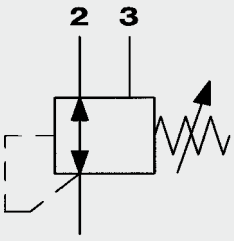


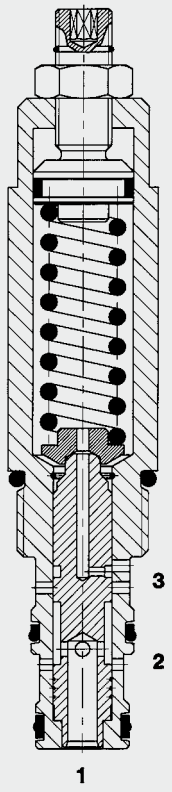
60 l/min
420 bar

Pressure Reducing Valve Spool Type, Direct-Acting SAE-10 Cartridge – 420 bar

UNF

DR10-01

FUNCTION



The DR10 is a direct-acting, spring-loaded, spool type pressure reducing valve. Its function is to maintain a constant pressure at the consumer.
In the normal position, the pressure port 2 is connected to the consumer port 1. The pressure building at the consumer acts on the face of the control spool and moves it upwards against the set spring force. Therefore the flow at port 2 is restricted enough to satisfy the consumer's demand without increasing the pressure.
In addition the valve has a pressure relieving function: If the pressure across consumer port 1 rises above the control pressure due to external force, the control spool is pushed further against the spring and vents the consumer to tank port 3.
Any pressure at port 3 is additive to the spring setting.

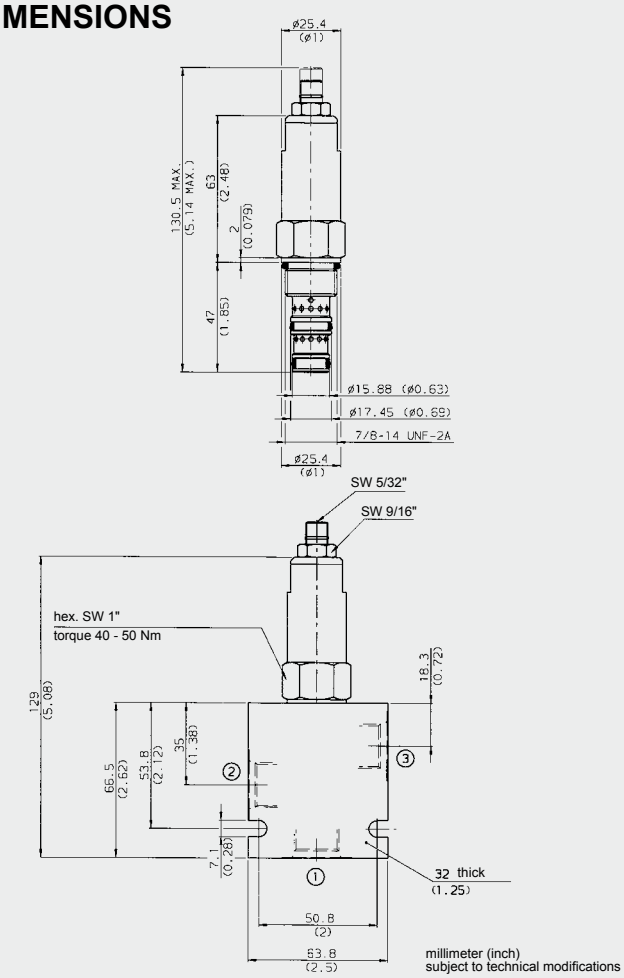
FEATURES

- External surfaces zinc-plated and corrosion-proof
- Excellent stability throughout the entire flow range
- Hardened and ground valve components to ensure minimal wear and extended service life
- Low pressure drop due to CFD optimized flow path
- Max. stroke limiter
- Hydrodynamic damping
- Quick response
- Optional spring ranges up to 131 bar

SPECIFICATIONS

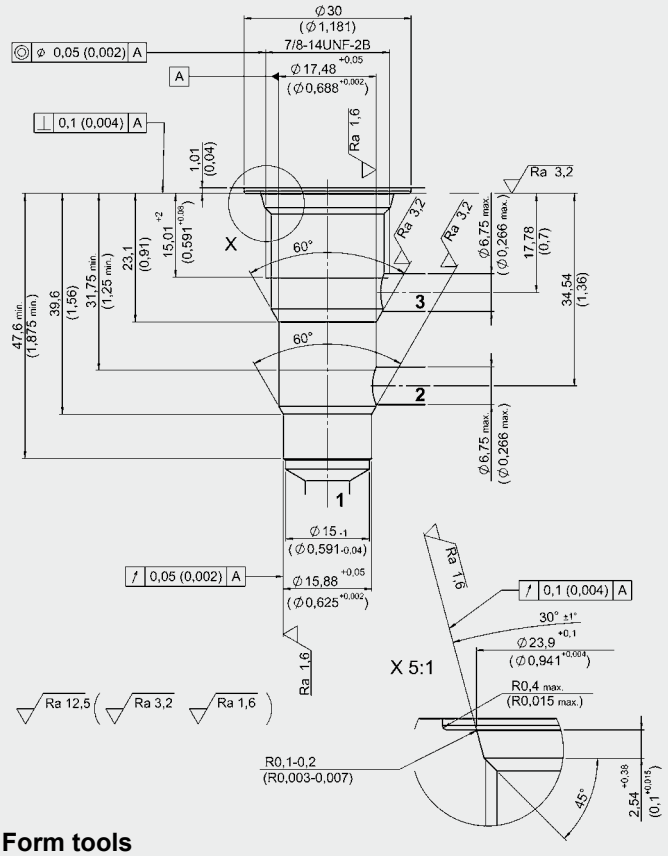
Operating pressure:	max. 420 bar	
Nominal flow:	max. 60 l/min	
Operating pressure ranges:	Up to 20 bar Up to 48 bar Up to 96 bar Up to 131 bar	
Media operating temperature range:	min. -30 °C to max. +100 °C	
Ambient temperature range:	min. -30 °C to max. +100 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity range:	min. 7.4 mm²/s to max. 420 mm²/s	
Filtration:	Class 21/19/16 to ISO 4406 or cleaner	
$MTTF_d$:	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Installation:	No orientation restrictions	
Material	Valve body:	free-cutting steel
	Spool:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Support rings	PTFE
Cavity:	FC10-3	
Weight:	0.26 kg	

DIMENSIONS



CAVITY

FC10-3



Form tools

Tool	Part No.
Countersink FC10-3	176282
Finisher FC10-3	176283

MODEL CODE

DR10-01 – C – N – 070 V 050

Basic model
Pressure reducing valve UNF

Body and ports*
C = cartridge only
SB4 = G1/2 ports, steel body
AB4 = G1/2 ports, aluminium body

Seals
N = NBR
V = FKM

Pressure setting range
030 = up to 20 bar
070 = up to 48 bar
140 = up to 96 bar
190 = up to 131 bar

Type of adjustment
V = Allen head (hex. 5/32")
H = Handwheel
F = Factory preset, non adjustable

Pressure setting
No details = no setting, spring relaxed
Pressure value = setting specified by customer

Standard models

Model code	Part No.
DR10-01-C-N-030V	3140403
DR10-01-C-N-070V	3026815
DR10-01-C-N-140V	3026816
DR10-01-C-N-190V	3026817

*Standard in-line bodies

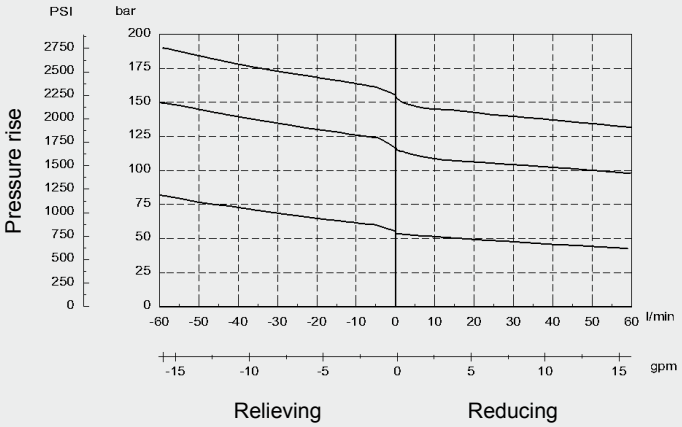
Code	Part No.	Material	Ports	Pressure
FH103-SB4	3037697	Steel, zinc-plated	G1/2	420 bar
FH103-AB4	3038092	Aluminium, anodized	G1/2	210 bar

Seal kits

Code	Material	Part No.
FS103-N Seal Kit	NBR	3071274
FS103-V SEAL KIT	FKM	3049443

PERFORMANCE

Measured at ν = 34 mm²/s, T_{oil} = 46 °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.

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