# **NSC/BCV Series**





[Main Application]

OMain control valves for mini hydraulic excavators

#### [Features]

 $\bigcirc \mathsf{Supports}$  complex operations required of a mini hydraulic excavator

OCompact design with highly flexible layout

## Specification

		NSC10	BCV35	BCV65
Structure		Sectional Type	Sectional Type	Sectional Type
Number of Pumps		2 or 3	2 or 3	3
Max. Pressure	MPa	20.6	24.5	24.5
Rated Flow Rate	L/min	15	35	65
	Manual	$\checkmark$	$\checkmark$	$\checkmark$
Spool Operation	Pilot	~	$\checkmark$	$\checkmark$
	Solenoid	-	-	-
Applicable Excavator Weight (ref.)	ton	0.5~1.9	2~4	4~6
				✓: Available

#### Optional Functions

		NSC10	BCV35	BCV65
Pump Unload		$\checkmark$	$\checkmark$	$\checkmark$
Travel	Straight	√*	$\checkmark$	$\checkmark$
	Independent	√*	$\checkmark$	$\checkmark$
Confluence	Option Section	$\checkmark$	$\checkmark$	$\checkmark$
	Arm	$\checkmark$	$\checkmark$	$\checkmark$
	Boom	$\checkmark$	$\checkmark$	$\checkmark$
Floating	Dozer	-	$\checkmark$	-
Holding Valve	Boom	$\checkmark$	$\checkmark$	$\checkmark$
Signal Circuit	Auto Idling	-	$\checkmark$	$\checkmark$
	Travel Signal	-	$\checkmark$	$\checkmark$

\* Some exceptions exist : Available

		NSC10	BCV35	BCV65
A	mm	73.5 86		107
В	mm	234	253	315
С	mm	Depends on number of blocks	Depends on number of blocks	Depends on number of blocks
Bank Width	mm	24	31	38

# **iB** Series





[Main Application]

OMain control valve for small construction machinery

### [Features]

OUtilization of proprietary road sensing system

OEnergy savings through efficient regeneration and bleeding circuit

## Specification

		IB18
Structure		Mono-block Type
Number of Pumps		1
Max. Pressure	MPa	32
Rated Flow Rate	L/min	190
	Manual	-
Spool Operation	Pilot	$\checkmark$
	Solenoid	-
Standard Number of Blocks		9
Additional Blocks		$\checkmark$
Applicable Excavator Weight (ref.)	ton	7~9

√: Available

### Optional Functions

		IB18
Regeneration	Boom	$\checkmark$
	Arm	$\checkmark$
Pressure Rise		✓
Holding Valve	Boom	$\checkmark$
Signal Circuit	Auto Idling	$\checkmark$

√: Available

		IB18
A	mm	229.5
В	mm	364
С	mm	455

# UN (UK) Series





[Main Application]

OMain control valve for medium and large construction machinery

#### [Features]

 $\bigcirc$  High flow rate and minimal pressure drop are realized by optimizing the internal passage.

OPlayback function, priority function, and other functions are available to meet customer needs

### Specification

		UN22	UN28	UN32	UK36
Structure		2 Blocks	2 Blocks	2 Blocks	3 Blocks
Number of Pumps		2	2	2	2
Max. Pressure	MPa	36	36	36	35
Rated Flow Rate	L/min	160×2	260×2	330×2	540×2
	Manual	-	-	-	-
Spool Operation	Pilot	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Solenoid	-	-	-	-
Standard Number of Blocks		9	9	9	9
Additional Blocks		$\checkmark$	$\checkmark$	-	-
Applicable Excavator Weight (ref.)	ton	11~16	16~24	24~36	36~

√: Available

### Optional Functions

		UN22	UN28	UN32	UK36
Priority	Boom	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
FIIOIIty	Swing	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Travel	Straight	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Regeneration	Boom	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Arm	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Pressure Rise		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Holding Valve	Boom	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Arm	$\checkmark$	$\checkmark$	~	$\checkmark$
Signal Circuit	Auto Idling	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	Travel Independent	~	~	~	~

<sup>✓ :</sup> Available

		UN22	UN28	UN32	UK36
A	mm	369	381.5	431	504.5
В	mm	386	431	454	656
С	mm	432.5	470.5	502	588

## **ET Series**





✓: Available

[Main Application]

 $\bigcirc$ Optional control valve for medium-sized construction machinery

### [Features]

 $\bigcirc$  Ideal as an additional optional control valve for bulldozers, etc.

 $\bigcirc$ Compact monoblocking with each port

OPressure-resistant performance in line with that of the main control valve

Specification

		ET22	ET25
Structure		Mono-block Type	Mono-block Type
Number of Pumps		1	1
Max. Pressure	MPa	34.3	34.3
Rated Flow Rate	L/min	160	260
	Manual	-	-
Spool Operation	Pilot	$\checkmark$	$\checkmark$
	Solenoid	-	-
Standard Number of Blocks		1	1
Additional Blocks		-	-
Applicable Excavator Weight (ref.)	ton	11~16	16~24
			✓: Available

## Optional Functions

	ET22	ET25
Port Relief Valve	$\checkmark$	$\checkmark$
Signal Circuit	$\checkmark$	-
Additional Pump	-	$\checkmark$
Carry-over	-	$\checkmark$

		ET22	ET25
A	mm	218.2	123.5
В	mm	291	344
С	mm	96	170

# **TRC Series**





[Main Application]

 $\bigcirc$ Main control valves for rough terrain cranes, truck cranes, etc.

#### [Features]

- OPressure compensation function enables stable operation regardless of load fluctuation.
- $\bigcirc$ Winch confluence circuit is available

#### Specification

		TRC200
Structure		Semi/Mono-block Type
Number of Pumps		2
Max. Pressure	MPa	27.5
Rated Flow Rate	L/min	200×2
	Manual	-
Spool Operation	Pilot	$\checkmark$
	Solenoid	-
		√: Available

#### Optional Functions

	TRC200
Pressure Compensator	$\checkmark$
Winch Confluence	✓
Accessary Valve	$\checkmark$
Relief Valve with Vent Port	√

√: Available

		TRC200
A	mm	218
В	mm	472
С	mm	584

## **SLV Series**





[Main Application]

OMain control valves for skid steer loaders, compact track loaders, etc.

### [Features]

OIntegration of arm and bucket operation valves and horizontal control valve

 $\bigcirc \mbox{Realization}$  of bucket leveling operation by arm operation only

#### Specification

		SLV75
Structure		Mono-block Type
Number of Pumps		1
Max. Pressure	MPa	24.5
Rated Flow Rate	L/min	75
	Manual	-
Spool Operation	Pilot	$\checkmark$
	Solenoid	-
	Up	$\checkmark$
Self Leveling	Down	-
	Cancellation	-
	Divider Ratio Adjustment	$\checkmark$

✓: Available

#### Optional Functions

	SLV75
	$\checkmark$
	$\checkmark$
Arm	$\checkmark$
Arm	G1/2
Bucket	G1/2
Option Section	G3/4
	Arm Arm Bucket Option Section

✓ : Available





		SLV75
А	mm	118
В	mm	325
С	mm	213

## **NLSV Series**





[Main Application]

OMain control valves for elevated work vehicles, mini hydraulic excavators, etc.

### [Features]

OUtilization of proprietary road sensing system

 $\bigcirc$ Excellent combined operability with pressure compensation

and anti-saturation function

OSelectable hydraulic pilot operation and electromagnetic proportional operation

#### Specification

		NLSV14
Structure		Sectional Type
Number of Pumps		1
Max. Pressure	MPa	29.4
Rated Flow Rate	L/min	80
	Manual	-
Spool Operation	Pilot	$\checkmark$
	Solenoid	√
Standard Number of Blocks		6
Additional Blocks		$\checkmark$
		√: Available

### Optional Functions

	NLSV14
Pressure Compensator	$\checkmark$
Anti-saturation	√
Regeneration	√
Pressure Rise (M/R)	√

√: Available

		NLSV14
A	mm	169
В	mm 321.9	
С	mm	Depends on number of blocks
Bank Width	mm	38

# NSC/SC/BCV Series (Manual/hydraulic pilot operation)





### [Main Application]

Ocontrol valves for truck-mounted cranes, agricultural machinery, various special purpose vehicles, etc.

#### [Features]

OCombination of 1 to 10 series is possible.

OParallel and tandem circuits configurations are possible

#### Specification

		NSC10	SC3A	BCV35
Structure		Sectional Type	Sectional Type	Sectional Type
Number of Pumps		1	1	1
Max. Pressure	MPa	20.6	20.6	24.5
Rated Flow Rate	L/min	15	50	35
	Manual	$\checkmark$	$\checkmark$	$\checkmark$
Spool Operation	Pilot	$\checkmark$	-	$\checkmark$
	Solenoid	-	-	-

### Optional Functions

		NSC10	SC3A	BCV35
Pump Unload		√*	√*	-
Manual Lever		√	$\checkmark$	-
Carry-over		$\checkmark$	$\checkmark$	$\checkmark$
Accessary Valve		$\checkmark$	√*	$\checkmark$
Detent		√*	√*	√*
	Parallel	√	$\checkmark$	$\checkmark$
Circuit Type	Tandem	√*	√*	~
	Series	-	-	-

#### \*Depends on circuit structure : Available

### Outline Dimensions

		NSC10	SC3A	BCV35
A	mm	221*	246*	84
В	mm	213	220	266
С	mm	Depends on number of blocks	Depends on number of blocks	Depends on number of blocks
Bank Width	mm	24	34	31

\*Including lever

✓ : Available

# NSS/DSS Series (Electromagnetic operation)





#### [Main Application]

Ocontrol valves for truck-mounted cranes, agricultural machinery, various special purpose vehicles, etc.

#### [Features]

○In addition to electromagnetic operation, emergency operation by lever or manual operation pin is also possible

OParallel and tandem circuits configurations are possible

#### Specification

		NSS50	DSS50
Structure		Sectional Type	Sectional Type
Number of Pumps		1	1
Max. Pressure	MPa	20.6	20.6
Rated Flow Rate	L/min	50	50
Spool Operation	Manual	√	$\checkmark$
	Pilot	$\checkmark$	√*
	Solenoid	-	-

\*Enable to change-over by push-pin in emergency <: Available

### Optional Functions

		NSS50	DSS50
Pump Unload		√*	-
Manual Lever		√	-
Accessary Valve		-	$\checkmark$
Circuit Type	Parallel	$\checkmark$	$\checkmark$
	Tandem	$\checkmark$	$\checkmark$
	Series	_	_

\*Depends on circuit structure  $\checkmark$ : Available

#### Outline Dimensions

		NSS50	DSS50
А	mm	246*	146
В	mm	274	250
С	mm	Depends on number of blocks	Depends on number of blocks
Bank Width	mm	34	34

\*Including lever

# **EPRV** Series





[Main Application]

Solenoid proportional pressure reducing valve for main spool control and pump regulator control of control valve

#### [Features]

○Removable structure of the secondary pressure tip allows for space saving of the oil channel.

OSuperior controllability due to low hysteresis

OEasier maintenance due to cartridge structure

### Specification

		EPRV
Structure		Cartridge Type
Max. Primary Pressure	MPa	6
Max. Back Pressure	MPa	1
Max. Flow Rate	L/min	10
Secondary Pressure	MPa	2.8
Solonoid Poted Voltage	V	24
Solehold haled voltage	V	12
Brocouro Control Tupo		Positive Control
Fressure Control Type		Negative Control

		EPRV
А	mm	35
В	mm	94
C	mm	37
D	mm	46