

LOGIC CARTRIDGE & COVER - CV, FLC, FLCD, CVC, FLA



DIN ISO 7368 | NG 16 to NG125 | 400bar

Specification/ Technical Data

Type	Cartridge
Maximum Pressure	400 bar
Cracking Pressure (Standard)	0.0 to 7.0bar
Mounting	DIN ISO 7368
Sizes	NG16 to NG125
Media	Mineral Oil
Oil Temperature Range	+10 to 80°C
Oil Viscosity	ISO VG 46 -100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any



Ordering Information - NG16 to NG32

Basic Code	Logic Cartridge	CV
Size	NG 16/ 25/ 32	16
Spool Design	Relief (P)/ Std (K)	P
Cracking Pr. Bar	X/A/B/C/D (0.0...7.0bar)	X
Damping	Without (O)/ With (C)	O
Series		10
Version		Fx

Logic cartridges are compact, manifold-integrated solution for controlling high-flow circuits with minimal pressure drop. The cartridges are available with relief, check valve and direction control functions. These valves are designed to meet standard DIN ISO 7368 mounting requirements, ensuring seamless interchangeability with existing manifold systems and cavities.

Engineered to handle high volumes of fluid flow, these valves provide a superior power-to-size ratio and tight, metal-to-metal seal for low internal leakage when compared to conventional spool type valves.

By pairing specific cartridges with various types of covers (CVC/ FLA), one can achieve directional control, pressure regulation, or flow throttling within a single cavity. Additional options include Integrated orifices and damping for smooth transition switching, thereby reducing hydraulic shock and extending the lifespan of hydraulic system.

Manufactured from high-grade alloy steels, these components are built to withstand operating pressures up to 400 bar in demanding environments with rapid opening and closing times.

A variety of custom options are possible including integrated valves with proportional control, poppet valves etc. Consult factory for specialised valve requirements as per your application needs.

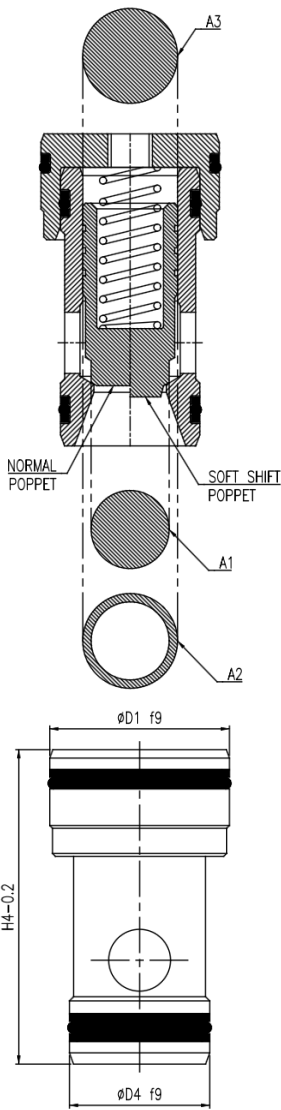
Ordering Information - NG40 to NG80

Basic Code	Logic Cartridge	FLC
Function	Direction(-)/ Relief (D)	D
Size	NG 40/50/63/80	40
Area Ratio	A (1:2)/ B (14.3:1)/ -(1:1)	A
Cracking Pr.	1.5bar (Std)	15
Damping	Without (E)/ With (D)	D
Version		1x

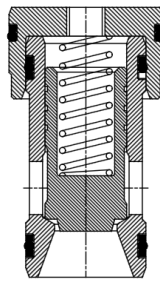
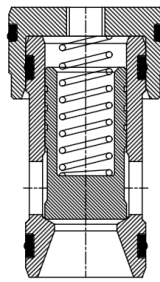
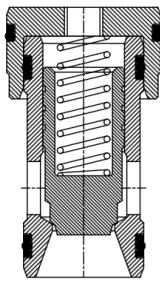
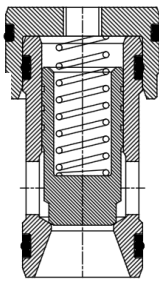
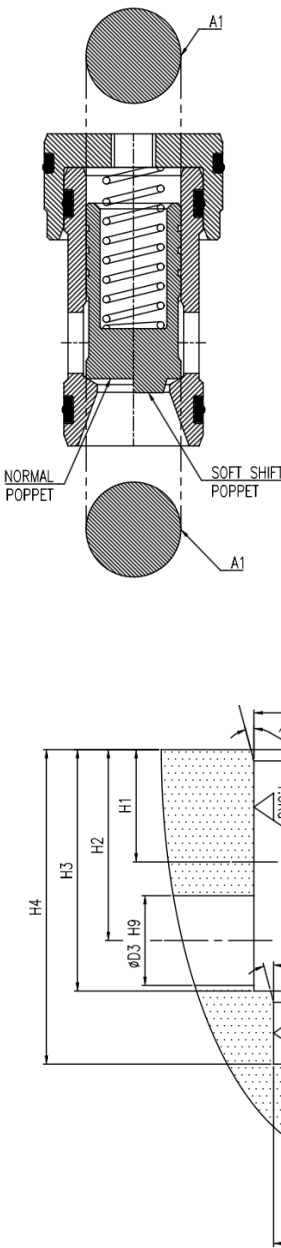
FLCD Area Ratio 1:1
Consult factory for sizes NG100 and NG125 & custom cracking pressures

Cartridge Options - NG 16 to 32

FOR DIRECTION FUNCTION

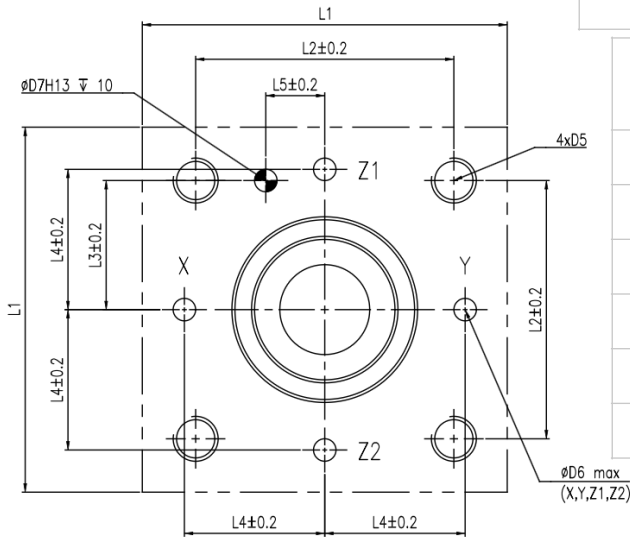


FOR RELIEF FUNCTION



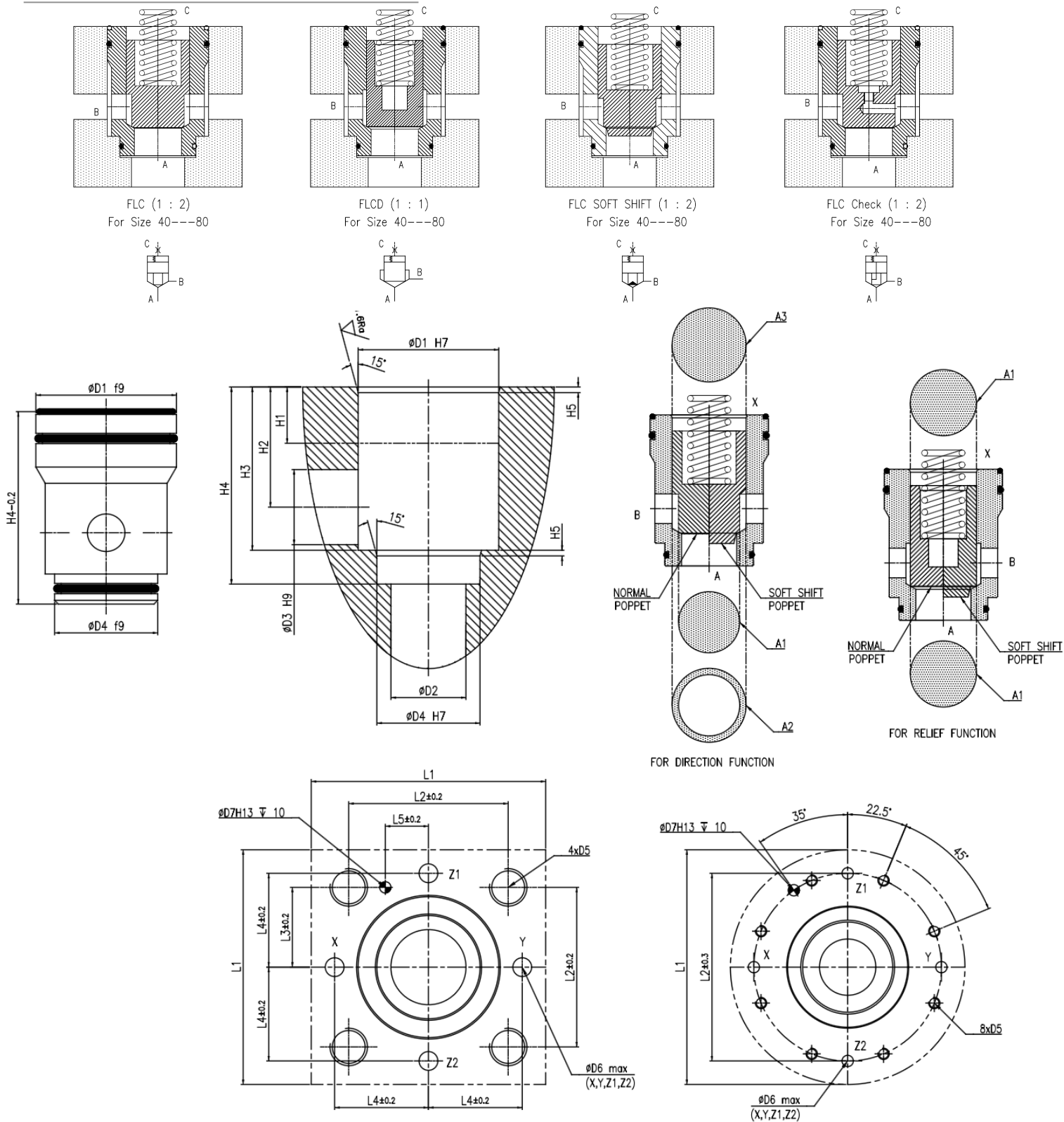
Size	NG16	NG25	NG32
$\phi D1$	32	45	60
$\phi D2$	16	25	32
$\phi D3$	16	25	32
$\phi D4$	25	34	45
$\phi D5$	M8	M12	M16
$\phi D6$	4	6	8
$\phi D7$	4	6	8
H1	20	25	30
H2	37	50	58
H3	43	58	70
H4	56	72	85
H5	2	2.5	2.5
L1	65	85	102
L2	46	58	70
L3	23	29	35
L4	25	33	41
L5	10.5	16	17

Cracking Pr.	Area Ratio 1:1	Area Ratio 1:1.5	Area Ratio 1:1.5
Bar	A to B	A to B	B to A
X	0.0	0.0	0.0
A	0.3	0.5	1.0
B	0.6	1.0	2.0
C	1.2	2.0	3.5
D	2.3	3.5	7.0



All dimensions in mm

Cartridge Options - NG 40 to 80



Size	øD1	øD2	øD3	øD4	øD5	øD6	øD7	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
NG40	75	40	40	55	M20	10	6	30	64	87	105	3	125	85	42.5	50	23
NG50	90	50	50	68	M20	10	8	35	72	110	122	4	140	100	50	58	30
NG63	120	63	63	90	M30	12	8	40	95	130	155	4	180	125	62.5	75	38
NG80	145	80	80	110	M24	16	10	40	130	175	205	5	250	200	-	-	-

Logic Covers NG 16 to NG 125

Logic covers (also known as control covers) are specialised modular plates mounted onto standardised ISO 7368 cavities to house and pilot 2-way slip-in cartridge valves (logic elements or cartridges). Their primary function is to direct pilot oil signals and integrate auxiliary control components - such as directional valves, relief valves, or shuttle valves - across the control port of the internal cartridge poppet. By combining different logic covers with standard slip-in cartridges, one may design hydraulic systems to perform diverse functions including directional switching, pressure control, check valve action, and flow throttling.

A major advantage is their modular flexibility, allowing application engineers to completely alter a circuit's functionality simply by swapping out the logic cover. These valves also facilitate compact manifold designs that eliminate bulky external piping, significantly reducing installation space, weight, and potential exterior leakage points. Additional advantages include ability to integrate with proportional valves or poppet valves thereby enabling electronic control and leak free control as may be required in the application.

Cartridge Options - NG 16 to 32

Type	Model Code	NG16	NG25	NG32
Standard Cover	CVC...-X(P)-Fx	Y	Y	Y
Relief Cover with Manual Adjustment	CVC...-RS-100...400-Fx	Y	Y	Y
Relief with Electrical Unloading Cover	CVC...-US-100...400/-A/B-Fx	Y	Y	Y
Cover with Dir Control Valve Fitting	CVC...-DEA/B-AZ1/BZ2-Fx	Y	Y	Y
Shuttle Cover	CVC...-S-Fx	Y	Y	Y
Shuttle Cover with Dir Control Valve Fitting	CVC...-SDEA/B-Fx	Y	Y	Y
Stroke Limiting Cover	CVC...-TS-Fx	Y	Y	Y
Stroke Limiting Cover with Dir Control Valve Fitting	CVC...-STSA/B-Fx	Y	Y	Y

Cartridge Options - NG 40 to 80

Type	Model Code	NG40	NG50	NG63	NG 80
Standard Cover	FLA.. - D	Y	Y	Y	Y
Relief Cover with Manual Adjustment	FLA.. - DB	Y	Y	Y	Y
Relief with Electrical Unloading Cover	FLA.. - DBW	Y	Y	Y	Y
Cover with Dir Control Valve Fitting	FLA...-WEA/ WEB	Y	Y	Y	Y
Cover with Dir Control Valve Fitting with addl. port	FLA...-WEMA/ WEMB	Y	Y	Y	Y
Shuttle Cover	FLA...-G	Y	Y	Y	Y
Shuttle Cover with Dir Control Valve Fitting	FLA...-GWA/ GWB	Y	Y	Y	Y
Shuttle Cover with Dir Control Valve Fitting with addl. port	FLA...-GWMA/ GWMB	Y	Y	Y	Y
Stroke Limiting Cover	FLA...-H	Y	Y	Y	Y

Consult factory for sizes NG100 and NG125

Consult factory for custom logic covers including with poppet valves & proportional control.