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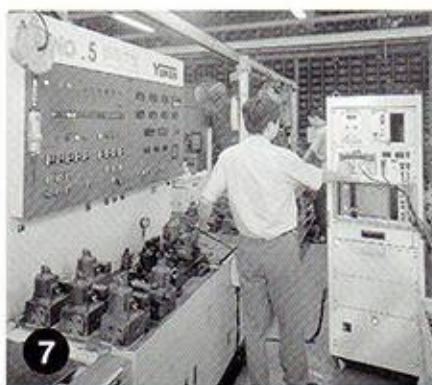
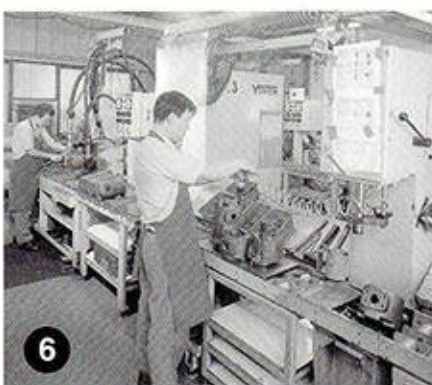
VÁLVULAS DE
CONTROL DE
PRESIÓN



YUKEN

YUKEN HYDRAULICS (TW) CO., LTD





1. Front View of the Main Factory

2. Front View of 2nd Factory

3. Power Unit Assembly Line

4. Horizontal Machining Centers

5. Processing Production Line (2nd Factory)

6. Vane Pumps Test Bench

7. Proportional Electro-Hydraulic Controls Test Bench

8. Solenoid Valves Assembly Line

Brief Introduction

The main factory of Yuken Hydraulics (T.W.) Co., Ltd., is located at No. 12 7th Rd., Taichung Industrial Park, Taichung, Taiwan. the area is 9,543 m². 2nd factory is located at No. 6, 7th Rd, the area is 5,623 m².

"To improve Technology, to improve Quality, to strengthen Service, and to satisfy Customers" are our consistent quality promises. In order to keep our promises, we have a strong focus on the promotion of automation and computerization covering sales, design, operations, production management and even quality control, to ensure quality of our products and services. All our employees pursue the organization's Goal - "To work hard, to ameliorate, and to grow perpetually."

As the domestic market was getting saturated gradually, we started exploring overseas market since July, 1996. The achievement has been remarkable. Our market is not only in Asia but also North America, Europe, Middle East and Africa.

- March, 1997, Yuken Hydraulics (T.W.) Co., Ltd., was awarded ISO-9002 certificate and built up international-level quality system.
- January, 1998, We open our second factory located at No.6 7th Rd., Taichung Industrial Park, Taichung, Taiwan, area is 5,623 m².
- February, 2002, Yuken Hydraulics (T.W.) Co., Ltd., was awarded CSA-C/US certificate, to strengthen our competition in North American market.
- May, 2002, Yuken Hydraulics (T.W.) Co., Ltd., was awarded ISO-9001 certificate and scaled new heights of quality system.
- October, 2002, Organization simplified, management institutionalized.
- June, 2003, Production line readjusted, equipment reinforced, production rationalized, striding into a new milestone.
- April, 2005, Proportional Valve was awarded CE certificate.
- November, 2005, Solenoid Valve was awarded CE certificate.
- November, 2008, Solenoid Valves with monitoring switches were patented in Taiwan.
- March, 2009, Solenoid Valves with monitoring switches were patented in China.
- June, 2010, Solenoid Valves with monitoring switches were awarded CE certificate.
- December, 2011, 2nd factory's expansion is finished.

Yuken Hydraulics (T.W.) Co., Ltd. has been leading the Industry here in Taiwan. We will increase technical cooperation with our parent company, Yuken Kogyo Co., Ltd. in the future. We will build an efficient and comprehensive sales network both in domestic and overseas market. Concurrently, we will train our talented people extensively to upgrade quality continuously. All our efforts are to achieve our goal - to grow perpetually!

- Name : **Yuken Hydraulics (T.W.) Co., Ltd.**
- Main Factory : No. 12, 7th Road, Taichung Industrial Park, Taichung, Taiwan.
Tel: 886-4-2359-3077 (Rep.)
Fax: 886-4-2359-2500
Website: <http://www.yuken.com.tw>
- Taichung Office: No. 12, 7th Road, Taichung Industrial Park, Taichung, Taiwan.
(Sales Dept) Tel: 886-4-2359-3077 (Rep.)
Fax: 886-4-2359-8813
- Taipei Office : No. 18-1, Wun Hua 5th Road, Guei Shan Township, Taoyuan County, Taiwan.
(Sales Dept) Tel: 886-3-328-3628 (Rep.)
Fax: 886-3-328-3242
- Established : 1, May, 1969
- Paid in Capital : NTS 90,000,000 (as of January, 2004)
- Line of Business : • Manufacture & sales of Hydraulic Pumps, Pressure Control Valves, Flow Control Valves, Directional Control Valves, Modular Valves, Proportional Electro-Hydraulic Control Valves, Electro-Hydraulic Servo Valves, Power Unit, Hydraulic Cylinders, Hydraulic Motors & Associated Products.
• Design, manufacture & installation of Hydraulic systems.
- Licensor : **YUKEN KOGYO CO., LTD.**

Group of Components



Hydraulic Pumps

Pressure Control Valves

Flow Control Valves

Directional Control Valves

Check Valves

Proportional Electro-Hydraulic Control

A Hydraulic Pump

1 MPa = 10.2 kgf/cm²

Pump Type	Max. Pressure MPa	Nominal Displacement cm ³ /rev										Page
		1	2	5	10	20	50	100	200	500		
ARL1 Series Variable Piston Pumps	7				ARL1						9	
AML1 Series Motor-Pumps	7				AML1						12	
ML1 Series Electric Motors	-	ML1 (0.75 / 1.5 / 2.2 kw)										15
AR Series Variable Piston Pumps	16				AR16	AR22					16	
50T 150T Single Pumps	7					50T		150T			20	
PV2R S-PV2R Series Single Pumps	21 (17.5/16/14)					PV2R1	PV2R2 S-PV2R2	PV2R3 S-PV2R3	PV2R4 S-PV2R4		24	
PV2R S-PV2R Series Double Pumps	21 (17.5/16/14)					PV2R1	PV2R2 S-PV2R2	PV2R3 S-PV2R3	Small Volume Pumps		38	
							PV2R2 S-PV2R2	PV2R3 S-PV2R3	PV2R4 S-PV2R4	Large Volume Pumps		
A ₁₆ SR3, A ₂₂ SR4 Series Piston & Vane Pumps	21 (17.5/16/14)				A16	A22	Piston Pump				48	
								PV2R3 S-PV2R3	PV2R4 S-PV2R4	Vane Pump		
SVPF Series Variable Vane Pump	7				SVPF-12	20	30	40			51	
SVPDF Series Double Variable Vane Pump	7					SVPDF-30	40				52	
SVPDF-30 40 50 60 70 80 90 100 120 150 200 250 300 400 500 SVPDF-30 40 50 60 70 80 90 100 120 150 200 250 300 400 500												

B Pressure Control Valves

Valve Type	Max. Pressure MPa	Max. Flow L/min										Page
		1	2	5	10	20	50	100	200	500	1000	
Remote Control Relief Valves	25	DT-01 DG										53
Direct Type Relief Valves	21			DT-02 DG								53
Pilot Operated Relief Valves	25					BT-03 BG		06	10			53
Low Noise Type Pilot Operated Relief Valves	25					S-BG-03		06				53
Solenoid Controlled Relief Valves	25					BST-03 BSG		06	10			57
Low Noise Type Solenoid Controlled Relief Valves	25					S-BSG-03		06				57
H & HC Type Pressure Control Valves	21					HT/HCT HG/HCG		06	10			61
Pressure Reducing (and Check) Valves	21					RT/RCT RG/RCG		06	10			67
Unloading Relief Valves	21					BUCG-06						72
Balancing Valves	14					RBG-03						73

C Flow Control Valves

Valve Type	Max. Pressure MPa	Max. Flow L/min										Page
		1	2	5	10	20	50	100	200	500	1000	
Flow Control (and Check) Valves	21					FG FCG	02	03	06 *	10 *	*Yuken Kogvo Models	74
(One Way) Restrictors	21					SRCT SRG/SRCG	03	SRCT SRG/SRCG	06	SRCT-10 SRCG		77
Throttle (and Check) Modules	25					TC1G TC2G	01					80
Needle Valves	35					GCT GTCR	02					81

D

Valve Type	Max. Pressure MPa	Max. Flow L/min												Page
		1	2	5	10	20	50	100	200	500	1000	2000	8000	
Solenoid Operated Directional Valves	7	DSGL-01												84
Solenoid Operated Directional Valves	31.5	DSG-01 03												86
Solenoid Valves with Monitoring Switch-DSGS	31.5	DSGS-01 03												92
Solenoid Controlled Pilot Operated Directional Valves	31.5	DSHG-04 06 10												94
Solenoid Valves with Monitoring Switch-DSHGN	25	DSHGN-03 04 06												99
Pilot Operated Directional Valves	31.5	DHG-04 06 10												104
Manually Operated Directional Valves	25 (21)	DMT DMG-03												107
Mechanically Operated Directional Valves	21 (25)	DCT DCG-01 03												109
Mechanically Operated Directional Valves with Monitoring Switch-DCGS	21 (25)	DCTS DCGS-01 03												112
Logic Valves with Monitoring Switch-LDLS	30	LDLS-16 25 32 40 50												115
Check Valves	21	CIT-03 06 10 CRT CRG-03 06 10												119
Pilot Controlled Check Valves	25	CPT/CPG CPDT/CPDG-03 06 10												121
Poppet Type Directional Valves	21	LVT LVG-03												123
Prefill Valves	25	PF PDE-80 90 100 125 150 PF-200 (PF-300)												124

E

Valve Type	Max. Pressure MPa	Max. Flow L/min										Page
		1	2	5	10	20	50	100	200	500	1000	
Proportional Electro-Hydraulic Pilot Relief Valves	25	EDG-01										131
Proportional Relief Valves	25			EBG-03				06	10 *	* Yuken Kogyo Models		133
Power Saving Valves	25			EFBG-03				06	10			135
Power Saving Valves 10Ω~10Ω	25			EFBG-03								141
Power Saving Valves High Performance	25			ELFBG ELFBCG-03				06				143
Proportional Electro-Hydraulic Directional and Flow Control Valves	25			EDFG-01		EDFHG-03	04	06				149
Power Amplifiers	-	AME-D2-H1 (Kogyo Models)	AMN-D-20T	AMN-D-L-20T	SK1115-※-30T	AMN-W-10T						156

F

Valve Type	Max. Pressure MPa	Max. Flow L/min										Page
		1	2	5	10	20	50	100	200	500		
Lift Valves	21	LVST-03										165
Air Bleed Valves	21	AVT-03-05 AVT-03-20										166
Automatic Shut Off Valves	21	DAS-03-20										166

G

Series Number	Max. Pressure MPa	0	20	40	60	80	Page
Base Plates	31.5						167

* As for the products other than those listed in this catalogue, please consult with our engineers for your requirement.

General Information

Design Standard

The distinctive features of Yuken Standard products is as shown below.

Feature	Domestic Standard	Remarks
Port Tapping	Rc(=PT)	Taper Pipe Thread (ISO 7/1)
Port Tapping (Partial)	G(=PF)	Straight Pipe Thread (ISO 228/1)
Pressure Gauge Tapping	Rc(=PT)	Taper Pipe Thread (ISO 7/1)
Mounting Bolts	Metric	General Purpose Thread (ISO 261)
Mounting Dimensions	Metric	
Conduit Entry	G(=PF)	Straight Pipe Thread (ISO 228/1)
Solenoid Voltages AC/DC	Domestic voltage	Voltage and frequency change according to country
Frequency	50/60 Hz	
Electronic Amplifier Input Supply	Domestic voltage 50/60 Hz	
Graphic Symbol	ISO Standard	ISO 1219
Valve Port Size	Inch	

Design Number

Yuken products have factory applied Design numbers, the key to which is as follows.

Example: 4222T68

42 22 T68

Major Design No. _____ Design No. for modified products in Taiwan
Minor Design No. _____ Omitted: Domestic standard

Design numbers are subject to change. But installation dimensions and specifications remain unchanged for variation in second digit of design numbers (Minor Design No.).

Hydraulic Fluids

Type of hydraulic fluids

- Petroleum base oil-Please use anti-wear type hydraulic oil or R & O (Rust and Oxidation inhibitor) type hydraulic oil equivalent to ISO VG 32 or 46. Do not use VG 68 hydraulic oils in winter; it will cause suction failure or cavitation.
- Fire resistant or other special fluids-Please consult with our sales engineers for your requirement.

Fluid viscosity and temperature range

Please use hydraulic fluids in a range which satisfies the conditions of both viscosity and temperature (specified in table.)

Type of Components	Viscosity Range	Temperature Range
Hydraulic Pumps	20 ~ 400 mm ² /s ★ 1	0 ~ 70°
Pressure Control Valves	15 ~ 400 mm ² /s ★ 2	-15 ~ +70°
Flow Control Valves	FG, FCG : 20 ~ 200 mm ² /s Other : 15 ~ 400 mm ² /s	
Directional Control Valves	15 ~ 400 mm ² /s	
Proportional Electro-Hydraulic Control Valves	EBG : 15 ~ 400 mm ² /s EFBG : 20 ~ 200 mm ² /s	

- ★ 1. When starting the pumps at low speed, maximum viscosity is restricted. (see table above right).
★ 2. If the valve is provided with a vent restrictor (ex.: A-BSG-03), the viscosity range should be 15-200 mm²/s.

Control of contamination

Contamination of the hydraulic fluids may cause any damage to the products or shorten the life of the products, therefore, please maintain the degree of contamination level lower than NAS Class Numbers as shown on the table 1 below

① The suction port line must have a reservoir type filter of 100 μm (150 mesh) and the filter should be installed minimum 50 mm higher than the bottom of the reservoir.

② The return line must have a line filter.

Line type filter ratings

Type of Components	Line Type Filter
Pump's Suction Port	100μm
Circuit System	Piston Pumps: below 10μm E series components: below 20μm Other components: below 25μm

Limit of contamination

Type of Components	NAS Class No.
Piston Pumps	10 or less
E series components	11 or less
Other components	12 or less

General Information

■ Limitation of general properties of fluids

● Limit of fluid purity

Characteristics ¹	Value changed
Specific gravity (15/4°C)	0.05
Colour	2
Flash point (°C) COC	60
Total acid number (mg KOH/g)	0.2
Viscosity (cSt)	10 ~ 15

■ High-pressure specialized hydraulic fluid

Manufacture	Brand
Mobil	Mobil DTE 25
Shell	Shell Tellus Oil 46
China Oil	Aw46, LPS 46

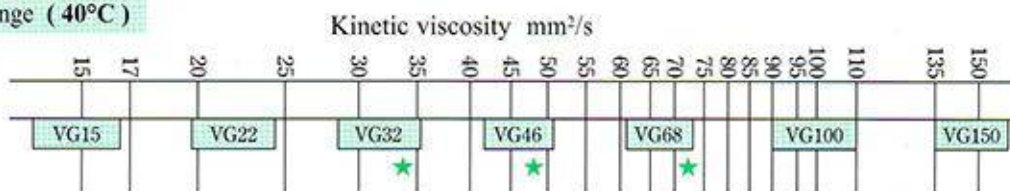
● Limit of water content

Applicable conditions	Limit
Fluid becomes milky with water contained.	To be replaced immediately.
Systems in which operating fluid circulates and returns to reservoir and which are not to be stopped for a long period of time.	1000ppm
System with long piping lines in which operating fluid in circuits does not completely circulate.	500ppm
Systems to be stopped for a long period of time (Safety systems) or systems in which operating fluid in circuits moves little, and precision control systems.	300ppm

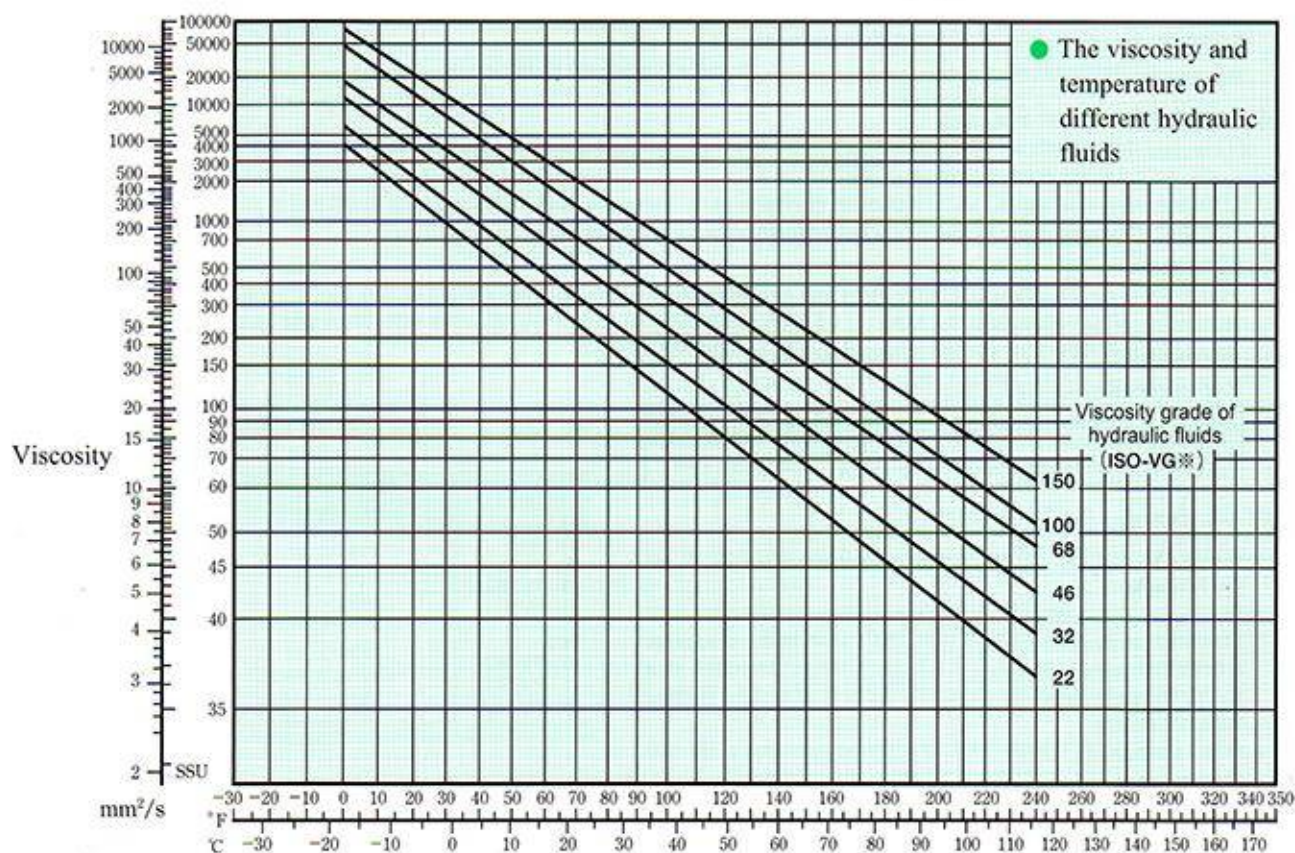
■ Viscosity of hydraulic fluids

Viscosity range (40°C)

● ISO
Viscosity
grade
(ISO VG)



★ JIS K 2213 The Second Type (Added Turbine oil)
for ISO VG32, 46, 68.



General Information

Instructions for hydraulic pump

1. Mounting

When installing piston pumps the filling port should be positioned upwards. When (S)-PV2R Single and Double Vane Pumps are operated below 1200 r/min; we recommend the suction port upwards to suck oil easily.

2. Alignment of Shaft

Employ a flexible coupling whenever possible, and avoid any stress from bending or thrust. Maximum permissible misalignment is less than 0.1 mm. TIR (Total Indicator Reading) and maximum permissible misangular is less than 0.2°.

3. Suction Pressure

★ 1 kPa = 0.01 kgf/cm² = 7.5 mmHg

Model		Suction Pressure Range		
		Min		Max.
		Petroleum base oils	Water containing phosphate esters	
Piston Pumps	ARL1 AR※	-16.7 kPa	—	+50 kPa
Single Pumps	50T 150T	-20 kPa	-16 kPa	+140 kPa
PV2R Single Vane Pumps	(S)-PV2R1	-20 kPa	-16 kPa	+30 kPa
	(S)-PV2R2	-20 kPa		
	(S)-PV2R3	-20 kPa ★		
	(S)-PV2R4	-20 kPa ★		
PV2R Double Vane Pumps	(S)-PV2R12	-20 kPa	-16 kPa	+30 kPa
	(S)-PV2R13	-20 kPa		
	(S)-PV2R23	-20 kPa ★		
	(S)-PV2R24	-20 kPa ★		

- Make sure that the height of the pump suction port is within 1m from the oil level in the reservoir.
- Please follow the instructions of catalogue to choose suitable caliber of suction port pipes; otherwise, it might lead to dangerous cavitation. We suggest the suction port flow rate under 1 m/s.

★ For some displacement of pumps, the Min. suction pressure is restricted by the rotation speed. Please refer to Table 1.

● Table 1: The limitation of Min. suction pressure for specific displacement of hydraulic pumps.

The following hydraulic pumps with rotation speed 1700 r/min are restricted by the Min. suction pressure. (Min. suction pressure of other hydraulic pumps is -150 mmHg)

Model No.	Min. Suction Pressure kPa	
	1700 r/min Below	1700-1800 r/min
(S)-PV2R3-116	-20	0
(S)-PV2R4-237	-20	-13.3
(S)-PV2R※3-※-76	-20	-6.7
(S)-PV2R※3-※-94	-20	-6.7
(S)-PV2R※3-※-116	-20	0
(S)-PV2R※4-※-237	-20	-13.3
(S)-PV2R34-76-※	-20	-6.7
(S)-PV2R34-94-※	-20	-6.7
(S)-PV2R34-116-※	-20	0
(S)-PV2R34-116-237	-20	0

4. Instructions of Piping

- ① In case the pump is installed above the oil level, the suction piping and suction line filter should be located lower than the pump position to prevent air in the suction line.
- ② When using steel pipes for the suction or discharge ports, excessive load from the piping to the pump generates excessive noise. Whenever there is fear of excessive load, please use rubber hoses.

5. Drain Piping

Install drain piping according to the chart and ensure that pressure within the pump housing should be maintained at a normal pressure of less than 0.1 MPa (14.5 PSI) and surge pressure of less than 0.5 MPa (72.5 PSI). Length of piping should be less than 1 m, and the pipe end should be submerged in oil.

Recommended Drain Piping Size:

Model	Piping Fitting Size	Internal Dia. of Pipe
ARL1, AR※	3/8 (Internal Dia. more than Ø8.5)	more than Ø10

6. Hydraulic Pumps Starting

- Before first starting, fill pump case with clean operating oil via the filling port.
- In order to avoid air blockage when starting pumps after long time shut down, to set up air bleeding valve on the discharge sides in advance or to loose discharge piping connection area for bleeding the air in the pipes. To the best of pumps' starting with no loading.
- When temperature is under 15°C in winter or viscosity is 200~400 mm²/s (1000SSU~1800SSU), please refer to the following instructions to start pumps in order to make better internal lubrication, and it will help the suction of the pump and extend the pump's life.
- Starting instructions: to start running pumps for 5 seconds, and then stop it for 10 seconds. To repeat this process 10 times, and then keep it running.

● Table 2: Max. viscosity list of starting at low rotation speed

Model	Rotation speed of starting r/min	Max. viscosity mm ² /s
PV2R1	750	100
(S)-PV2R12		
(S)-PV2R13		
(S)-PV2R14	950	200
50T	600	100
(S)-PV2R2		
(S)-PV2R23		
(S)-PV2R24	950	200

Relief Valves

Max. Pressure 25 MPa



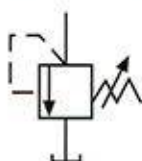
Remote Control Relief Valve



Direct Type Relief Valve

Graphic Symbol

Remote Control / Direct Type

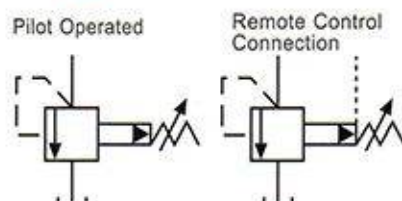


General Type Pilot Operated Relief Valve



Low Noise Type Pilot Operated Relief Valve

Graphic Symbol



- Remote Control Relief Valves are used for hydraulic pressure control valve(Relief Valve, Pressure Reducing Valve) by remote control.
- Relief Valve is used to protect hydraulic system from excessive pressure and can also be used to maintain a constant pressure in the hydraulic system.

Specifications

Valve Type	Valve Size	Model No.	Pressure Adjustment Range MPa (kgf/cm ²)	Max. Flow L/min	Mass kg
Remote Control Relief Valve	1/8	DT-01-22 DG-01-22	Max. 25 (250)	2	1.6 1.4
Direct Type Relief Valve	1/4	DT-02-※-22 DG-02-※-22	Please refer to Model Number Designation	16	1.5
Pilot Operated Relief Valve	General Type	3/8 BT-03-※-32 BG-03-※-32	0.5~25 (5~250)	100	5.0 4.7
		3/4 BT-06-※-32 BG-06-※-32		200	5.0 5.6
		1-1/4 BT-10-※-32 BG-10-※-32		400	8.5 8.7
	Low Noise Type	3/8 S-BG-03-※-L-R-40	0.4~25 (4~250)	100	4.1
		3/4 S-BG-06-※-L-R-40		200	5.0

*Low-pressure control type, please contact sales people for details.

Model Number Designation

D T-02-B-22

Design No.
Pressure Adjustment Range MPa (kgf/cm²)
(Applicable only for DT-02 & DG-02)
B : 0.5~7 (5~70)
C : 3.5~14 (35~140)
H : 7.0~21 (70~210)
Valve Size
Type of Connection
T : Threaded Connection
G : Sub-plate Mounting
Series No.

S-B G-06-V-L-※

Low Noise Type
(Omit if not required)
Series Number
Type of Connection
T : Threaded Connection
(only for general type)
G : Sub-plate Mounting
Valve Size
Design No.
Direction of Pressure adjustment handle
(only for S-BG)
(Viewed from pressure gauge connection side)
L : Left (Standard) ◦ R : Right
High Venting Pressure Feature*(Optional)
(Omit if not required)

*Use high venting pressure type to reduce the response time from unload to load.

- The Min. Flow: The setting pressure will be unstable when using small flow; therefore, the flow should be bigger than the min. flow as the below table.

Model No.	BG/BT Series	S-BG Series
03	8 L/min	5 L/min
06		
10	15 L/min	-

Sub-plate

Valve Model No.	Sub-plate Model No.	Piping Size Rc	Mass kg
DG-01,DG-02	DGM-02-20	1/4	0.7
(S)-BG-03	BGM-03-20	3/8	2.4
	BGM-03X-20	1/2	3.1
(S)-BG-06	BGM-06-20	3/4	4.7
	BGM-06X-20	1	5.7
BG-10	BGM-10-20	1-1/4	8.4
	BGM-10X-20	1-1/2	10.3

- Sub-plates are available. When ordering.
- Please refer to page 54, 56 for the dimensions.

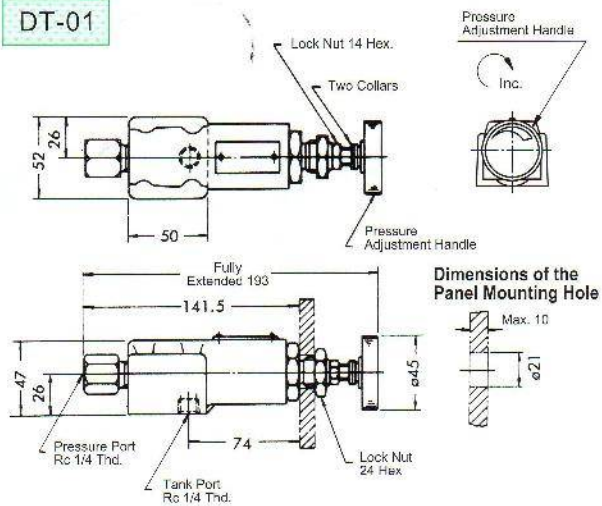
Mounting Bolts (Attachment)

Model No.	Socket Head Cap Screw	Qty	Tightening Torque N·m
DG-01	M5 x 45 Lg	4	8~9
DG-02	M5 x 45 Lg	4	
BG-03	M12 x 70 Lg	2	104~127
	M12 x 95 Lg	2	
BG-06	M16 x 60 Lg	2	253~310
	M16 x 80 Lg	2	
BG-10	M20 x 70 Lg	2	493~603
	M20 x 90 Lg	2	
S-BG-03	M12 x 40 Lg	4	104~127
S-BG-06	M16 x 50 Lg	4	253~310

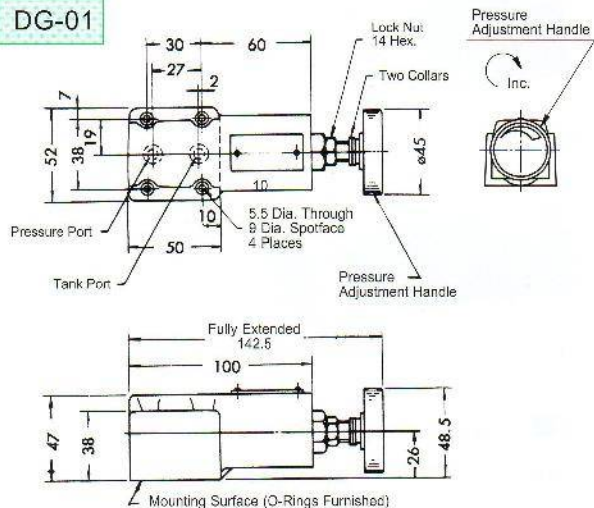
Relief Valves

Max. Pressure 25 MPa

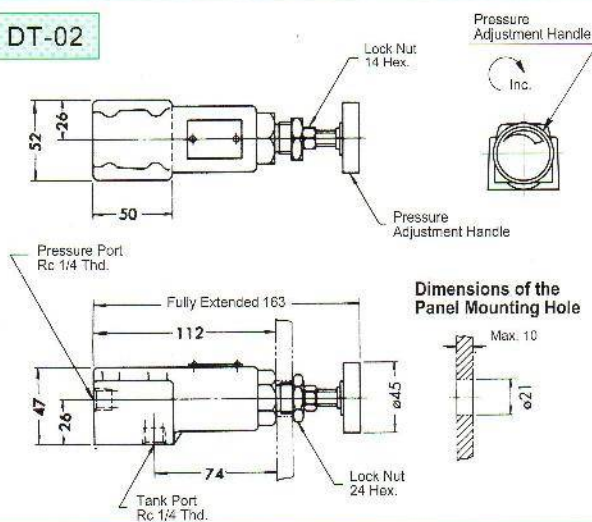
DT-01



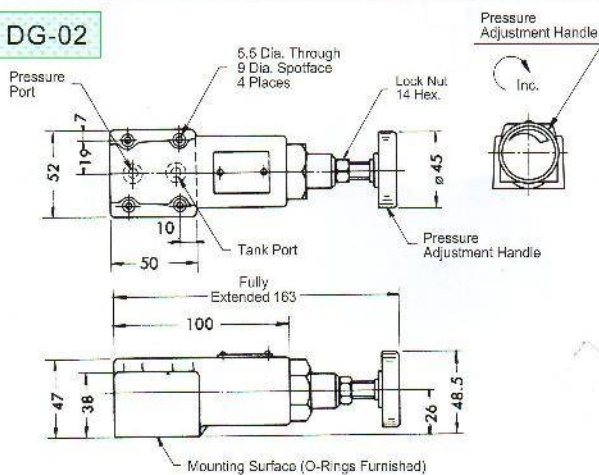
DG-01



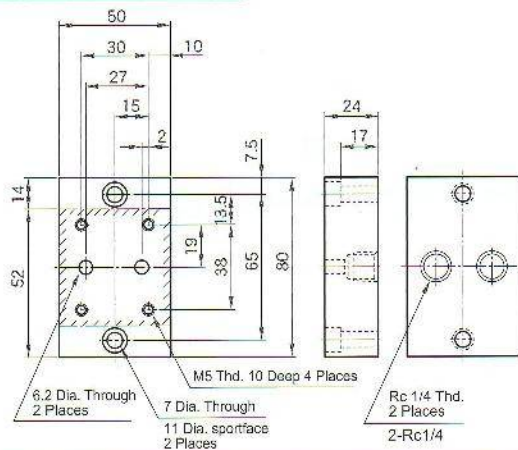
DT-02



DG-02



Subplate: DGM-02-20

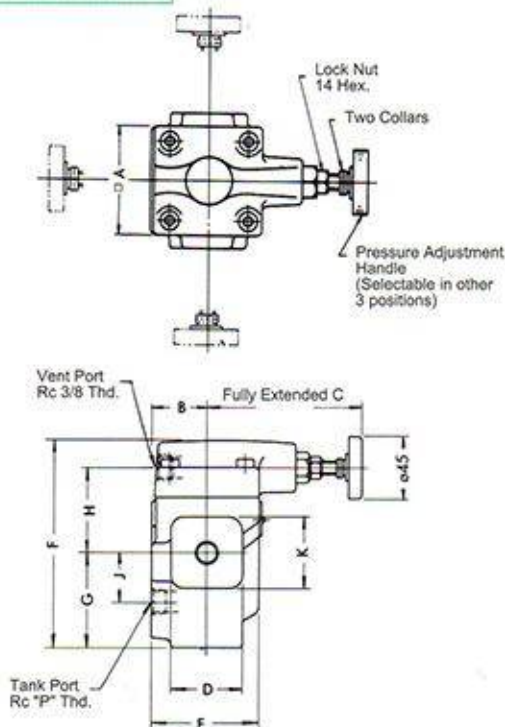


Relief Valves

Max. Pressure 25 MPa

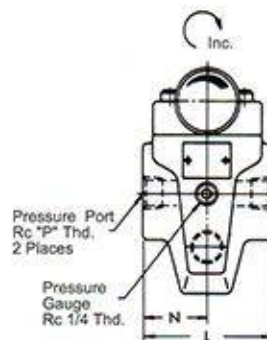
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BT-03,06,10

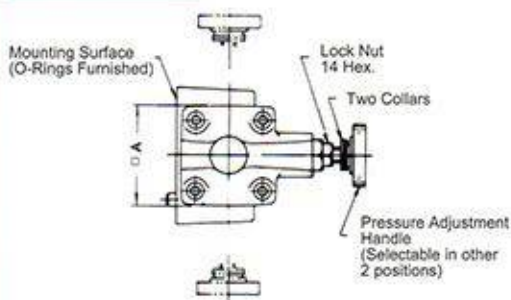


Model No.	A	B	C	D	E	F
BT-03	75	40	105	52	78	150.5
BT-06	85	50	101	80	96	183

Model No.	G	H	J	K	L	N	P
BT-03	68.5	62	36	52	90	45	3/8
BT-06	89	74	49	80	120	60	3/4
BT-10							1-1/4



BG-03,06,10



Mounting Surface

BG-03:ISO 6264-AR-06-2-A-87

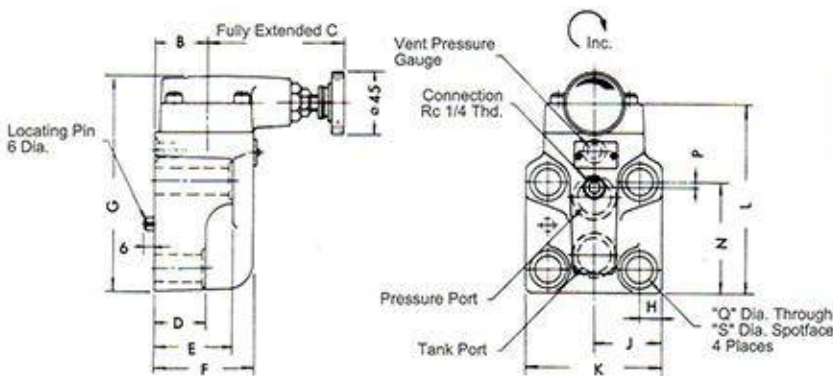
BG-06:ISO 6264-AS-08-2-A-87

BG-10:ISO 6264-AT-10-2-A-87

Model No.	A	B	C	D	E	F	G
BG-03	75	40	105	57	78	78	137
BG-06	75	40	105	40	60	78	161
BG-10	85	45	101	47	67	84	195

Model No.	H	J	K	L
BG-03	14.1	41	82	117
BG-06	17	52	104	141
BG-10	20.7	62	124	175

Model No.	N	P	Q	S
BG-03	77	22	13.5	21
BG-06	83.5	4.5	17.5	26
BG-10	110	6	21.5	32

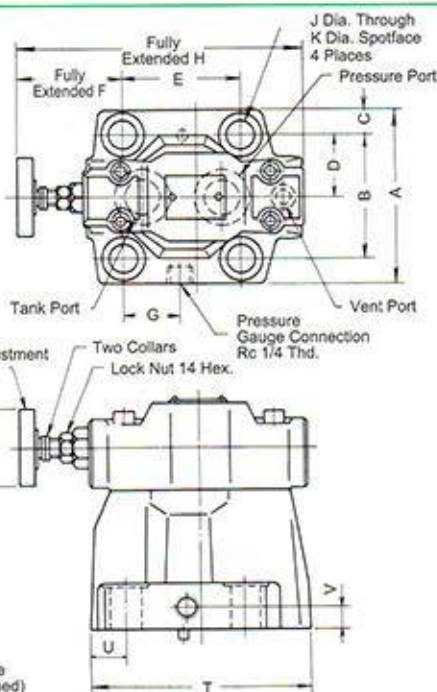
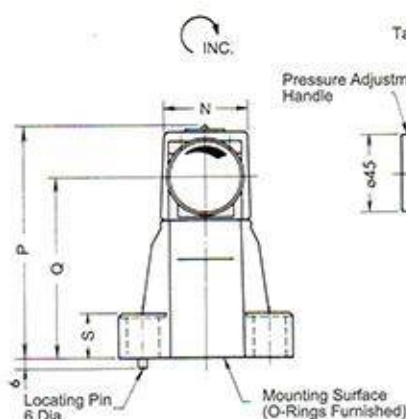


Note: For dimensions of mounting surface, please refer to BGM type sub-plate (on next page)

Relief Valves

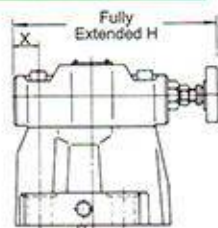
Max. Pressure 25 MPa

S-BG-03-※-L-※-40
Normal Handle Position



Mounting Surface:
S-BG-03:ISO 6264-AR-06-2-A-87
S-BG-06:ISO 6264-AS-08-2-A-87

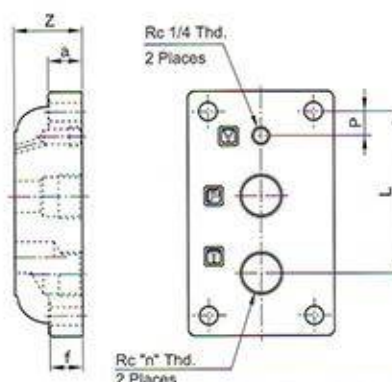
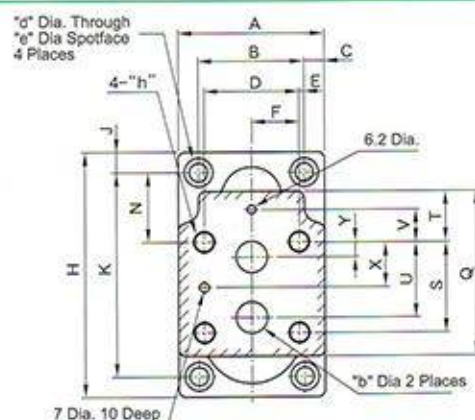
Opposite Handle Position
S-BG-06-※-R



For other dimensions, please see the figures shown left.

Model No.	A	B	C	D	E	F	G	H	J	K	N	P	Q	S	T	U	V	X
S-BG-03	76	53.8	11.1	26.9	53.8	73.6	26.9	163.5	13.5	21	50	130	103	21.5	106	26.1	13	36.1
S-BG-06	98	70	14	35	66.7	58.8	33.7	163.5	17.5	26	50	130	103	26	122	19.3	13	21.3

Sub-plate
BGM-03, 03X-20
06, 06X
10, 10X



Model No.	A	B	C	D	E	F	H	J	K	L	N	P	Q	S
BGM-03	86	60	13	53.8	3.1	26.9	149	13	123	86	32	26	97	53.8
BGM-03X										95		21		
BGM-06	108	78	15	70	4	35	180	15	150	106.5	51	27.2	121	66.7
BGM-06X										119		18		
BGM-10	126	94	16	82.6	5.7	41.3	227	16	195	138.2	62	30.2	154	88.9
BGM-10X										158		17		
Model No.	T	U	V	X	Y	Z	a	b	d	e	f	h		n
BGM-03	19	47.4	0	22	22	32	20	14.5	11	17.5	19	M12 Thd. 20 Deep		3/8
BGM-03X						40								1/2
BGM-06	37	55.5	23.8	33.4	11	40	25	23	13.5	21	24	M16 Thd. 25 Deep		3/4
BGM-06X						50								1
BGM-10	42	76.2	31.8	44.5	12.7	50	32	28	17.5	26	31	M20 Thd. 28 Deep		1-1/4
BGM-10X						63								1-1/2

Solenoid Controlled Relief Valves Max. Pressure 25 MPa



General Type Solenoid Controlled Relief Valve



Low Noise Type Solenoid Controlled Relief Valve

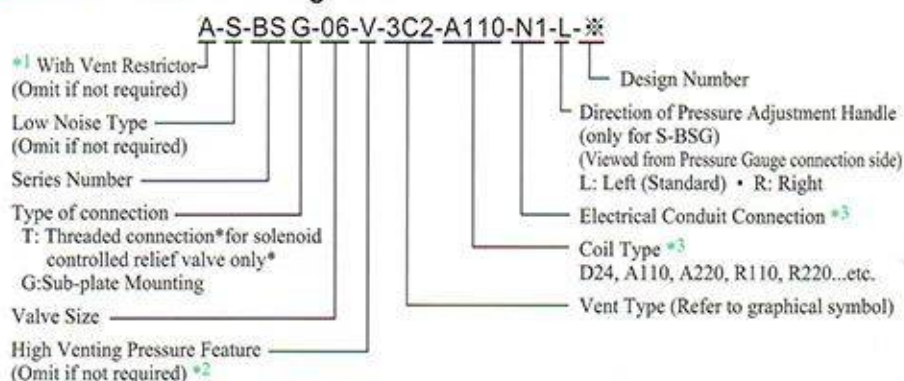
These valves are a combination of relief valve and solenoid valve. Piping between the two valves is eliminated as the solenoid valve is directly mounted on the relief valve and connected with the relief valve vent. Pump pressure may be unloaded remotely by an electrical signal to the solenoid, or by connecting the pilot relief valve to the solenoid valve ports.

Specifications

Valve Type	Valve Size	Model No.	Pressure Adjustment Range MPa (kgf/cm ²)	Max. Flow L/min	Mass kg*	
					Single Sol.	Double Sol.
General Type Solenoid Controlled Relief Valve	3/8	BST-03- $\star$ - $\star$ - $\star$ -46	0.5~25 (5~250)	100	6.8	7.4
		BSG-03- $\star$ - $\star$ - $\star$ -46			6.5	7.1
	3/4	BST-06- $\star$ - $\star$ - $\star$ -46		200	6.8	7.4
		BSG-06- $\star$ - $\star$ - $\star$ -46			7.4	8.0
	1-1/4	BST-10- $\star$ - $\star$ - $\star$ -46		400	10.5	11.1
		BSG-10- $\star$ - $\star$ - $\star$ -46			10.7	11.3
Low Noise Type Solenoid Controlled Relief Valve	3/8	S-BSG-03- $\star$ - $\star$ - $\star$ - $\frac{R}{L}$ -51	0.4~25	100	5.7	6.3
	3/4	S-BSG-06- $\star$ - $\star$ - $\star$ - $\frac{R}{L}$ -51	(4~250)	200	6.6	7.2

*For models with vent restrictors, add 1 kg.

Model Number Designation



Graphic Symbol

Vent type

2B3A	2B3B
2B2B	2B2
3C2	3C3
With Vent Restrictor (A-BS $\star$)	
2B3A	2B3B

*1. Models with vent restrictor (ST-797-40) are applicable only for the vent type 2B3A and 2B3B. It prevents shocks to the main circuit by gradually lowering the venting pressure in the shift from the set pressure to unloading. The hydraulic fluid viscosity remains the range of 15~200cSt. The bolt kits should be 30 mm longer when mounting solenoid controlled relief valves.

*2. Use high-venting pressure type to reduce response time from unloading to onloading.

*3. The coil type is the same as that of the solenoid operated directional valve DSG-01. (Page 86)

*4. The minimum using flow is restricted. Please refer to page 53. BG/BS/S-BG series.

Sub-Plate

Valve Model No.	Sub-plate Model No.	Piping Size Rc	Mass kg
(S)-BSG-03	BGM-03-20	3/8	2.4
	BGM-03X-20	1/2	3.1
(S)-BSG-06	BGM-06-20	3/4	4.7
	BGM-06X-20	1	5.7
BSG-10	BGM-10-20	1-1/4	8.4
	BGM-10X-20	1-1/2	10.3

Please refer to page 56 for dimension details.

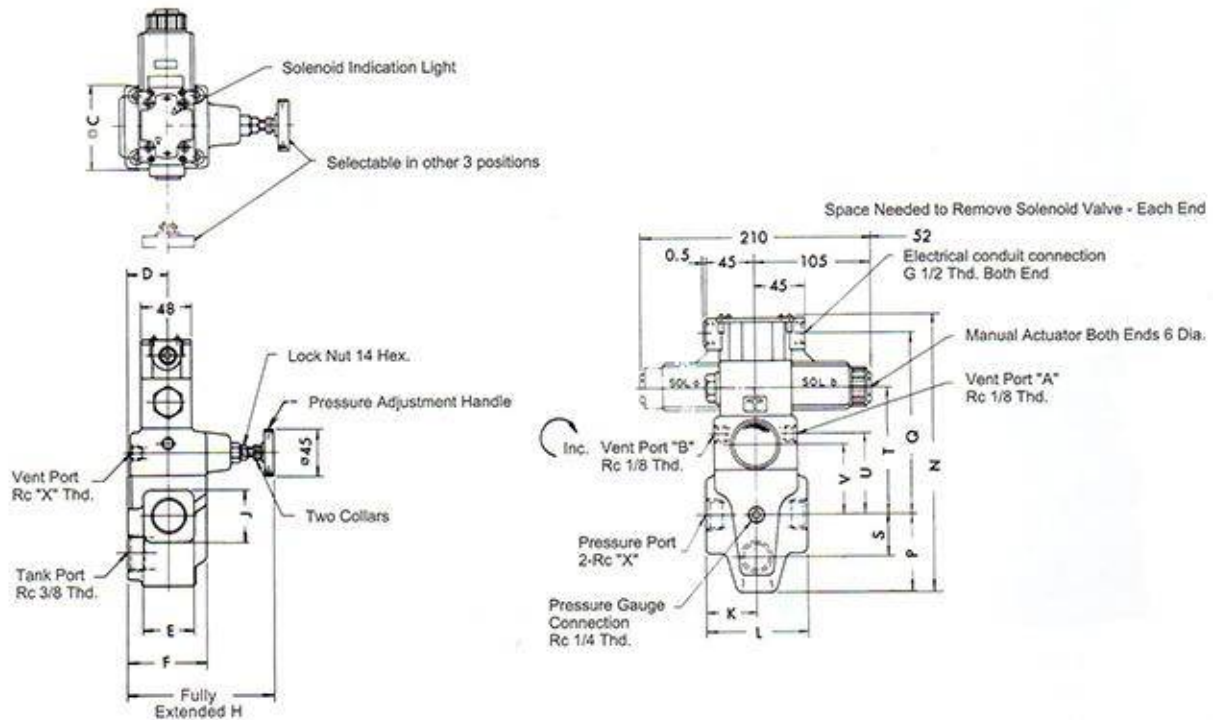
Mounting Bolts (Attachment)

Model No.	Socket Head Cap	Screw Q'ty	Tightening Torque N·m
BSG-03	M12 x 70 Lg	2	104~127
	M12 x 95 Lg	2	
BSG-06	M16 x 60 Lg	2	253~310
	M16 x 80 Lg	2	
BSG-10	M20 x 70 Lg	2	493~603
	M20 x 90 Lg	2	
S-BSG-03	M12 x 40 Lg	4	104~127
S-BSG-06	M16 x 50 Lg	4	253~310

Solenoid Controlled Relief Valves

Max. Pressure 25 MPa

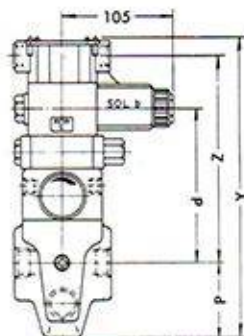
BST-03,06,10



Model No.	C	D	E	F	H	J	K	L	N	P	Q	S	T	U	V	X
BST-03	75	40	52	78	145	52	45	90	240.8	68.5	154	36	107	69	62	3/8
BST-06																3/4
BST-10	85	50	80	96	151	80	60	120	273.3	89	166	49	119	81	74	1-1/4

Note: For detailed dimensions of Solenoid Operated Directional Valves (page 87,88).

Options-Model with Vent Restrictor: A-BST-03, 06, 10



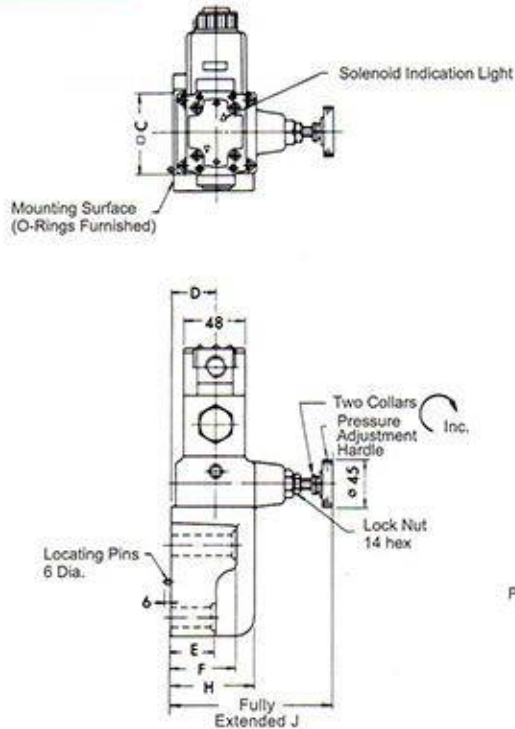
Model No.	P	Y	Z	d
A-BST-03	68.5	270.8	185	137
A-BST-06				
A-BST-10	89	303.3	197	149

For other dimensions, please refer to the dimensions of each model as listed in the table in the upper drawing.

Solenoid Controlled Relief Valves

Max. Pressure 25 MPa

BSG-03,06,10

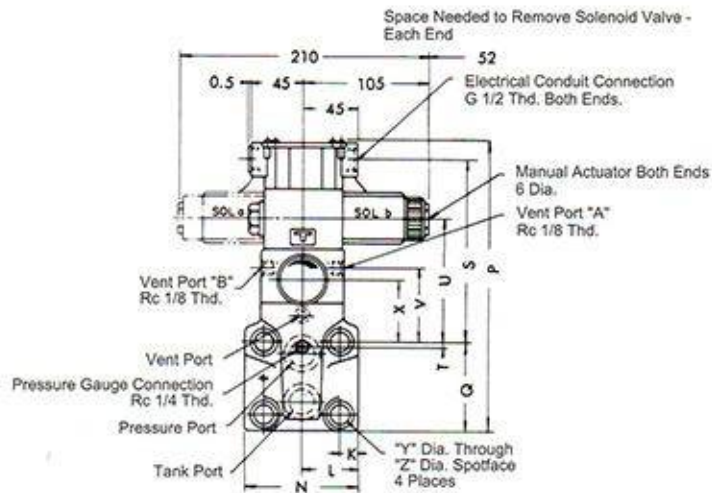


Mounting Surface

BSG-03:ISO 6264-AR-06-2-A-87

BSG-06:ISO 6264-AS-08-2-A-87

BSG-10:ISO 6264-AT-10-2-A-87

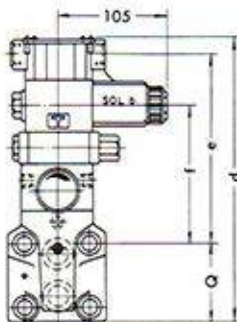


Model No.	C	D	E	F	H	J	K	L	N	P	Q	S	T	U	V	X	Y	Z
BSG-03	75	40	57	78	78	145	14.1	41	82	227.3	77	132	22	85	47	40	13.5	21
BSG-06	75	40	40	60	78	145	17	52	104	251.3	83.5	149.5	4.5	102.5	64.5	57.5	17.5	26
BSG-10	85	45	47	67	84	146	20.7	62	124	285.3	110	157	6	110	72	65	21.5	32

Note: For dimensions of mounting surface, please refer to BGM type sub-plate (page 56).

For detailed dimensions of Solenoid Operated Directional Valve (page 87,88).

Options-Model with Vent Restrictor: A-BSG-03, 06, 10



Model No.	Q	d	e	f
A-BSG-03	77	257.3	163	115
A-BSG-06	83.5	281.3	180.5	132.5
A-BSG-10	110	315.3	188	140

For other dimensions, please refer to the dimensions of each model as listed in the table in the upper drawing.

S-BSG-03-06-~~0000~~-L-51
Normal Handle Position

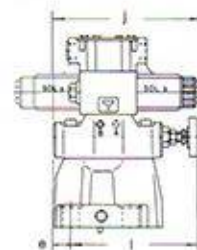
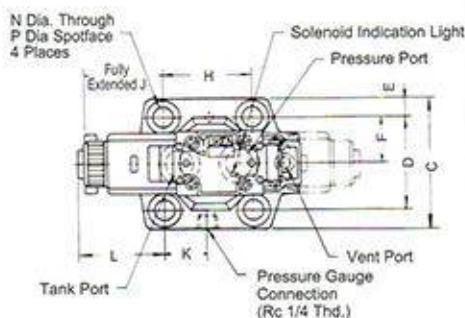
Mounting Surface:

S-BSG-03:ISO 6264-AR-06-2-A-87

S-BSG-06:ISO 6264-AS-08-2-A-87

Opposite Handle Position

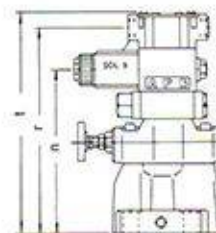
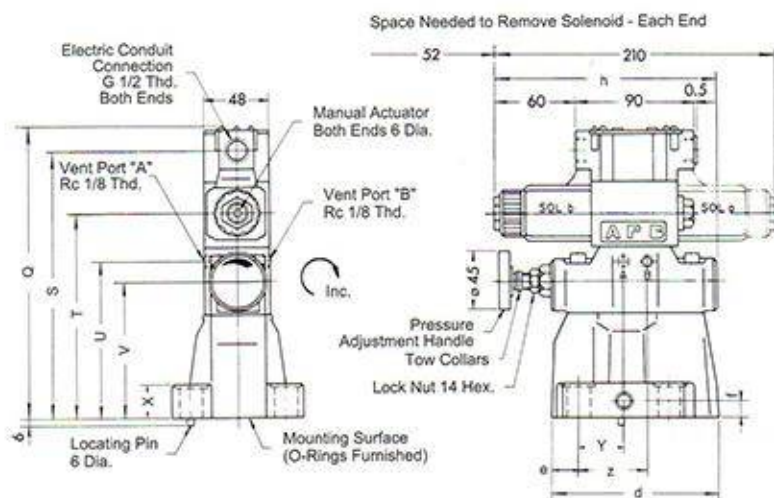
S-BSG-03.06-**-**-**-R



For other dimensions, please see the figures shown left.

Options-Model with Vent Restrictors

A-S-BSG-03
06



For other dimensions, please see the figures shown left.

Model No.	C	D	E	F	H	J	K	L	N	P	Q	S	T	U
S-BSG-03	76	53.8	11.1	26.9	53.8	73.6	26.9	78.1	13.5	21	218.3	200	153	117
S-BSG-06	98	70	14	35	66.7	58.8	33.7	63.3	17.5	26	218.3	200	153	117

Model No.	V	X	Y	Z	d	e	f	h	i	j	n	r	t
S-BSG-03	103	21.5	17.1	36.6	106	26.1	13	158	127.9	168	183	230	248.3
S-BSG-06	103	26	31.9	51.4	122	19.3	13	166	142.2	166	183	230	248.3

Note: For dimensions of mounting surface, please refer to BGM-03/06 type sub-plate (page 56).
For detailed dimensions of Solenoid Operated Directional Valve (page 87, 88).

H Type Pressure Control Valves HC Type Pressure Control Valves

Max. Pressure 21 MPa

B



HG Type



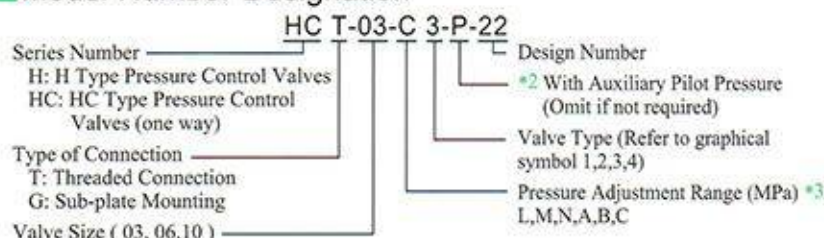
HCG Type

These valves are pressure control valves directly operated with hydraulic buffer, which can be actuated by internal or external pilot pressure. The valves with an integral check valve are also available. These valves can be used in such a case where free reverse flow from the secondary port to primary port is required. There are various type of valves available including sequence, counterbalance, unloading and low pressure relief valves, all of which are operated by a pressure rise in the circuit being sensed either internally or remotely. (Please refer to Graphic Symbol)

Specifications

Valve Size	Model No.	Pressure Adjustment MPa (kgf/cm ²)	Max. Flow L/min	Mass kg
3/8	HT-03-※※※-22	L : 0.25 ~ 0.45 (2.5 ~ 4.5)	50	3.7
	HG-03-※※※-22			4.0
	HCT-03-※※※-22	M : 0.45 ~ 0.9 (4.5 ~ 9)		4.1
	HCG-03-※※※-22			4.8
3/4	HT-06-※※※-22	N : 0.9 ~ 1.8 (9 ~ 18)	125	6.2
	HG-06-※※※-22			6.1
	HCT-06-※※※-22	A : 1.8 ~ 3.5 (18 ~ 35)		7.1
	HCG-06-※※※-22			7.4
1-1/4	HT-10-※※※-22	B : 3.7 ~ 7.0 (35 ~ 70)	250	12.0
	HG-10-※※※-22			11.0
	HCT-10-※※※-22 *1	C : 7.0 ~ 14 (70 ~ 140)		13.8
	HCG-10-※※※-22			13.8

Model Number Designation



- *1. Products are made by Yuken Kogyo. If you have any inquiry, please contact our sales engineers.
*2. Models with auxiliary pilots are used where valves must be operated under a lower external pilot pressure than the adjusted pressure. This does not apply to pressure adjustment ranges L, M and H of valve type 1.
*3. In addition, type 1 is only possible for pressure adjustment ranges L and M. (applicable only for H type)

Mounting Bolts (Attachment)

Model No.	Socket Head Cap	Screw Q'ty	Tightening Torque N·m
HG-03	M10 x 50 Lg	4	60~74
HCG-03	M10 x 70 Lg	4	
HG-06	M10 x 50 Lg	4	
HCG-06	M10 x 80 Lg	4	
HG-10	M10 x 50 Lg	6	
HCG-10	M10 x 90 Lg	6	

Sub-plate

Valve Model No.	Sub-plate Model No.	Piping Size Re	Mass kg
HG -03-※※※-22	HGM-03-20	3/8	1.6
HCG -03-※※※-22	HGM-03X-20	1/2	
HG -03-※※※-P-22	HGM-03-P-20	3/8	2.0
HCG -03-※※※-P-22	HGM-03X-P-20	1/2	
HG -06-※※※-22	HGM-06-20	3/4	2.4
HCG -06-※※※-22	HGM-06X-20	1	3.0
HG -06-※※※-P-22	HGM-06-P-20	3/4	2.4
HCG -06-※※※-P-22	HGM-06X-P-20	1	3.0
HG -10-※※※-22	HGM-10-20	1-1/4	4.8
HCG -10-※※※-22	HGM-10X-20	1-1/2	5.7
HG -10-※※※-P-22	HGM-10-P-20	1-1/4	4.8
HCG -10-※※※-P-22	HGM-10X-P-20	1-1/2	5.7

Sub-plates are available. When ordering, please specify sub-plate model from the table above (page 66).

Graphic Symbol

Series No.	Valve Type	Auxiliary Port	
		Without	With (P)
H※	Type 1 Low Pressure Relief Valve		—
	Type 2 Sequence Valve		
	Type 3 Sequence Valve		
	Type 4 Unloading valve		
HC※	Type 1 Counterbalance Valve		
	Type 2 Sequence and Check Valve		
	Type 3 Sequence and Check Valve		
	Type 4 Counterbalance Valve		

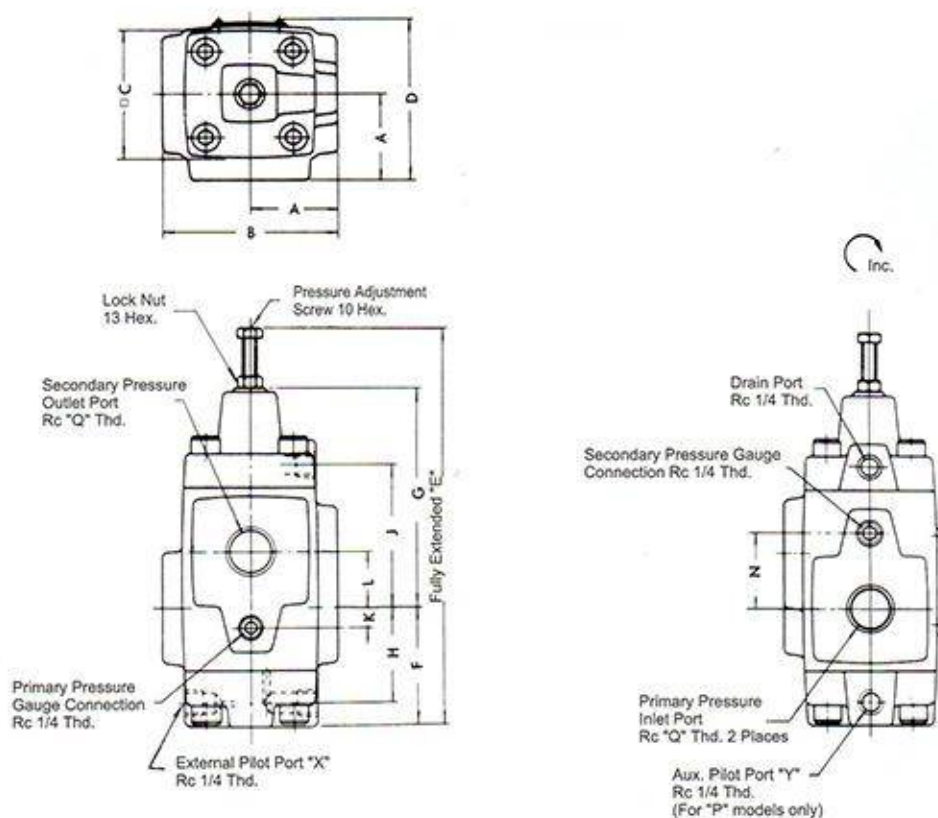
B

H Type Pressure Control Valves

Max. Pressure 21 MPa

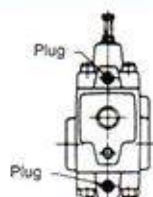
HT-03, 06, 10

Type 3: Sequence Valve
(External Pilot, External Drain)

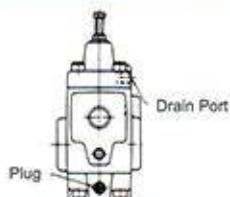


Model No.	A	B	C	D	E	F	G	H	J	K	L	N	Q
HT-03	41	82	60	74	191	57	106	43	70	0	28	28	3/8
HT-06	48	96	73	87	221	64.5	123.5	50.5	80.5	9	33	42	3/4
HT-10	66	132	86	112	272	84	149	66	98	12	40	52	1-1/4

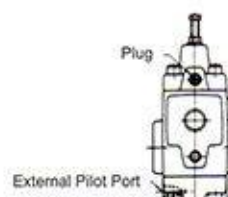
Type 1: Low Pressure Relief Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence Valve
(Internal Pilot, External Drain)



Type 4: Unloading Valve
(External Pilot, Internal Drain)



H Type Pressure Control Valves

Max. Pressure 21 MPa

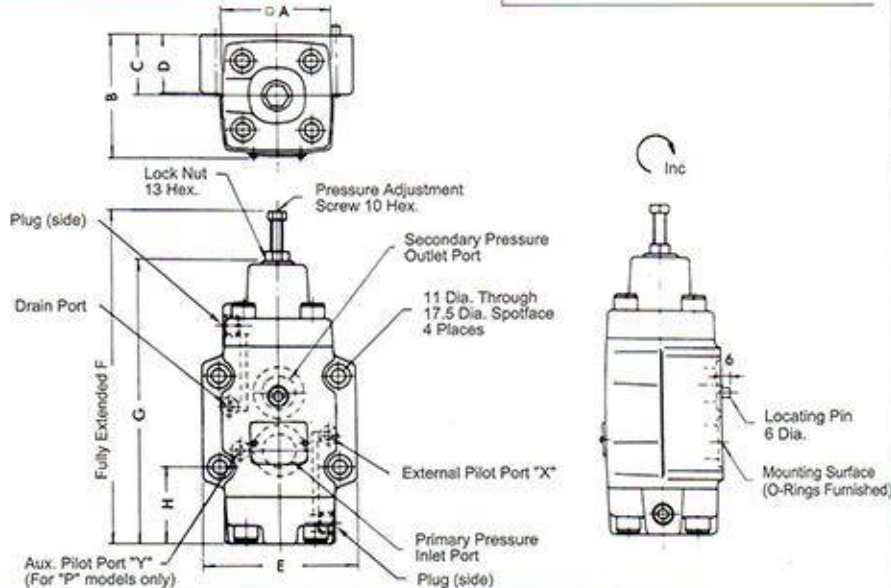
HG-03, 06

Type 3: Sequence Valve
(External Pilot, External Drain)

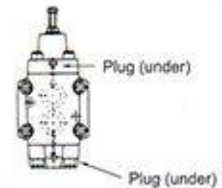
Mounting Surface:

HG-03: ISO 5781-AG-06-2-A-87

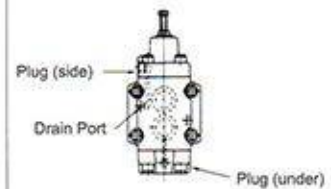
HG-06: ISO 5781-AH-08-2-A-87



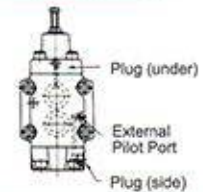
Type 1: Low Pressure Relief Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence Valve
(Internal Pilot, External Drain)



Type 4: Unloading Valve
(External Pilot, Internal Drain)



Model No.	A	B	C	D	E	F	G	H
HG-03	60	67	35	39	89	191	163	49.6
HG-06	73	79	40	39	102	221	188	51

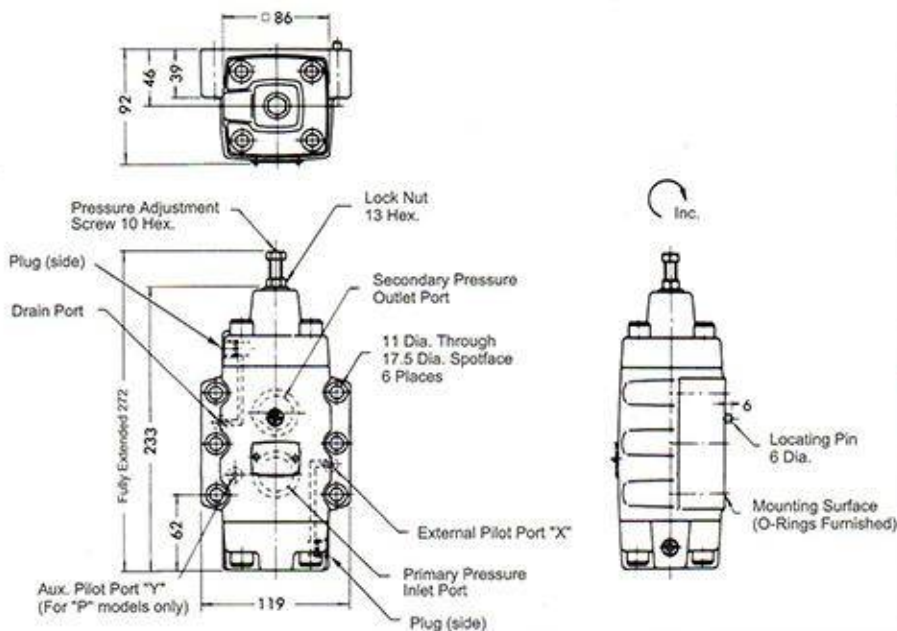
Note: For dimensions of mounting surface, please refer to HGM-03 & 06 type sub-plate. (page 66)

HG-10

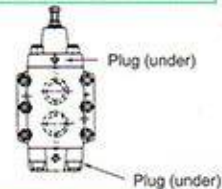
Type 3: Sequence Valve
(External Pilot, External Drain)

Mounting Surface: ISO 5781-AJ-10-2-A-87

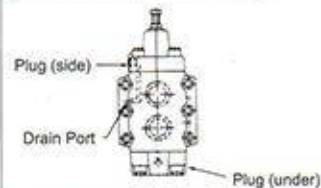
Note: For dimensions of mounting surface, please refer to HGM-10 type sub-plate. (page 66)



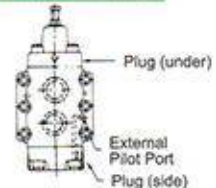
Type 1: Low Pressure Relief Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence Valve
(Internal Pilot, External Drain)



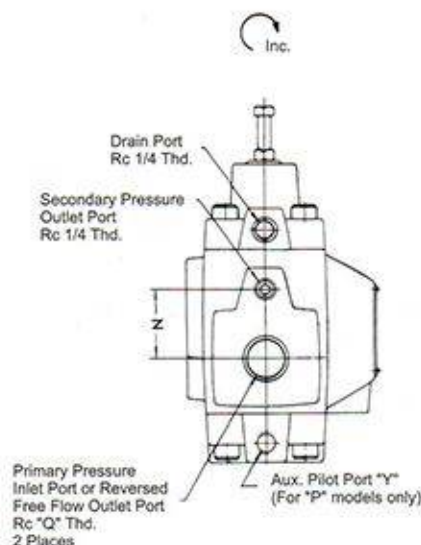
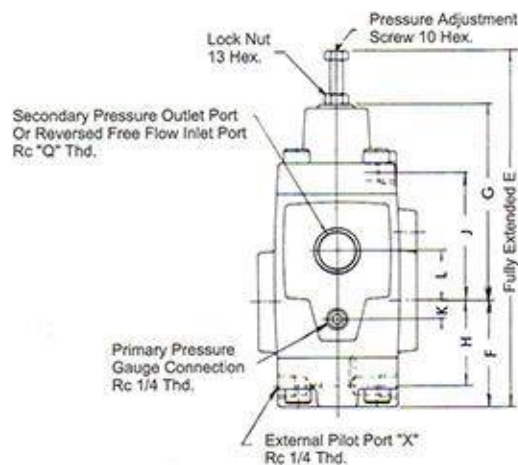
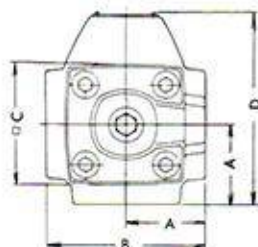
Type 4: Unloading Valve
(External Pilot, Internal Drain)



HC Type Pressure Control Valves Max. Pressure 21 MPa

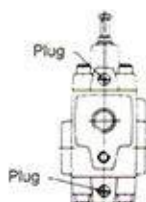
HCT-03, 06, 10

Type 3: Sequence and Check Valve
(External Pilot, External Drain)

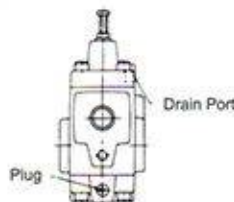


Model No.	A	B	C	D	E	F	G	H	J	K	L	N	Q
HCT-03	41	82	60	96	191	57	106	43	70	0	28	28	3/8
HCT-06	48	96	73	116	221	64.5	123.5	50.5	80.5	9	33	42	3/4
HCT-10	66	132	86	152	272	84	149	66	98	12	40	52	1-1/4

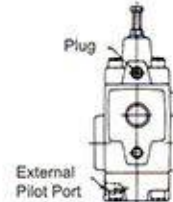
Type 1: Counterbalance Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence and Check Valve
(Internal Pilot, External Drain)



Type 4: Counterbalance Valve
(External Pilot, Internal Drain)



HC Type Pressure Control Valves Max. Pressure 21 MPa

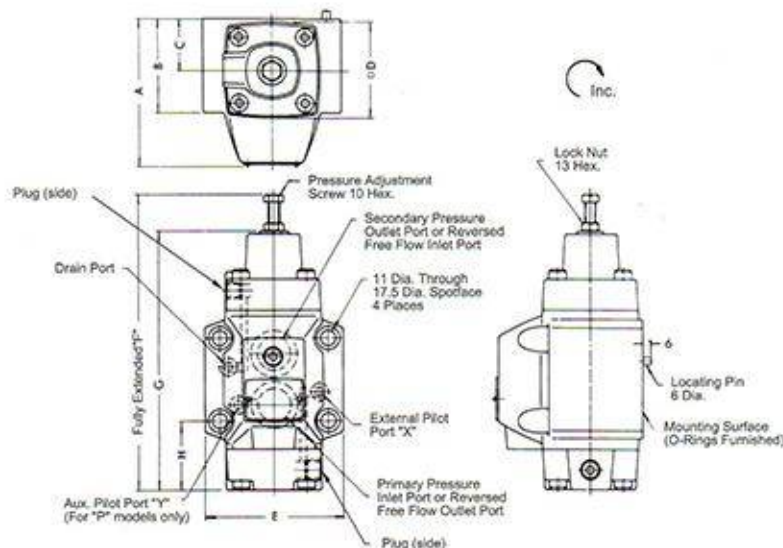
HCG-03, 06

Type 3: Sequence and Check Valve
(External Pilot, External Drain)

Mounting Surface:

HCG-03: ISO 5781-AG-06-2-A-87

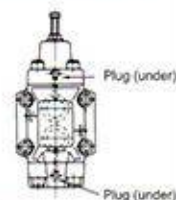
HCG-06: ISO 5781-AH-08-2-A-87



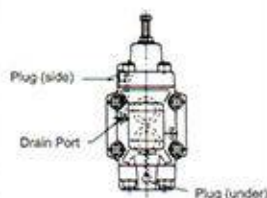
Model No	A	B	C	D	E	F	G	H
HCG-03	90	59	35	60	89	191	163	49.6
HCG-06	108	69	40	73	102	221	188	51

Note: For dimensions of mounting surface, please refer to HGM-03 & 06 type sub-plate (page 66).

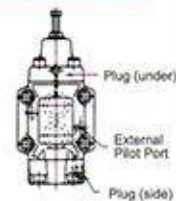
Type 1: Counterbalance Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence and Check Valve
(Internal Pilot, External Drain)



Type 4: Counterbalance Valve
(External Pilot, Internal Drain)

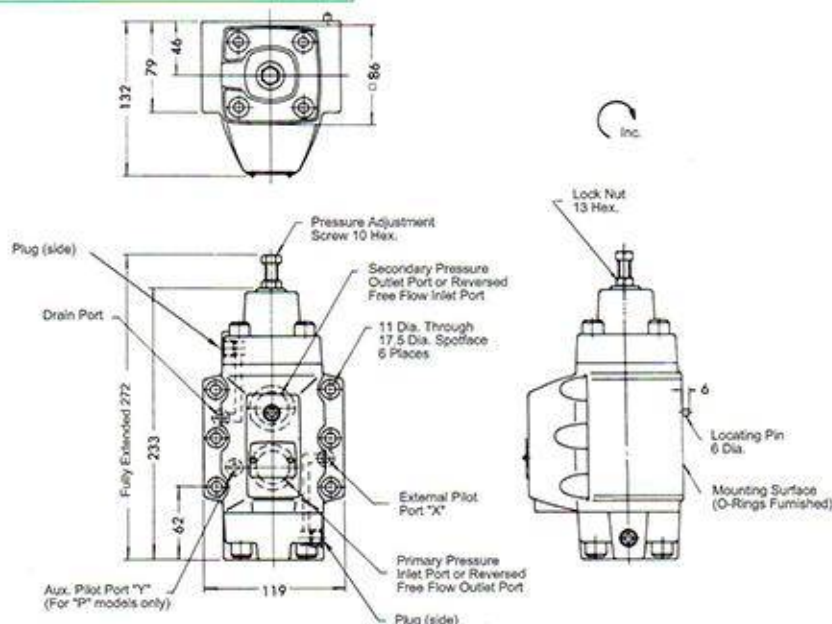


HCG-10

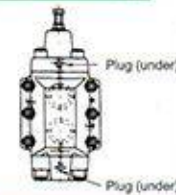
Type 3: Sequence and Check Valve
(External Pilot, External Drain)

Mounting Surface: ISO 5781-AJ-10-2-A-87

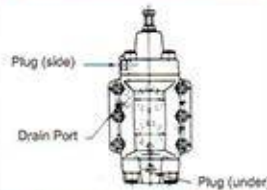
Note: For dimensions of mounting surface, please refer to HGM-10 type sub-plate (page 66).



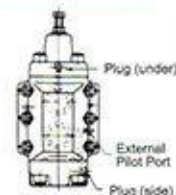
Type 1: Counterbalance Valve
(Internal Pilot, Internal Drain)



Type 2: Sequence and Check Valve
(Internal Pilot, External Drain)



Type 4: Counterbalance Valve
(External Pilot, Internal Drain)

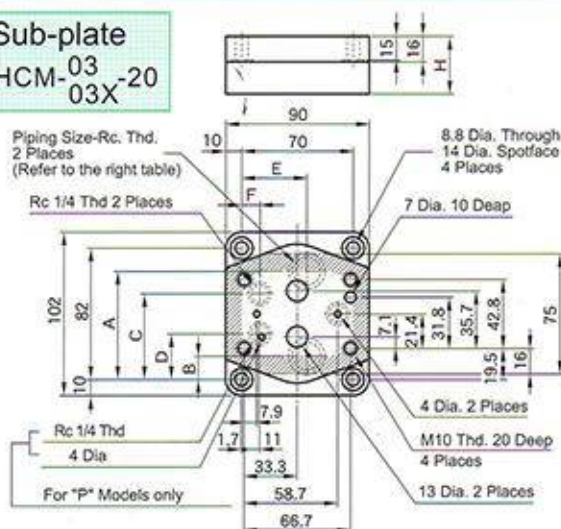


B

H Type Pressure Control Valves HC Type Pressure Control Valves

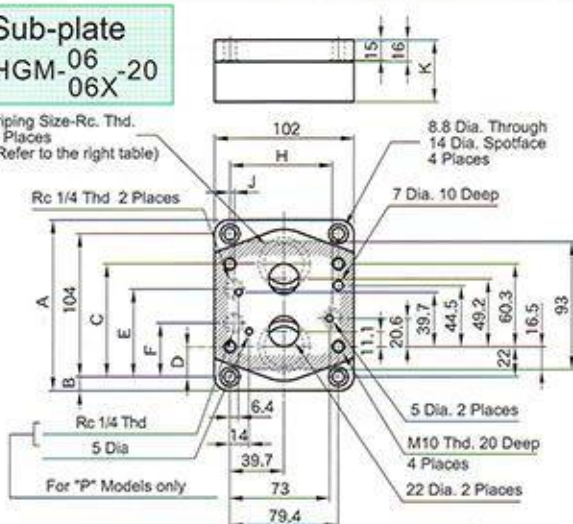
Max. Pressure 21 MPa

Sub-plate
HCM-03
03X-20



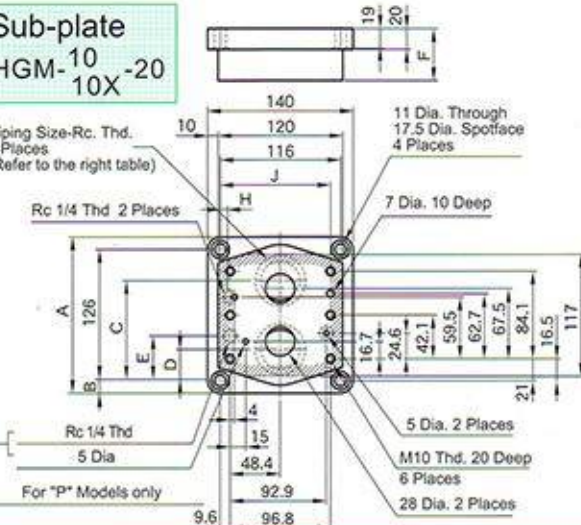
Sub-plate Model No.	Piping Size Rc	A	B	C	D	E	F	G
HGM-03-20	3/8	61	21	40.9	-	35	9.6	32
HGM-03X-20	1/2							
HGM-03-P-20	3/8	69.5	12.5	53.5	28.5	35	11.5	36
HGM-03X-P-20	1/2	67.5	14.5			41		

Sub-plate
HGM-06
06X-20



Sub-plate Model No.	Piping Size Rc	A	B	C	D	E	F	G	H	J
HGM-06-20	3/4	124	10	77	27	61.7	-	73	6.4	36
HGM-06X-20	1	136	16	82.3	22	61.7	-	75	6.4	45
HGM-06-P-20	3/4	124	10	77	27	64	39	73	3	36
HGM-06X-P-20	1	136	16	82.3	22	64	39	75	3	45

Sub-plate
HGM-10
10X-20



Sub-plate Model No.	Piping Size Rc	A	B	C	D	E	F	H	J
HGM-10-20	1-1/4	150	12	96	30	-	45	13.6	102.5
HGM-10X-20	1-1/2	177	25.5	104	22	-	50	13.6	102.5
HGM-10-P-20	1-1/4	150	12	96	30	43	45	9.6	102.5
HGM-10X-P-20	1-1/2	177	25.5	104	22	43	50	9.6	106

Pressure Reducing Valves Pressure Reducing & Check Valves

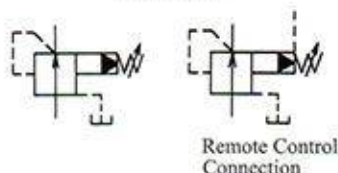
Max. Pressure 21 MPa



RG Type

Graphic Symbol

RT, RG



- These valves are used to limit the pressure in a part of the circuit to something lower than that required in the main circuit. The valves may be controlled by pilot pressure from a remote control port.
- They are available with integral check valves for use when free reverse flow from the secondary port to the primary port is required.

Specifications

Valve Size	Model No.	Setting Pressure MPa	Max. Flow L/min *1	Mass kg
3/8	RT-03-22	0.7 ~ 1.0	40	4.3
	RG-03-22			4.5
	RCT-03-22	1.0 ~ 20.5	50	4.8
	RCG-03-22			5.4
3/4	RT-06-22	0.7 ~ 1.0	50	6.9
	RG-06-22			6.8
	RCT-06-22	1.0 ~ 1.5	100	7.8
	RCG-06-22			8.1
1 1/4	RT-10-22 *2	0.7 ~ 1.0	130	12.0
	RG-10-22 *2			11.0
	RCT-10-22 *2	1.5 ~ 10.5	220	13.8
	RCG-10-22 *2			13.8

*1. The Max. flow rates are those shown at the primary pressure of 21MPa (210kgf/cm²)

*2. Products are made by Yuken Kogyo. If you have any inquiry, please contact our sales engineers.

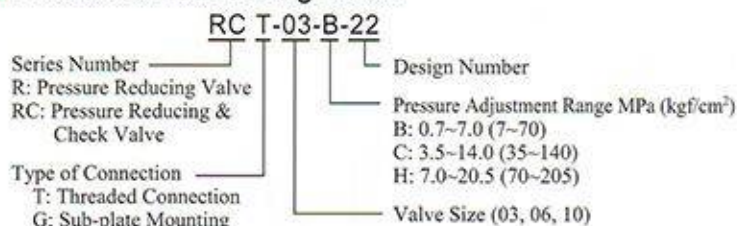
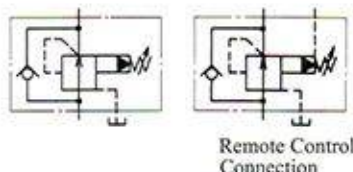
Model Number Designation



RCG Type

Graphic Symbol

RCT, RCG



Mounting Bolts (Attachment)

Model No.	Socket Head Cap Screw	Qty	Tightening Torque N·m
RG-03	M10 x 50 Lg	4	60~74
RCG-03	M10 x 70 Lg	4	
RG-06	M10 x 50 Lg	4	
RCG-06	M10 x 80 Lg	4	
RG-10	M10 x 50 Lg	6	
RCG-10	M10 x 90 Lg	6	

Sub-Plate

Valve Model No.	Sub-plate Model No.	Piping Size Rc	Mass kg
RG -03	HGM-03-20	3/8	1.6
	HGM-03X-20	1/2	
RG -06	HGM-06-20	3/4	2.4
	HGM-06X-20	1	
RG -10	HGM-10-20	1-1/4	4.8
	HGM-10X-20	1-1/2	

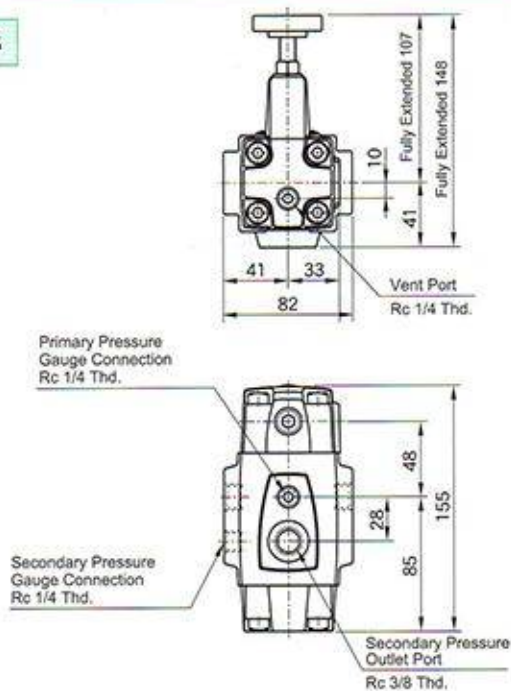
*1. The sub-plates are available. Please specify sub-plate model from the table above. Please refer to page 66 for dimension details.

*2. Note: The sub-plates are the same as those for H and HC type pressure controlled valve. With the pressure reducing valve, the sub-plate is used in a position 180° turned (upside down) from the normal position.

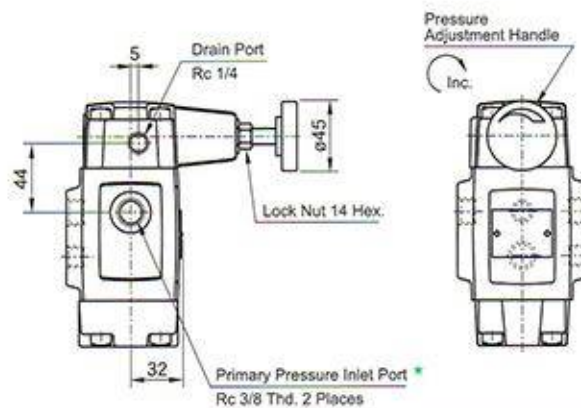
Pressure Reducing Valves

Max. Pressure 21 MPa

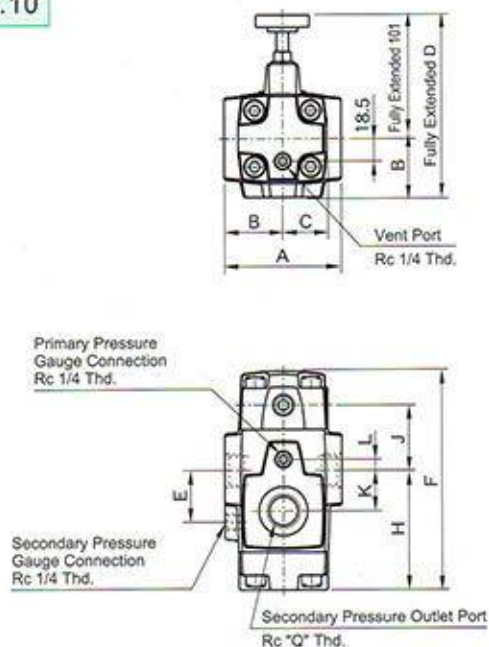
RT-03



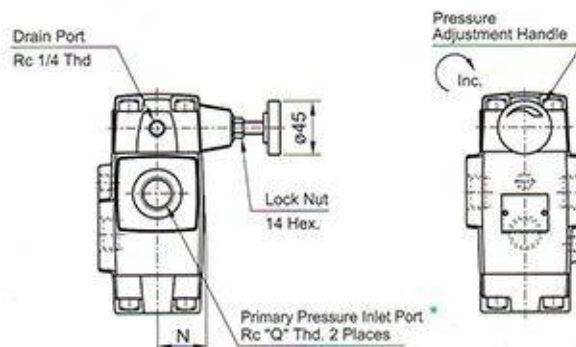
★ There are two Primary Pressure Ports. One can be used as an inlet port and the other as an outlet port with threaded connection. You can also block one port as your requirement.



RT-06.10



★ There are two Primary Pressure Ports. One can be used as an inlet port and the other as an outlet port with threaded connection. You can also block one port as your requirement.



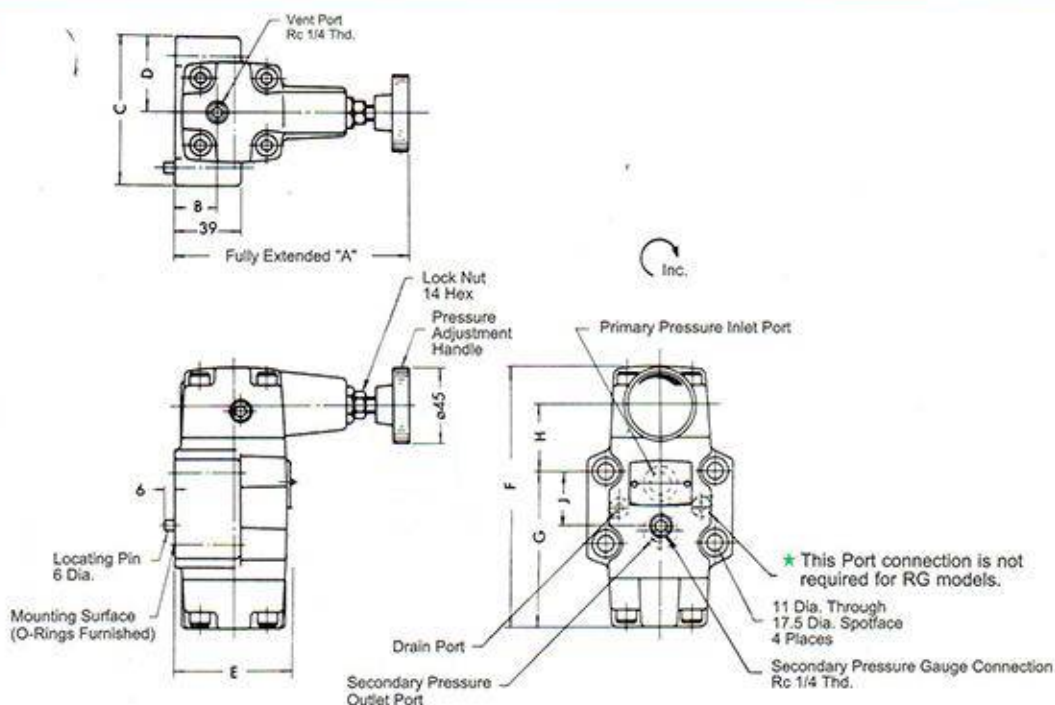
Model No.	A	B	C	D	E	F	H	J	K	L	N	Q
RT-06	96	48	36.5	149	42	179	97.5	53.5	33	9	39	3/4
RT-10	132	66	43	167	52	216	124	64	40	12	46	1-1/4

Pressure Reducing Valves

Max. Pressure 21 MPa

B

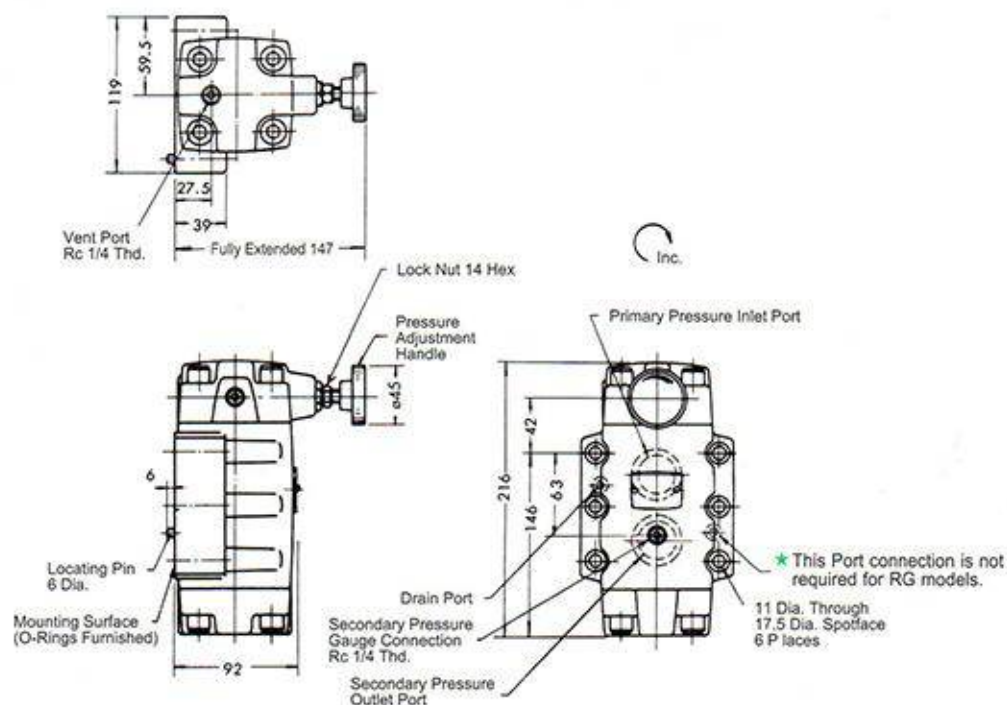
RG-03,06



Model No.	A	B	C	D	E	F	G	H	J
RG-03	142	25	89	44.5	67	155.5	92.4	40.6	34.9
RG-06	141	21.5	102	51	79	179	111	40	48

Note: For dimensions of mounting surface, please refer to HGM-03 & 06 type sub-plate (page 66).

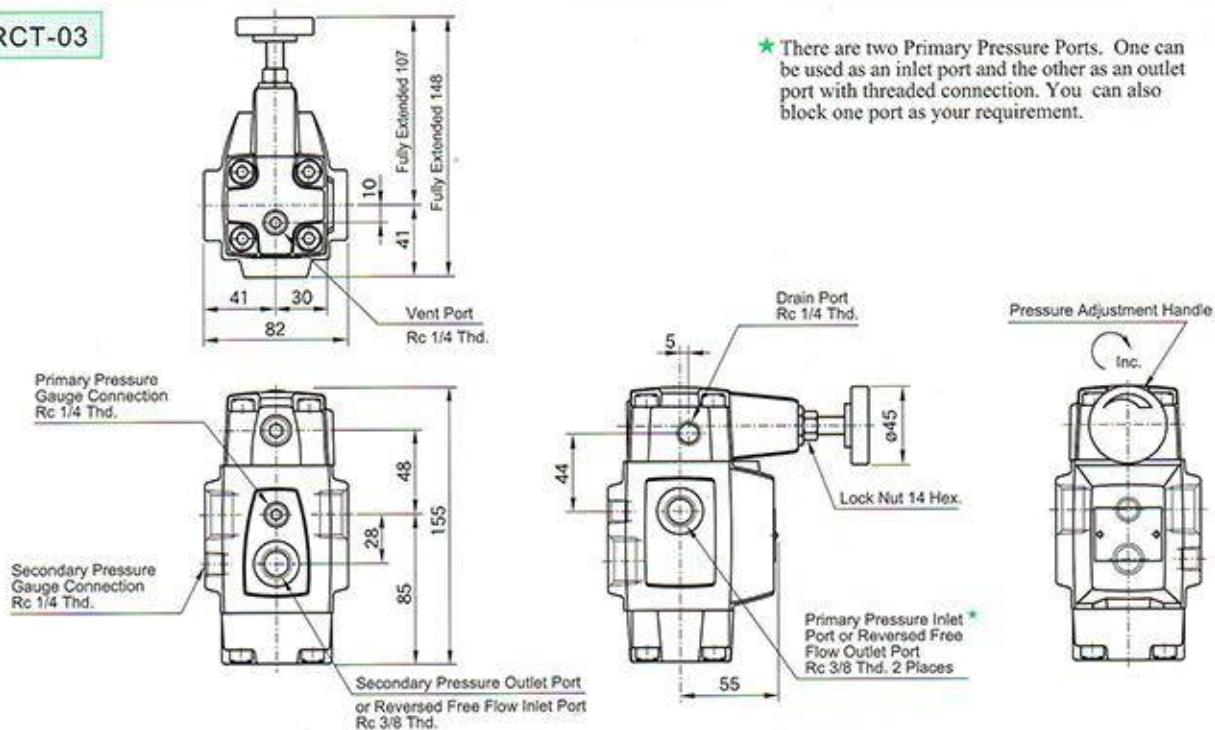
RG-10



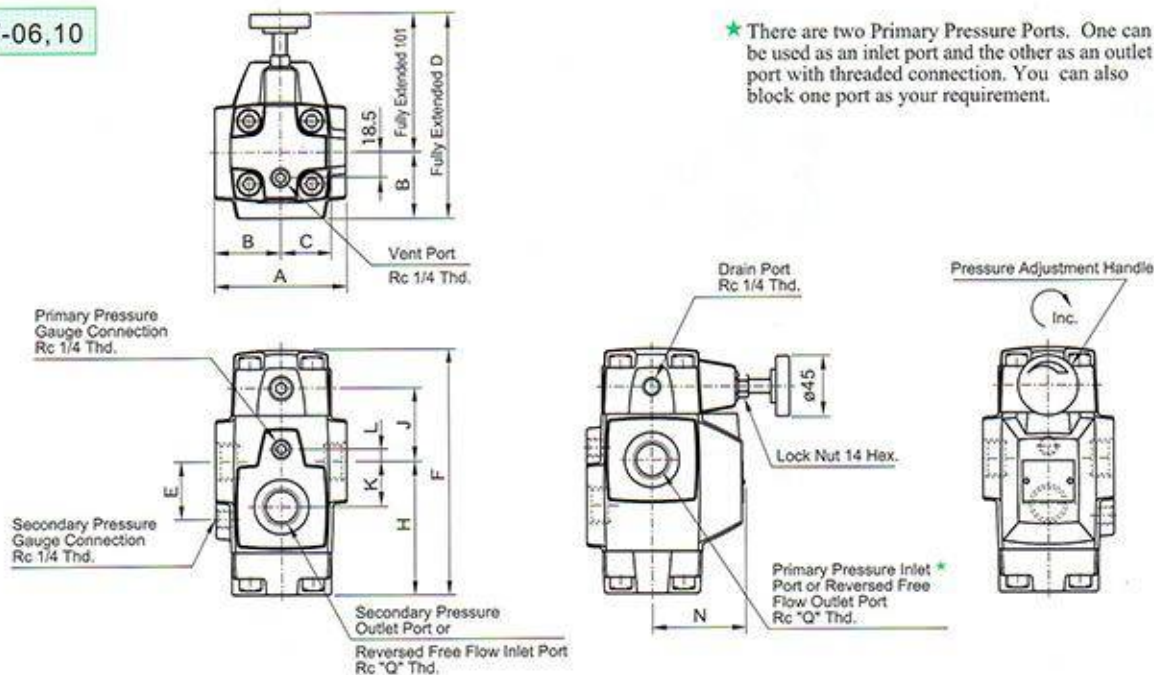
Note: For dimensions of mounting surface, please refer to HGM-10 type sub-plate (page 66).

Pressure Reducing & Check Valves Max. Pressure 21 MPa

RCT-03



RCT-06,10

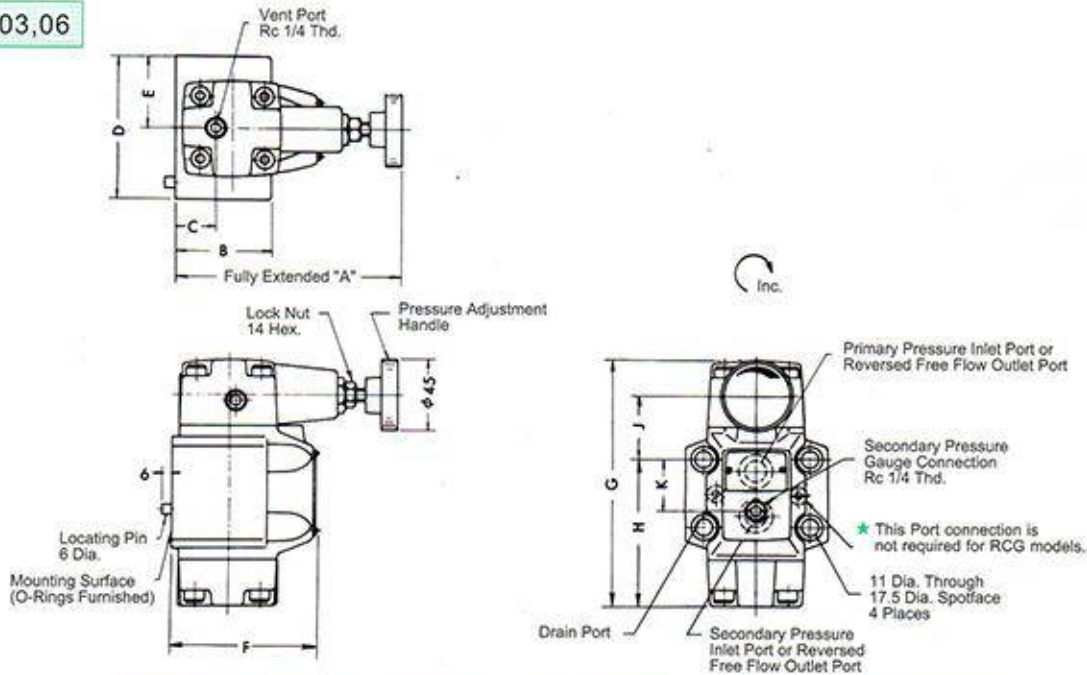


Model No.	A	B	C	D	E	F	H	J	K	L	N	Q
RCT-06	96	48	36.5	149	42	179	97.5	53.5	33	9	68	3/4
RCT-10	132	66	43	167	52	216	124	64	40	12	86	1-1/4

Pressure Reducing & Check Valves Max. Pressure 21 MPa

B

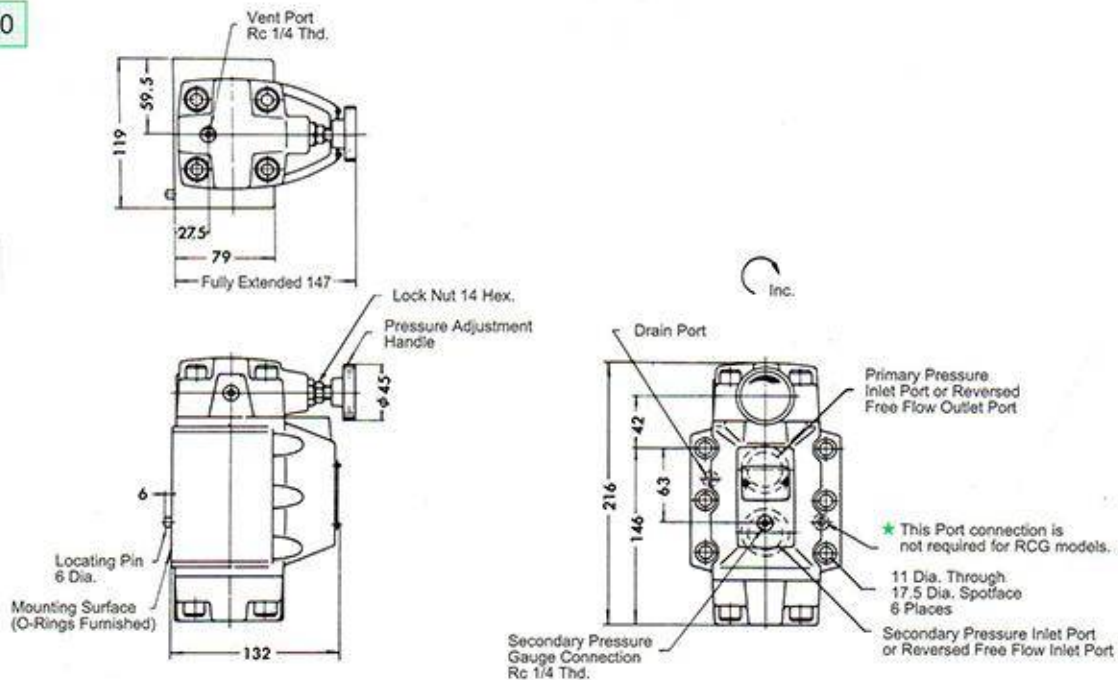
RCG-03,06



Model No.	A	B	C	D	E	F	G	H	J	K
RCG-03	142	59	25	89	44.5	90	155	92.4	40.6	34.9
RCG-06	141	69	21.5	102	51	108	179	111	40	48

Note: For dimensions of mounting surface, please refer to HGM-03 & 06 type sub-plate (page 66).

RCG-10



Note: For dimensions of mounting surface, please refer to HGM-10 type sub-plate (page 66).

Unloading Relief Valves

Max. Pressure 21 MPa



These valves are used in an accumulator circuit or high-low pump circuit to unload the pump by diverting the pump flow into the reservoir at low pressure.

Specifications

Valve Size	Model No.	Pres. Adj. Range MPa (kgf/cm ²)	Max. Flow L/min	Mass kg
3/4	BUCG-06-※-※-※	B:2.5~7.0 (25~70) C:3.5~14.0 (35~140) H:7.0~21.0 (70~210)	125	12

Design Numbers

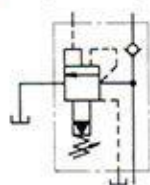
Design No.	Pilot		Drain	
	Int.	Ext.	Int.	Ext.
30		○		○
3001	○		○	
3002	○			○
3003		○	○	

※ The adjustment handle of the internal control pressure is mounted vertically on the surface.

Mounting bolt(Attachment)

Socket Head Cap Screw	M16 x 55 Lg (2Pcs)
	M16 x 110 Lg (2Pcs)
	M16 x 130 Lg (2Pcs)
Tightening Torque N·m	253~310 N·m

Graphic Symbol

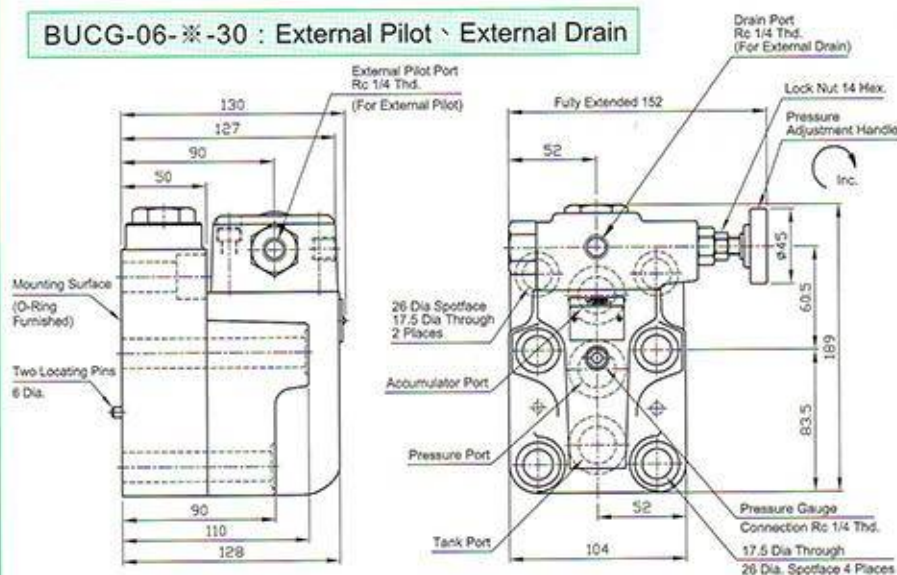


Model Number Designation

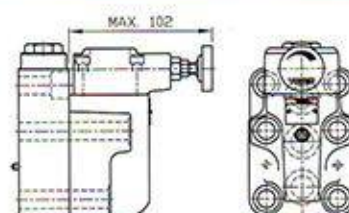
BUCG-06-B V-※

Series Number (Sub-plate mounting)
Valve Size
Pressure Adjustment Range MPa (kgf/cm²) B, C, H
Design Number (see the table above)
None: Normal
V: High Venting Pressure Type (Options)※
※ Use high-venting pressure type to reduce response time from unloading to onloading.

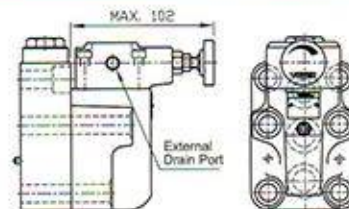
BUCG-06-※-30 : External Pilot, External Drain



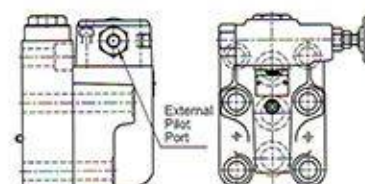
BUCG-06-※-3001 : Internal Pilot, Internal Drain



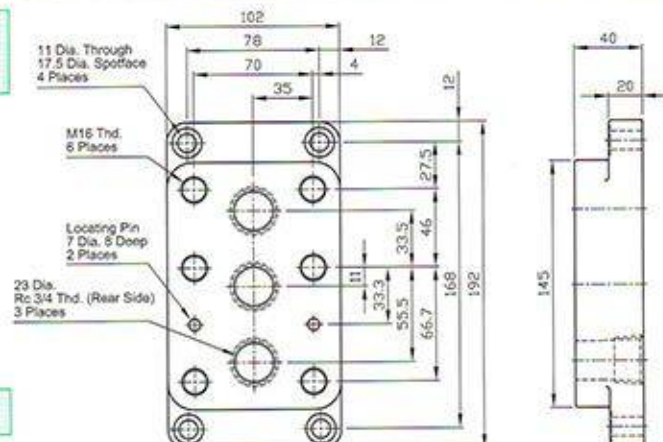
BUCG-06-※-3002 : Internal Pilot, External Drain



BUCG-06-※-3003 : External Pilot, Internal Drain



Sub-plate BUCGM-06



Mass 4.4kg

Balancing Valves

Max. Pressure 14 MPa

B

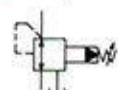


This valve is designed for hydraulic balance circuit. It is a combined pressure control valve including reducing and relief function. It is available for the weight division of the main headstock of CNC machine tool; also cut down the space and the weight of the machine.

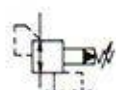
Specifications

Model Numbers	Max. Operating Pressure MPa (kgf/cm ²)	Pres. Adj. Range MPa (kgf/cm ²)	Max. Flow L/min	Relieving Flow L/min	Drain Flow L/min	Mass kg
RBG	14 (143)	0.6~13.5 (6.1~138)	50	50	0.6~1	4.2

Graphic Symbols



Internal drain



External drain

Attentions

- If the internal volume of the remote control piping is too big, it will result in vibration easily. Please make the internal diameter and length of the piping as small as possible.
- The drain piping should not be connected to other piping and should be connected to the tank directly.

Model Number Designation

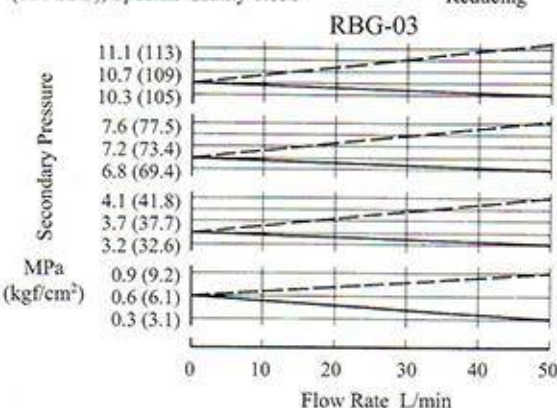
RB	G	-03	-R	-10
Series Number	Type of Mounting	Valve Size	Drain Type	Design Number
RB : Balancing Valves	G: Sub-plate Mounting	03 : Size 10	None: Internal Drain R: External Drain	10

Mounting Bolts

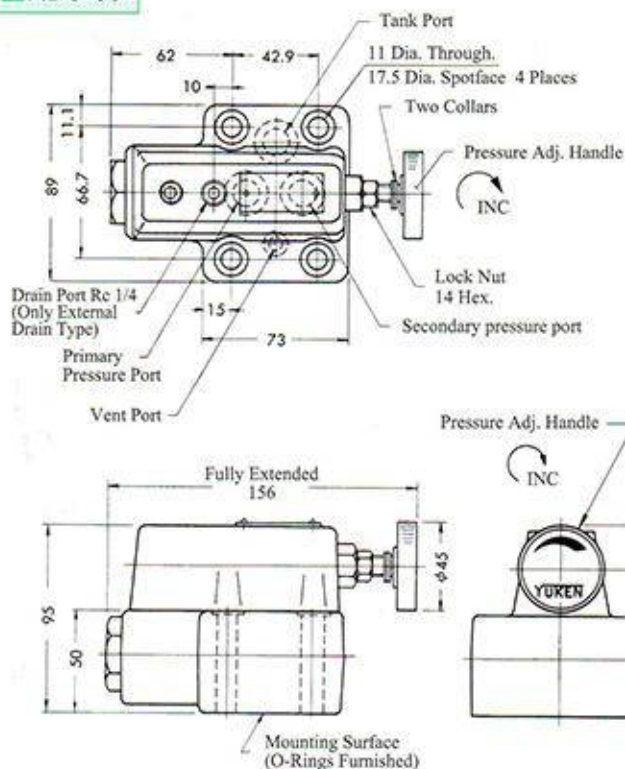
Valve Model Numbers	Socket Head Cap Screw (4 pcs)
RBG-03	M10 x 65 Lg 4 pcs Tightening torque: 60~74 N·m

Nominal Override Characteristics

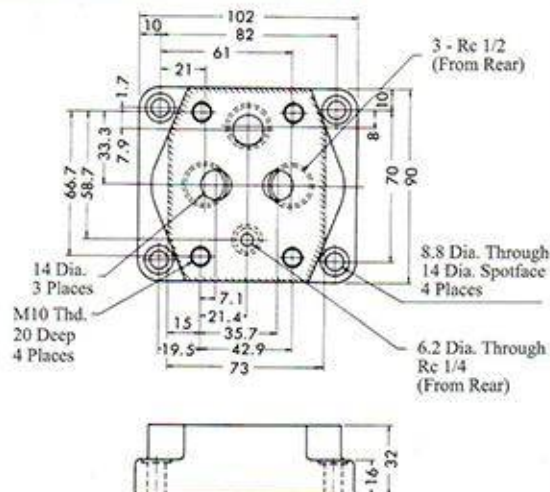
Hydraulic Fluid, Viscosity 35mm²/s (cSt) (164 SSU), Specific Gravity 0.850



RBG-03



Sub-plate: RBGM - 03X - 10



★ Pressure adjustment is controlled by the collar. If it can not meet the working pressure, please take one piece collar out. One piece of collar equals to 10 MPa (102 kgf/cm²).

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