

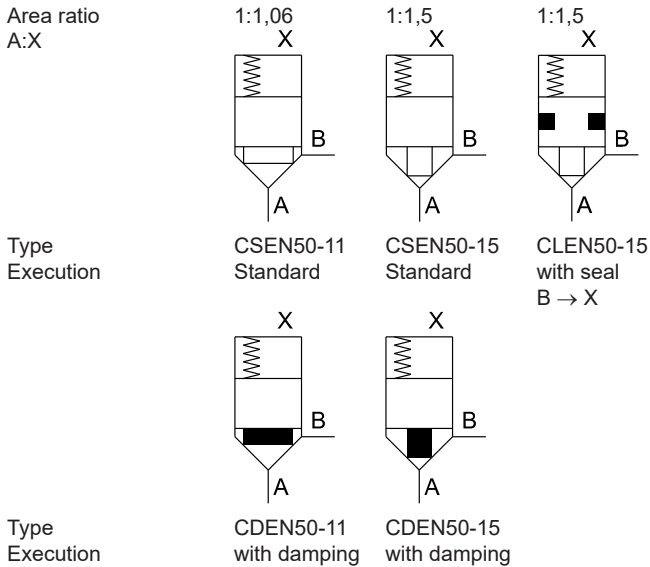
2/2-way slip-in cartridge valves

- $Q_{max} = 3530 \text{ l/min}$
- $p_{max} = 630 \text{ bar}$

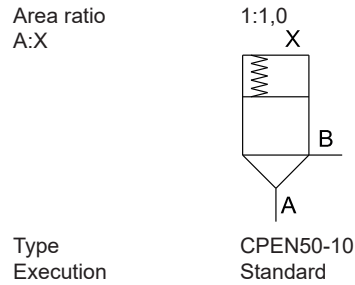
NG 50
DIN ISO 7368



2/2-WAY FUNCTION



PRESSURE RELIEF



TYPE CODE

2/2-way slip-in cartridge valve

Seat construction: S L D P

Pressure function: P

Nominal size 50, Enhanced

Area ratio: 1:1 (10), 1:1,06 (11), 1:1,5 (15) *For pressure function only*

Opening pressure A to B: 0 bar (without spring) (0) *Not for type CLEN*

Nominal: 0.5 bar (05), 1.0 bar (10), 2.0 bar (20), 4.0 bar (40) *Not for type CLEN*

Orifice in poppet spool: closed

Sealing material: NBR FKM (D1) (Viton)

Design-Index (subject to change)

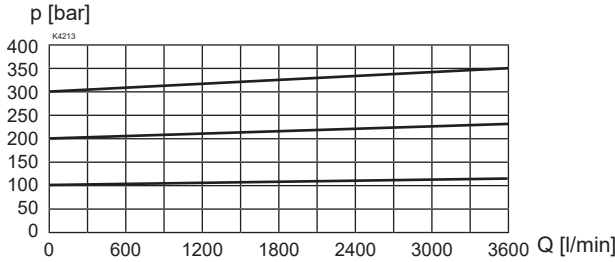
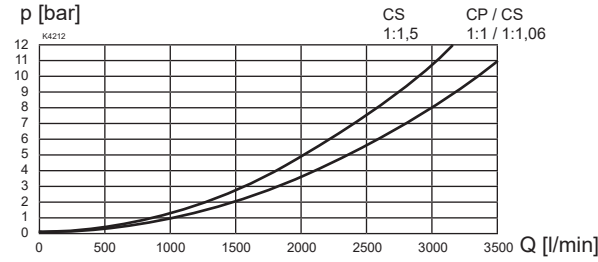
C EN50 - / / - #

GENERAL SPECIFICATIONS

Construction	2/2-way slip-in cartridge valves
Mounting position	any
Mounting dimensions	according to DIN ISO 7368
Ambient temperature	-30...+80 °C
Weight spool	m = 0,88 kg (1:1,5)
Weight total	m = 2,88 kg (1:1,5; without spring)
MTTFd	150 years

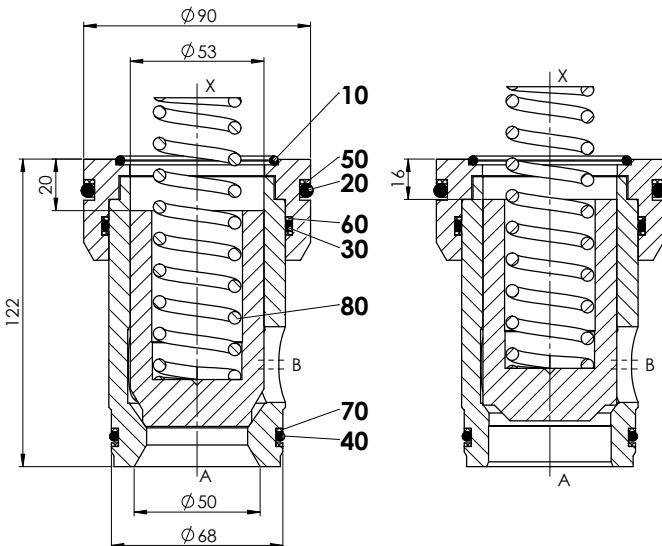
HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) refer to data sheet no. 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+80 °C (FKM) -30...+80 °C (NBR)
Operating pressure	$p_{max} = 630 \text{ bar}$ (connections A, B, X) CLEN $p_{max} = 420 \text{ bar}$ CPEN connection X, X-A = < 420 bar max. cover pressure to be observed
Max. volume flow	$Q_{max} = 3530 \text{ l/min}$ at $v = 30 \text{ m/s}$
Pilot oil volume	$Q_{st} = 45,0 \text{ cm}^3$ $Q_{st} = 35,3 \text{ cm}^3$ (Pressure function)

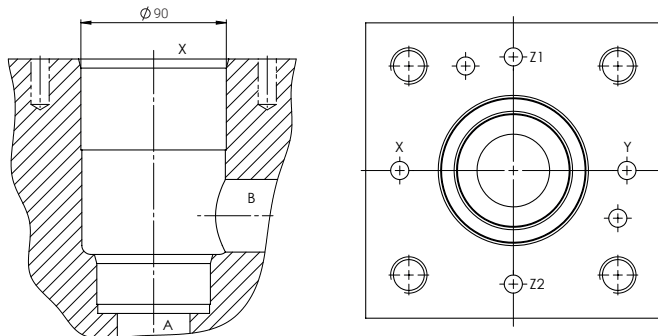

CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 $\Delta p = f(Q)$ Pressure drop / volume flow characteristics

DIMENSIONS

CSEN50-15

CPEN50-10


HYDRAULIC CONNECTION

Cavity drawing according to ISO 7368



Important! For detailed cavity drawing and cavity tools see data sheet 2.13-1025

CHARACTERISTICS

Nominal	Opening pressure [bar]			
	0,5	1,0	2,0	4,0

Area ratio	Flow direction A \rightarrow B			
	1:1	0,4	0,8	1,6
1:1,06	0,4	0,9	1,7	3,4
1:1,5	0,6	1,2	2,5	4,9

Area ratio	Flow direction B \rightarrow A			
	1:1	-	-	-
1:1,06	6,5	13,1	26,1	52,3
1:1,5	1,1	2,2	4,4	8,8

Pressure spring	Article no.			
		053.7414	053.7908	053.8405

PARTS LIST

Position	Description	Seal kit
10	O-ring ID 58,74 x 3,53	•
20	O-ring ID 78,74 x 5,33	•
30	O-ring ID 69,44 x 3,53	•
40	O-ring ID 59,92 x 3,53	•
50	Backup ring rd 78,4 x 87,1 x 1,7	
60	Backup ring rd 70,0 x 75,6 x 1,4	
70	Backup ring rd 59,3 x 64,9 x 1,4	
80	Pressure spring 34,8	

SEAL KIT

251.8710	Seal kit C.E.50	NBR
251.8711	Seal kit C.E.50	VITON

INSTALLATION NOTES

Mounting type	Slip-in cartridge
Mounting position	Any, preferably horizontal
Dismounting	Dismounting tool DW-C.E.50
	Article no. 983.3011


Note! The length of the cover fixing screws to be used depends on the base material of the valve body and on the maximum system pressure.