to 0.2 mm  
 \*\*\* largest pre-drilling diameter  
 (nominal tool diameter)

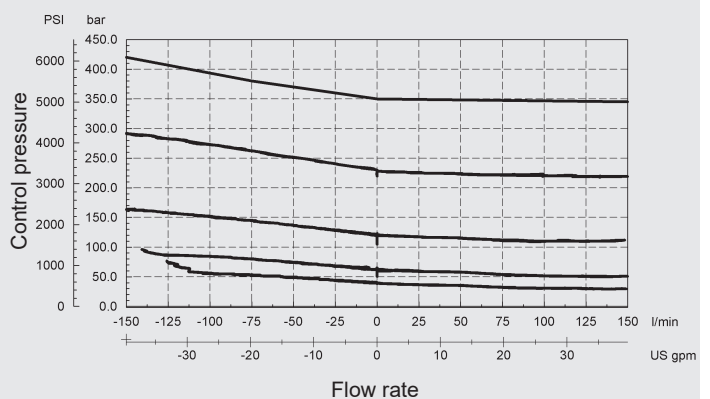
## Form tools

| Tool        | Part No. |
|-------------|----------|
| Countersink | 161826   |
| Reamer      | 163911   |

millimeter  
 subject to technical modifications

## TYPICAL PERFORMANCE

Measured at  $v = 34 \text{ mm}^2/\text{s}$ ,  $T_{\text{oil}} = 46 \text{ }^\circ\text{C}$



## NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.  
 Subject to technical modifications.

**HYDAC Fluidtechnik GmbH**

Justus-von-Liebig-Str.  
**D-66280 Sulzbach/Saar**  
 Tel: 0 68 97 /509-01  
 Fax: 0 68 97 /509-598  
 E-Mail: valves@hydac.com