

Look into these outstanding features:

- Compact construction. Low pressure drop.
- Long service life. High efficiency.
- Choice of various operation methods, such as manual , pneumatic, hydraulic, and electro-hydraulic.
- Choice of various ports and circuit valves.
- Spring return, or detent.
- High accuracy spool is hardened for long term accuracy.
- Base mounting.
- Handle shift operation.



HK-D2 / HK-D10

Nominal flow rate		45 l/min(HK-D2)	12 US gpm(HK-D2)	80 l/min (HK-D10)	21 US gpm(HK-D10)
Operating pressure(maximum)	parallel or tandem circuit	315 bar	4600 psi	315 bar	4600 psi
	series circuit	210 bar	3050 psi	210 bar	3050 psi
Back pressure(maximum)	on outlet port T	25 bar	360 psi	25 bar	360 psi
Fluid temperature range	with NBR(BUNA-N) seals	from - 20° to 80°C	from - 4° to 176°F	from - 20° to 80°C	from - 4° to 176°F
	with FPM(VITON) seals	from - 20° to 100°C	from - 4° to 212°F	from - 20° to 100°C	from - 4° to 212°F
	operating range	from 15 to 75 mm ² /s	from 15 to 75 cSt	from 15 to 75 mm ² /s	from 15 to 75 cSt
Viscosity	min	12 mm ² /s	12 cSt	12 mm ² /s	12 cSt
	max.	400 mm ² /s	400 cSt	400 mm ² /s	400 cSt
Ambient temperature range		from - 40° to 60°C	from - 40° to 140°F	from - 40° to 60°C	from - 40° to 140°F

HYSTAR® HK-D2/HK-D10



HK-D10 / 2 - P (KGS - 120) / ^{1st section} 1 8 L / M1-AG03 / ZA-M8-210

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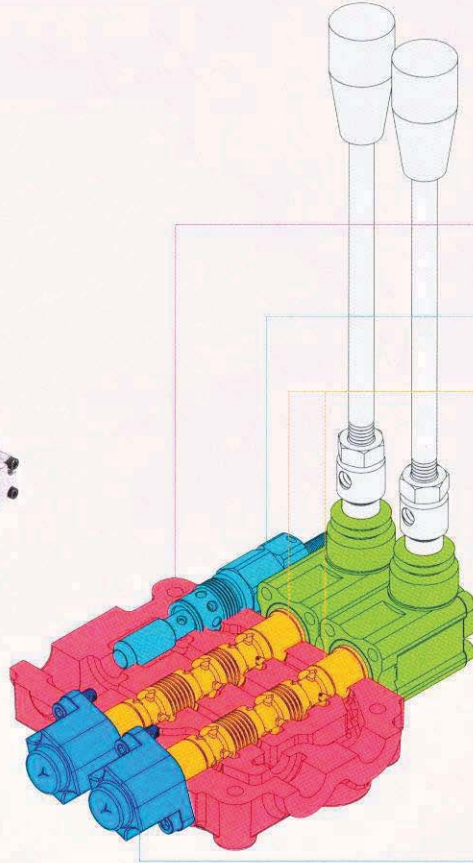
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Pressure relief valve setting (bar)



1 Body kits

2 Inlet relief (optional)

3 Spools symbol

4 "B" side spool positioners

5 "A" side (options)

1: Body kits

NORMALLY SUPPLIED WITHOUT PRE-ARRANGEMENT FOR SERVICE PORT VALVES

TYPE	CODE	DESCRIPTION
1 - P	5YL1717001	1 section
2 - P	5YL1717002	2 sections
3 - P	5YL1717003	3 sections
4 - P	5YL1717004	4 sections
5 - P	5YL1717005	5 sections

Include body, seals, rings and load check valve.

2: Inlet relief (optional)

TYPE	CODE	DESCRIPTION
KG2 - 80	5KYL120112	Range 40 to 80 bar / 580 to 1150 psi standard setting 80 bar / 1150 psi
KG3 - 120	5KYL120113	Range 63 to 200 bar / 900 to 2900 psi standard setting 120 bar / 1750 psi
KG4 - 220	5KYL120114	Range 160 to 315 bar / 2300 to 4600 psi standard setting 220 bar / 3200 psi
SV	3XTAP5335410	Relief valve blanking plug





3: Spools symbol

CIRCUIT	TYPE	CODE	CIRCUIT DESCRIPTION	D2	D10
	1	3YL1610131	3 position double - acting	*	*
	2	3YL1610132	3 position double - acting A and B to tank	*	*
	3 ("B" port plgged)	3YL1610133	3 position single - acting on A	*	*
	4 ("A" port plgged)	3YL1610134	3 position single - acting on B		*
	5	3YL1610135	3 position double - acting A blocked B to tank	*	*
	6	3YL1610136	3 position double - acting A to tank B blocked	*	*
	7	3YL1610137	3 position single - acting on A A to tank	*	*
	8	3YL1610138	3 position single - acting on B B to tank		*
	9	3YL1610139	3 position double - acting switch port closed A and B blocked	*	*
	10	3YL1610140	3 position double - acting switch port closed A and B tank	*	*

HYSTAR® HK-D2/HK-D10



Ordering information:

HK-D10 / 2 - P (KGS - 120) / 1 8 L / M1-AG03 / ZA-M8-210

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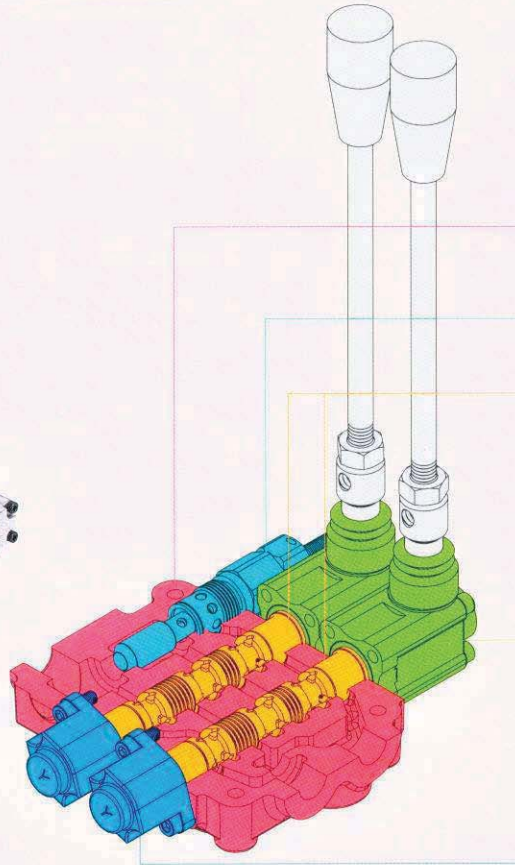
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Pressure relief valve setting (bar)



1 Body kits


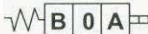


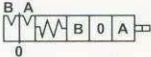
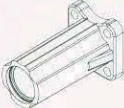
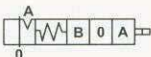
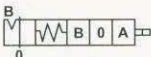
2 Inlet relief (optional)

3 Spools symbol

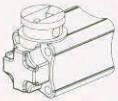

4 "B" side spool positioners

5 "A" side (options)

4: "B" side spool positioners

	TYPE	CODE	DESCRIPTION
	7	5YL0812007	3 position spring - centred spool 
	8	5YL0812008	3 position spring - centred spool 
	9-1	5YL0812091	3 position spring - centred spool detent in A and B 
	9-2	5YL0812092	3 position spring - centred spool detent in A 
	9-3	5YL0812093	3 position spring - centred spool detent in B 

5: "A" side (optional)

	TYPE	CODE	DESCRIPTION
	L	5LYL120000	Standard lever
	SLP	5YL0812008	Without lever, with dust proof plate



HK-D2/HK-D10 Hystar®

6: Outlet M

CODE	HYDRAULIC DIAGRAM	LAYOUT	DESCRIPTION	CODE	HYDRAULIC DIAGRAM	LAYOUT	DESCRIPTION
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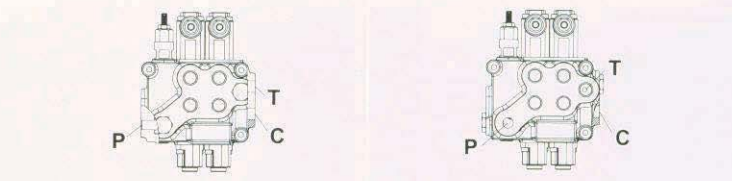
Outlet with single return (T)

6

Outlet with two returns (C)

TYPE OF THREAD ON INLET - PORTS - OUTLET

TWO OUTLETS POSITION WITH C AND TYPE OF THREAD ON INLET - PORTS - OUTLET



CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
2	Side P and outlet T top ports A - B	3	Top P - outlet T top ports A - B	7	Side P - outlet T (tank) outlet C top ports A - B	8	Top P - outlet T (tank) - ports A - B side outlet C
TYPE	CODE	TYPE	CODE	TYPE	CODE	TYPE	CODE
D2	G03 SAE8	D2	G03 SAE8	D2	G03 SAE8	D2	G03 SAE8
D10	G03 G04 SAE8	D10	G03 G04 SAE8	D10	G03 G04 SAE8	D10	G03 G04 SAE8

SINGLE OUTLET (T) POSITION AND TYPE OF THREAD ON INLET - PORTS - OUTLET

TWO OUTLETS POSITUON WITH C AND TYPE OF THREAD ON INLET - PORTS - OUTLET



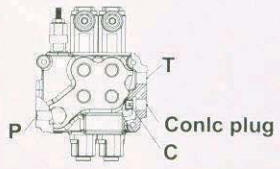
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
4	Side P top ports A-B and outlet T	5	Top P and A-B side outlet T	9	Side P - outlet C top ports A - B and outlet T (tank)	10	Top P and ports A - B side outlet T (tank) and outlet C
TYPE	CODE	TYPE	CODE	TYPE	CODE	TYPE	CODE
D2	G03 SAE8	D2	G03 SAE8	D2	G03 SAE8	D2	G03 SAE8
D10	G03 G04 SAE8	D10	G03 G04 SAE8	D10	G03 G04 SAE8	D10	G03 G04 SAE8

Note: The monoblock HK-D10 with single outlet (T) type "1" can be converted to type "6" with C with two outlets with T mounting a conic plug as per the table mentioned below.

CONVERSION OF A SINGLE OUTLET T (1) INTO A TWO OUTLETS WITH C(6)

For the same application on the monoblock HK-D2, a machining is required. Type of conic plugs to convert a single outlet into a double one

TYPE	DIMENSIONS	QUANTITY
D2	1/4" X 6.5	1
D10	1/4" X 6.5	1



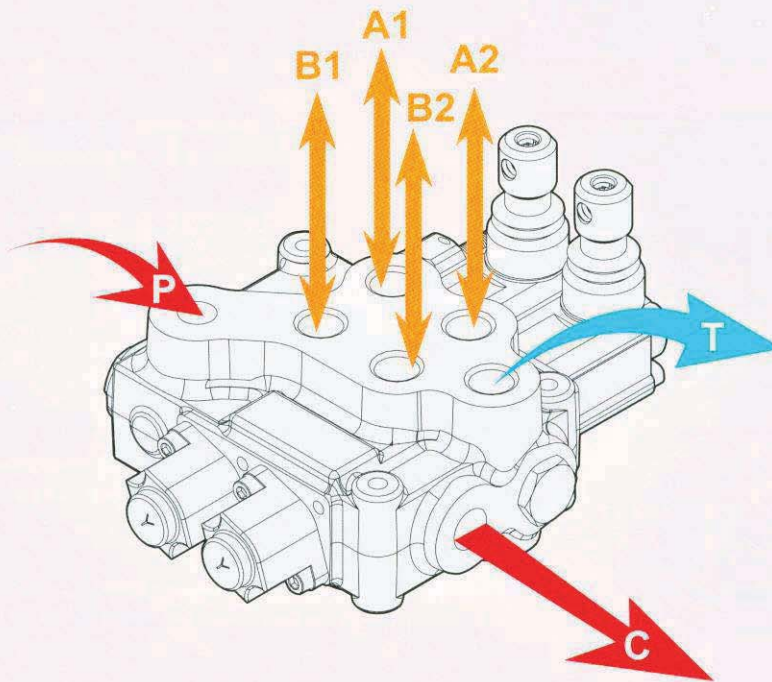
NOTE:
 HK-D2 : APPLICATION C ON REQUEST
 HK-D10 : APPLICATION C REE-ARRANGED



Notices for installation

When installing the monoblock direction control valve, follow the instructions given as below.

1. Install the monoblock direction control on a flat surface to prevent deformation problem.
2. Do not apply high pressure liquid for cleaning the valve.
3. Before painting, insert plastic plugs into ports for protection.



Power beyond configuration

HK-D2

THREADS TYPE	P port	A and B ports	T and C ports
BSP (ISO 228/1)	G 3/8	G 3/8	G 3/8
UN - UNF (ISO 11926-1)	3/4 - 16 UNF-2B (SAE-8)	3/4 - 16 UNF-2B (SAE-8)	3/4 - 16 UNF-2B (SAE-8)
METRIC (ISO 6149)	M18 X 1.5	M18 X 1.5	M18 X 1.5

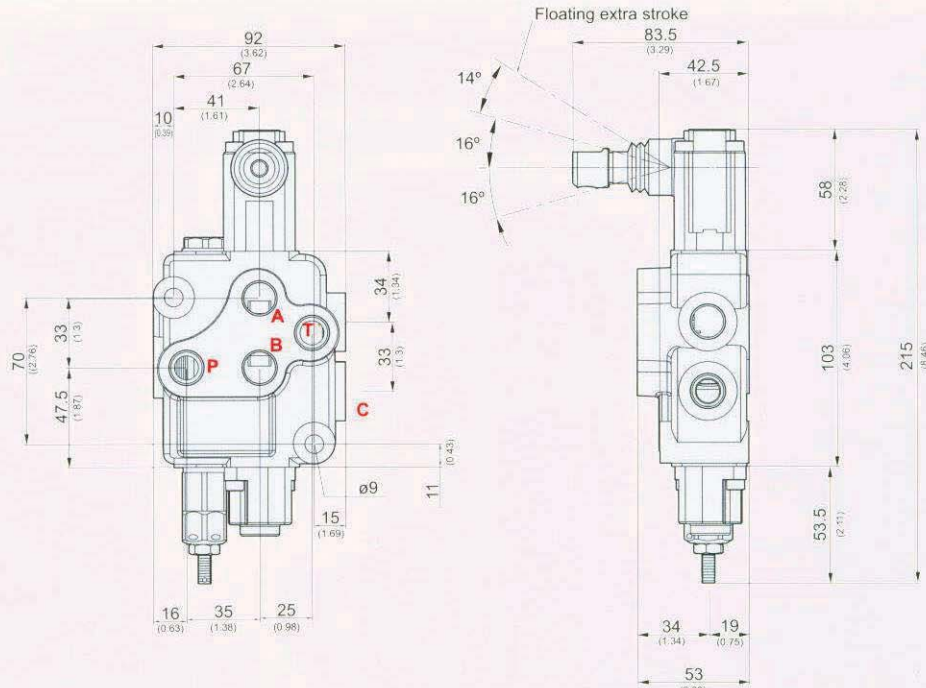
HK-D10

THREADS TYPE	P port	A and B ports	T and C ports
BSP (ISO 228/1)	G 1/2	G 1/2	G 1/2
UN - UNF (ISO 11926-1)	3/4 - 16 UNF-2B (SAE-8)	3/4 - 16 UNF-2B (SAE-8)	3/4 - 16 UNF-2B (SAE-8)
METRIC (ISO 6149)	M22 X 1.5	M22 X 1.5	M22 X 1.5

HYSTAR® HK-D2/HK-D10



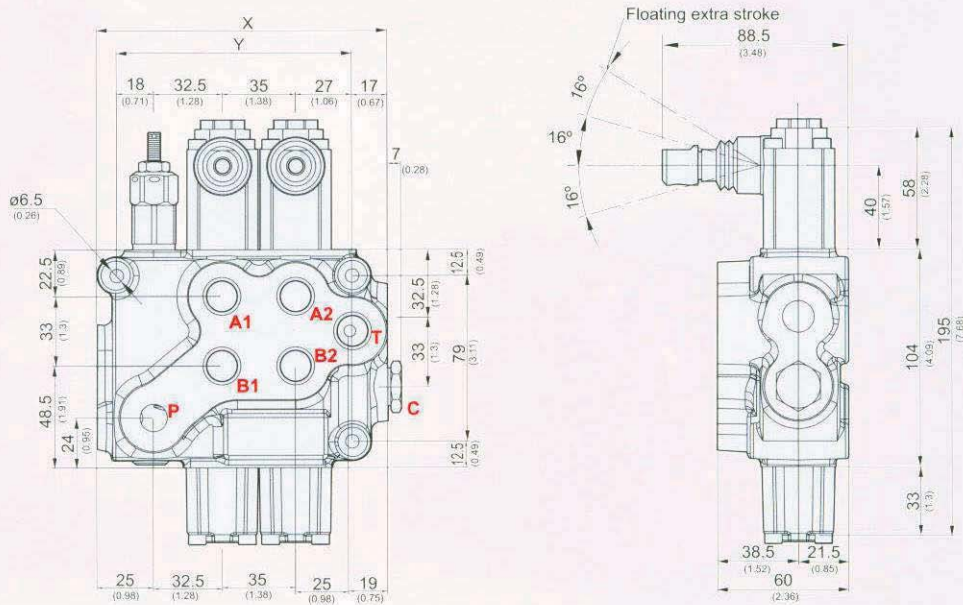
HK-D2



Standard threads

PORTS	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	METRIC (ISO 262)
Inlet P	G3/8	3/4-16 UNF-2B (SAE 8)	M18 x 1.5
A and B ports	G3/8	3/4-16 UNF-2B (SAE 8)	M18 x 1.5
Outlet T and power beyond C	G3/8	3/4-16 UNF-2B (SAE 8)	M18 x 1.5

HK-D10



TYPE	X		Y		WEIGHT		TYPE	X		Y		WEIGHT	
	mm	in	mm	in	kg	lb		mm	in	mm	in	kg	lb
HK-D10/1-P	101.5	4	77.5	3.05	2.9	6.4	HK-D10/4-P	206.5	8.13	182.5	7.19	6.7	14.77
HK-D10/2-P	136.5	5.37	112.5	4.43	4.3	9.48	HK-D10/5-P	241.5	9.51	217.5	8.56	7.9	17.42
HK-D10/3-P	171.5	6.75	147.5	5.81	5.5	12.13	HK-D10/6-P	276.5	10.89	252.5	9.94	9.1	20.06

Standard threads

PORTS	BSP (ISO 228/1)	UN-UNF (ISO 11926-1)	METRIC (ISO 262)
Inlet P	G1/2	3/4-16 UNF-2B (SAE 8)	M18x1.5
A and B ports	G1/2	3/4-16 UNF-2B (SAE 8)	M18x1.5
Outlet T and power beyond C	G1/2	3/4-16 UNF-2B (SAE 8)	M18x1.5