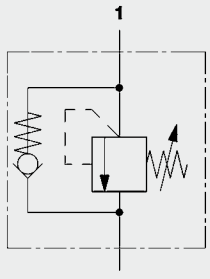
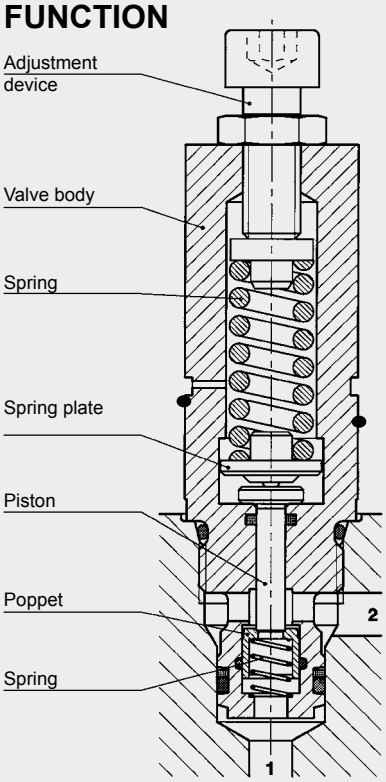
Pressure Sequence Valve Poppet Type, Direct-Acting Metric Cartridge – 350 bar

DZ5E



Up to 20 l/min
Up to 350 bar

FUNCTION



The pressure sequence valve DZ5E is a direct-acting, spring-loaded poppet valve with built-in check valve. In the normal position, the path from port 1 to port 2 is blocked.
If the pressure exceeds the pre-set spring tension, the piston and poppet move together in a closed condition to the upper limit of the poppet. If the pressure continues to rise, the piston unblocks the path from 1 to 2 (consumer) so that oil can flow.
This opens the connection to the additional consumers from port 2. In the return direction from port 2 to 1, the main piston is pushed back by the spring into its initial position and the poppet opens against the corresponding spring and allows free flow from port 2 to port 1.
The spring chamber pressure is vented to atmosphere.

FEATURES

- To connect additional consumers once certain pressures are reached
- To connect cylinders in sequence circuits
- As a pressure relief valve if free flow is required in the opposite direction
- Excellent dynamic performance
- Excellent stability throughout flow range
- Hardened and ground valve components to ensure minimal wear and extended service life
- Adjustable throughout flow range
- Various pressure ranges up to 350 bar
- Optional zinc-plated version available

SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 20 l/min	
Pressure setting ranges:	100 / 200 / 250 / 350 bar	
Sequence pressure tolerance:	± 5 bar below 100 bar, above 100 bar ±5%	
Leakage:	leakage-free (max. 5 drops ≙ 0,25 cm³/min at 350 bar)	
Cracking pressure from 2→1:	0.5 bar	
Media operating temperature range:	min. -20 °C to max. +120 °C	
Ambient temperature range:	min. -20 °C to max. +120 °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 according to ISO 4406 or cleaner	
$MTTF_d$:	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Installation:	No orientation restrictions, preferably horizontal	
Materials:	Valve body:	high tensile steel
	Piston:	hardened and ground steel
	Seals:	FKM (standard) NBR (optional, media temperature range -30 °C to +100 °C)
	Back-up rings:	PTFE
Cavity:	06020	
Weight:	0.22 kg	

MODEL CODE

DZ5E – 01X – 200 V 180

Basic model
Pressure sequence valve, metric

Type
01 = standard

Pressure setting range
100 = to 100 bar
200 = to 200 bar
250 = to 250 bar
350 = to 350 bar

Type of adjustment
V = Allen head (standard)
Other adjustment types on request

Sequence pressure setting
No details = no setting
180 = 180 bar
Other sequence pressures on request

Standard models

Model code	Part No.
DZ5E-01X-100V	710297
DZ5E-01X-200V	710298
DZ5E-01X-250V	710296
DZ5E-01X-350V	710299

Other models on request

Standard in-line bodies

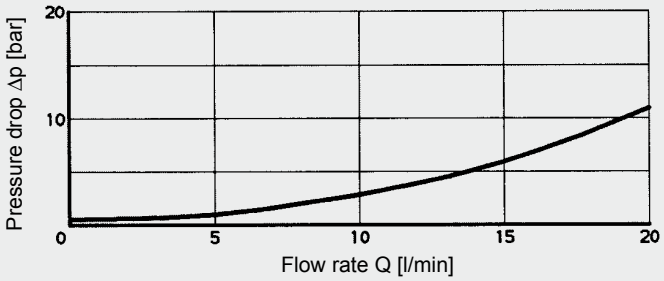
Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G3/8	420 bar
R06020-10X-01	276842	Steel, zinc-plated	G3/8	420 bar

Seal kits

Code	Part No.
SEAL KIT 06020-NBR	3119017
SEAL KIT 06020-FKM	3262477

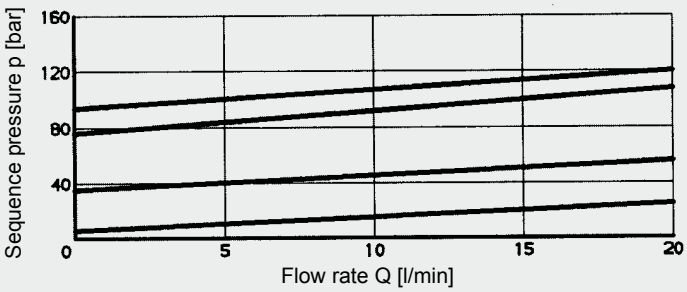
PERFORMANCE

Pressure drop, dependent on flow rate
Measured at ν = 36 mm²/s and T_{oil} = 50 °C,
Flow direction 2→1

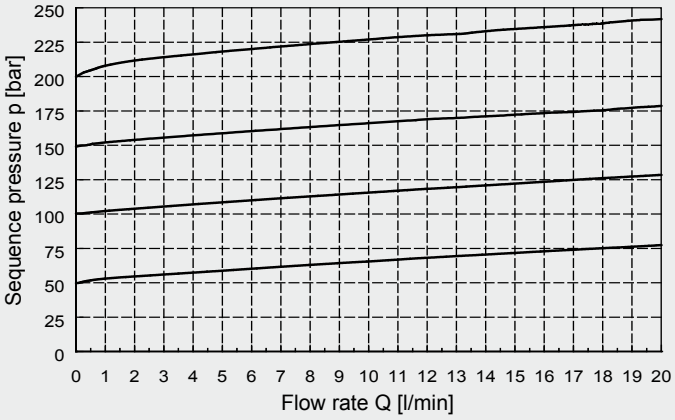


Sequence pressure, dependent on flow rate
Measured at ν = 36 mm²/s and T_{oil} = 50 °C,
Flow direction 1→2

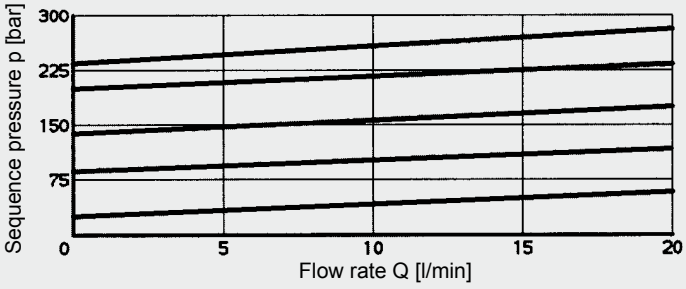
Pressure range ... 100 bar



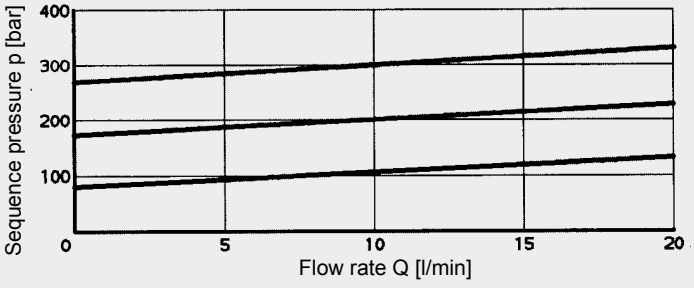
Pressure range ... 100 bar



Pressure range ... 250 bar

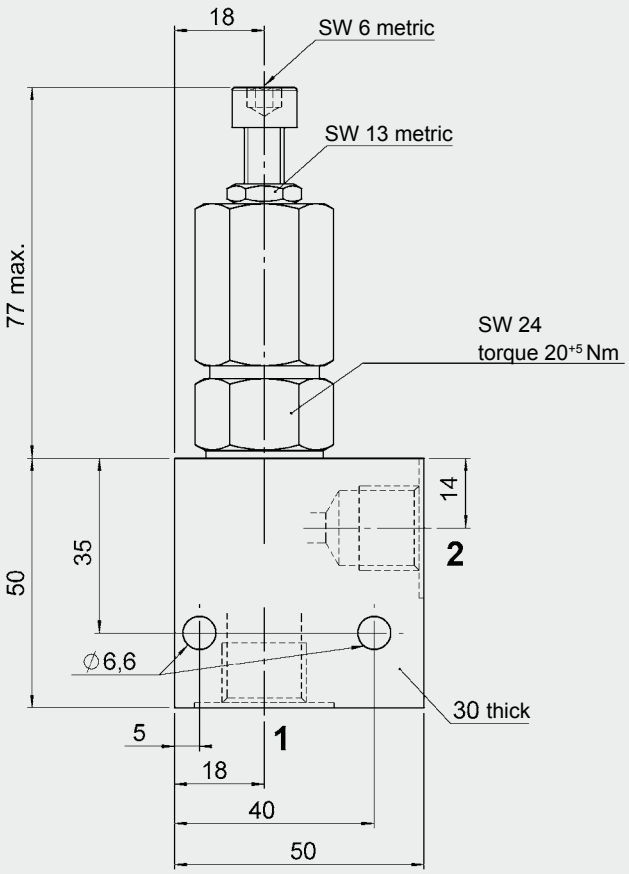


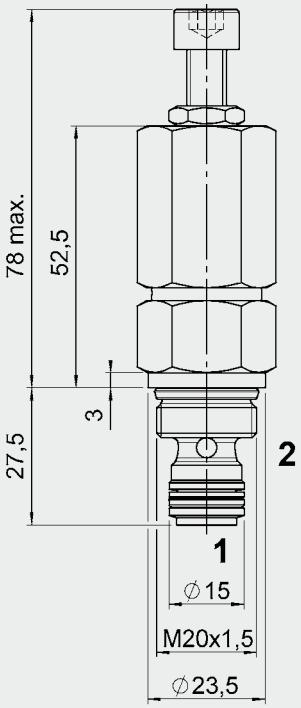
Pressure range ... 350 bar



DIMENSIONS

Type of adjustment

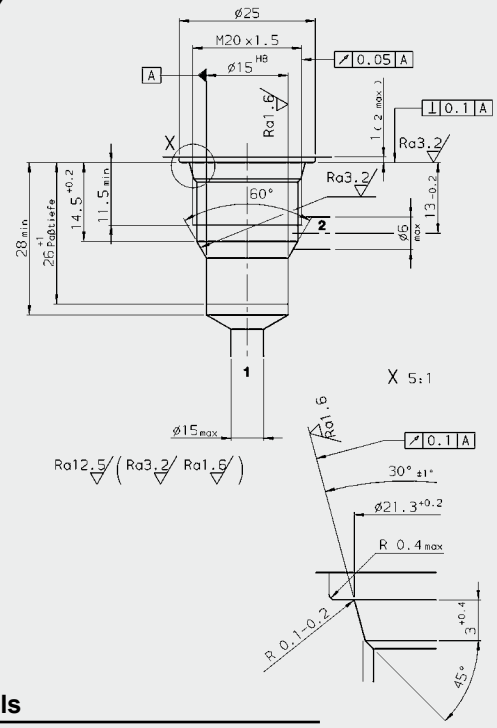




Millimeter
Subject to technical modifications

CAVITY

06020



Form tools

Tool	Part No.
Countersink	170033
Reamer	1000768
Tap	1002648
Plug gauge	168840

Millimeter
Subject to technical modifications

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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