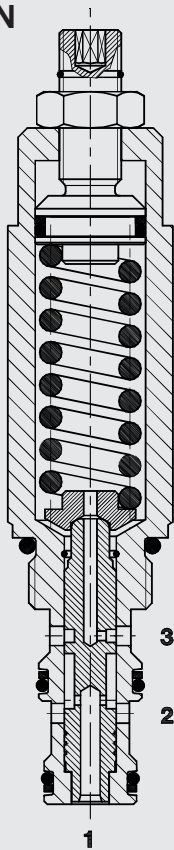


FUNCTION



The pressure reducing valve is a direct-acting, spring-loaded spool valve. It maintains a constant pressure at port 1 regardless of pressure changes at port 2.

In standard position the pressure at port 2 is connected to the actuator port 1.

If the pressure across port 1 rises above the setting, the control spool moves upwards against the set spring and therefore the flow at port 2 is restricted to satisfy the load's demand without increasing the pressure.

In addition the valve has a pressure relieving function: If the pressure across port 1 rises above the setting due to a sudden external force, the spool is pushed further against the spring and relieves the load to tank port 3.

Any pressure at port 3 is additive to the valve pressure setting.

FEATURES

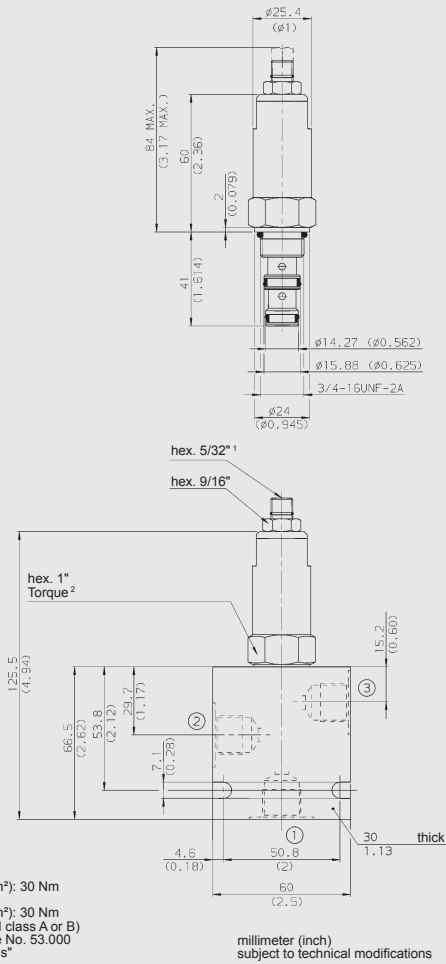
- Quick response
- Hydrodynamic damping
- Max. stroke limiter
- Variety of pressure ranges up to 207 bar
- Adjustable throughout flow range
- Compact design
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Exposed surfaces zinc-nickel-plated for increased corrosion protection (1.000 h salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 420 bar
Tank pressure:	max. 100 bar
Nominal flow:	max. 15 l/min
Operating pressure ranges:	2 to 19 bar 3 to 35 bar 11 to 83 bar 15 to 152 bar 20 to 207 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. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 years
Installation:	No orientation restrictions
Material:	Valve body: high tensile steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	FC08-3
Weight:	0.24 kg

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

DIMENSIONS



¹ turn clockwise to increase pressure

² Torque:
Steel manifold
(ultimate tensile strength < 360 N/mm²): 30 Nm
Aluminium manifold
(ultimate tensile strength < 330 N/mm²): 30 Nm
(tool acc. to DIN EN 6789, tool type II class A or B)
For further informations see brochure No. 53.000
"Conditions and instructions for valves"

millimeter (inch)
subject to technical modifications

MODEL CODE

DR08-01 - C - N - 220 V 180

Basic model

Pressure reducing valve, UNF

Body and ports*

C = cartridge only
SB3 = G3/8 ports, steel body
AB3 = G3/8 ports, aluminium body

Seals

N = NBR (standard)
V = FKM

Setting pressure range

027 = 2 to 19 bar (270 PSI)
050 = 3 to 35 bar (500 PSI)
120 = 11 to 83 bar (1200 PSI)
220 = 15 to 152 bar (2200 PSI)
300 = 20 to 207 bar (3000 PSI)

Other pressure ranges on request

Adjustment option

V = Allen head (HEX 5/32")
H = knob adjustment
F = factory preset, non-adjustable
K = with protective cap
A = adjustable, with locking E10, cyl. lock 2H

Pressure setting

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

Standard models

Model code	Part No.
DR08-01-C-N-027V	3107709
DR08-01-C-N-050V	560452
DR08-01-C-N-120V	560453
DR08-01-C-N-220V	560454
DR08-01-C-N-300V	3022444

*Standard in-line bodies

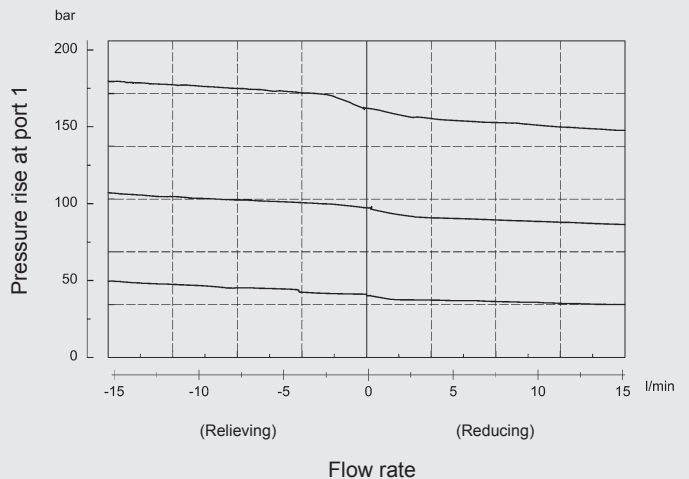
Code	Part No.	Material	Ports	Pressure
FH083-SB3	560922	Steel, zinc-plated	G3/8"	420 bar
FH083-AB3	3011427	Aluminium, clear anodized	G3/8"	210 bar

Seal kits

Code	Material	Part No.
SEAL KIT FS UNF 08/N	NBR	3651385
SEAL KIT FS UNF 08/V	FKM	3651356

PERFORMANCE

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



NOTE

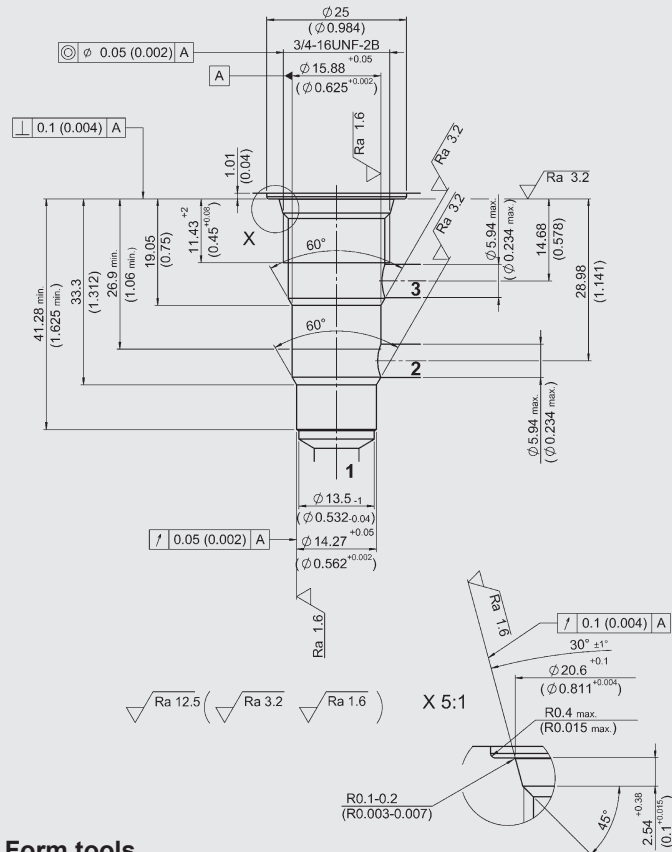
The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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CAVITY

FC08-3



Form tools

Tool	Part No.
Countersink FC08-3	175644
Reamer FC08-3	175645

millimeter (inch)
subject to technical modifications