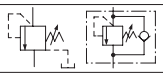
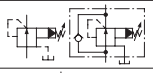
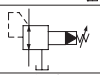
C

PRESSURE CONTROLS

Valve Type	Graphic Symbols	Maximum Operating Pressure MPa (PSI)	Maximum Flow U.S.GPM / L/min	Page
Remote Cont. Relief Valves		25 (3630)	DT DG 01	203
Direct Type Relief Valves		21 (3050)	DT/DG 02	206
Pilot Operated Relief Valves		25 (3630)	BT/BG 03 06	209
Low Noise Type Pilot Operated Relief Valves		25 (3630)	S-BG 03 06 10	216
Sol. Cont. Relief Valves		25 (3630)	BST/BSG 03 06 10	220
Low Noise Type Sol. Cont. Relief Valves		25 (3630)	S-BSG 03 06 10	230
H TypePress. Cont. Valves / HC TypePress. Cont. Valves		21 (3050)	HT/HG HCT/HCG 03 06 10 HF HCF 16	237
Press. Reducing Valves / Press. Reducing & Check Valves		21 (3050)	RT/RG RCT/RCG 03 06 10 RF RCF 16	251
Pres. Reducing & Relieving Valves		03 : 14(2030) 06 : 25(3630)	RBG 03 06	260
Unloading Relief Valves		21 (3050)	BUCG 06 10	265
Brake Valves		25 (3630)	UBGR 03 06 10	271
Semiconductor Type Pressure Switches		35 (5080)	JT-02	272
Pressure Monitoring System		20(2900) 35(5080)		274

Hydraulic Fluids

Fluid Types

Any type of hydraulic fluids listed in the table below can be used.

Petroleum base oils	Use fluids equivalent to ISO VG 32 or VG 46.
Synthetic fluids	Use phosphate ester or polyol ester fluid. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used.
Water containing fluids	Use water-glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your Yuken representatives in advance.

Recommended Fluid Viscosity and Temperature

Use under conditions where the viscosity and temperature of the hydraulic fluid remain in the ranges indicated in the following table.

Name	Viscosity	Temperature
Remote Control Relief Valves Direct Type Relief Valves Pilot Operated Relief Valves Low Noise Type Pilot Operated Relief Valves Solenoid Controlled Relief Valves ★ Low Noise Type Solenoid Controlled Relief Valves ★ H Type Pressure Control Valves HC Type Pressure Control Valves Pressure Reducing Valves Pressure Reducing and Check Valves Pressure Reducing and Relieving Valves Unloading Relief Valves Brake Valves	15 - 400 mm^2/s (88 - 1800 SSU)	-15 - +70°C (5 - 158°F)
Semiconductor Type Pressure Switches	15 - 400 mm^2/s (88 - 1800 SSU)	-20 - +70°C (- 4 - 158°F)

★ If the valve is provided with a vent ristrictor (ex. : A-BSG-03), the viscosity range should be 15 - 200 mm^2/s (80 - 900 SSU).

Control of Contamination

Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valves. Please maintain the degree of contamination within NAS 1638-Grade 12. Use 25 µm or finer line filter.

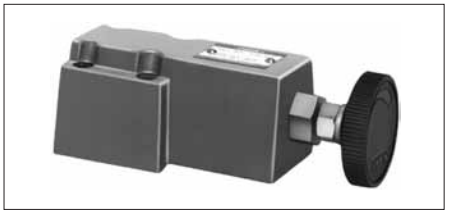
Interchangeability in Installation between Current and New Design

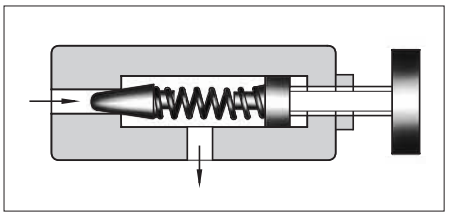
Model change has been made on the following products.
The difference between current and new design has been described on the paragraph of “Interchangeability in Installation between Current and New Design”. Refer to relevant pages on each series.

Name	Model Numbers		Mounting Interchange-ability	Main Changes	Page
	Current	New			
Solenoid Controlled Relief Valve	BS∗-03, -47∗	BS∗-03, -48∗	Yes	Pilot valves (DSG-01) have been changed in the design numbers 70.	222
	BS∗-06, -47∗	BS∗-06, -48∗			
	BS∗-10, -47∗	BS∗-10, -48∗			
Low Noise Type Solenoid Controlled Relief Valve	S-BSG-03, -52∗	S-BSG-03, -53∗	Yes		231
	S-BSG-06, -52∗	S-BSG-06, -53∗			
	S-BSG-10, -52∗	S-BSG-10, -53∗			

Remote Control Relief Valves

This valve is used as a remote control valve for pilot operated type pressure control valves.





Specifications

Model Numbers		Max. Operating Pres. MPa (PSI)	Approx. Mass kg (lbs.)	
Threaded Connection	Sub-plate Mounting		DT type	DG type
DT-01-22*	DG-01-22*	25 (3630)	1.6 (3.5)	1.4 (3.1)

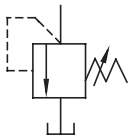
Model Number Designation

F-	D	T	-01	-22	*
Special Seals	Series Number	Type of Mounting	Valve Size	Design Number	Design Standards
F: Special Seals for Phosphate Ester Type Fluids (Omit if not required)	**D:** Remote Control Relief Valves	**T:** Threaded Connection	**01**	**22**	**None:** Japanese Std. "JIS" **80:** European Design Std. **90:** N. American Design Std.
		G: Sub-plate Mounting		**22**	**None:** Japanese Std. "JIS" and European Design Std. **90:** N. American Design Std.

Instructions

- To adjust the pressure, loosen the lock nut and turn the handle slowly clockwise for higher pressures or anti-clockwise for lower pressures. After adjustments, do not forget to tighten the lock nut.
- Piping of the tank line should not be connected to any tank line of the other valves, but connected directly to the reservoir.
- Pressure is limited by collars fitted. If a working pressure cannot be attained, remove some collars. One collar is equivalent to 10 MPa (1450 PSI).
- If the internal volume of the vent line is too large, chattering is likely to occur.

Graphic Symbol



Attachment

- **Mounting bolts**

Valve Model Numbers	Socket Head Cap Screw		Qty.
	Japanese Std. "JIS" and European Design Std.	N. American Design Std.	
DG-01	M5 × 45 Lg.	No.10-24 UNC × 1-3/4 Lg.	4

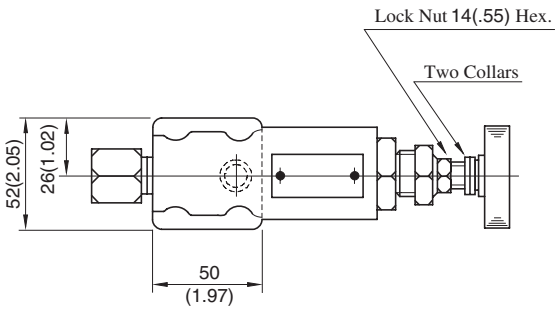
Sub-plate

Valve Model Numbers	Japanese Standard "JIS"		European Design Standard		N. American Design Standard		Approx. Mass kg (lbs.)
	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	
DG-01	DGM-02-20	Rc 1/4	DGM-02-2080	1/4 BSP.F	DGM-02-2090	1/4 NPT	0.7 (1.5)

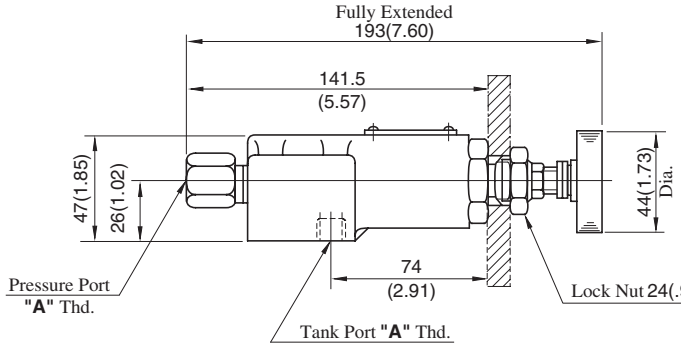
- Sub-plates are available. Specify the sub-plate model number from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

DT-01-22/2280/2290

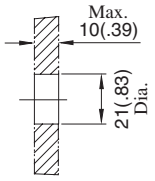
DIMENSIONS IN MILLIMETRES (INCHES)



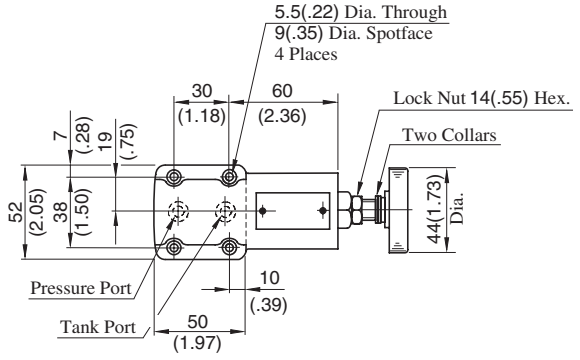
Model Numbers	"A" Thd.
DT-01-22	Rc 1/4
DT-01-2280	1/4 BSP.F
DT-01-2290	1/4 NPT

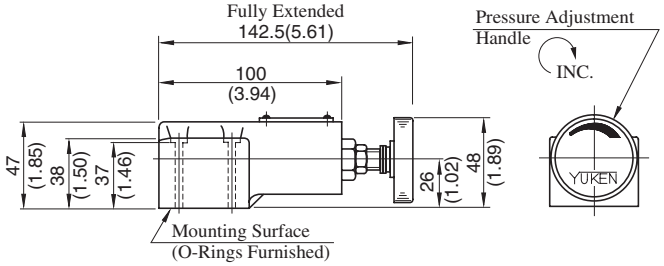


Dimensions of
The Panel Mounting Hole

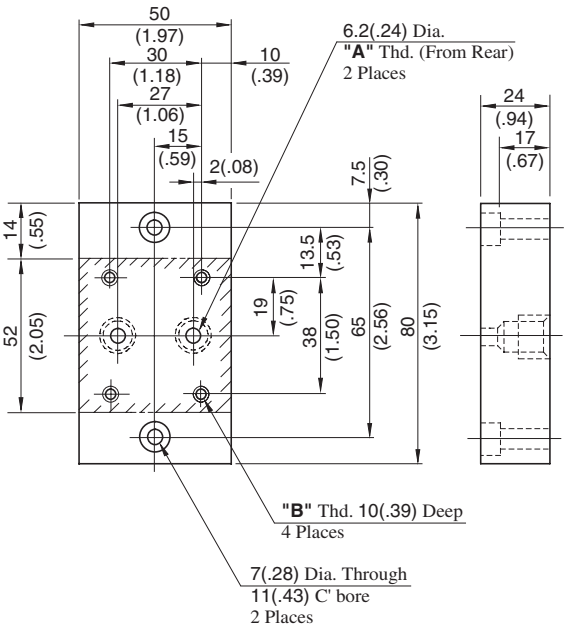


DG-01-22/2290





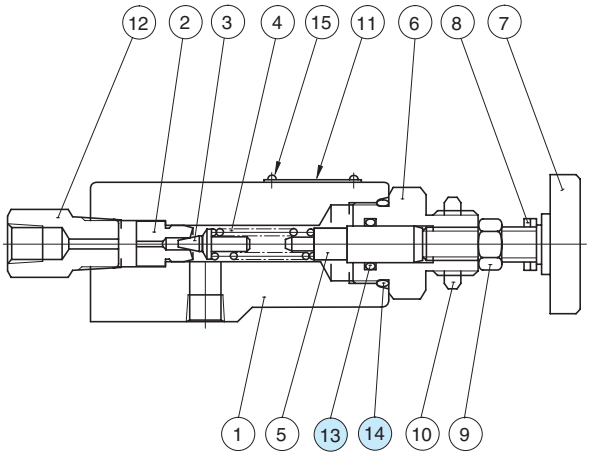
Sub-plate: DGM-02-20/2080/2090



Model Numbers	"A" Thd.	"B" Thd.
DGM-02-20	Rc 1/4	M5
DGM-02-2080	1/4 BSP.F	
DGM-02-2090	1/4 NPT	No. 10-24 UNC

Spare Parts List

DT-01-22/2280/2290



List of Seals

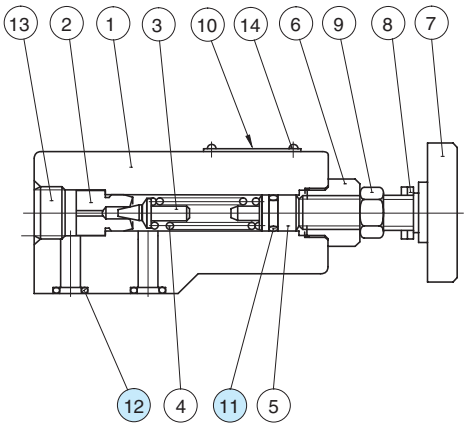
Item	Name of Parts	Part Numbers	Qty.
13	O-Ring	SO-NA-P12	1
14	O-Ring	SO-NB-P22.4	1

Note: When ordering the seals, please specify the seal kit number from the table below.

List of Seal Kits

Valve Model Numbers	Seal Kit Numbers
DT-01	KS-DT-01-22
DG-01	KS-DG-01-22

DG-01-22/2290



List of Seals

Item	Name of Parts	Part Numbers	Qty.
11	O-Ring	SO-NA-P9	1
12	O-Ring	SO-NB-P9	2

Note: When ordering the seals, please specify the seal kit number from the table above.