

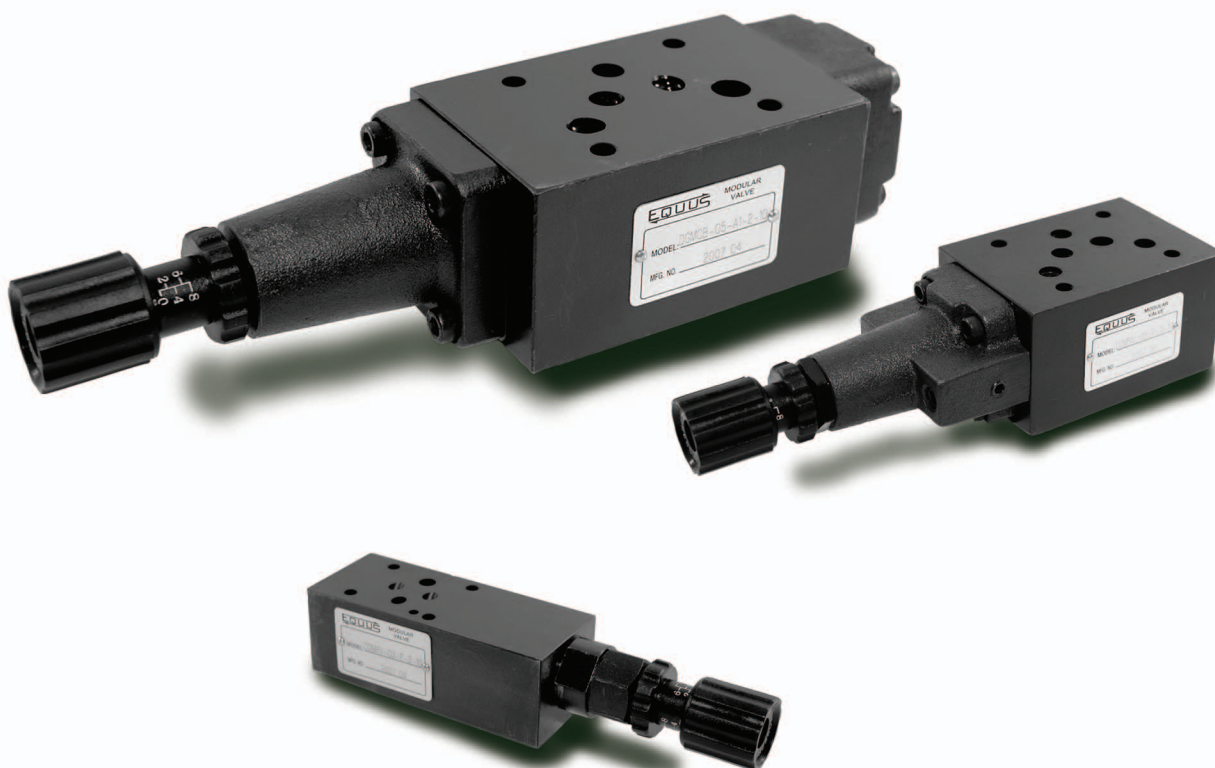
MODULAR VALVE SERIES SANDWICH PLATE DESIGN



CETOP 3 _____ **I-1 - I-44**

CETOP 5 _____ **I-45 - I-48**

CETOP 7 _____ **I-89 - I-111**



Characteristics :

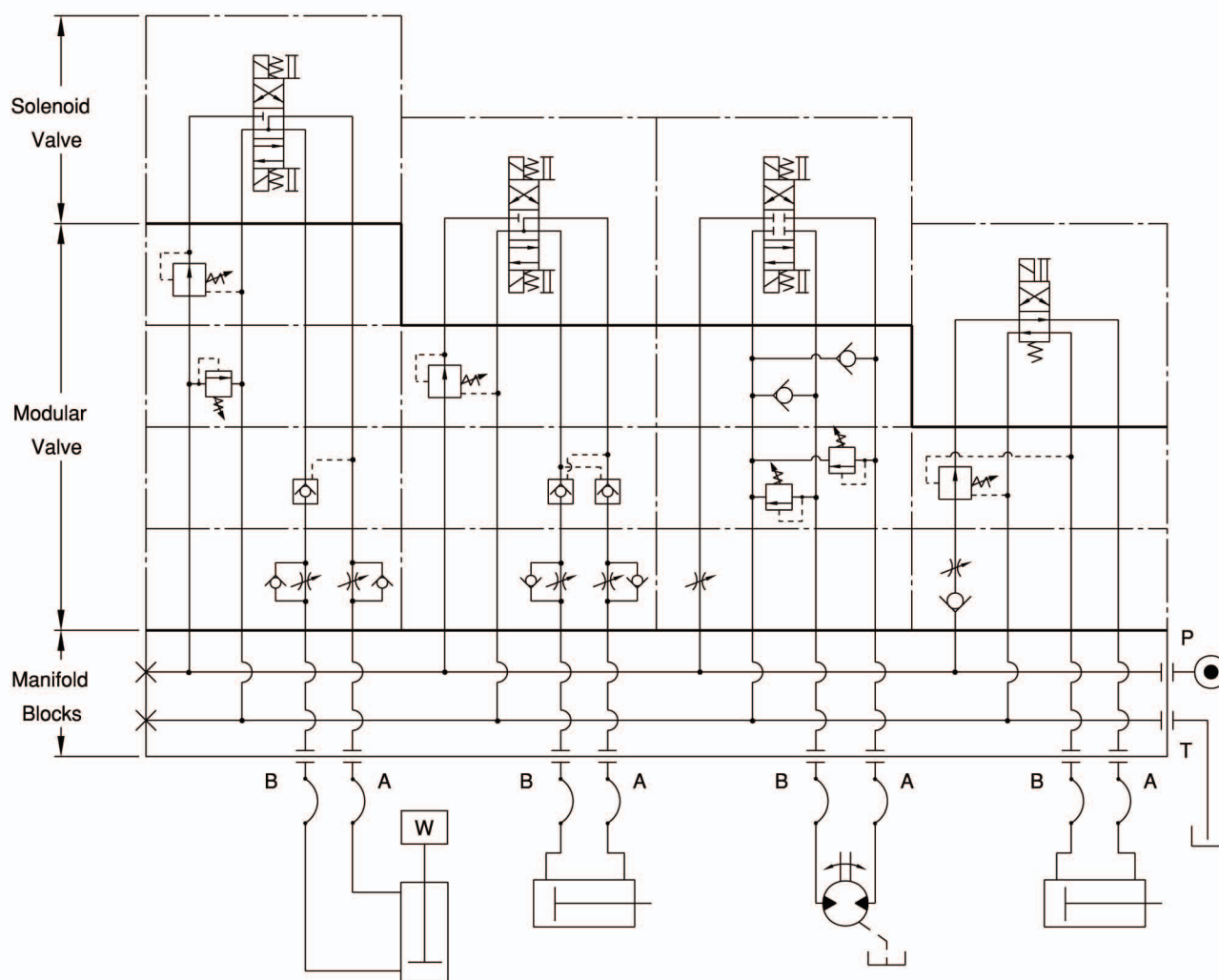
- Highest performance in NG 6.
- Compacting stacking valves.
- Eliminating intervalve piping and fittings.
- Reducing leakage and installation costs.
- Max. Operating Pressure: 32 MPa.
- Max. Flow: 50 ℓ /min.
- Connections to DIN, ISO and CETOP.



03 Size 6

DGM-03
Modular Valve Series

Stacking Example :



PRESSURE BRAKE VALVE SANDWICH PLATE DESIGN

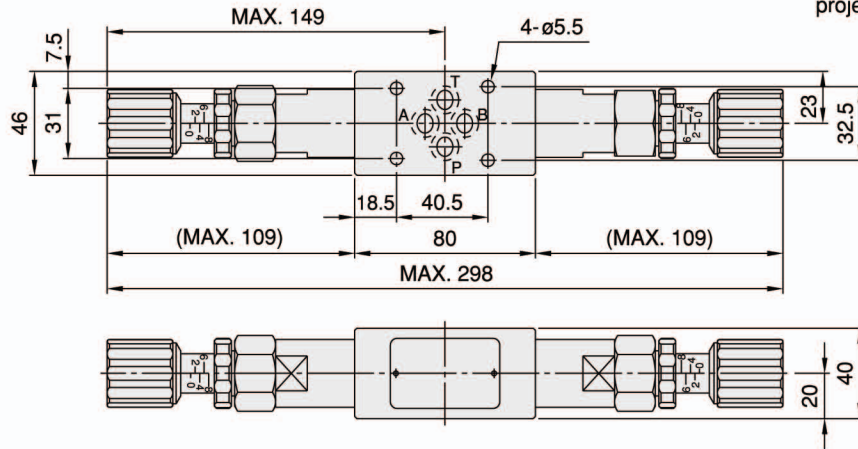


Dimensions :

EDGMBV03 Size 6

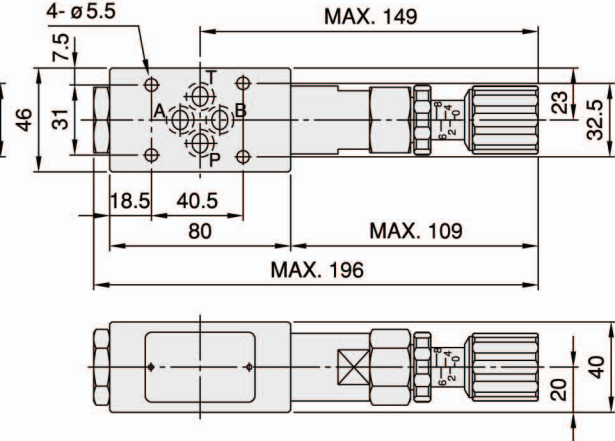
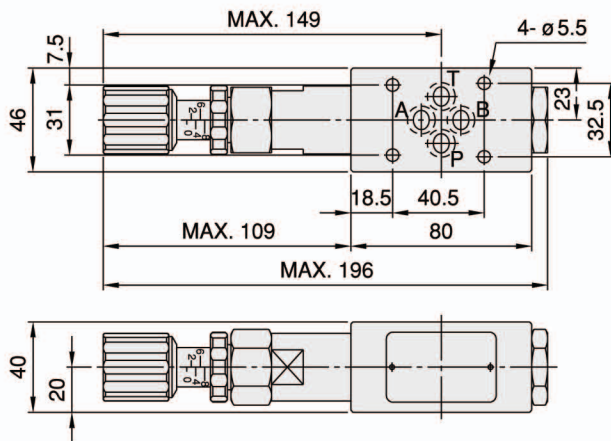
DGMBV-03-W- *-10

3rd angle projection

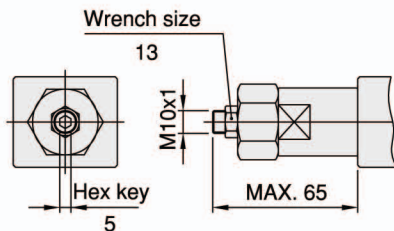


DGMBV-03-A- *-10

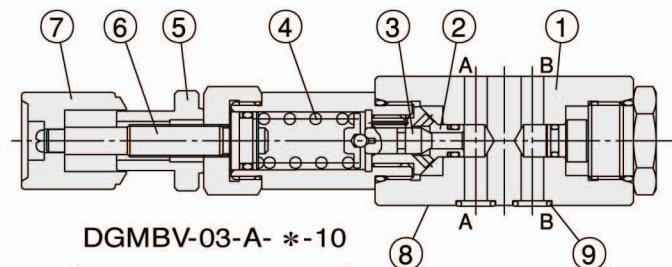
DGMBV-03-B- *-10



DGMBV-03- *- *-20



Cross Section Drawing :



1. Body.
2. Seat.
3. Poppet.
4. Adjustment spring.
5. Locking nut.
6. Setting screw.
7. Adjustment element.
8. Connections to DIN 24340 from A6; valve fixing screws M5 DIN 912-10.9, tightening torque 8~9 Nm.
9. O-ring 1B-P9 for ports A, B, P and T.

DGM-03

COUNTER BALANCE VALVE SANDWICH PLATE DESIGN

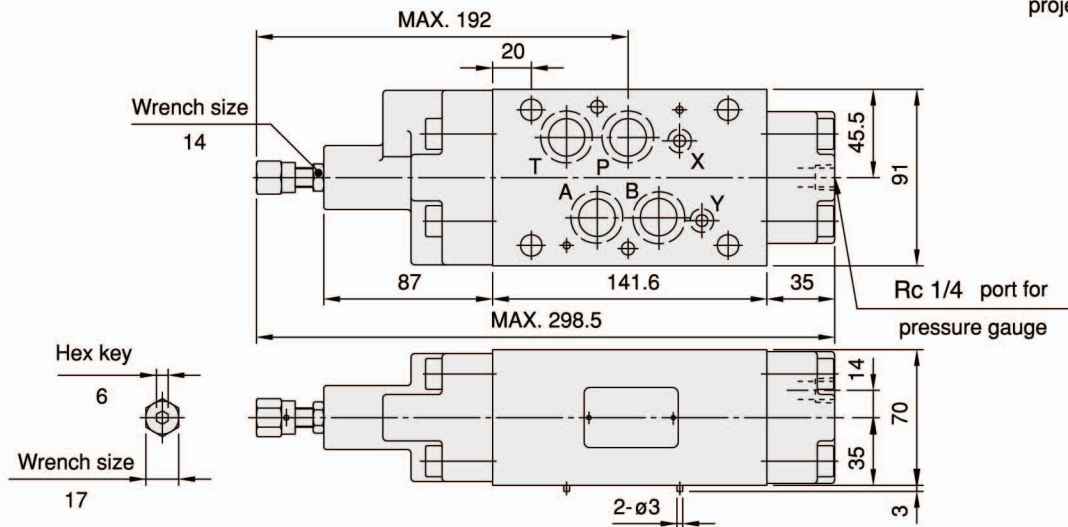
EQUUS

Dimensions :

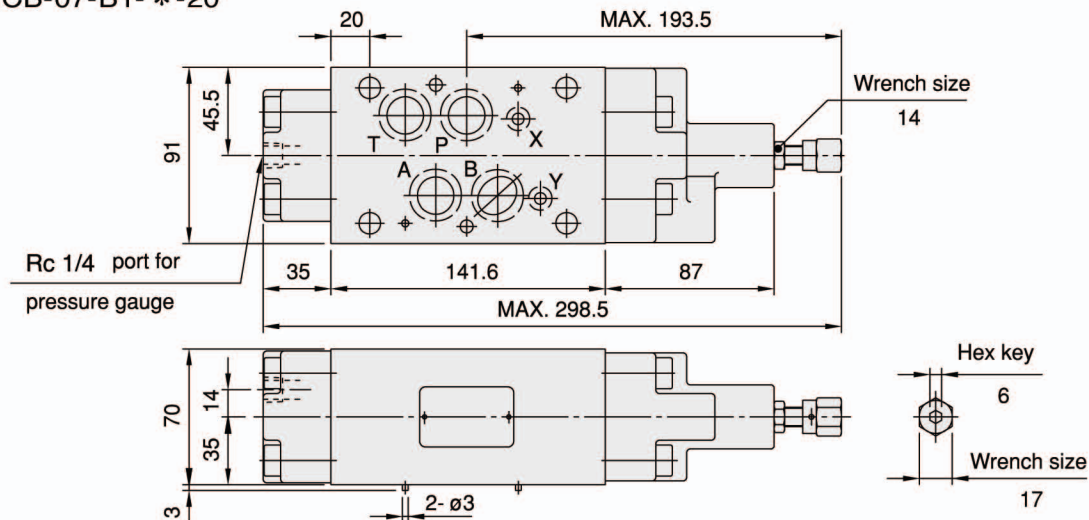
EDGMCB07 Size 16

DGMCB-07-A1- *-20

3rd angle
projection

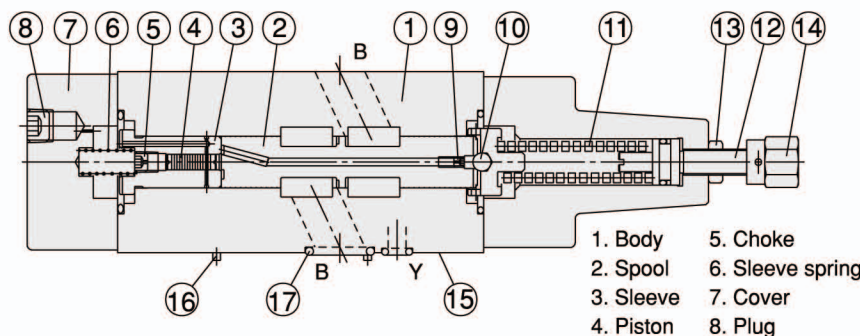


DGMCB-07-B1- *-20



Cross Section Drawing :

DGMCB-07-B1- *-20



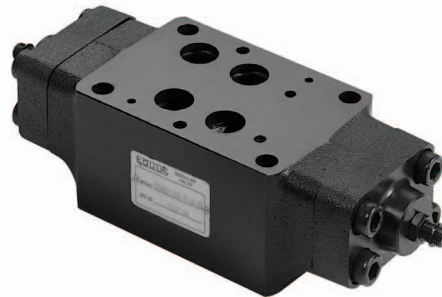
- 9. Choke
- 10. Ball
- 11. Adjustment spring
- 12. Setting screw
- 13. Locking nut
- 14. Adjustment element
- 15. Connections to DIN 24340 from A16;
6 through holes for fixing screws
- 16. 2 locating pins
- 17. O-ring:
Ports A,B,P,T: AS568-118(NBR,Hs90);
Ports X,Y: AS568-013(NBR,Hs90)

DGM-07

Characteristics :

- Highest performance in NG 16.
- Sandwich plate design.
- For limiting the main or pilot fluid flow of 2 actuator connections.
- For meter-in or meter-out control.
- Connections to DIN, ISO and CETOP.

EDGMTC07 Size 16



Specification :

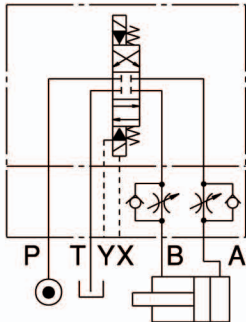
Model: DGMTC-07-W-O-20

Maximum flow	300 ℓ/min {79.3 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Check valve cracking pressure	1.0 bar {14.3 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

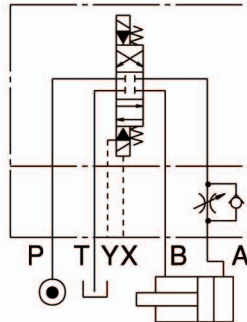
Hydraulic oil		ISO VG 32, 46, 68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AD-07-4-A
Weight	W type	6.9 Kg
	A type	6.7 Kg
	B type	6.7 kg

Hydraulic Configuration :

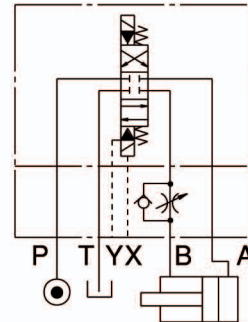
DGMTC-07-W-O-20



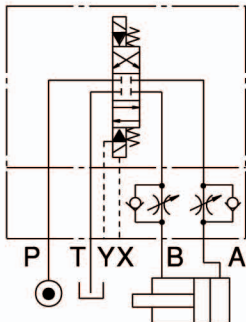
DGMTC-07-A-O-20



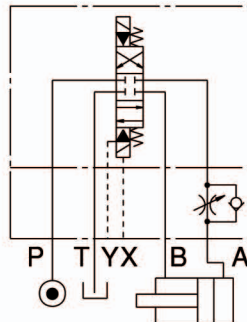
DGMTC-07-B-O-20



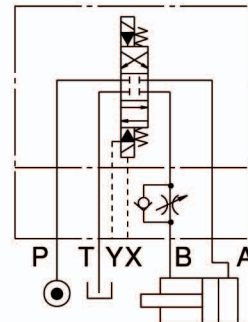
DGMTC-07-W-I-20



DGMTC-07-A-I-20



DGMTC-07-B-I-20



FLOW REGULATOR WITH CHECK VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMTC07 Size 16

DGM TC - 07 - W - 0 - 20 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Flow Regulator with Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.

4

Configuration

- W: double: acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5

Control Way

- O: Metered out, control of flow discharged from the actuator.
- I: Metered in, control of flow entering the actuator.

6

Design Number

- 10: with handle
- 20: without handle

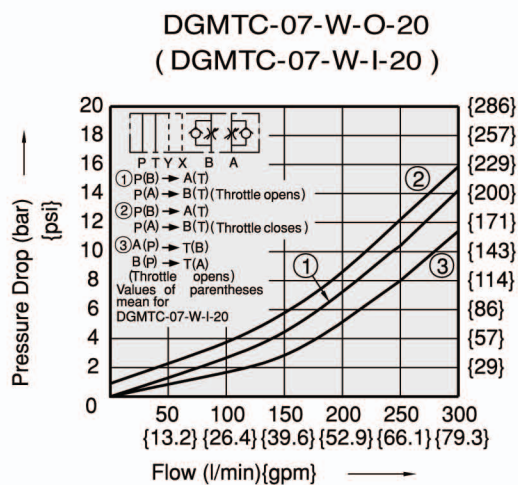
7

Optional Inquiry

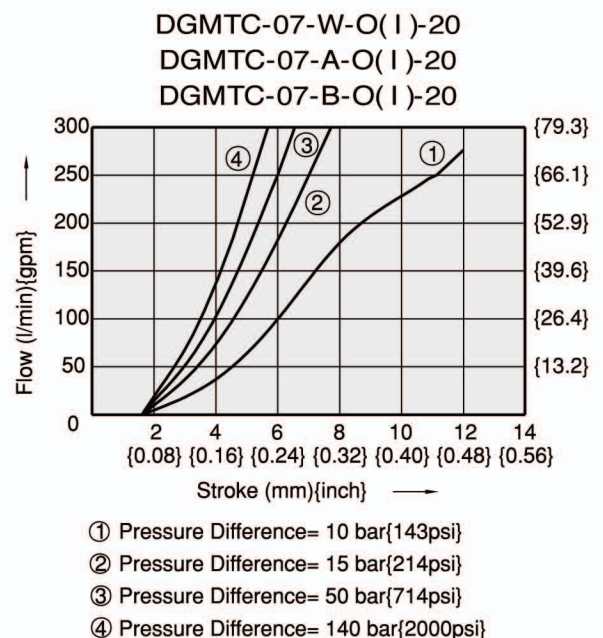
Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic



Stroke Versus Flow Diagram



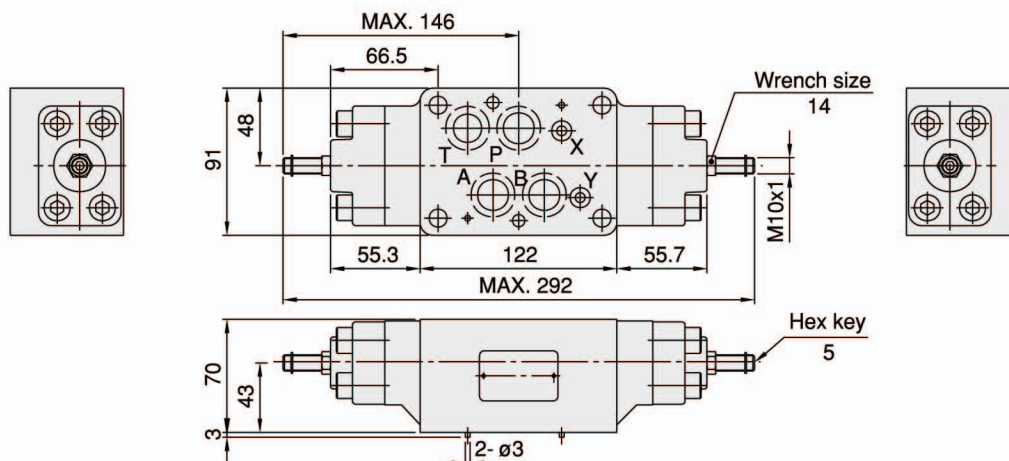
DGM-07

Dimensions :

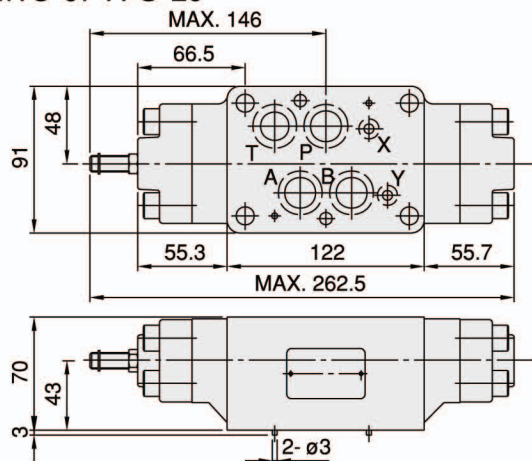
EDGMTC07 Size 16

DGMTC-07-W-O-20

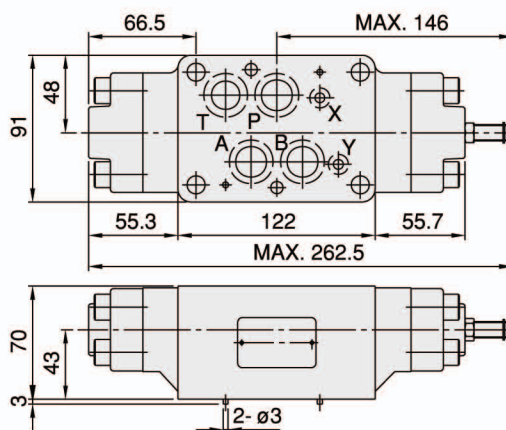
3rd angle projection



DGMTC-07-A-O-20

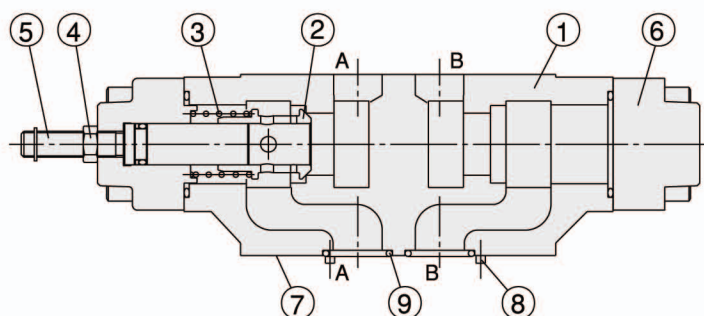


DGMTC-07-B-O-20



Cross Section Drawing :

DGMTC-07-A-O-20



1. Body
2. Throttle
3. Spring
4. Locking nut
5. Setting screw
6. Cover
7. Connections to DIN 24340 from A16;
6 through holes for fixing screws
8. 2 locating pins
9. O-ring:
Ports A,B,P,T: AS568-118(NBR,Hs90);
Ports X,Y: AS568-013(NBR,Hs90)

FLOW REGULATOR WITH CHECK VALVE SANDWICH PLATE DESIGN

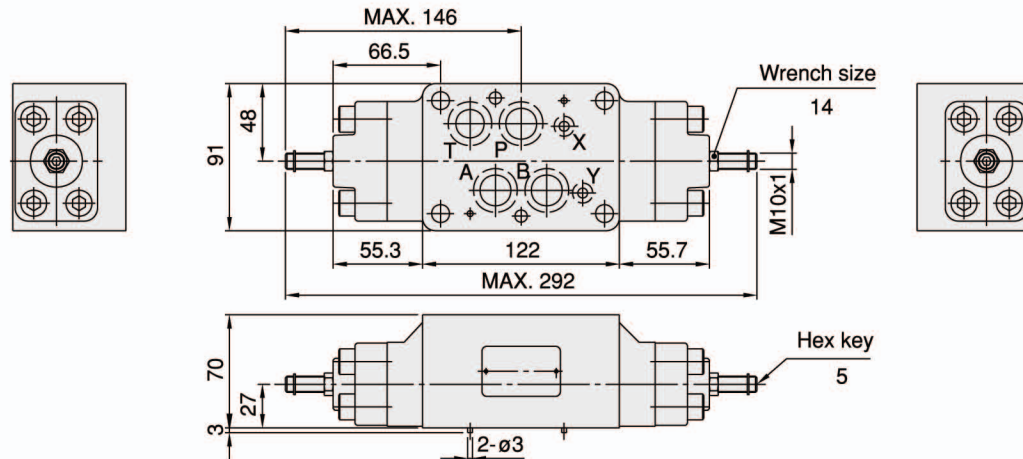
EQUUS

Dimensions :

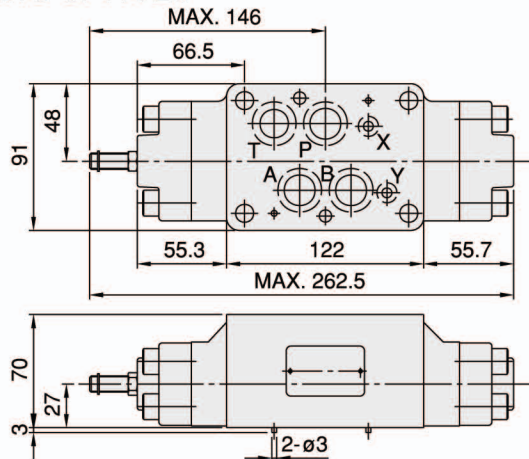
EDGMTC07 Size 16

DGMTC-07-W-I-20

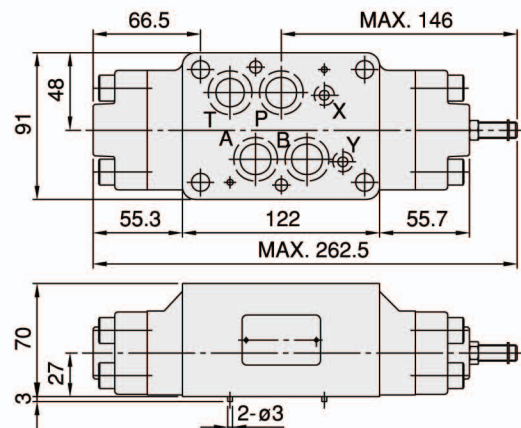
3rd angle projection



DGMTC-07-A-I-20

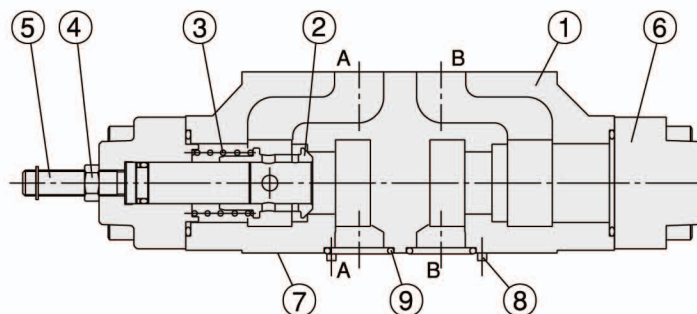


DGMTC-07-B-I-20



Cross Section Drawing :

DGMTC-07-A-I-20



1. Body
2. Throttle
3. Spring
4. Locking nut
5. Setting screw
6. Cover
7. Connections to DIN 24340 from A16;
6 through holes for fixing screws
8. 2 locating pins
9. O-ring:
Ports A,B,P,T: AS568-118(NBR,Hs90);
Ports X,Y: AS568-013(NBR,Hs90)

DGM-07

Characteristics :

- Highest performance in NG 16.
- Sandwich plate design for use in vertical stacking assemblies.
- Direct operated check valve.
- Three different isolating functions.
- Connections to DIN,ISO and CETOP.

EDGMCV07 Size 16



Model: DGM CV-07-P-1-10

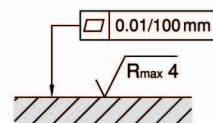
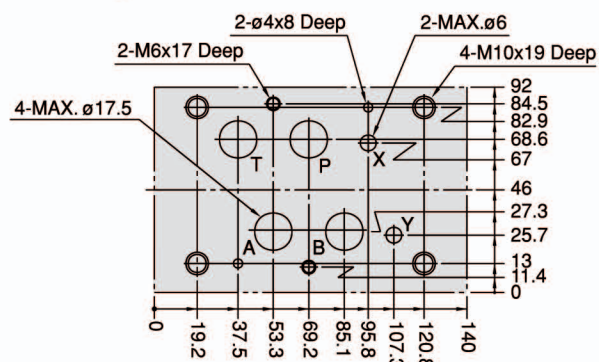
Specification :

Maximum flow	300 ℓ/min{79.3 GPM}	
Maximum operating pressure	320 bar{4570 PSI}	
Pressure adjusting range	1: 0.4 bar{5.7 PSI}	
	2: 3.5 bar{50 PSI}	
	3: 5.0 bar{71 PSI}	
Ambient temperature range	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32,46,68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AD-07-4-A	
Weight	P type	4.5 kg
	A type	4.5 kg
	T type	6.5 kg

Installation Dimensions :

(Machined valve mounting face with position of ports)

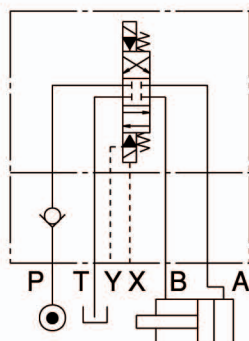
Mounting Surface: ISO 4401-AD-07-4-A



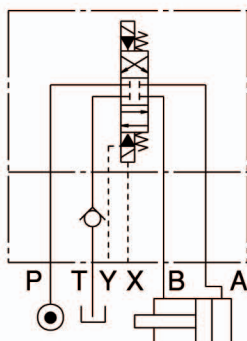
Required surface finish of mating piece when fitting the valve without subplate

Hydraulic Configuration :

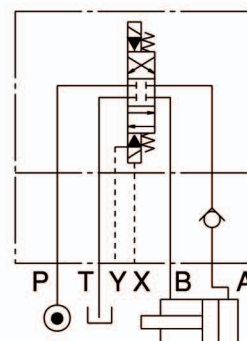
DGM CV-07-P- *-10



DGM CV-07-T- *-10



DGM CV-07-A- *-10



Ordering Code :

EDGMCV07 Size 16

DGM CV - 07 - P - 1 - 10 - * *

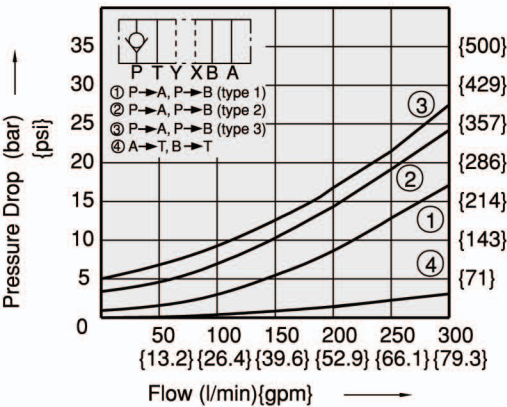
1	2	3	4	5	6	7
1	Sandwich Plate Design					
2	Check Valve					
3	Nominal Valve Size					
● Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.						
4	Configuration					
● P: single; acting on port P.						
● T: single; acting on port T.						
● A: single; acting on port A.						
5	Spring Cracking Pressure					
● 1: 0.4 bar.						
● 2: 3.5 bar.						
● 3: 5.0 bar.						
6	Design Number					
7	Optional Inquiry					

Performance Curves :

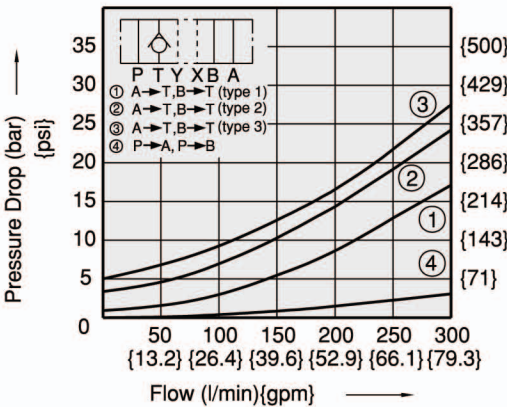
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

DGMCV-07-P- *-10



DGMCV-07-T- *-10



Dimensions :

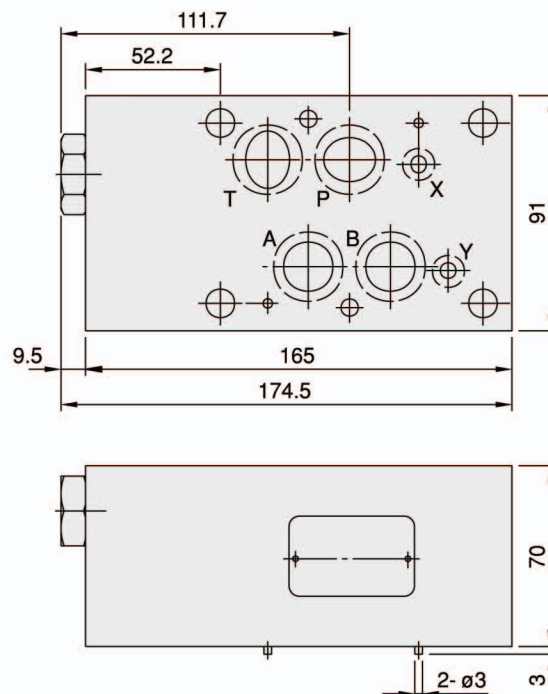
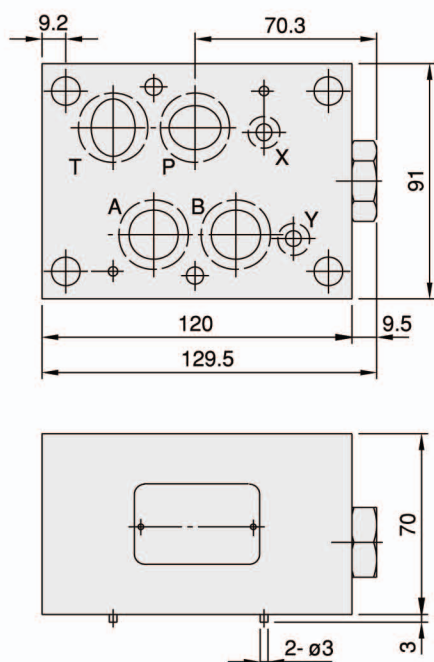
EDGMCV07 Size 16

DGMCV-07-P- *-10

DGMCV-07-A- *-10

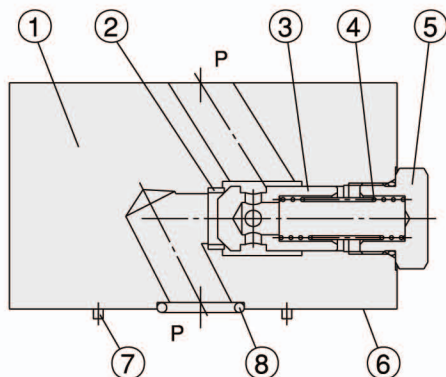
DGMCV-07-T- *-10

3rd angle projection



Cross Section Drawing :

DGMCV-07-P- *-10



1. Body
2. Seat
3. Poppet
4. Spring
5. Nut
6. Connections to DIN 24340 from A16;
6 through holes for fixing screws
7. 2 locating pins
8. O-ring:
Ports A,B,P,T: AS568-118(NBR,Hs90);
Ports X,Y: AS568-013(NBR,Hs90)

Characteristics :

- Highest performance in NG 16.
- Sandwich plate design.
- Pilot operated check valve with decompression.
- For leak free sealing of one or two actuator ports.
- Connections to DIN, ISO and CETOP.

EDGMPD07 Size 16



Model: DGMPD-07-W-1-10

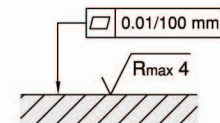
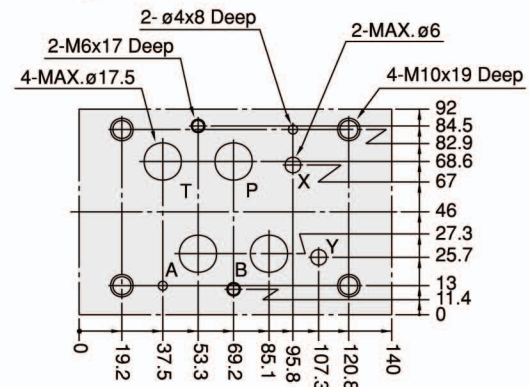
Specification :

Maximum flow		300 l/min{79.3 GPM}
Maximum operating pressure		320 bar{4570 PSI}
Spring cracking pressure		1: 2 bar{29 PSI}
		2: 5 bar{71 PSI}
Area ratio	Pilot piston	1
	Check valve seat	0.5
	Needle valve seat	0.07
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm ² /s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AD-07-4-A
Weight	W type	7.0 kg
	A type	7.0 kg
	B type	7.0 kg

Installation Dimensions :

(Machined valve mounting face with position of ports)

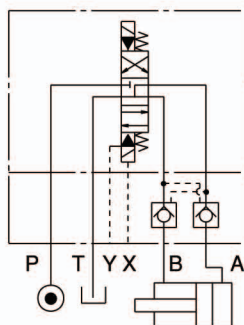
Mounting Surface: ISO 4401-AD-07-4-A



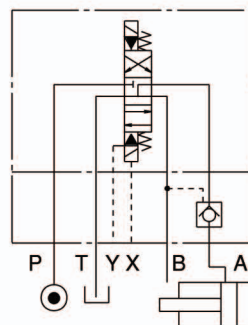
Required surface finish of mating piece when fitting the valve without subplate

Hydraulic Configuration :

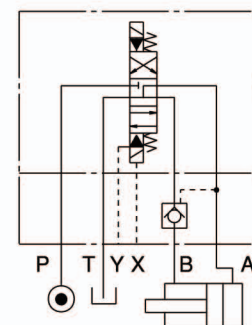
DGMPD-07-W- *-10



DGMPD-07-A- *-10



DGMPD-07-B- *-10



Ordering Code :

EDGMPD07 Size 16

DGM PD - 07 - W - 1 - 10 - * *

1 Sandwich Plate Design

2 Pilot Operated Check Valve with Decompression

3 Nominal Valve Size

- Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.

4 Configuration

- W: double: acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5 Spring Cracking Pressure

- 1: 2 bar.
- 2: 5 bar.

6 Design Number

7 Optional Inquiry

Performance Curves :

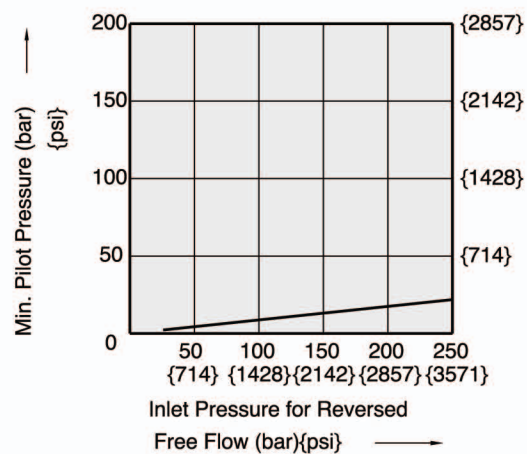
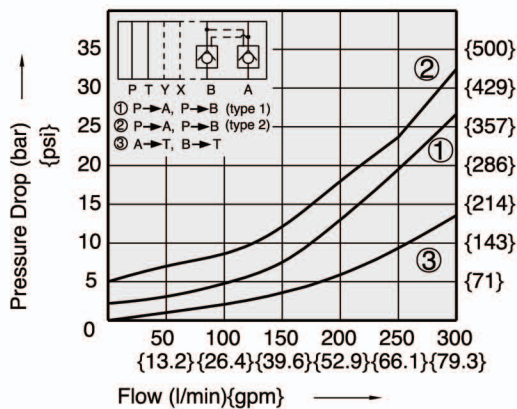
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Min. Pilot Pressure Characteristic

DGMPD-07-W- *-10

DGMPD-07-W- *-10



Characteristics :

- Highest performance in NG 6.
- Direct operated pressure reducing valve.
- Sandwich plate design.
- 4 pressure adjusting ranges.
- 3 optional effective directions of flow.
- Pressure reduction in ports A, B or P.
- Connections to DIN, ISO and CETOP.

EDGMGV03 Size 6



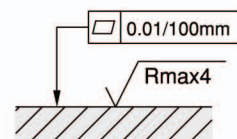
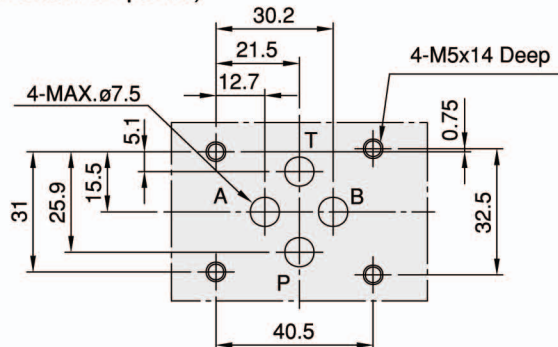
Model: DGMGV-03-P-1-10

Specification :

Maximum flow	40 ℓ /min {10.6 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Pressure adjusting range	0: 1.5~35 bar	
	1: 7~70 bar	
	2: 7~140 bar	
	3: 7~210 bar	
Ambient temperature range	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32, 46, 68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	P type	1.3 Kg
	A type	1.3 Kg
	B type	1.3 Kg

Installation Dimensions :

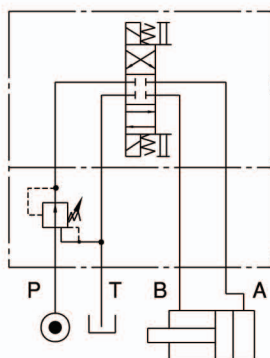
(Machined valve mounting face with position of ports)



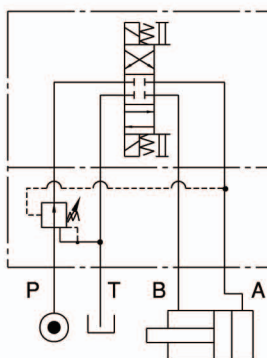
Required surface finish of mating piece

Hydraulic Configuration :

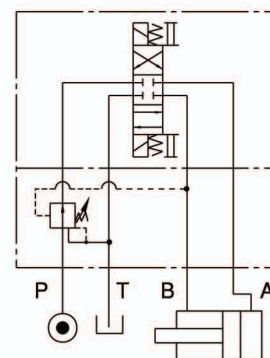
DGMGV-03-P- *-10



DGMGV-03-A- *-10



DGMGV-03-B- *-10



SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE



Dimensions :

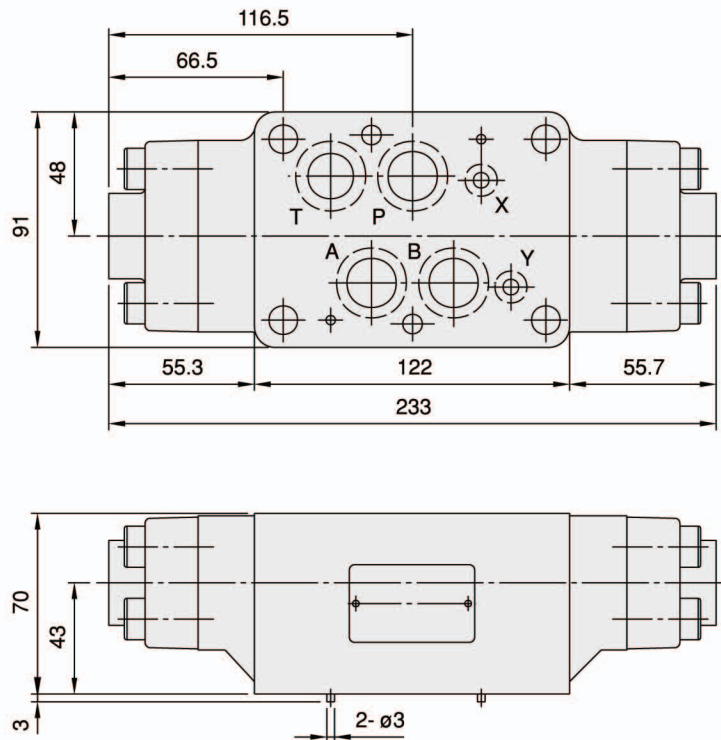
EDGMPD07 Size 16

DGMPD-07-W- *-10

DGMPD-07-A- *-10

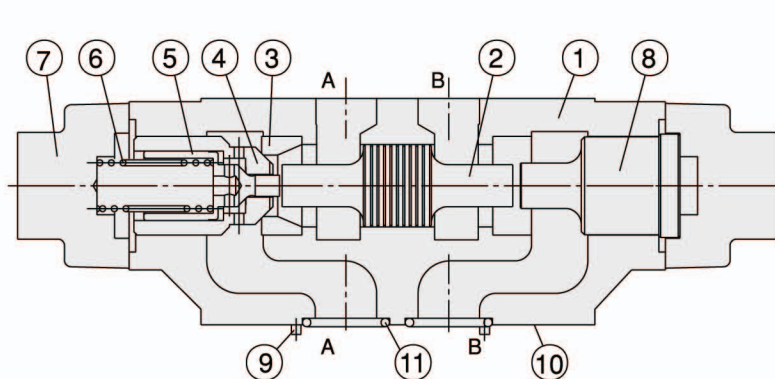
DGMPD-07-B- *-10

3rd angle
projection



Cross Section Drawing :

DGMPD-07-A- *-10

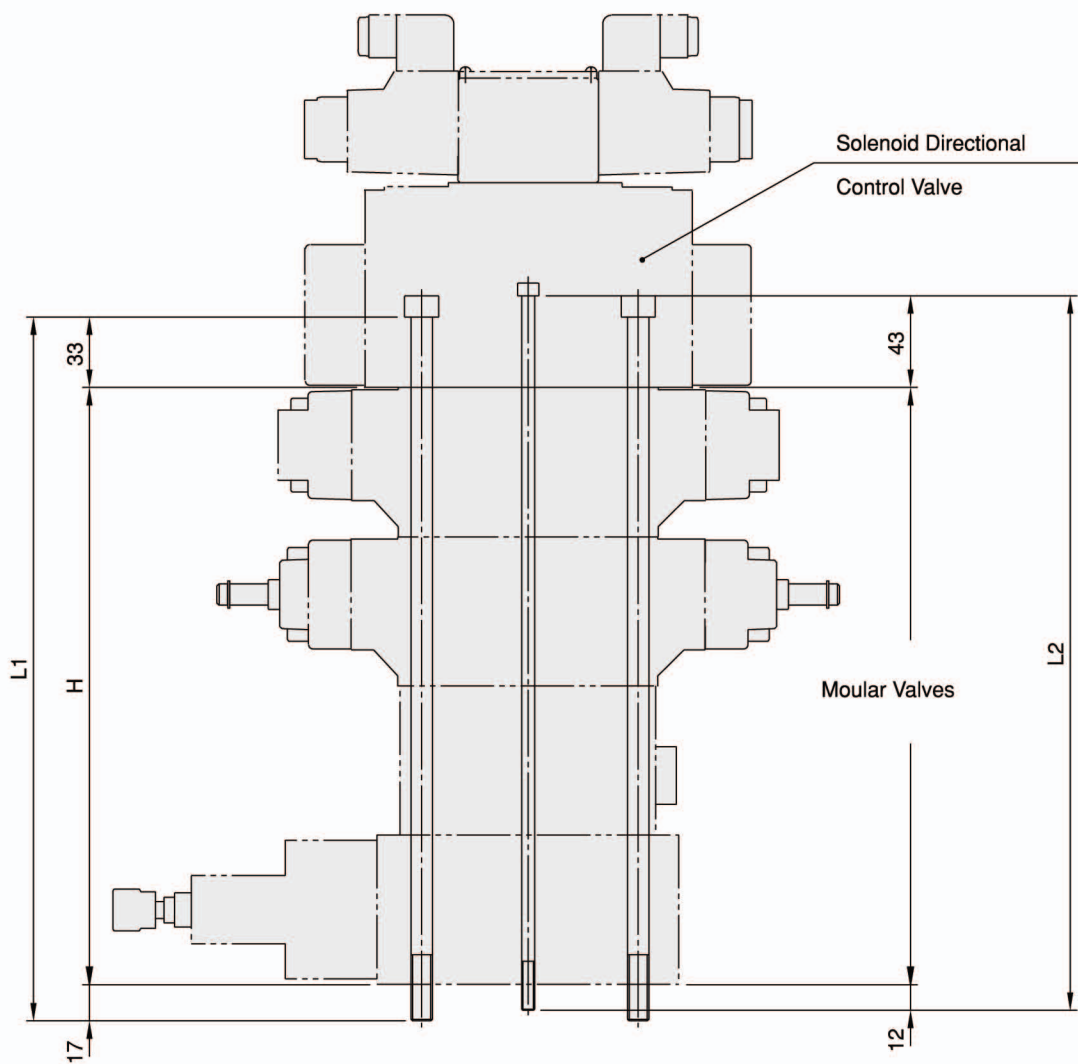


1. Body
 2. Spool
 3. Seat
 4. Poppet-1
 5. Poppet-2
 6. Spring
 7. Cover
 8. Bushing
 9. 2 locating pins
 10. Connections to DIN 24340 from A16;
6 through holes for fixing screws
 11. O-ring:
- Ports A,B,P,T: AS568-118(NBR,Hs90);
Ports X,Y: AS568-013(NBR,Hs90)

DGM-07

Hexagon Socket Head Bolt:

07 Size 16



Numbers of the moular valves	H	L1	L2	Bolt length	
				Metric	Inch
1	70	120	125	M10x120Lx4 pcs.	3/8"~16UNCx4-5/8"Lx4 pcs.
				M6x125Lx2 pcs.	1/4"~20UNCx4-7/8"Lx2 pcs.
2	140	190	195	M10x190Lx4 pcs.	3/8"~16UNCx7-3/8"Lx4 pcs.
				M6x195Lx2 pcs.	1/4"~20UNCx7-5/8"Lx2 pcs.
3	210	260	265	M10x260Lx4 pcs.	3/8"~16UNCx10-1/8"Lx4 pcs.
				M6x265Lx2 pcs.	1/4"~20UNCx10-1/2"Lx2 pcs.
4	280	330	335	M10x330Lx4 pcs.	3/8"~16UNCx13"Lx4 pcs.
				M6x335Lx2 pcs.	1/4"~20UNCx13-1/4"Lx2 pcs.

PRESSURE REDUCING VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMGV03 Size 6

DGM **GV** **-** **03** **-** **P** **-** **1** **-** **10** **-** ***** *****

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Reducing Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- P: reduced pressure on P port.
- A: reduced pressure on A port.
- B: reduced pressure on B port.

5

Pressure Adjusting Range

- 0: 1.5~35 bar.
- 1: 7~70 bar.
- 2: 7~140 bar.
- 3: 7~210 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

Optional Inquiry

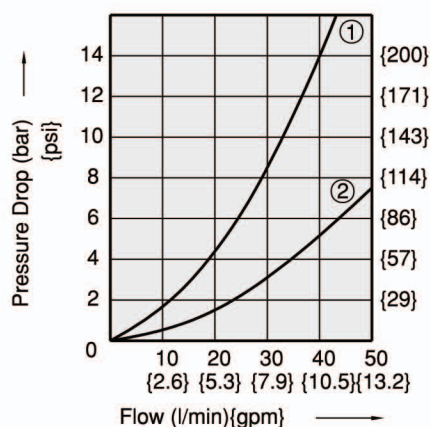
- A: handle on A port side.

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

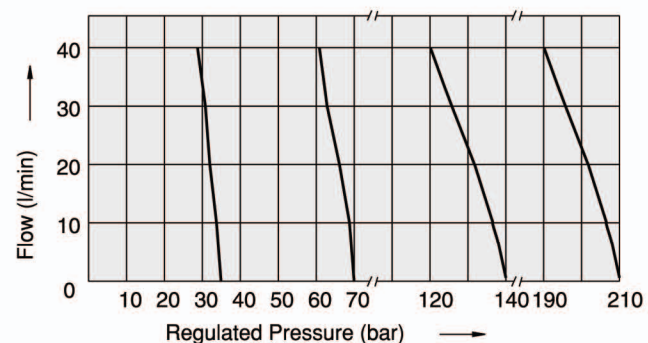
Pressure Drop Characteristic

DGMGV-03-P- *-10



Regulated Pressure Versus Flow Diagram

DGMGV-03-P- *-10



1. differential pressure variation versus variation of flow between inlet port and use port
2. differential pressure variation versus variation of between use port and discharge port

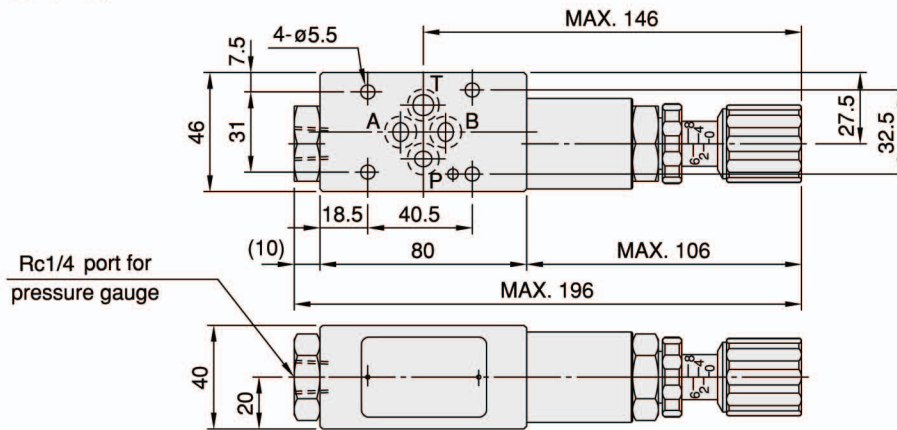
Dimensions :

EDGMGV03 Size 6

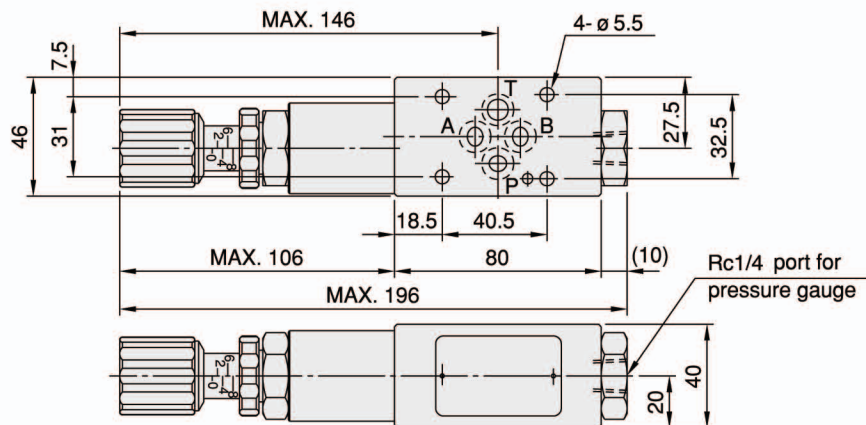
DGMGV-03-P- *- *-10

DGMGV-03-A- *- *-10

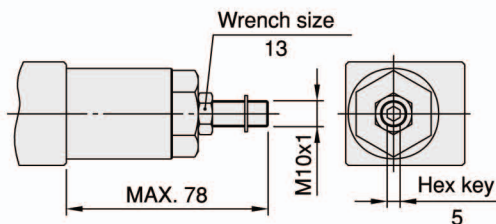
3rd angle projection



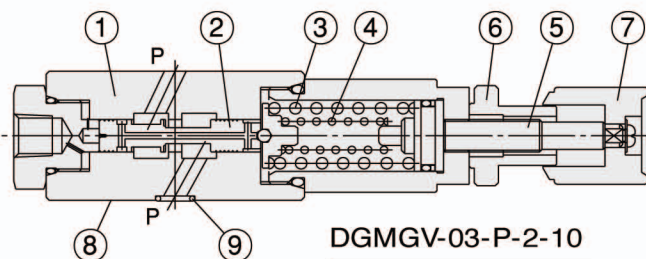
DGMGV-03-B- *- *-10



DGMGV-03- *- *-20



Cross Section Drawing :



1. Body.
2. Spool.
3. Adjustment spring 1.
4. Adjustment spring 2.
5. Setting screw.
6. Locking nut.
7. Adjustment element.

8. Connections to DIN 24340 from A6; valve fixing screws M5 DIN 912-10.9, tightening torque 8~9 Nm.
9. O-ring 1B-P9 for ports A, B, P and T.

Characteristics :

- Highest performance in NG 6.
- Direct operated pressure counter balance valve.
- Used for actuator back pressure control.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- Connections to DIN, ISO and CETOP.

EDGMCB03 Size 6



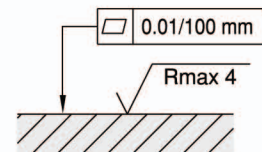
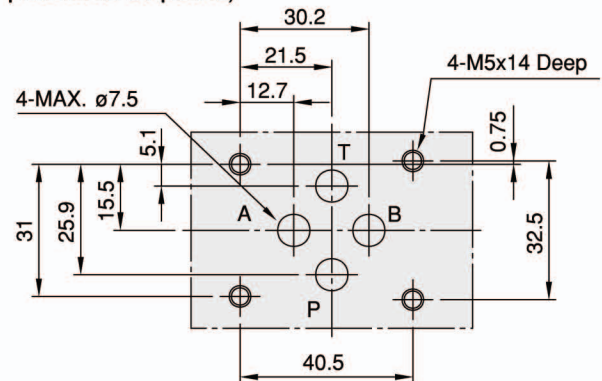
Model: DGMCB-03-A1-1-10

Specification :

Maximum flow	40 ℓ /min {10.6 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Pressure adjusting range	1: 8~70 bar	
	2: 35~140 bar	
Ambient temperature range	-20℃~+50℃	
Hydraulic fluid temperature	-20℃~+70℃	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32, 46, 68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	A type	1.1 Kg
	B type	1.1 Kg

Installation Dimensions :

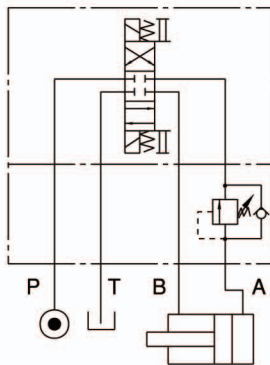
(Machined valve mounting face with position of ports)



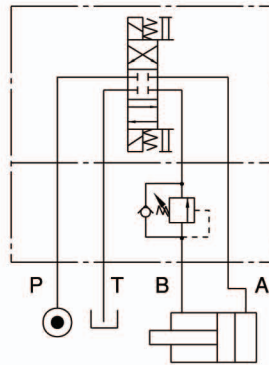
Required surface finish of mating piece

Hydraulic Configuration :

DGMCB-03-A1- *-10



DGMCB-03-B1- *-10



Ordering Code :

EDGMCB03 Size 6

DGM CB - 03 - A1 - 1 - 10 - * *

1

2

3

4 5

6

7

8

1

Sandwich Plate Design

2

Pressure Counter Balance Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Control Port

- A: A port; B: B port.

5

Control Type

- 1: internal pilot, internal drain.

6

Pressure Adjusting Range

- 1: 8~70 bar.
- 2: 35~140 bar.

7

Design Number

- 10: with handle.
- 20: without handle.

8

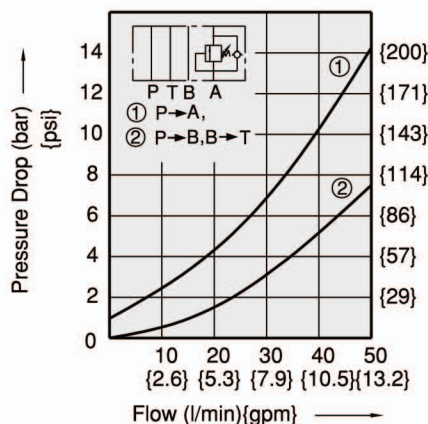
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

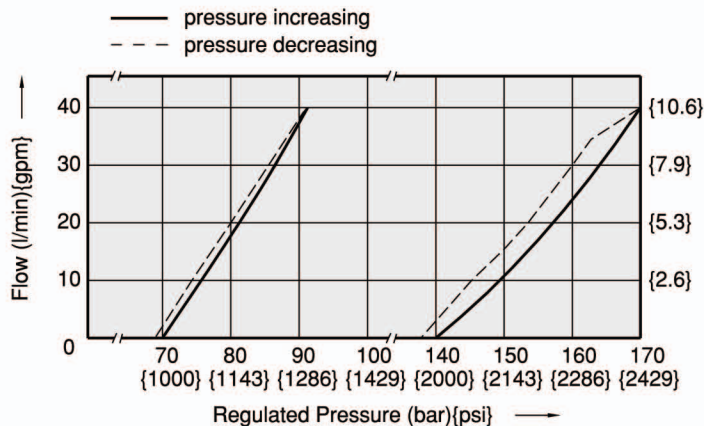
DGMCB-03-A1- *-10



Regulated Pressure Versus Flow Diagram

DGMCB-03-A1- *-10

DGMCB-03-B1- *-10



COUNTER BALANCE VALVE SANDWICH PLATE DESIGN

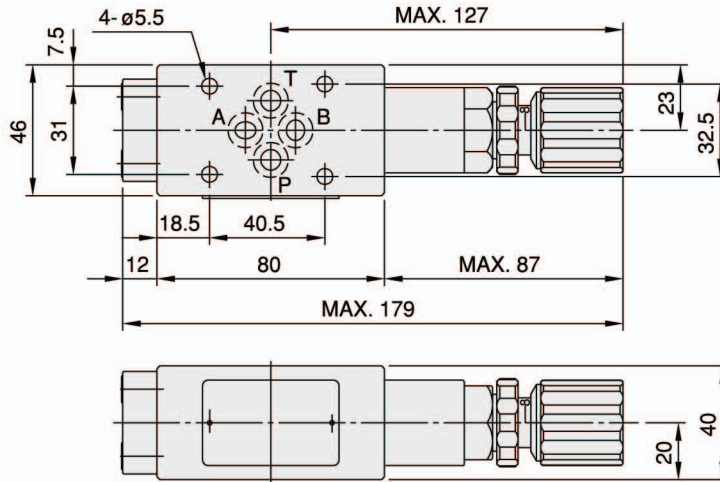
EQUUS

Dimensions :

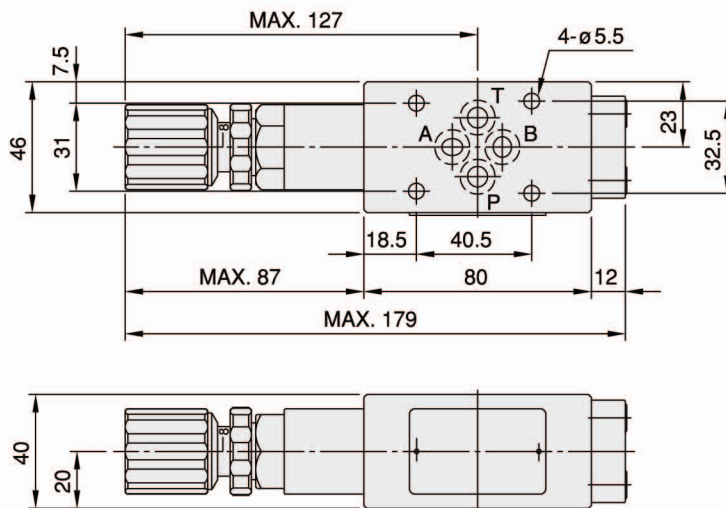
EDGMCB03 Size 6

DGMCB-03-A1- *-10

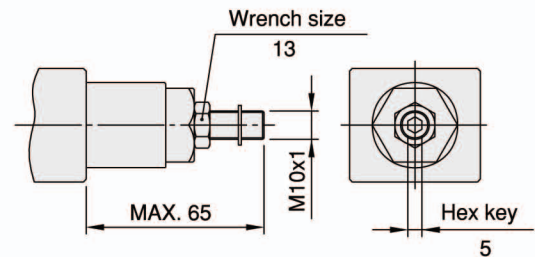
3rd angle
projection



DGMCB-03-B1- *-10

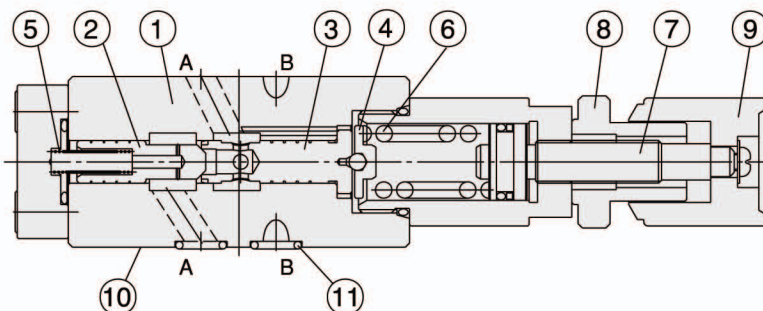


DGMCB-03- *- *-20



Cross Section Drawing :

DGMCB-03-A1- *-10



1. Body.
2. Poppet.
3. Spool.
4. Retainer.
5. Poppet spring.
6. Adjustment spring.
7. Setting screw.
8. Locking nut.
9. Adjustment element.
10. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9Nm.
11. O-ring 1B-P9 for ports A, B, P and T.

DGM-03

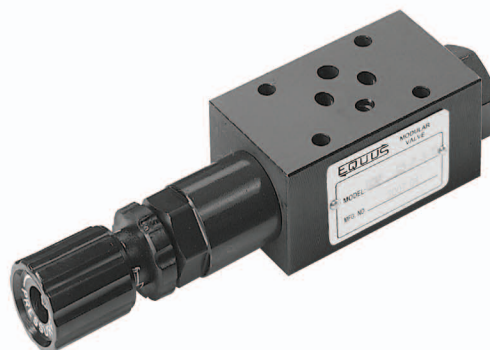
Characteristics :

- Highest performance in NG 6.
- Direct operated pressure sequence valve.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- Connections DIN, ISO and CETOP.

Specification :

Maximum flow	40 ℓ /min {10.6 GPM}
Maximum operating pressure	320 bar {4750 PSI}
Pressure adjusting range	1: 8~70 bar
	3: 35~210 bar
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	115~400 mm ² /s
Hydraulic oil	ISO VG 32, 46, 68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AB-03-4-A
Weight	1.3 Kg

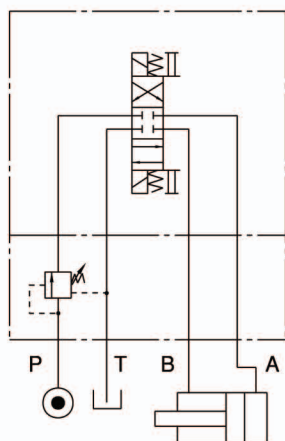
EDGMSV03 Size 6



Model: DGMSV-03-P2-1-10

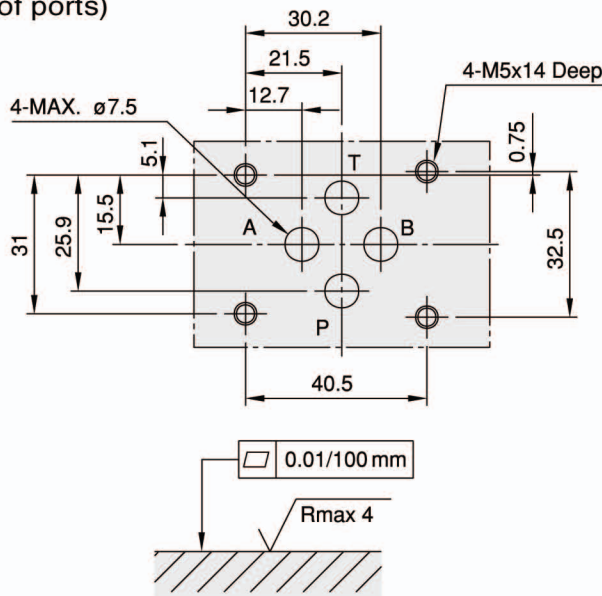
Hydraulic Configuration :

DGMSV-03-P2- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Required surface finish of mating piece

PRESSURE SEQUENCE VALVE SANDWICH PLATE DESIGN

EQUUS

Ordering Code :

EDGMSV03 Size 6

DGM SV - 03 - P2 - 1 - 10 - * *

1

2

3

4 5

6

7

8

1

Sandwich Plate Design

2

Pressure Sequence Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Control Port

- P: P port

5

Control Type

- 2: internal pilot, external drain

6

Pressure Adjusting Range

- 1: 8~70 bar.
- 3: 35~210 bar.

7

Design Number

- 10: with handle.
- 20: without handle.

8

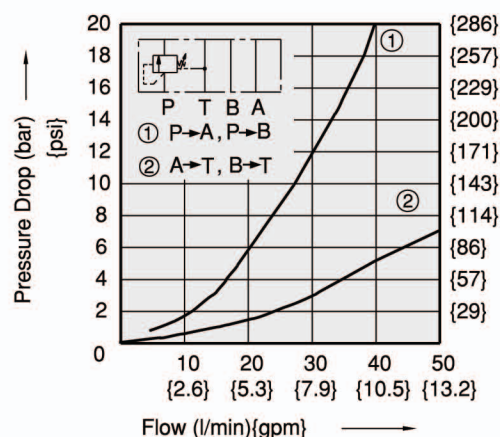
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

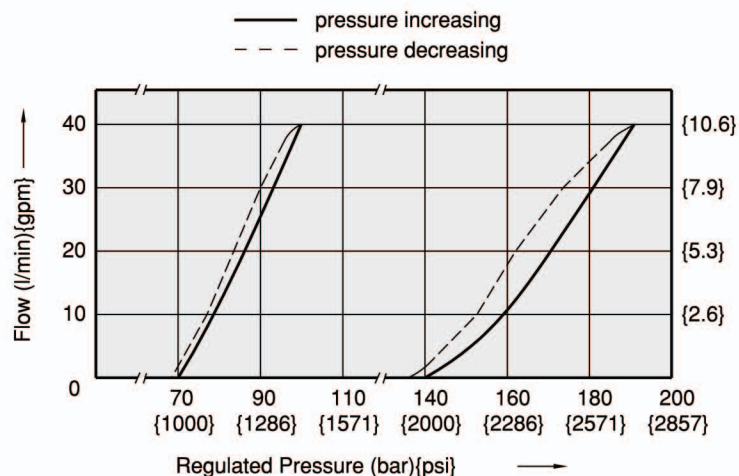
Pressure Drop Characteristic

DGMSV-03-P2- *-10



Regulated Pressure Versus Flow Diagram

DGMSV-03-P2- *-10



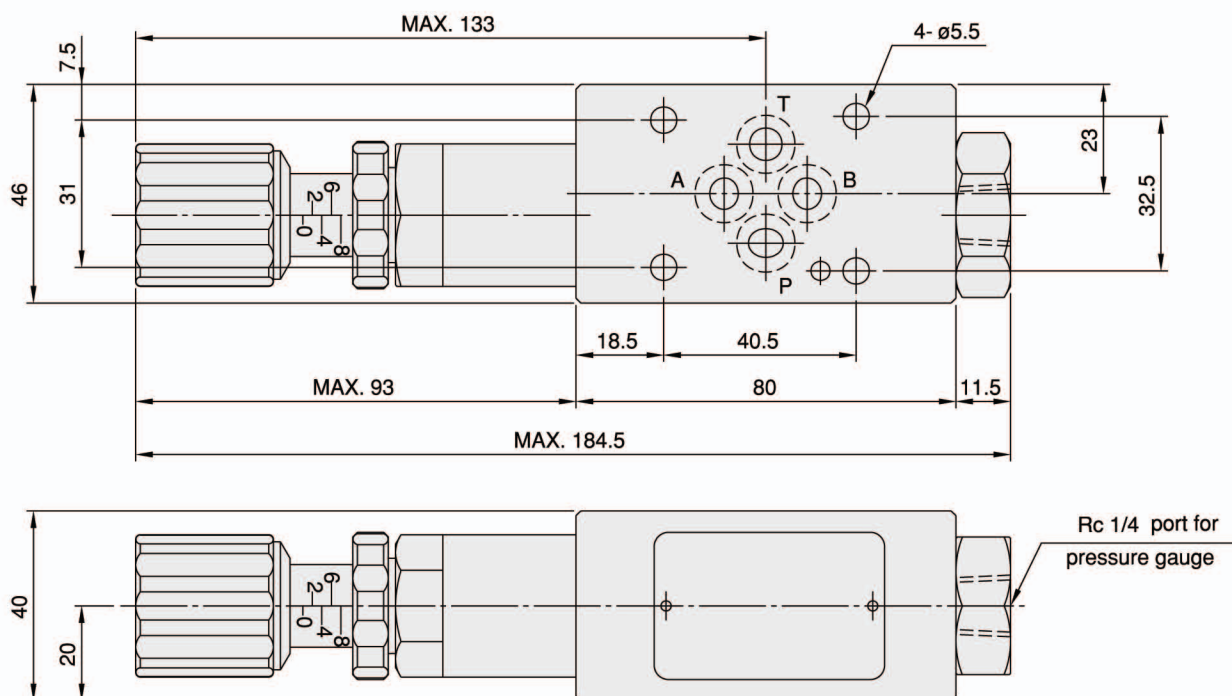
DGM-03

Dimensions :

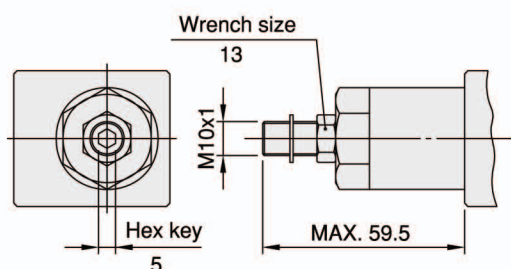
EDGMSV03 Size 6

DGMSV-03-P2- *-10

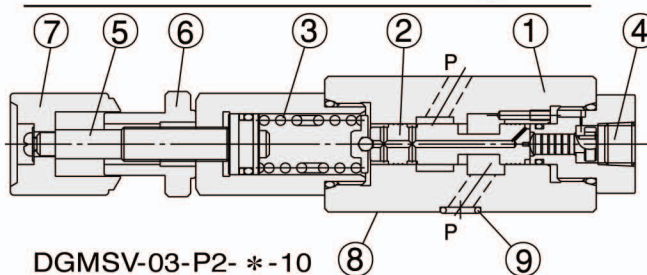
3rd angle projection



DGMSV-03-P2- *-20



Cross Section Drawing :



DGMSV-03-P2- *-10

- | | |
|--------------------------------|---|
| 1. Body. | 7. Adjustment element. |
| 2. Spool. | 8. Connections to DIN 24340 from A6; valve fixing screws M5 DIN 912-10.9, tightening torque 8~9 Nm. |
| 3. Adjustment spring. | 9. O-ring 1B-P9 for port A, B, P and T. |
| 4. Pressure gauge port. Rc1/4" | |
| 5. Setting screw. | |
| 6. Locking nut. | |

Care in Application :

03 Size 6

Valve Name	Wrong Example	Correct Example	Instructions
Solenoid operated directional control valve Pilot operated check valve (DGMPC-03-W- *-10) Pressure reducing valve (DGMGV-03-B- *-10)			When DGMGV-03-B and DGMPC-03-W are used together in the same circuit, the right circuit is correct, and the left is wrong, as DGMPC-03-W would not be totally closed.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-03-W-O-10) Pilot operated check valve (DGMPC-03-W- *-10)			When DGMTC-03-W-O and DGMPC-03-W are used together in the same circuit , DGMTC-03-W-O should be installed closer to the cylinder ports, otherwise the cylinder may have a "Knocking" phenomenon happened.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-03-W-O-10) Pressure reducing valve (DGMGV-03-B- *-10)			When DGMGV-03-B and DGMTC-03-W-O are used together in the same circuit, the right circuit is correct, and the left is wrong, as the function of DGMGV-03-B will be affected when oil flow from B port to T port. Because DGMTC-03-W-O will create a pressure which will cause DGMGV-03-B to reduce the pressure too low, and the cylinder then can not operate with enough force or move smoothly.

FLOW REGULATOR VALVE

SANDWICH PLATE DESIGN

EQUUS

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Be used for actuator speed control.
- Connections to DIN, ISO and CETOP.

Specification :

Maximum flow	50 ℓ /min {13.2 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Ambient temperature range	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32, 46, 68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	P type	0.99 Kg
	T type	0.99 Kg

EDGMTV03 Size 6

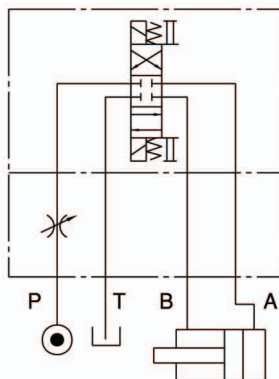


Model: DGMTV-03-P-10

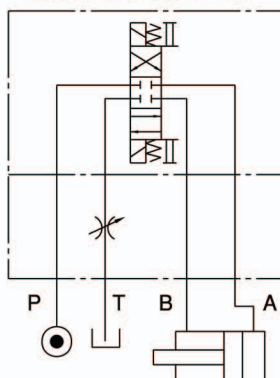
DGM-03

Hydraulic Configuration :

DGMTV-03-P-10

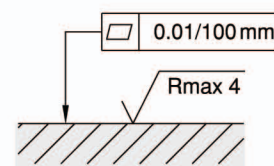
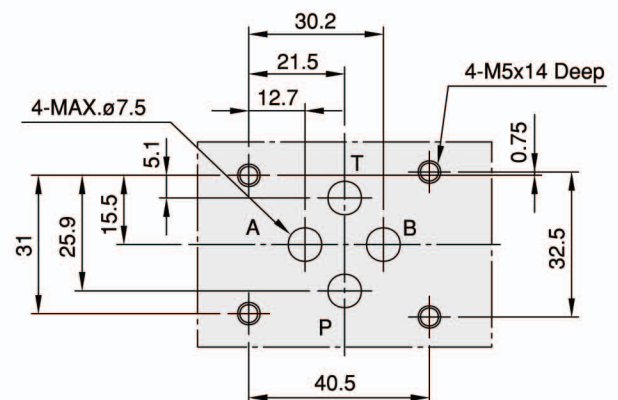


DGMTV-03-T-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Required surface finish of mating piece

Ordering Code :

EDGMTV03 Size 6

DGM TV - 03 - P - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Flow Regulator Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- P: single; acting on port P.
- T: single; acting on port T.

5

Design Number

- 10: with handle.
- 20: without handle.

6

Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

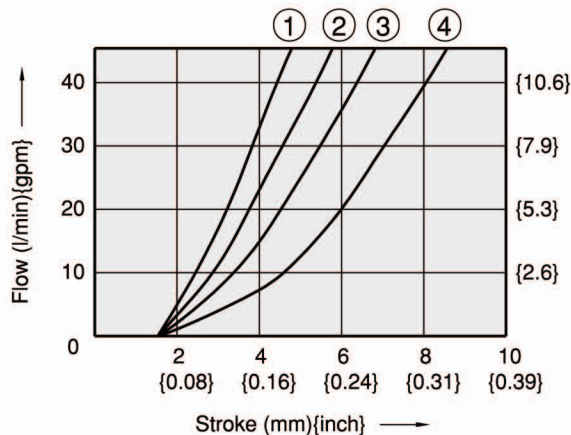
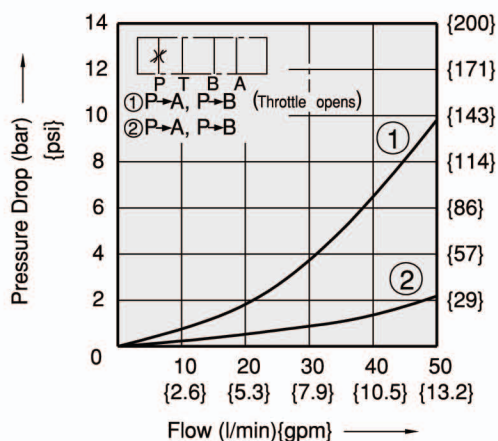
Pressure Drop Characteristic

Stroke Versus Flow Diagram

DGMTV-03-P-10

DGMTV-03-P-10

DGMTV-03-T-10



- ① Pressure Difference=140 bar {2000psi}
- ② Pressure Difference=70 bar {1000psi}
- ③ Pressure Difference=35 bar {500psi}
- ④ Pressure Difference=10 bar {143psi}

FLOW REGULATOR VALVE SANDWICH PLATE DESIGN

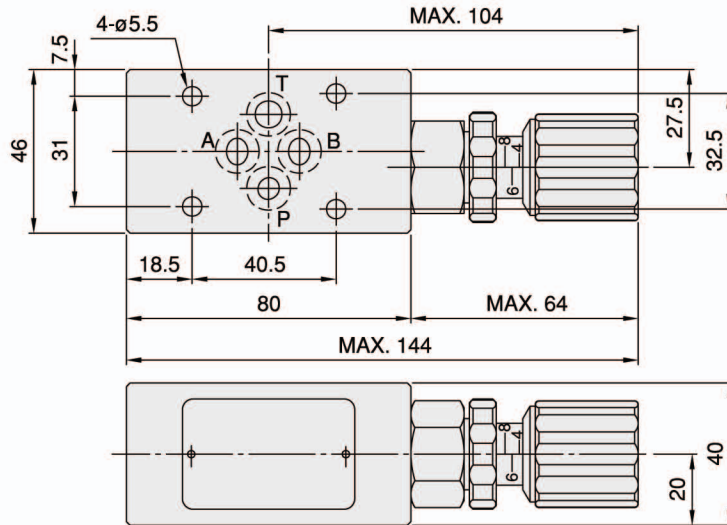


Dimensions :

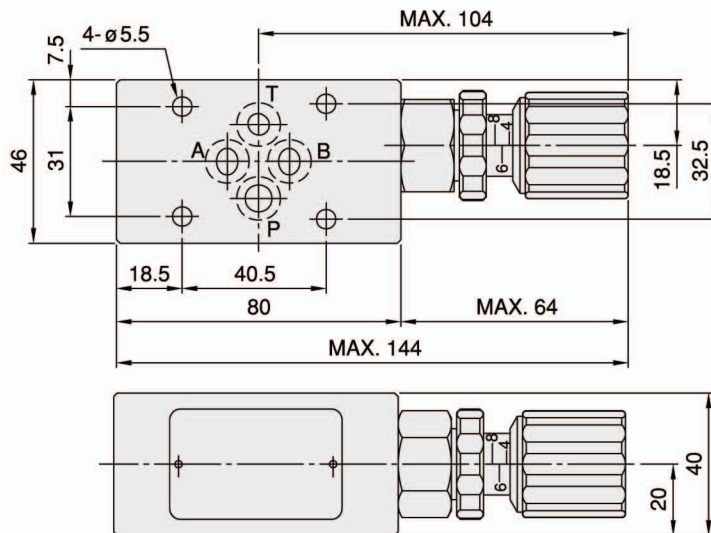
EDGMTV03 Size 6

DGMTV-03-P-10

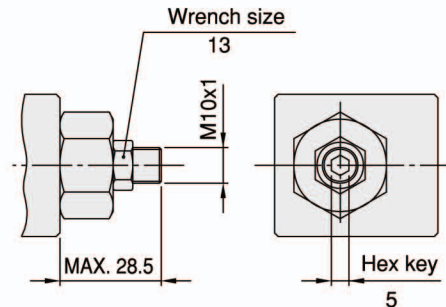
3rd angle
projection



DGMTV-03-T-10

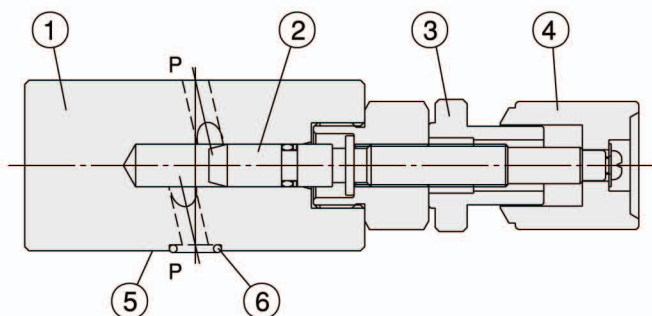


DGMTV-03- *-20



Cross Section Drawing :

DGMTV-03-P-10



1. Body.
2. Setting screw.
3. Locking nut.
4. Adjustment element.
5. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
6. O-ring 1B-P9
for ports A,B,P and T.

DGM-03

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Connections to DIN, ISO and CETOP.

EDGMTC03 Size 6



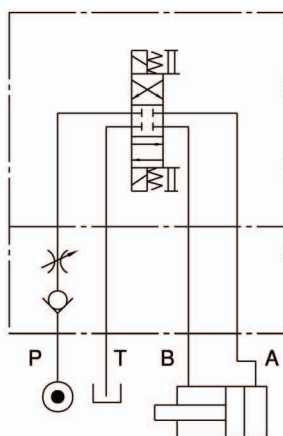
Model: DGMTC-03-P-10

Specification :

Maximum flow	50 ℓ /min {13.2 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Check valve cracking pressure	0.4 bar {5.7 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s
Hydraulic oil	ISO VG 32,46,68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AB-03-4-A
Weight	1.0 kg

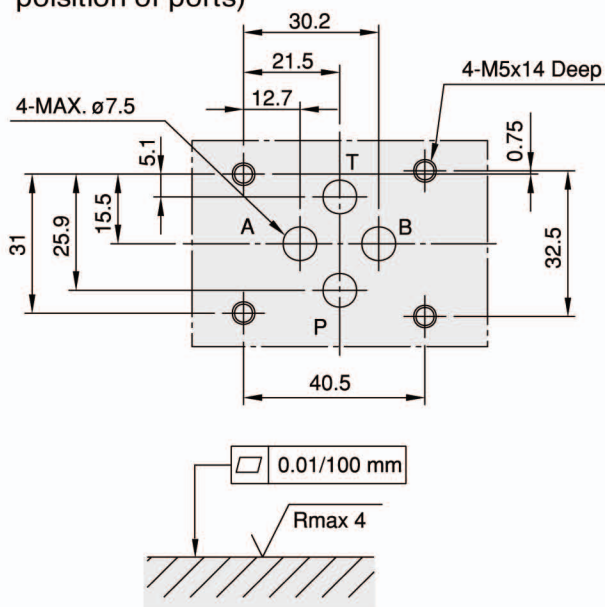
Hydraulic Configuration :

DGMTC-03-P-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Required surface finish of mating piece

FLOW REGULATOR WITH CHECK VALVE

SANDWICH PLATE DESIGN



Ordering Code :

EDGMTC03 Size 6

DGM TC - 03 - P - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Flow Regulator with Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- P: single; acting on port P.

5

Design Number

- 10: with handle.
- 20: without handle.

6

Optional Inquiry

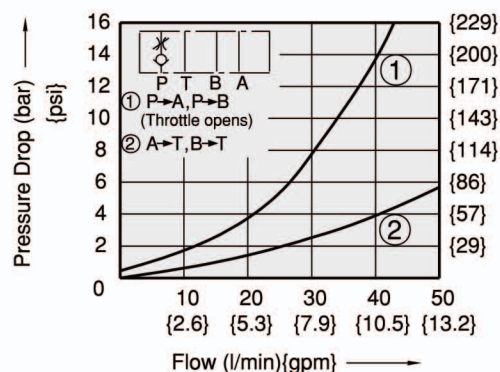
Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

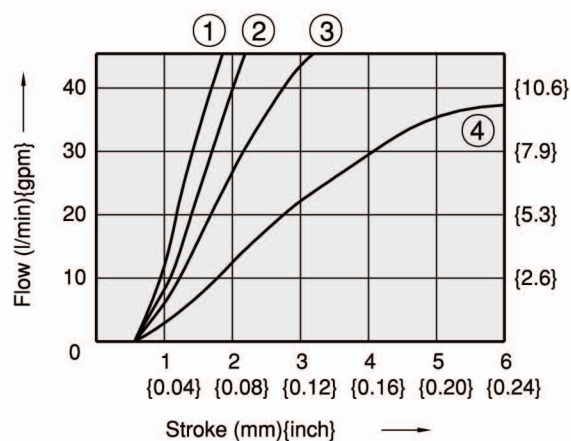
Pressure Drop Characteristic

Stroke Versus Flow Diagram

DGMTC-03-P-10



DGMTC-03-P-10



- ① Pressure Difference=140 bar {2000psi}
- ② Pressure Difference=70 bar {1000psi}
- ③ Pressure Difference=35 bar {500psi}
- ④ Pressure Difference=10 bar {143psi}

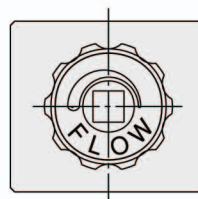
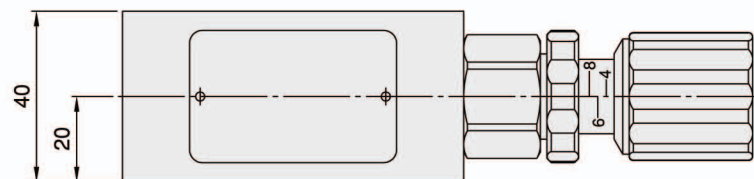
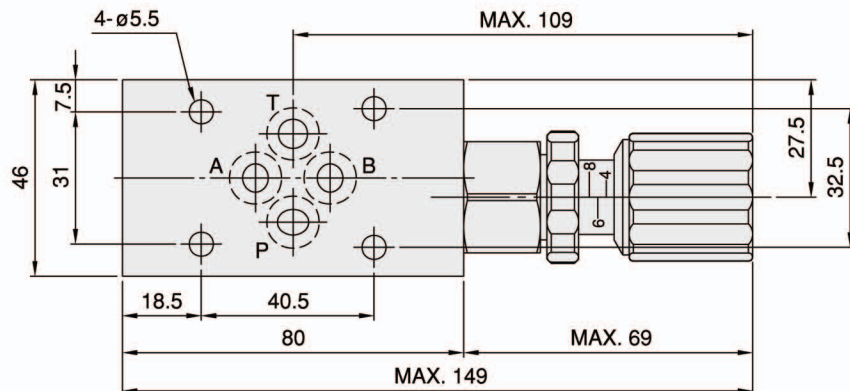
DGM-03

Dimensions :

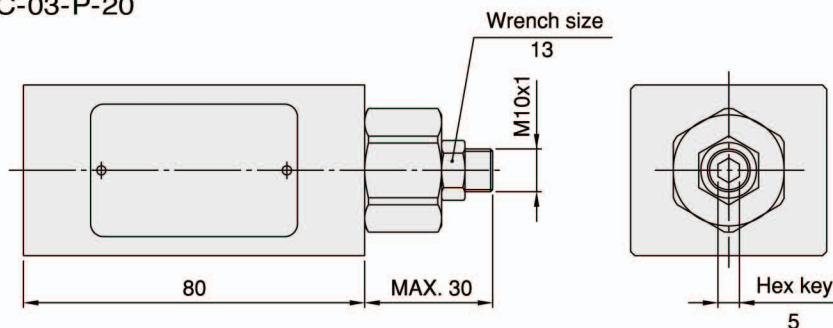
EDGMTC03 Size 6

DGMTC-03-P-10

3rd angle
projection

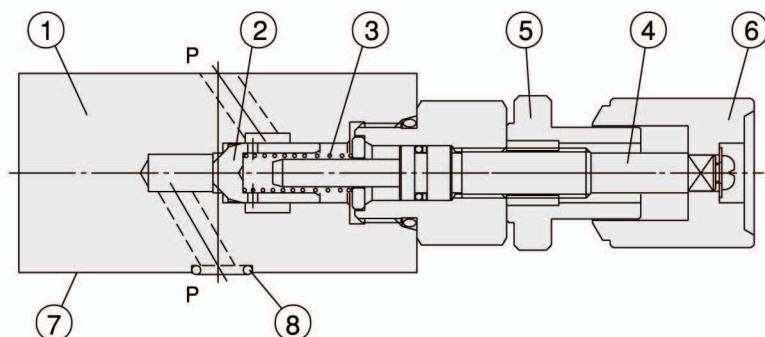


DGMTC-03-P-20



Cross Section Drawing :

DGMTC-03-P-10

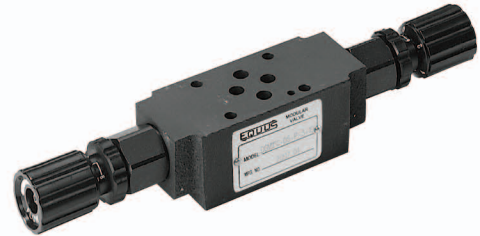


1. Body.
2. Throttle.
3. Spring.
4. Setting screw.
5. Locking nut.
6. Adjustment element.
7. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
8. O-ring 1B-P9 for ports A,B,P and T.

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- For limiting the main or pilot fluid flow of 2 actuator connections
- For meter-in or meter-out control
- Connections to DIN, ISO and CETOP.

EDGMTC03 Size 6



Model: DGMTC-03-W-O-10

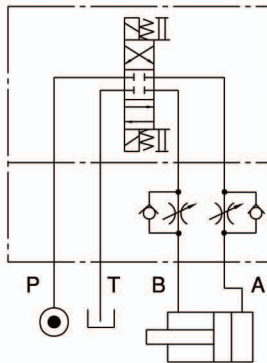
Specification :

Maximum flow	50 l/min {13.2 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Check valve cracking pressure	0.8 bar {11.4 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

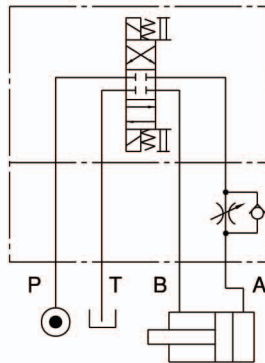
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AB-03-4-A
Weight	W type	1.3 kg
	A type	1.2 kg
	B type	1.2 kg

Hydraulic Configuration :

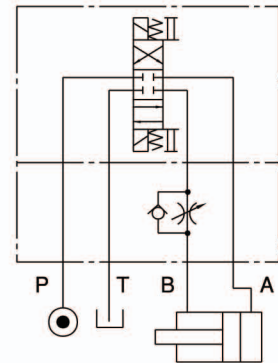
DGMTC-03-W-O-10



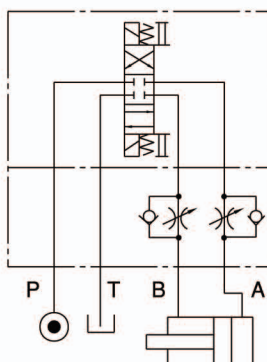
DGMTC-03-A-O-10



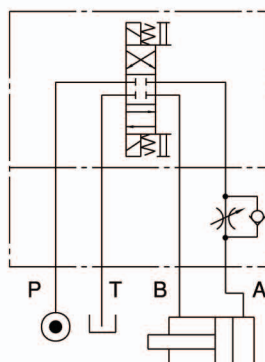
DGMTC-03-B-O-10



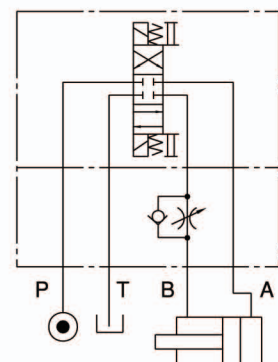
DGMTC-03-W-I-10



DGMTC-03-A-I-10



DGMTC-03-B-I-10



Ordering Code :

EDGMTC03 Size 6

DGM TC - 03 - W - 0 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Flow Regulator with Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- W: double; acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5

Control Way

- O: Meter out, control of flow discharged from the actuator.
- I: Meter in, control of flow entering the actuator.

6

Design Number

- 10: with handle.
- 20: without handle.

7

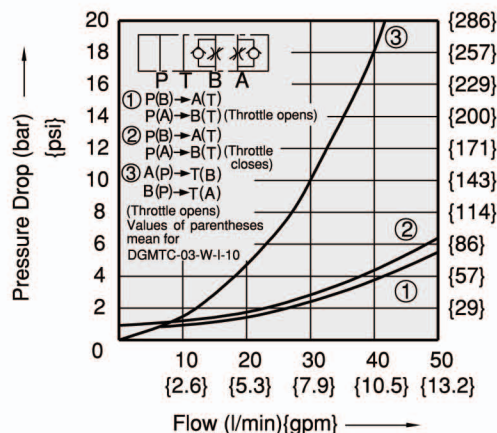
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

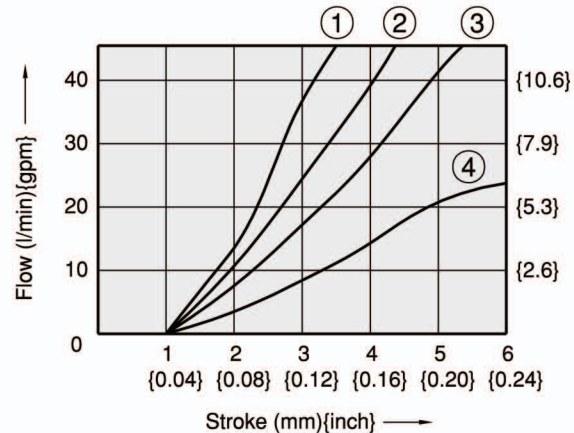
Pressure Drop Characteristic

DGMTC-03-W-O-10
(DGMTC-03-W-I-10)



Stroke Versus Flow Diagram

DGMTC-03-W-O(I)-10
DGMTC-03-A-O(I)-10
DGMTC-03-B-O(I)-10



- ① Pressure Difference=140 bar {2000psi}
- ② Pressure Difference=70 bar {1000psi}
- ③ Pressure Difference=35 bar {500psi}
- ④ Pressure Difference=10 bar {143psi}

FLOW REGULATOR WITH CHECK VALVE SANDWICH PLATE DESIGN

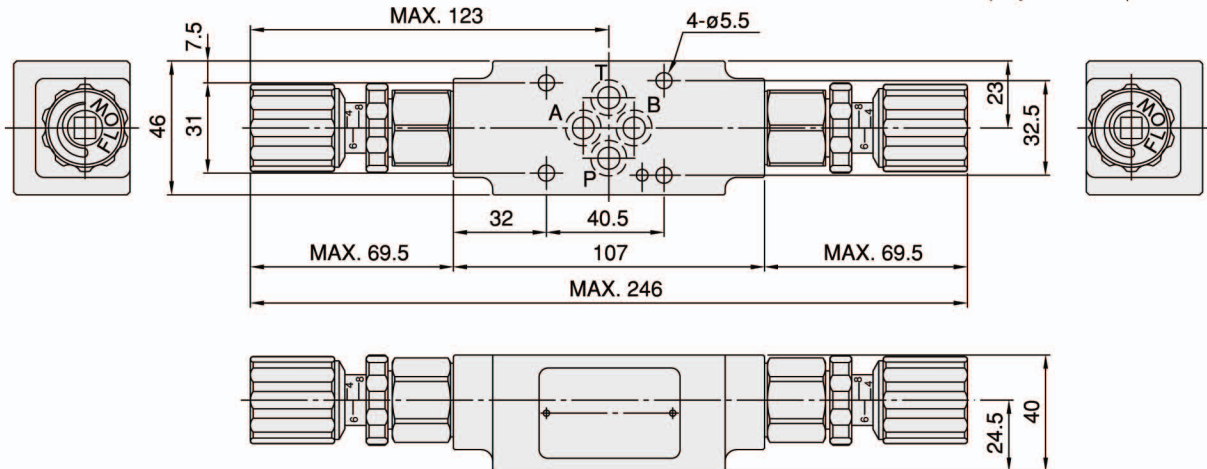


Dimensions :

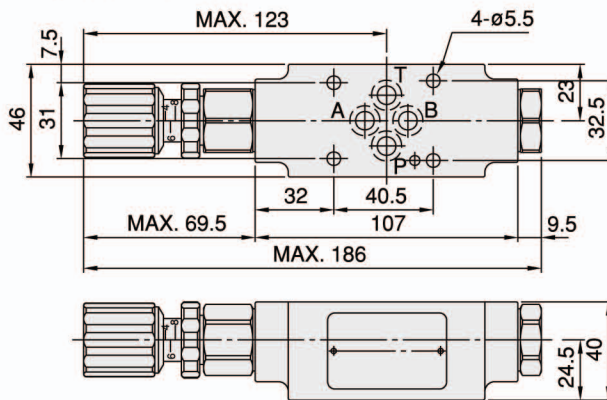
EDGMTC03 Size 6

DGMTC-03-W-O-10

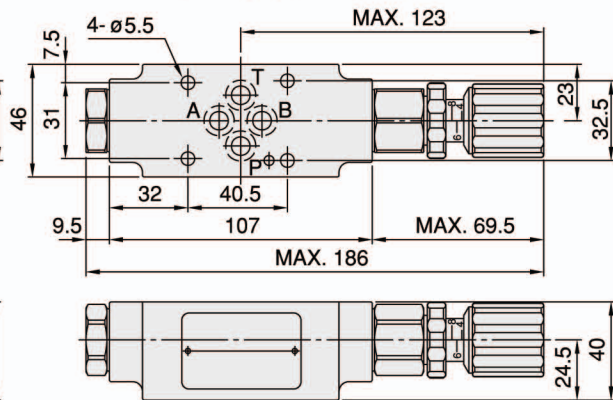
3rd angle projection



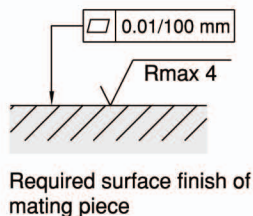
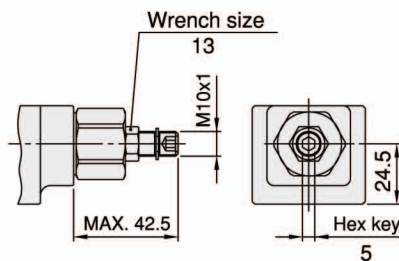
DGMTC-03-A-O-10



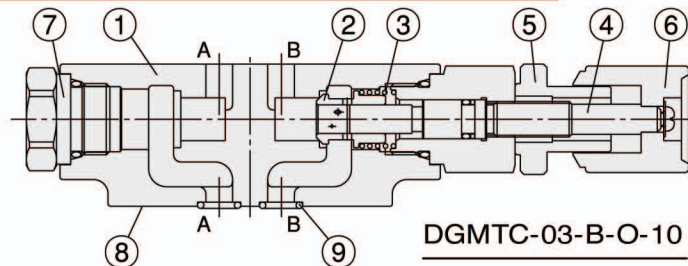
DGMTC-03-B-O-10



DGMTC-03- *-O-20



Cross Section Drawing :



1. Body.
2. Throttle.
3. Spring.
4. Setting screw.
5. Locking nut.
6. Adjustment element.
7. Nut.
8. Connections to DIN 24340 from A6; valve fixing screws M5 DIN 912-10.9, tightening torque 8~9 Nm.
9. O-ring 1B-P9 for ports A,B,P and T.

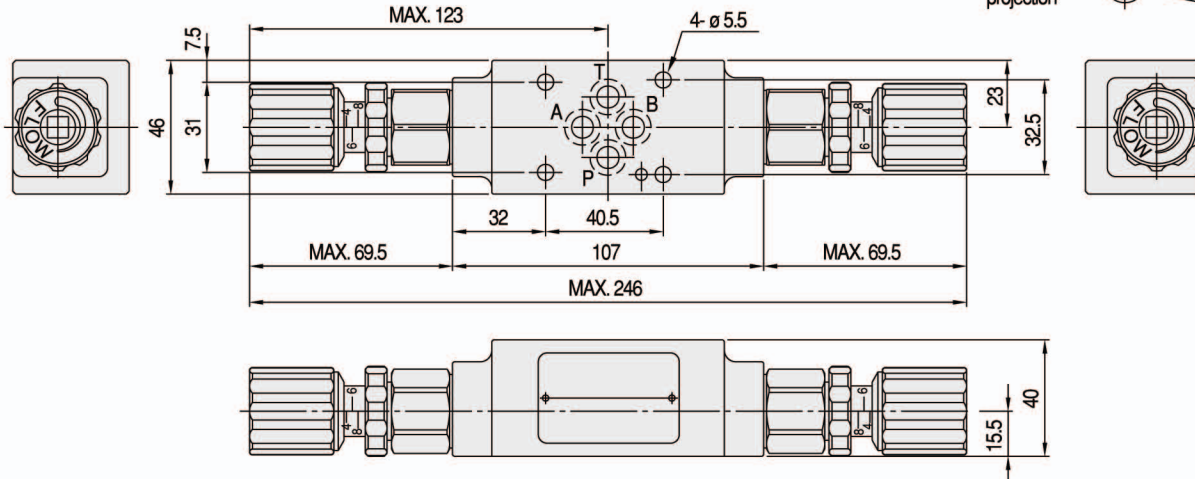
DGM-03

Dimensions :

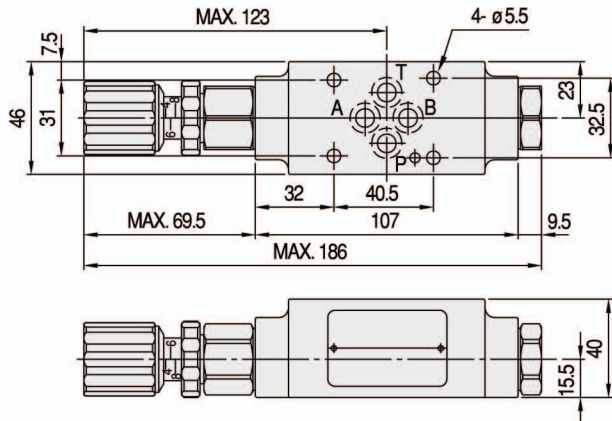
EDGMTC03 Size 6

DGMTC-03-W-I-10

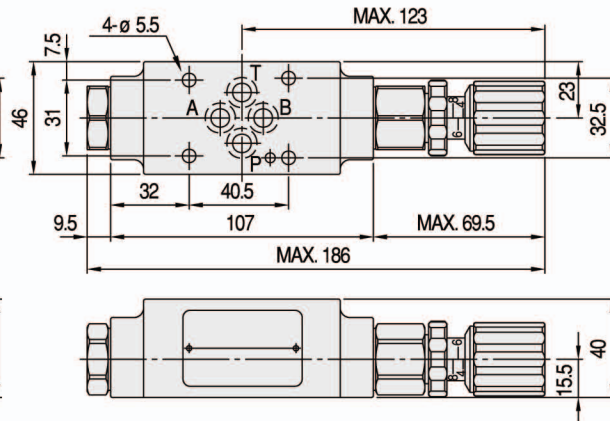
3rd angle
projection



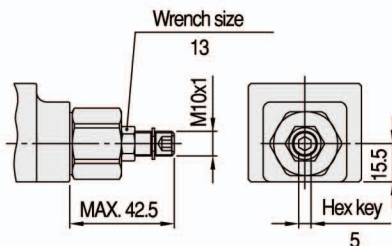
DGMTC-03-A-I-10



DGMTC-03-B-I-10



DGMTC-03- *-I-20

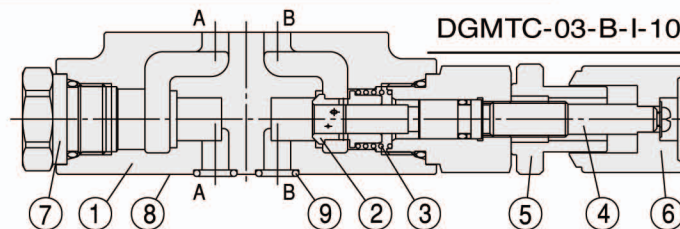


0.01/100 mm

Rmax 4

Required surface finish of
mating piece

Cross Section Drawing :



- | | |
|------------------------|---|
| 1. Body. | 7. Nut. |
| 2. Throttle. | 8. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm. |
| 3. Spring. | 9. O-ring 1B-P9 for ports A,B,P and T. |
| 4. Setting screw. | |
| 5. Locking nut. | |
| 6. Adjustment element. | |

List of Modular Valve Series :

03 Size 6

DGM-03

Classification	Valve Name	Valve Model	Pressure Adjusting Range (bar)	Max. Flow (L/min)	Hydraulic Symbol	Weight (Kg)	Refer Page
Directional Control Valve	Solenoid Valve	DG03- *- *-70	320	80			J 1-10
Pressure Control Valve	Relief Valve (Balance Type)	DGMRV-03-P- *-10	0: 7~35	50		1.5	5
		DGMRV-03-W- *-10	1: 7~70			2.3	
		DGMRV-03-A- *-10	2: 7~140			1.6	
		DGMRV-03-B- *-10	3: 7~210			1.6	
	Brake Valve (Direct type)	DGMBV-03-W- *-10	1: 8~70	20		1.5	8
		DGMBV-03-A- *-10	3: 35~210			1.4	
		DGMBV-03-B- *-10				1.4	
	Reducing Valve (Direct type)	DGMGV-03-P- *-10	0: 1.5~35	40		1.3	11
		DGMGV-03-A- *-10	1: 7~70			1.3	
		DGMGV-03-B- *-10	2: 7~140			1.3	
	Counter Balance Valve	DGMCB-03-A1- *-10	1: 8~70	40		1.1	14
		DGMCB-03-B1- *-10	2: 35~140			1.1	
	Sequence Valve	DGMSV-03-P2- *-10	1: 8~70 3: 35~210	40		1.1	17

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Direct operated check valve.
- 5 different isolating functions.
- Connections to DIN, ISO and CETOP.

EDGMCV03 Size 6



DGM-03

Specification :

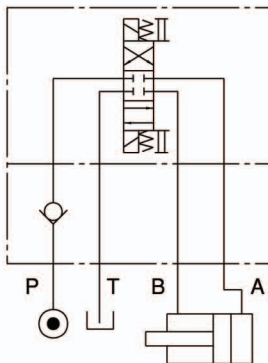
Model: DGMCV-03-P-1-10

Maximum flow	50 ℓ /min {13.2 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Spring cracking pressure	1: 0.4 bar {5.7 PSI}
	2: 3.5 bar {50 PSI}
	3: 5.0 bar {71 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

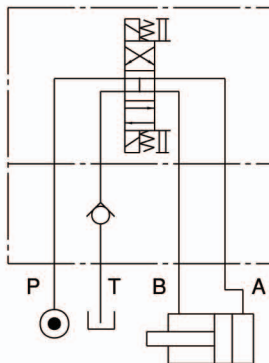
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AB-03-4-A
Weight	P type	0.97 Kg
	T type	0.97 Kg
	A type	1.2 Kg
	B type	1.2 Kg
	W type	1.4 Kg

Hydraulic Configuration :

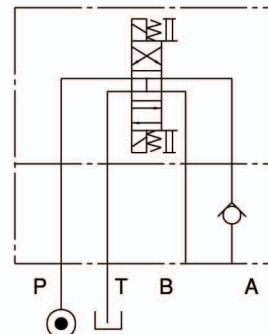
DGMCV-03-P- *-10



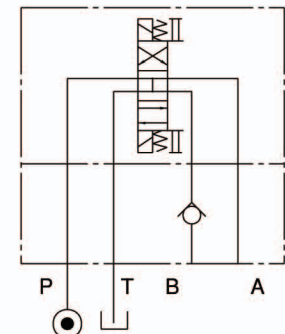
DGMCV-03-T- *-10



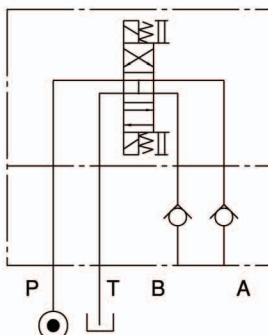
DGMCV-03-A- *-10



DGMCV-03-B- *-10



DGMCV-03-W- *-10



Ordering Code :

EDGMCV03 Size 6

DGM CV - 03 - P - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- P : single; acting on port P.
- T : single; acting on port T.
- W : single; acting on port A and B.
- A : single; acting on port A.
- B : single; acting on port B.

5

Spring Cracking Pressure

- 1: 0.4 bar.
- 2: 3.5 bar.
- 3: 5.0 bar.

6

Design Number

7

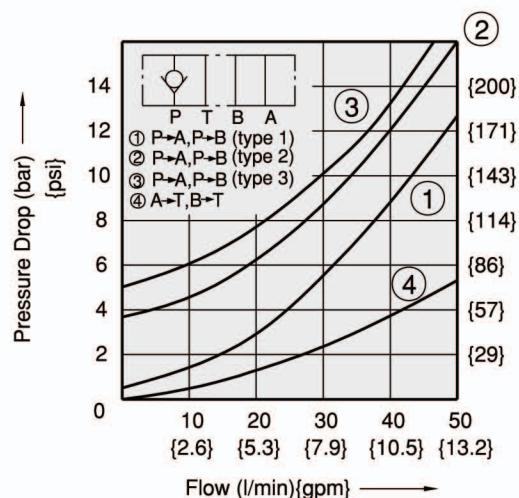
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

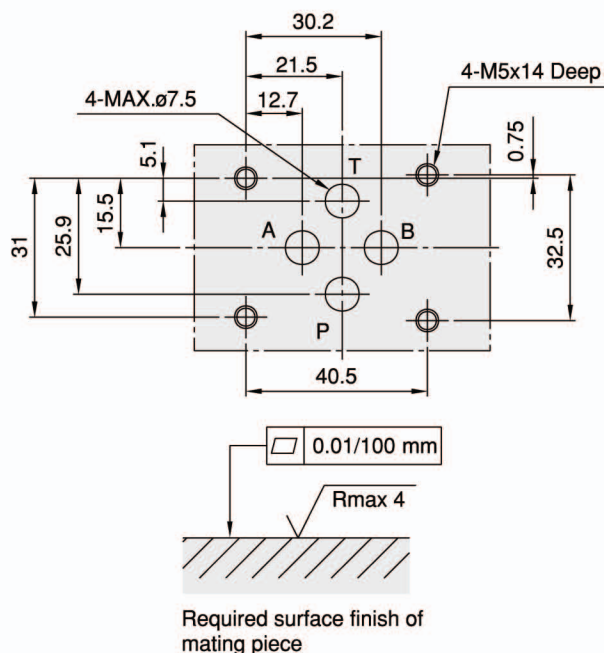
Pressure Drop Characteristic

DGMCV-03-P- *-10



Installation Dimensions :

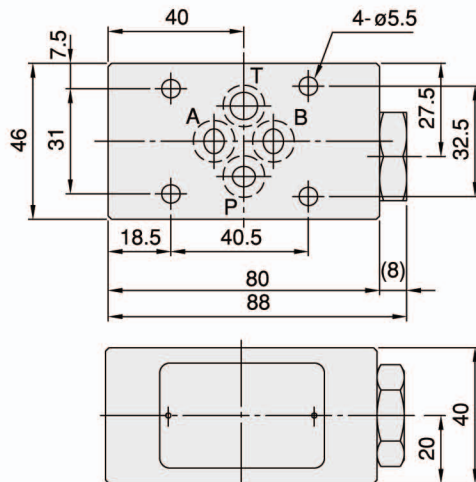
(Machined valve mounting face with position of ports)



Dimensions :

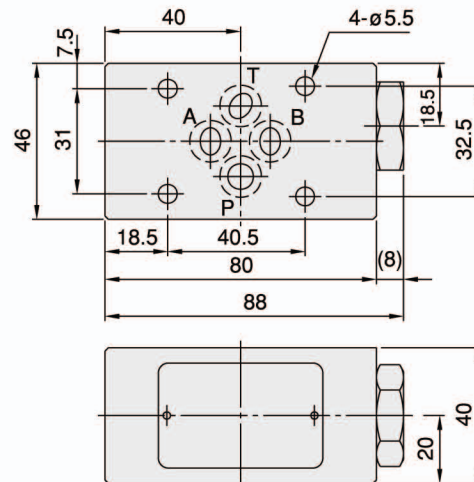
EDGMCV03 Size 6

DGMCV-03-P- *-10



DGMCV-03-T- *-10

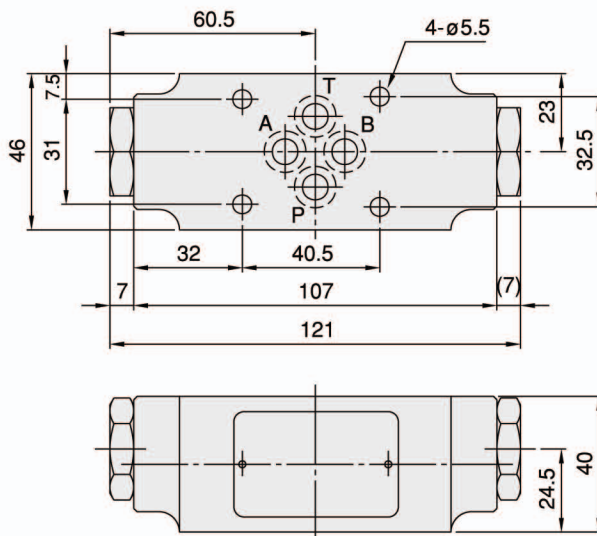
3rd angle projection



DGMCV-03-A- *-10

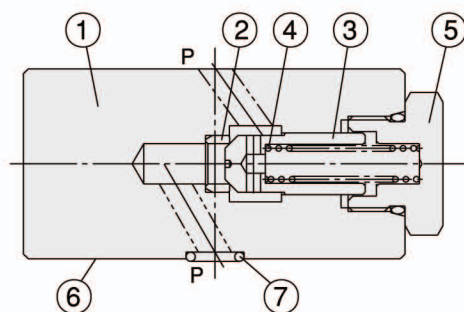
DGMCV-03-B- *-10

DGMCV-03-W- *-10



Cross Section Drawing :

DGMCV-03-P- *-10



1. Body.
2. Seat.
3. Poppet.
4. Spring.
5. Nut.
6. Connections to DIN. 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
7. O-ring 1B-P9 for ports A, B, P and T.

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Direct operated check valve.
- Be incorporated between A, B port and T port.
- This check valve of a certain type can be used for suction.
- Connections to DIN, ISO and CETOP.



Model: DGMAC-03-W-10

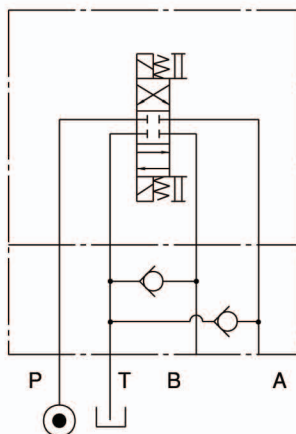
Specification :

Maximum flow	50 ℓ /min {13.2 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Spring cracking pressure	0.15 bar {2.14 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C

Viscosity range	15~400 mm ² /s
Hydraulic oil	ISO VG 32, 46, 68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AB-03-4-A
Weight	1.0 kg

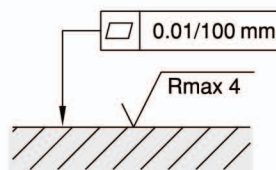
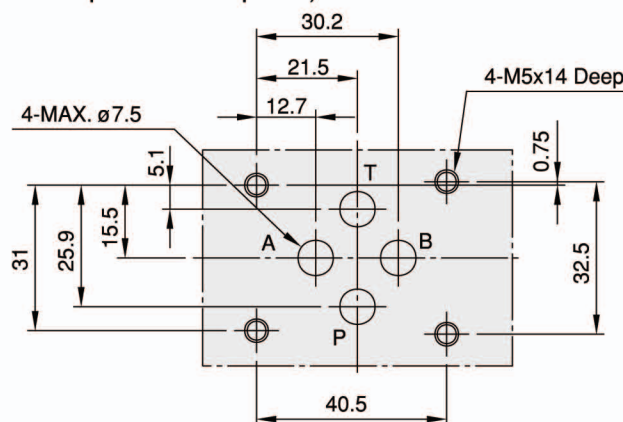
Hydraulic Configuration :

DGMAC-03-W-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Required surface finish of mating piece

VACUUM CHECK VALVE

SANDWICH PLATE DESIGN



Ordering Code :

EDGMAC03 Size 6

DGM AC - 03 - W - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Vacuum Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- W: double; be incorporated between A, B port and T port.

5

Design Number

6

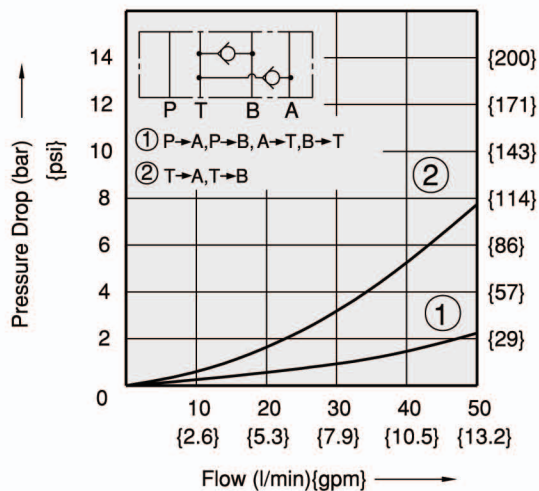
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

DGMAC-03-W-10



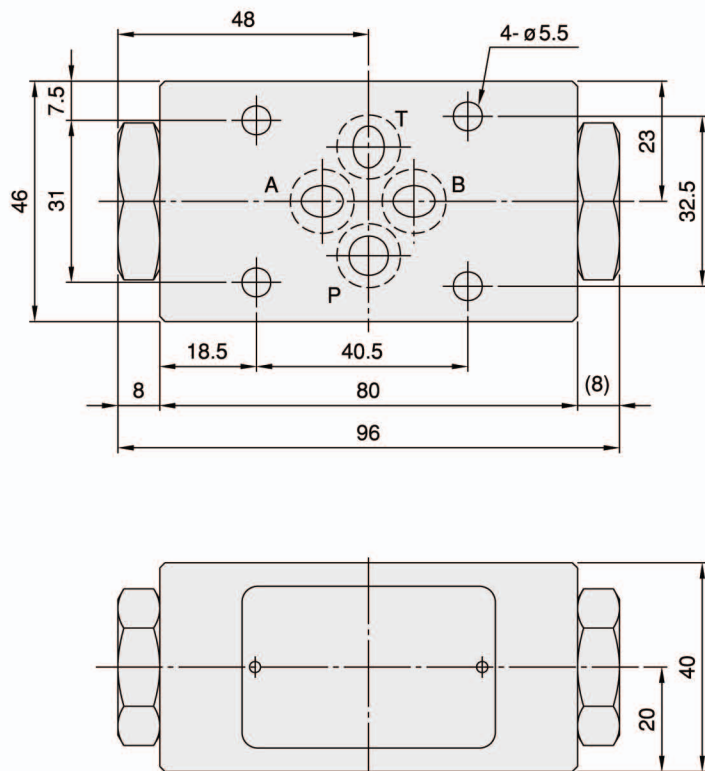
DGM-03

Dimensions :

EDGMAC03 Size 6

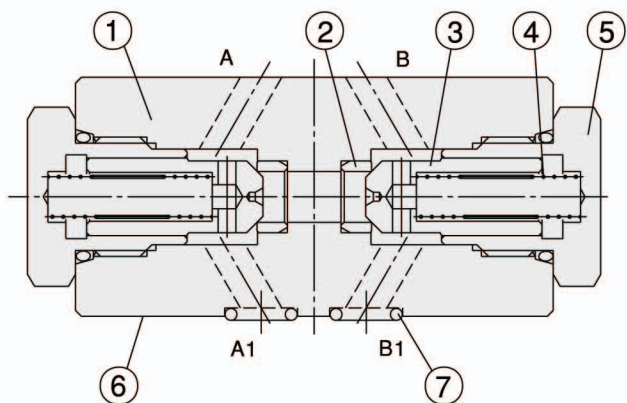
DGMAC-03-W-10

3rd angle
projection



Cross Section Drawing :

DGMAC-03-W-10

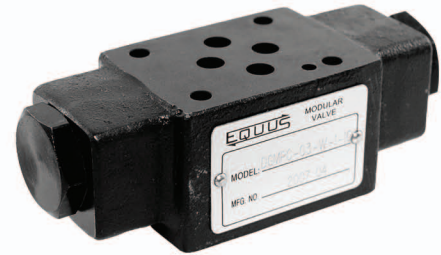


1. Body.
2. Seat.
3. Poppet.
4. Spring.
5. Nut.
6. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
7. O-ring 1B-P9 for ports A, B, P and T.

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Pilot operated check valve.
- For leak free sealing of one or two actuator port.
- Connections to DIN, ISO and CETOP.

EDGMPC03 Size 6



DGM-03

Model: DGMPC-03-W-1-10

Specification :

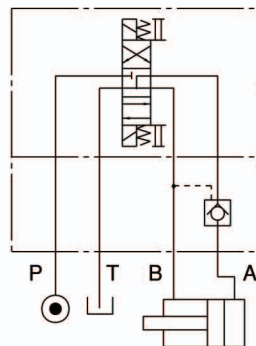
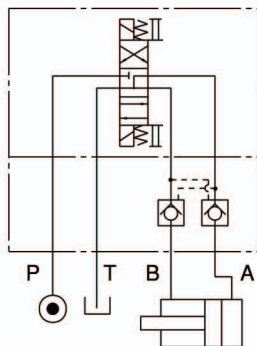
Maximum flow		50 ℓ /mm {13.2 GPM}
Maximum operating pressure		320 bar {4570 PSI}
Spring cracking pressure		1: 2 bar {29 PSI}
		2: 5 bar {71 PSI}
Area ratio	Pilot piston	1
	Check valve seat	0.37
	Needle valve seat	-
Ambient temperature range		-20°C~+50°C

Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32,46,68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	W type	1.2 kg
	A type	1.2 kg
	B type	1.2 kg

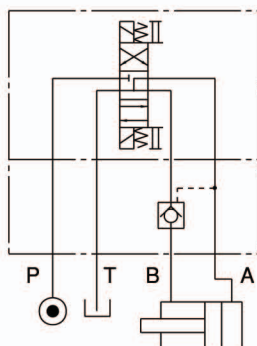
Hydraulic Configuration :

DGMPC-03-W- *-10

DGMPC-03-A- *-10

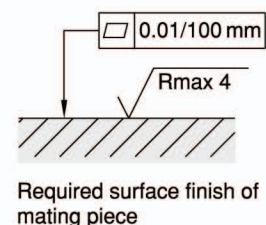
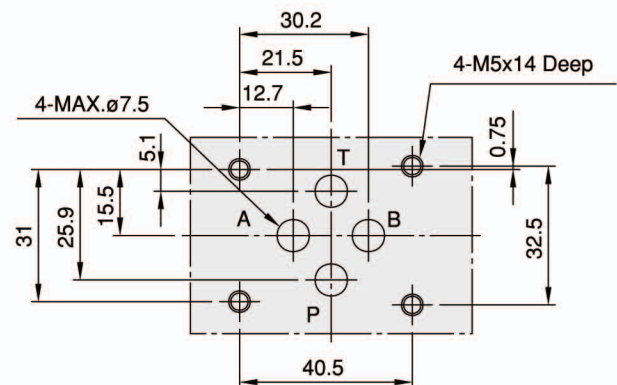


DGMPC-03-B- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Required surface finish of mating piece

Ordering Code :

EDGMPC03 Size 6

DGM PC - 03 - W - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pilot Operated Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- W: double; acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5

Spring Cracking Pressure

- 1: 2 bar.
- 2: 5 bar.

6

Design Number

7

Optional Inquiry

Performance Curves :

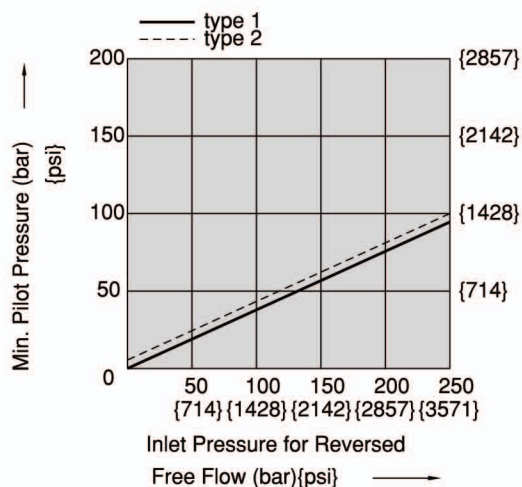
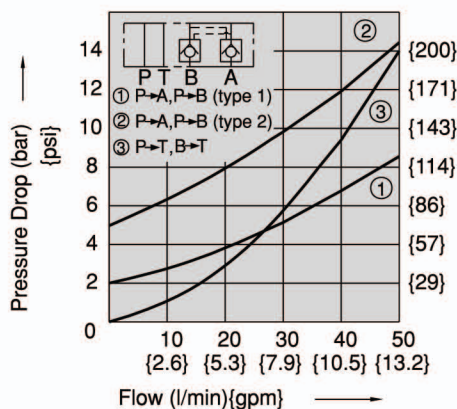
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Min. Pilot Pressure Characteristic

DGMPC-03-W- *-10

DGMPC-03-W- *-10



Dimensions :

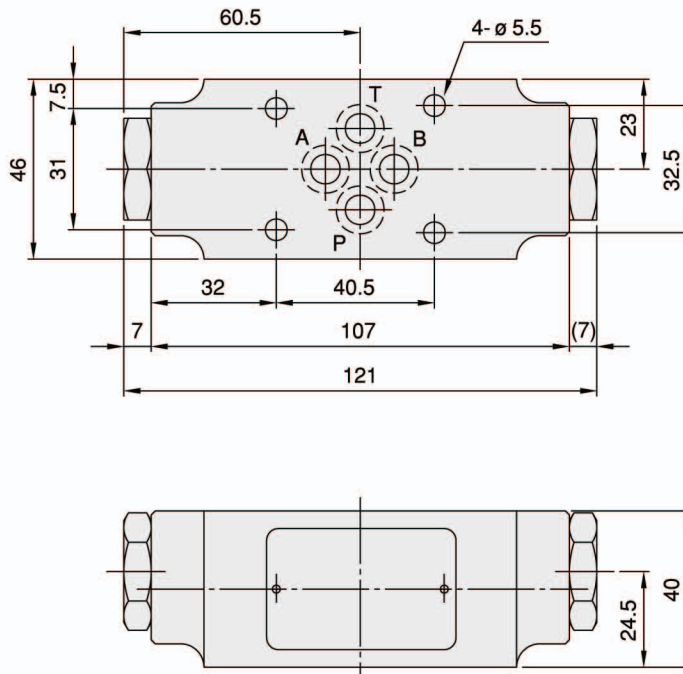
EDGMPC03 Size6

DGMPC-03-W- *-10

DGMPC-03-A- *-10

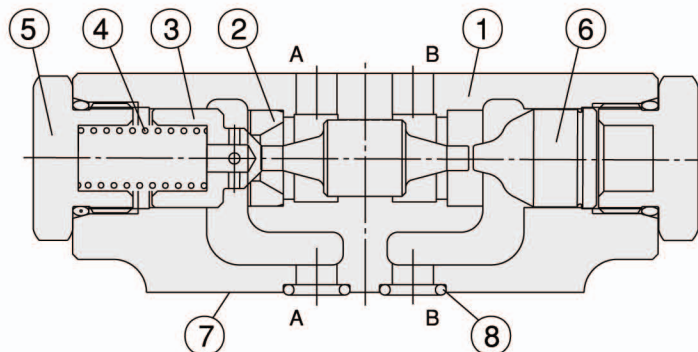
DGMPC-03-B- *-10

3rd angle
projection



Cross Section Drawing :

DGMPC-03-A- *-10



1. Body.
2. Seat.
3. Poppet.
4. Spring.
5. Nut.
6. Bushing.
7. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
8. O-ring 1B-P9 for ports A,B,P and T.

Characteristics :

- Highest performance in NG 6.
- Sandwich plate design.
- Pilot operated check valve with decompression.
- For leak free sealing of one or two actuator port.
- Connections to DIN, ISO and CETOP.

EDGMPD03 Size 6



Model: DGMPD-03-W-1-10

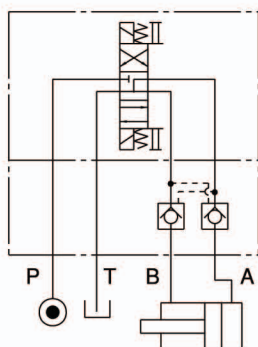
Specification :

Maximum flow		50ℓ /mm {13.2 GPM}
Maximum operating pressure		320 bar {4570 PSI}
Spring cracking pressure		1: 2 bar {29 PSI}
		2: 5 bar {71 PSI}
Area ratio	Pilot piston	1
	Check valve seat	0.51
	Needle valve seat	0.06
Ambient temperature range		-20°C~+50°C

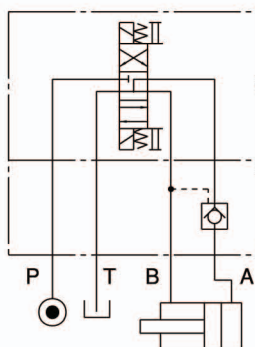
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32,46,68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	W type	1.2 kg
	A type	1.2 kg
	B type	1.2 kg

Hydraulic Configuration :

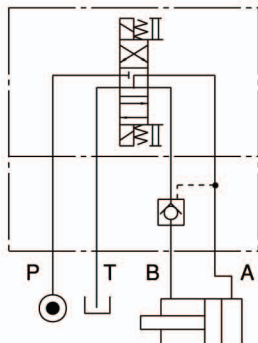
DGMPD-03-W- *-10



DGMPD-03-A- *-10

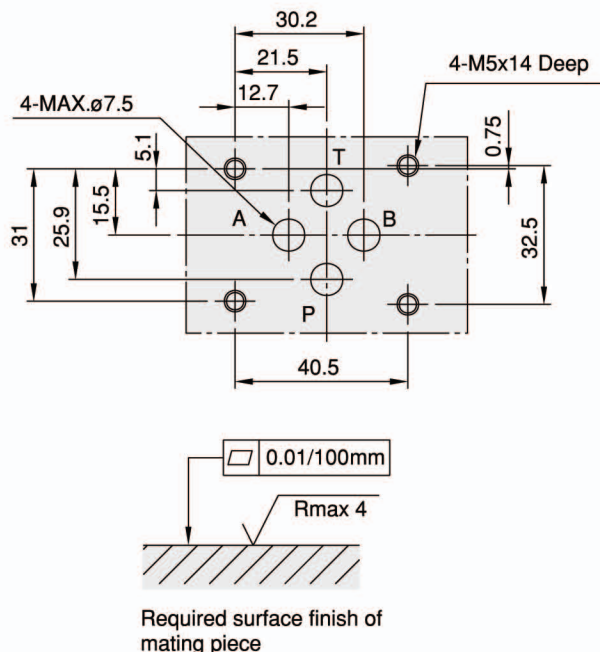


DGMPD-03-B- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



List of Modular Valve Series :

03 Size 6

Classification	Valve Name	Valve Model	Pressure Adjusting Range (bar)	Max. Flow (L/min)	Hydraulic Symbol	Weight (Kg)	Refer Page
Flow Control Valve	Flow Regulator Valve	DGMTV-03-P-10		50		0.99	20
		DGMTV-03-T-10				0.99	
	Flow Regulator with Check Valve	DGMTC-03-P-10	Cracking Pressure: 0.4	50		1.0	23
	Flow Regulator with Metered Out Check	DGMTC-03-W-O-10	Cracking Pressure: 0.8	50		1.3	26
		DGMTC-03-A-O-10				1.2	
		DGMTC-03-B-O-10				1.2	
	Flow Regulator with Metered In Check	DGMTC-03-W-I-10	Cracking Pressure: 0.8	50		1.3	26
		DGMTC-03-A-I-10				1.2	
		DGMTC-03-B-I-10				1.2	
Directional Control Valve	Check Valve	DGMCV-03-P- *-10	Cracking Pressure: 1: 0.4 2: 3.5 3: 5.0	50		0.97	30
		DGMCV-03-T- *-10				0.97	
		DGMCV-03-A- *-10				1.2	
		DGMCV-03-B- *-10				1.2	
	Vacuum Check Valve	DGMAC-03-W-10	Cracking Pressure: 0.15	50		1.0	33
	Pilot Check Valve	DGMPC-03-W- *-10	Cracking Pressure: 1: 2 2: 5	50		1.2	36
		DGMPC-03-A- *-10				1.2	
		DGMPC-03-B- *-10				1.2	
	Pilot Check Valve (With decompression)	DGMPD-03-W- *-10	Cracking Pressure: 1: 2 2: 5	50		1.2	39
		DGMPD-03-A- *-10				1.2	
		DGMPD-03-B- *-10				1.2	
Modular Block	Manifold Block	DGMFB-03- *-10		50			42

Ordering Code :
EDGMPD03 Size 6
DGM PD - 03 - W - 1 - 10 - * *
1
2
3
4
5
6
7
1
Sandwich Plate Design
2
Pilot Operated Check Valve with Decompression
3
Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4
Configuration

- W: double; acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5
Spring Cracking Pressure

- 1: 2 bar.
- 2: 5 bar.

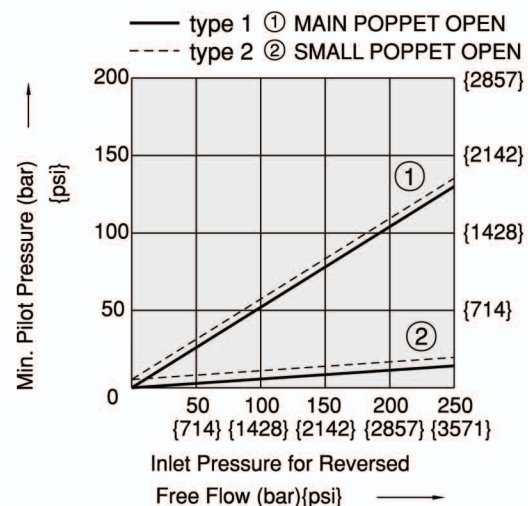
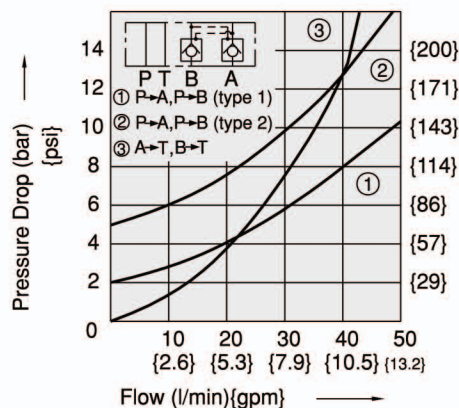
6
Design Number
7
Optional Inquiry
Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic
Min. Pilot Pressure Characteristic

DGMPD-03-W- *-10

DGMPD-03-W- *-10



Dimensions :

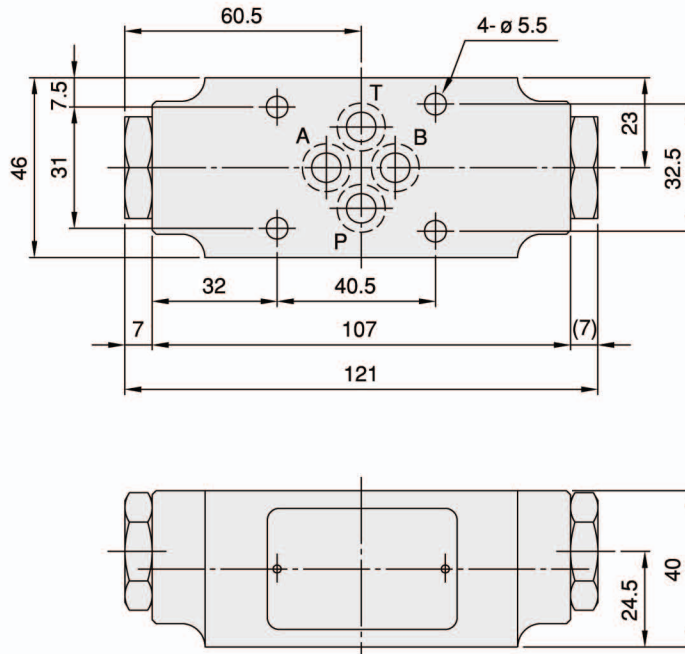
EDGMPD03 Size 6

DGMPD-03-W- *-10

DGMPD-03-A- *-10

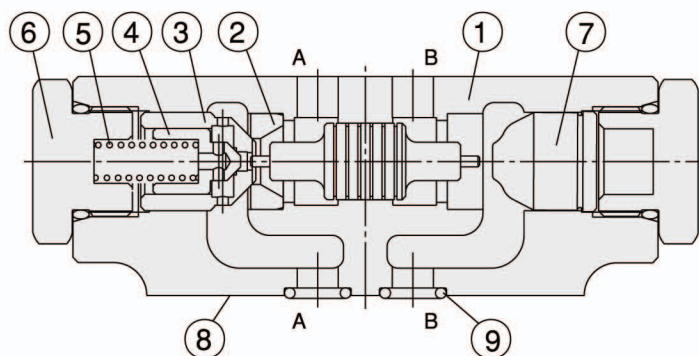
DGMPD-03-B- *-10

3rd angle
projection



Cross Section Drawing :

DGMPD-03-A- *-10



1. Body.
2. Seat.
3. Poppet 1.
4. Poppet 2.
5. Spring.
6. Nut.
7. Bushing.
8. Connections to DIN 24340 from A6;
valve fixing screws M5 DIN 912-10.9,
tightening torque 8~9 Nm.
9. O-ring 1B-P9 for ports A,B,P and T.

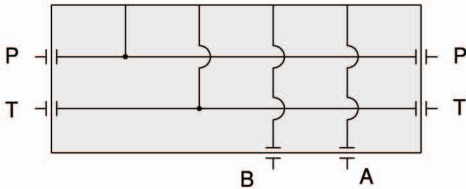


Model: DGMFB-03-1-10

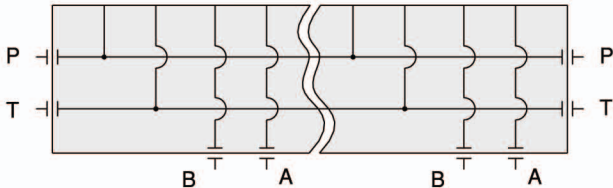
EDGMFB03 Size 6

Hydraulic Configuration :

DGMFB-03-1-10



DGMFB-03- *-10



Specification :

Maximum flow	50 ℓ /min {13.2 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Hydraulic oil	ISO VG 32, 46, 68
Mounting pattern	ISO 4401-AB-03-4-A

Ordering Code :

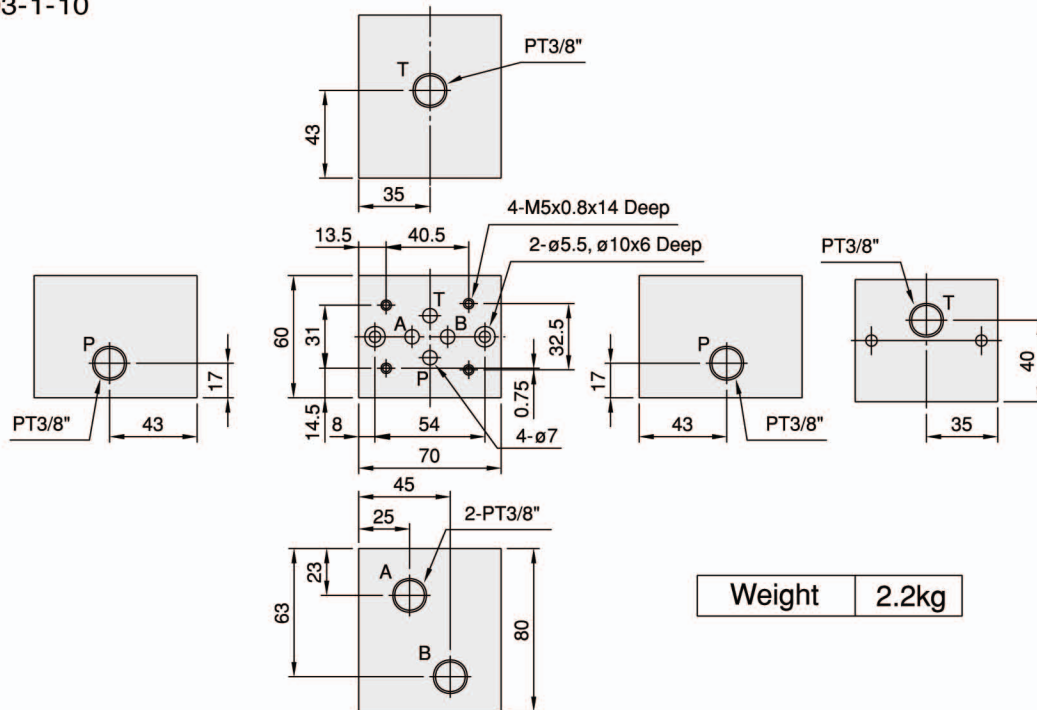
DGM FB - 03 - 1 - 10 - * *

1	Sandwich Plate Design
2	Manifold Block
3	Nominal Valve Size
• Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.	
4	Number of Controls in Vertical Stacking Design
• 2: for 2 controls. • 3: for 3 controls. • 4: for 4 controls. • 5: for 5 controls. • 6: for 6 controls. • 7: for 7 controls.	
5	Design Number
6	Optional Inquiry

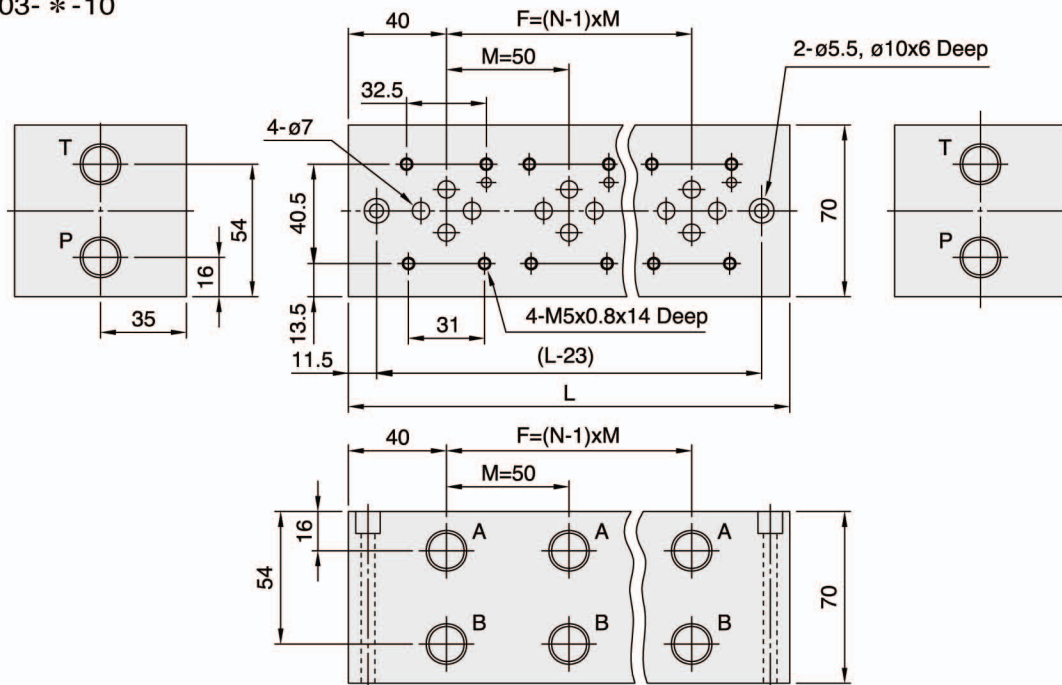
Dimensions :

EDGMFB03 Size 6

DGMFB-03-1-10



DGMFB-03- *-10

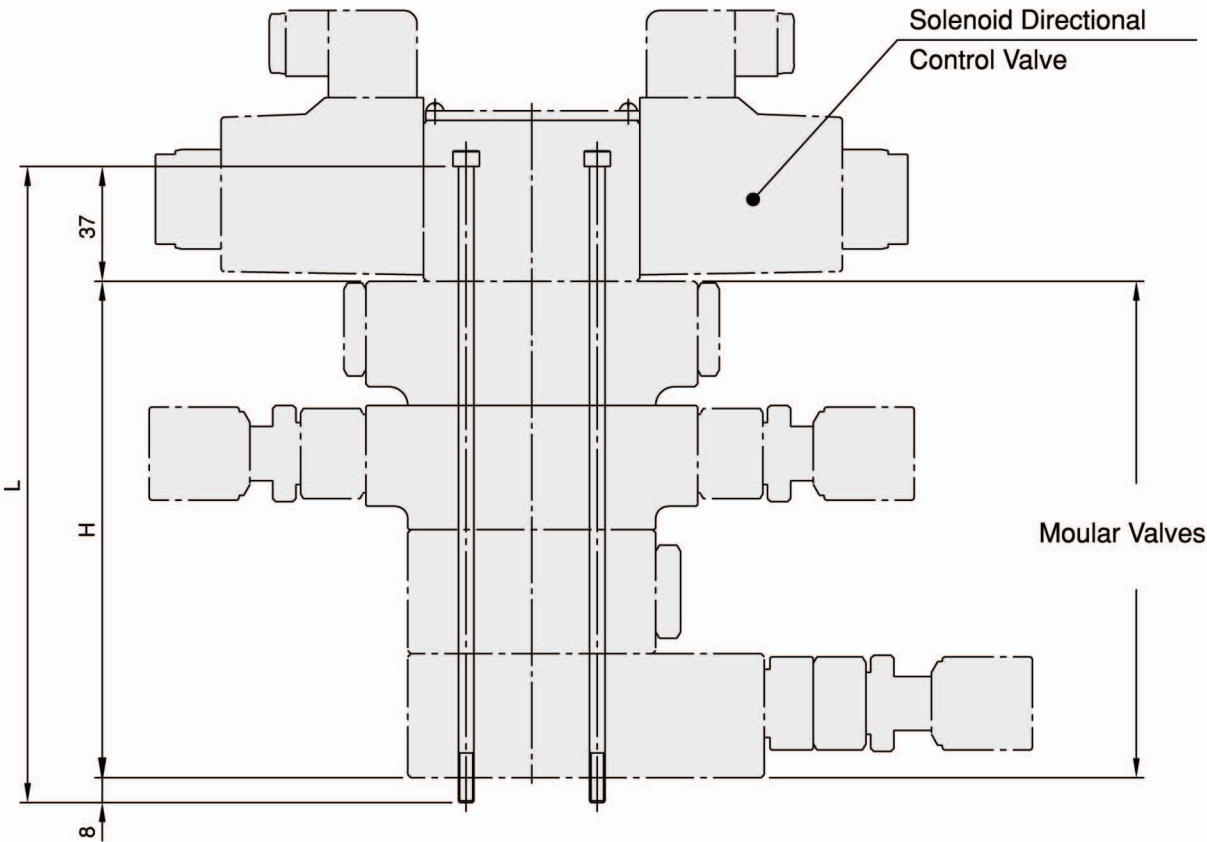


Types	N	F	L	A	B	P	T	Weight (kg)
DGMFB-03-2-10	2	50	130	Rc3/8"				4.5
DGMFB-03-3-10	3	100	180					6.3
DGMFB-03-4-10	4	150	230					8.1

Types	N	F	L	A	B	P	T	Weight (kg)
DGMFB-03-5-10	5	200	280	Rc3/8"				9.8
DGMFB-03-6-10	6	250	330					11.6
DGMFB-03-7-10	7	300	380					13.4

Hexagon Socket Head Bolt:

03 Size 6

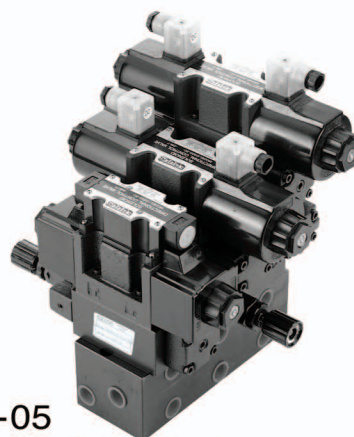


Numbers of the moular valves	H	L	Bolt length	
			Metric	Inch
1	40	85	M5x85Lx4 pcs.	10#~24UNCx3-3/8" Lx4 pcs.
2	80	125	M5x125Lx4 pcs.	10#~24UNCx5" Lx4 pcs.
3	120	165	M5x165Lx4 pcs.	10#~24UNCx6-1/2" Lx4 pcs.
4	160	205	M5x205Lx4 pcs.	10#~24UNCx8-1/8" Lx4 pcs.

Characteristics :

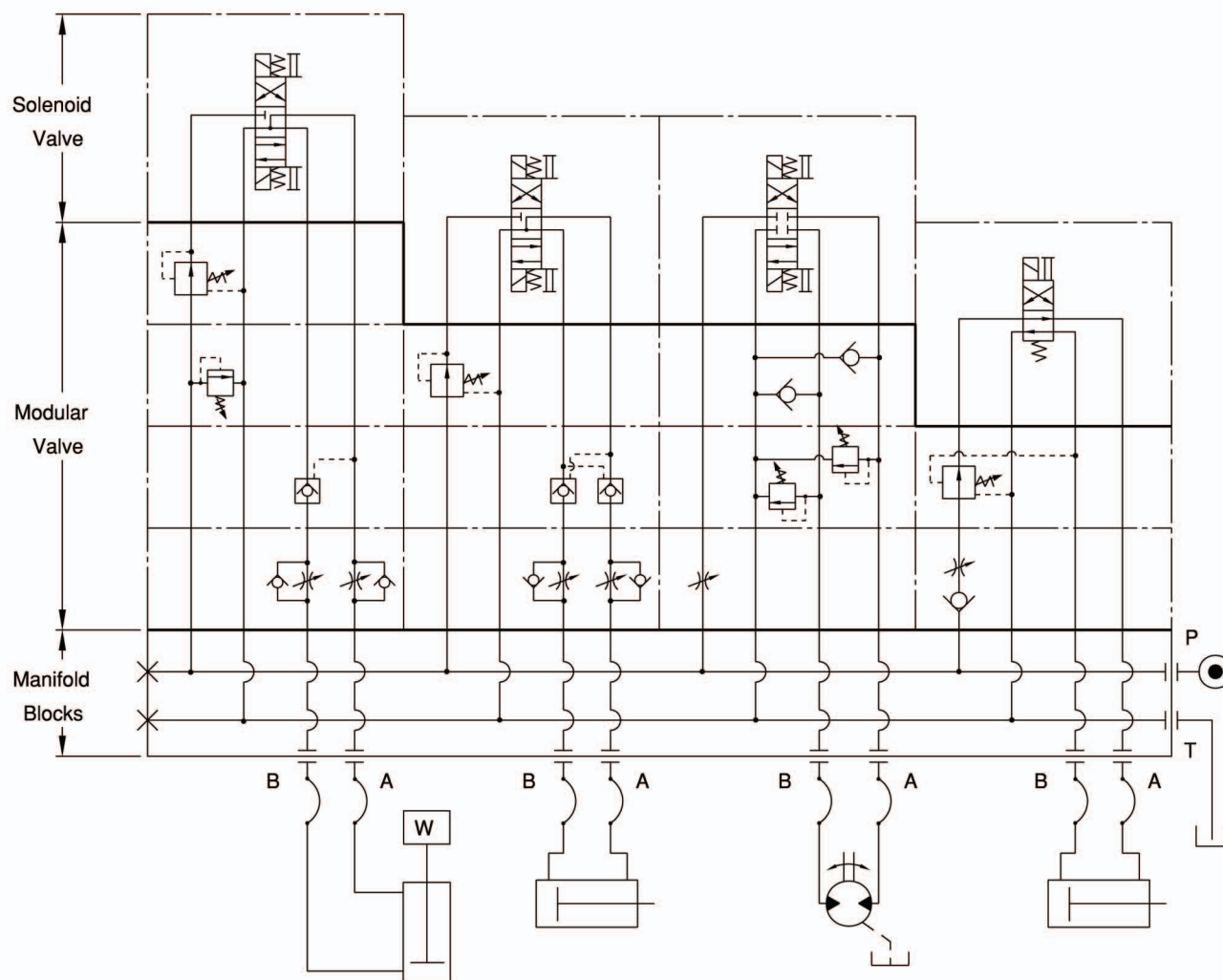
- Highest performance in NG 10.
- Compacting stacking valves.
- Eliminating intervalve piping and fittings.
- Reducing leakage and installation costs.
- Max. Operating Pressure: 32 MPa.
- Max. Flow: 100 ℓ /min.
- Connections to DIN, ISO and CETOP.

05 Size 10



DGM-05
Modular Valve Series

Stacking Example:



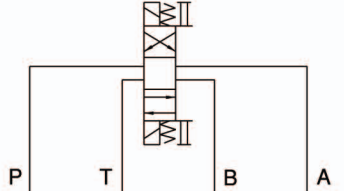
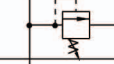
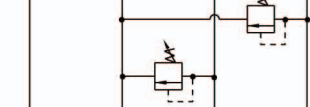
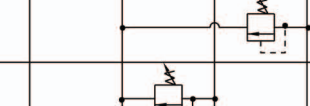
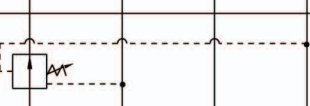
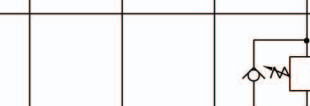
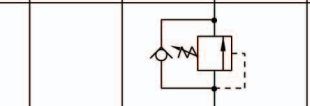
Care in Application :

05 Size 10

Valve Name	Wrong Example	Correct Example	Instructions
Solenoid operated directional control valve Pilot operated check valve (DGMPC-05-W- *-10) Pressure reducing valve (DGMGV-05-B- *-10)			When DGMGV-05-B and DGMPC-05-W are used together in the same circuit, the right circuit is correct, and the left is wrong, as DGMPC-05-W would not be totally closed.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-05-W-O-10) Pilot operated check valve (DGMPC-05-W- *-10)			When DGMTC-05-W-O and DGMPC-05-W are used together in the same circuit , DGMTC-05-W-O should be installed closer to the cylinder ports, otherwise the cylinder may have a "knocking" phenomenon happened.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-05-W-O-10) Pressure reducing valve (DGMGV-05-B- *-10)			When DGMGV-05-B and DGMTC-05-W-O are used together in the same circuit, the right circuit is correct, and the left is wrong, as the function of DGMGV-05-B will be affected when oil flow from B port to T port. Because DGMTC-05-W-O will create a pressure which will cause DGMGV-05-B to reduce the pressure too low, and the cylinder then can not operate with enough force or move smoothly.

List of Modular Valve Series :

05 Size 10

Classification	Valve Name	Valve Model	Pressure Adjusting Range (bar)	Max. Flow (L/min)	Hydraulic Symbol	Weight (Kg)	Refer Page
Directional Control Valve	Solenoid Valve	DG05- *- *-70	320	160			J 11-20
Pressure Control Valve	Relief Valve (Balance Type)	DGMRV-05-P- *-10	0: 7~35	80		3.1	49
		DGMRV-05-W- *-10	1: 7~70			3.9	
		DGMRV-05-A- *-10	2: 7~140			3.1	
		DGMRV-05-B- *-10	3: 7~210			3.1	
	Brake Valve (Direct type)	DGMBV-05-W- *-10	1: 8~70	30		4.8	52
		DGMBV-05-A- *-10	3: 35~210			4.0	
		DGMBV-05-B- *-10				4.0	
	Reducing Valve (Direct type)	DGMGV-05-P- *-10	0: 2.5~35	80		3.8	55
		DGMGV-05-A- *-10	1: 7~70			3.8	
		DGMGV-05-B- *-10	2: 7~140			3.8	
	Counter Balance Valve	DGMCB-05-A1- *-10	1: 7~70	80		3.5	58
		DGMCB-05-B1- *-10	2: 35~140			3.5	
	Sequence Valve	DGMSV-05-P2- *-10	1: 7~70 2: 35~140	80		3.5	61

List of Modular Valve Series :

05 Size 10

Classification	Valve Name	Valve Model	Pressure Adjusting Range (bar)	Max. Flow (L/min)	Hydraulic Symbol				Weight (Kg)	Refer Page
Flow Control Valve	Flow Regulator Valve	DGMTV-05-P-10		100					2.5	64
	Flow Regulator with Check Valve	DGMTC-05-P-10	Cracking Pressure: 0.4	100					3.0	67
	Flow Regulator with Metered Out Check	DGMTC-05-W-O-10	Cracking Pressure: 1.0	100					3.1	70
		DGMTC-05-A-O-10							3.0	
		DGMTC-05-B-O-10							3.0	
	Flow Regulator with Metered In Check	DGMTC-05-W-I-10	Cracking Pressure: 1.0	100					3.1	70
		DGMTC-05-A-I-10							3.0	
		DGMTC-05-B-I-10							3.0	
Directional Control Valve	Check Valve	DGMCV-05-P- *-10	Cracking Pressure: 1: 0.4 2: 3.5 3: 5.0	100					2.8	74
		DGMCV-05-T- *-10							2.8	
		DGMCV-05-A- *-10							3.6	
		DGMCV-05-B- *-10							3.6	
	Vacuum Check Valve	DGMAC-05-W-10	Cracking Pressure: 0.15	100					3.5	77
	Pilot Check Valve	DGMPC-05-W- *-10	Cracking Pressure: 1: 2 2: 5	100					3.6	80
		DGMPC-05-A- *-10							3.6	
		DGMPC-05-B- *-10							3.6	
	Pilot Check Valve (With decompression)	DGMPD-05-W- *-10	Cracking Pressure: 1: 2 2: 5	100					3.6	83
		DGMPD-05-A- *-10							3.6	
		DGMPD-05-B- *-10							3.6	
Modular Block	Manifold Block	DGMFB-05- *-10		100						86

Characteristics :

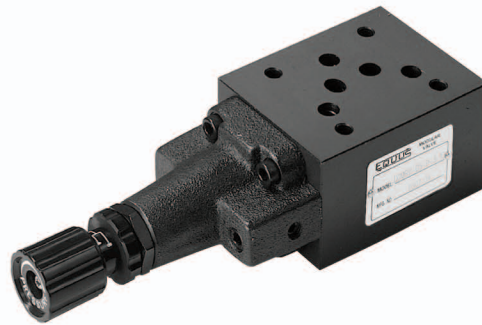
- Highest performance in NG 10.
- Double stage pressure relief valves with balance poppet.
- Sandwich plate design.
- 4 pressure adjusting ranges.
- 4 optional effective directions of flow.
- With one or two pressure relief cartridges.
- Connections to DIN, ISO and CETOP.

Specification :

Maximum flow		80 ℓ /min {21.2 GPM}
Maximum operating pressure		320 bar {4570 PSI}
Pressure adjusting range		0: 7~35 bar
		1: 7~70 bar
		2: 7~140 bar
		3: 7~210 bar
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	P type	3.1 kg
	W type	3.9 kg
	A type	3.1 kg
	B type	3.1 kg

Hydraulic Configuration :

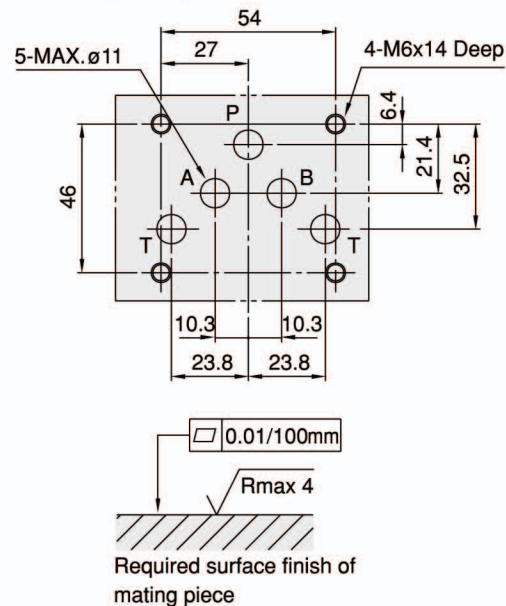
EDGM RV05 Size 10



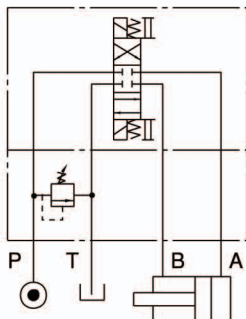
Model: DGMRV-05-P-1-10

Installation Dimensions :

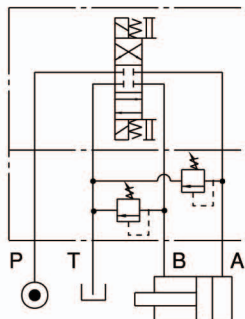
(Machined valve mounting face with position of ports)



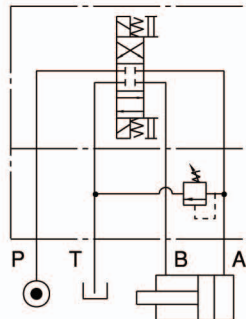
DGMRV-05-P- *-10



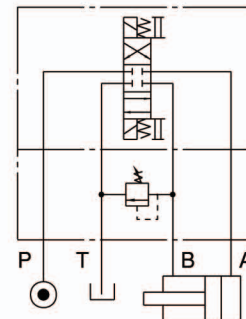
DGMRV-05-W- *-10



DGMRV-05-A- *-10



DGMRV-05-B- *-10



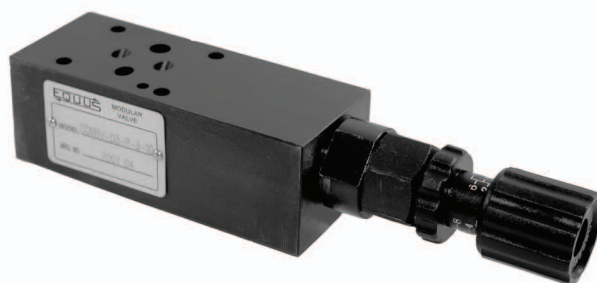
Characteristics :

- Highest performance in NG 6.
- Double stage pressure relief valves with balanced poppet.
- Sandwich plate design.
- 5 pressure ranges.
- 4 optional effective directions of flow.
- With one or two pressure relief cartridges.
- Connections to DIN, ISO and CETOP.

Specification :

Maximum flow		50 ℓ /min {13.2 GPM}
Maximum operating pressure		320 bar {4570 PSI}
Pressure adjusting range		0: 7~35 bar
		1: 7~70 bar
		2: 7~140 bar
		3: 7~210 bar
		4: 35~320 bar
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32, 46, 68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AB-03-4-A
Weight	P type	1.5 Kg
	W type	2.3 Kg
	A type	1.6 Kg
	B type	1.6 Kg

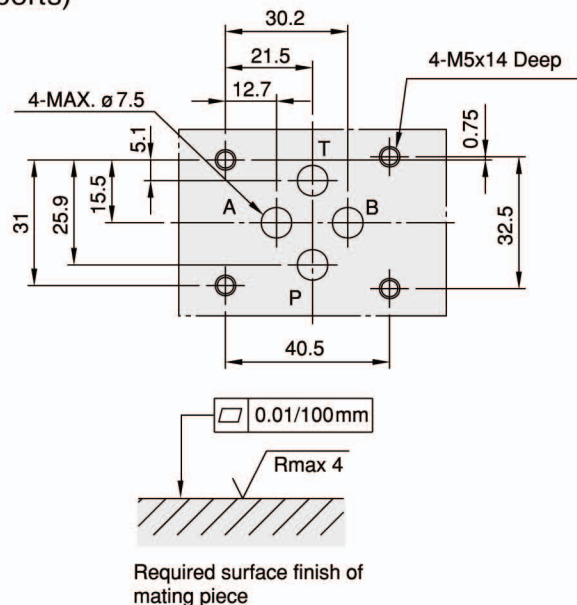
EDGMRV03 Size 6



Model: DGMRV-03-P-1-10

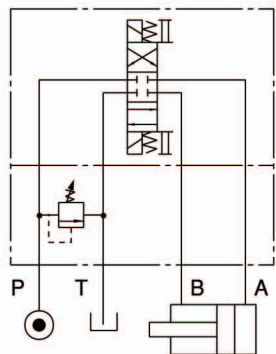
Installation Dimensions :

(Machined valve mounting face with position of ports)

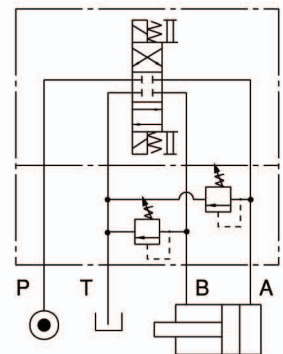


Hydraulic Configuration :

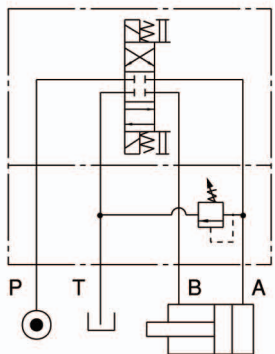
DGMRV-03-P- *-10



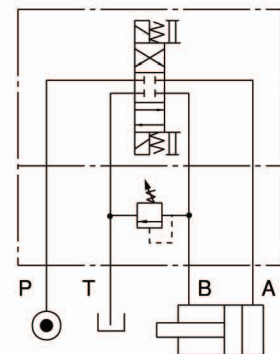
DGMRV-03-W- *-10



DGMRV-03-A- *-10



DGMRV-03-B- *-10



PRESSURE RELIEF VALVE

SANDWICH PLATE DESIGN



Ordering Code :

EDGMRV05 Size 10

DGM RV - 05 - P - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Relief Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- P: single; acting on port P, discharge to port T
- W: double; acting on ports A and B, discharge to port T
- A: single; acting on port A, discharge to port T
- B: single; acting on port B, discharge to port T

5

Pressure Adjusting Range

- 0: 7~35 bar. • 1: 7~70 bar. • 2: 7~140 bar. • 3: 7~210 bar.

6

Design Number

- 10: with handle
- 20: without handle

7

Optional Inquiry

Performance Curves :

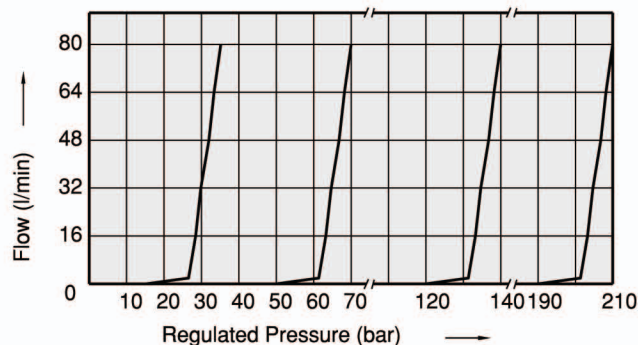
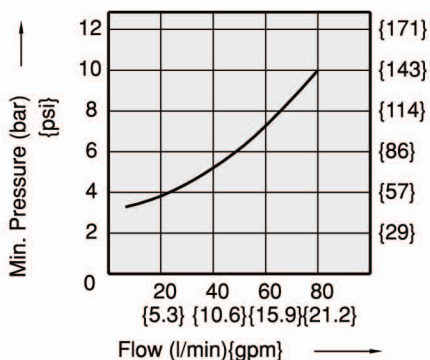
Viscosity of Hydraulic Fluid: 32 mm²/s

Minimum Pressure Versus
Flow Diagram

Regulated Pressure Versus
Flow Diagram

DGMRV-05- *-1-10

DGMRV-05- *- *-10

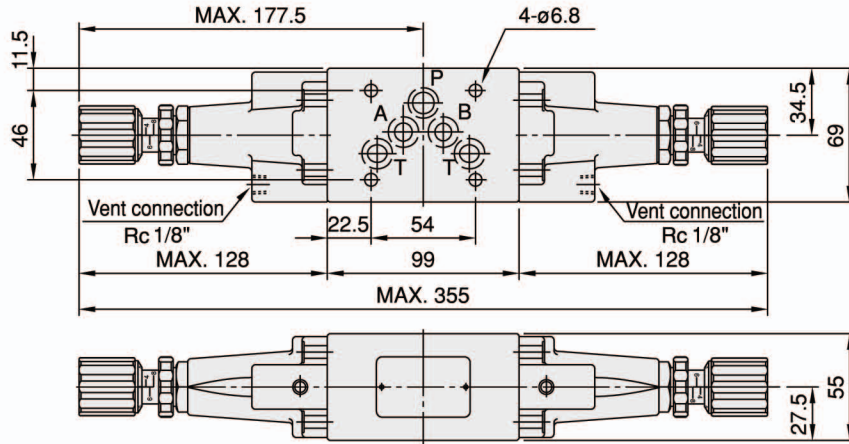


Dimensions :

EDGMRV05 Size 10

DGMRV-05-W- *-10

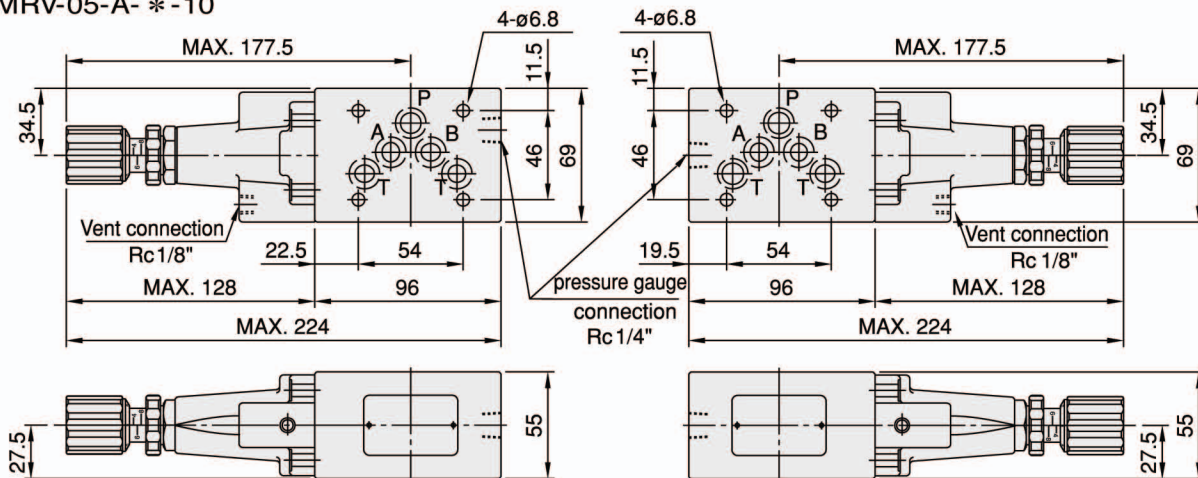
3rd angle
projection



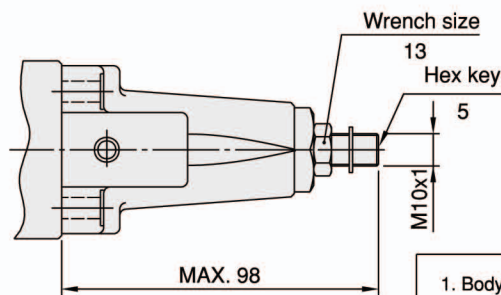
DGMRV-05-P- *-10

DGMRV-05-B- *-10

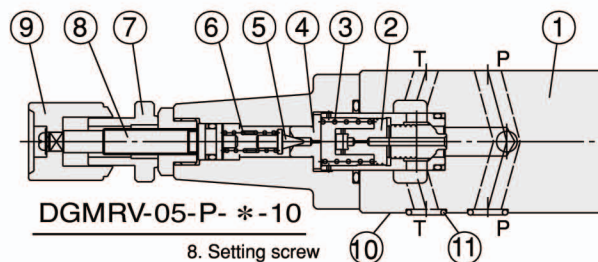
DGMRV-05-A- *-10



DGMRV-05- *- *-20



Cross Section Drawing :



1. Body
2. Balanced poppet
3. Balanced poppet spring
4. Seat
5. Pilot valve poppet
6. Adjustment spring
7. Locking nut
8. Setting screw
9. Adjustment element
10. Connections to DIN 24340 from A10;
valve fixing screws M6 DIN 912-10.9,
tightening torque 12~15 Nm
11. O-ring AS586-014(Hs90)
for ports A,B,P and T

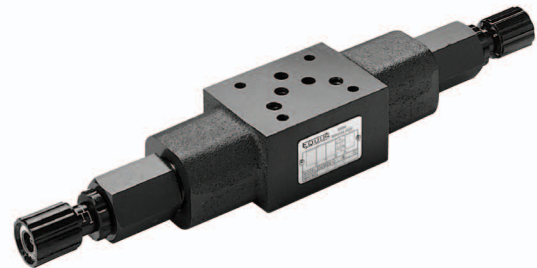
Characteristics :

- Highest performance in NG 10.
- Direct operated pressure relief valves.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- 3 optional effective directions of flow.
- With one or two pressure relief cartridges.
- Connections to DIN, ISO and CETOP.

Specification :

Maximum flow	30 ℓ /min {7.9 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Pressure adjusting range	1: 8~70 bar	
	3: 35~210 bar	
Ambient temperature range	-20°C~-+50°C	
Hydraulic fluid temperature	-20°C~-+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32, 46, 68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AC-05-4-A	
Weight	W type	4.8 Kg
	A type	4.0 Kg
	B type	4.0 Kg

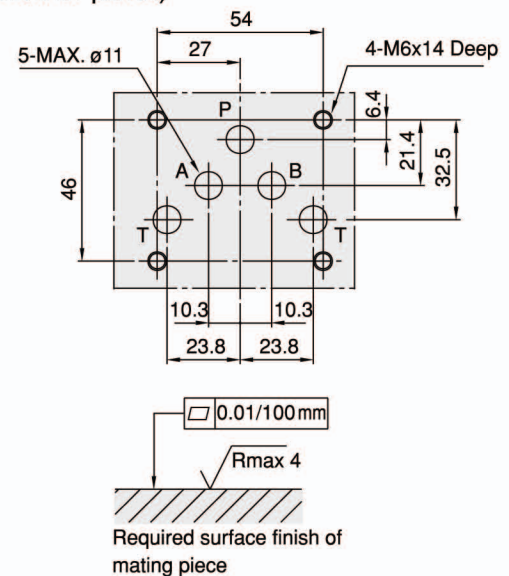
EDGMBV05 Size 10



Model: DGMBV-05-W-1-10

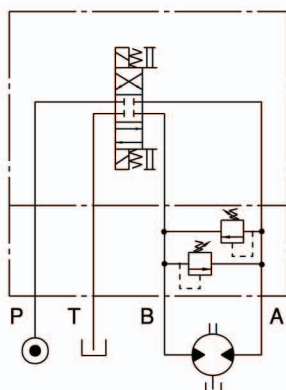
Installation Dimensions :

(Machined valve mounting face with position of ports)

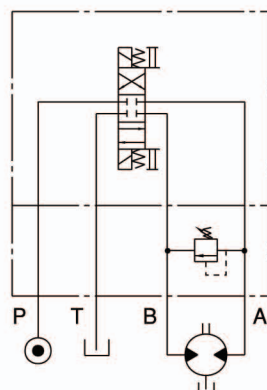


Hydraulic Configuration :

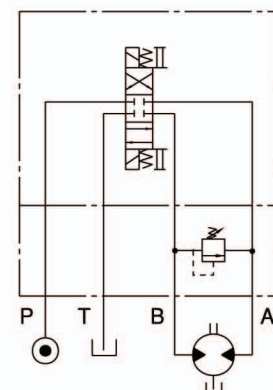
DGMBV-05-W- *-10



DGMBV-05-A- *-10



DGMBV-05-B- *-10



Ordering Code :

EDGMBV05 Size 10

DGM BV - 05 - W - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Brake Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- W: double; acting on ports A and B, with the relieved pressure cross-discharged.
- A: single; acting on port A, discharge to port B.
- B: single; acting on port B, discharge to port A.

5

Pressure Adjusting Range

- 1: 8 ~ 70 bar.
- 3: 35 ~ 210 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

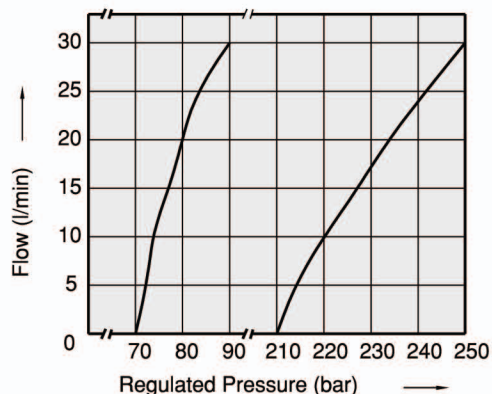
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

**Regulated Pressure Versus
Flow Diagram**

DGMBV-05- *- *-10



PRESSURE BRAKE VALVE SANDWICH PLATE DESIGN

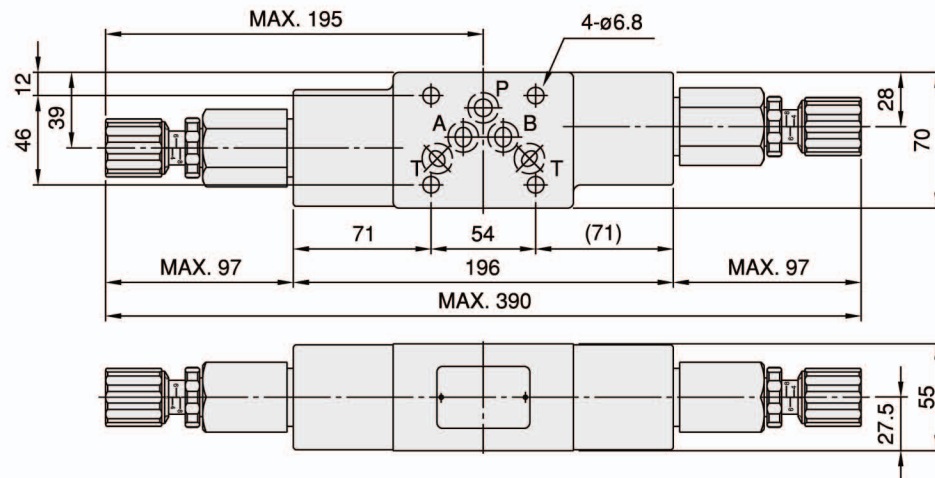
EQUUS

Dimensions :

EDGMBV05 Size 10

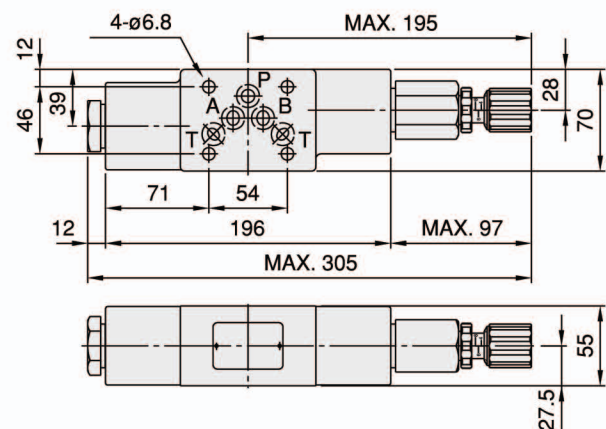
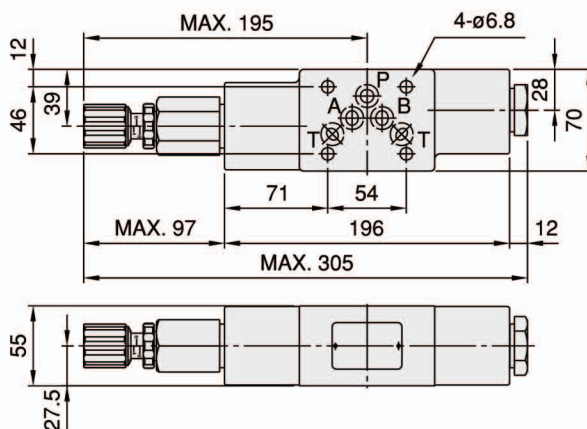
DGMBV-05-W- *-10

3rd angle projection

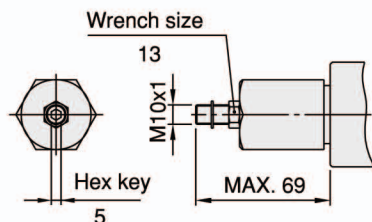


DGMBV-05-A- *-10

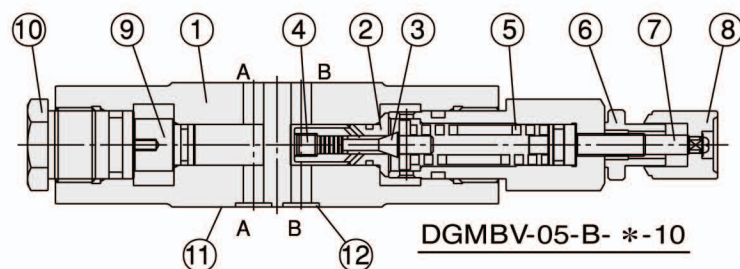
DGMBV-05-B- *-10



DGMBV-05- *- *-20



Cross Section Drawing :



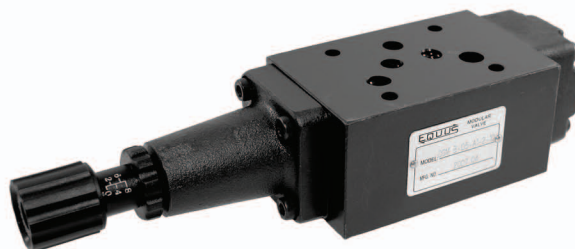
- | | | |
|----------------------|-----------------------|--|
| 1. Body | 6. Locking nut | 11. Connections to DIN 24340 from A10; |
| 2. Seat | 7. Setting screw | valve fixing screws M6 DIN 912-10.9, |
| 3. Poppet | 8. Adjustment element | tightening torque 12~15 Nm |
| 4. Orifice | 9. Plug | 12. O-ring AS586-014(Hs90) |
| 5. Adjustment spring | 10. Bushing | for ports A,B,P and T |

DGM-05

Characteristics :

- Highest performance in NG 10.
- Direct operated pressure reducing valve.
- Sandwich plate design.
- 4 pressure adjusting ranges.
- 3 optional effective directions of flow.
- Pressure reduction in ports A,B or P.
- Connections to DIN, ISO and CETOP.

EDGMGV05 Size 10



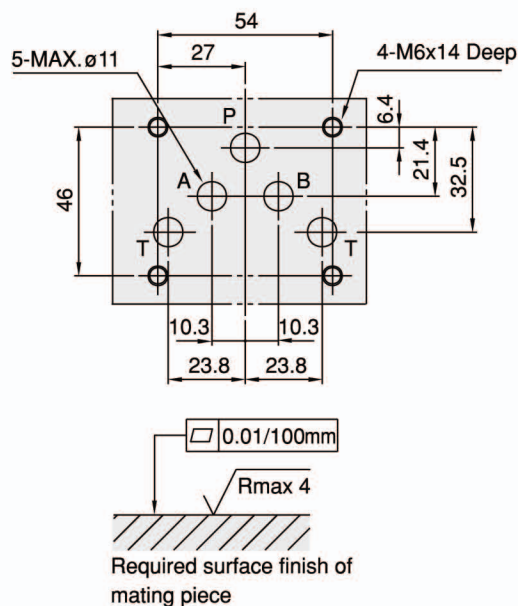
Model: DGMGV-05-P-1-10

Specification :

Maximum flow	80 ℓ /min {21.1 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Pressure adjusting range	0:	2.5~35 bar
	1:	7~70 bar
	2:	7~140 bar
	3:	7~210 bar
Ambient temperature range	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32,46,68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AC-05-4-A	
Weight	P type	3.8 kg
	A type	3.8 kg
	B type	3.8 kg

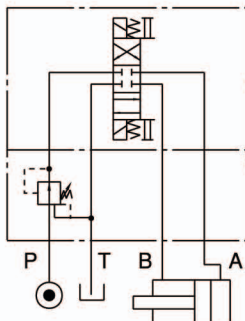
Installation Dimensions :

(Machined valve mounting face with position of ports)

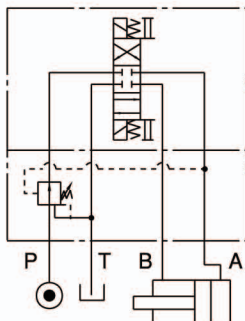


Hydraulic Configuration :

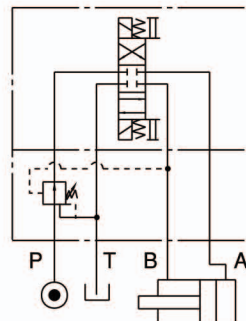
DGMGV-05-P- *-10



DGMGV-05-A- *-10



DGMGV-05-B- *-10



PRESSURE REDUCING VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMGV05 Size 10

DGM GV - 05 - P - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Reducing Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- P: reduced pressure on P port.
- A: reduced pressure on A port.
- B: reduced pressure on B port.

5

Pressure Adjusting Range

- 0: 2.5~35 bar. • 1: 7~70 bar. • 2: 7~140 bar. • 3: 7~210 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

Optional Inquiry

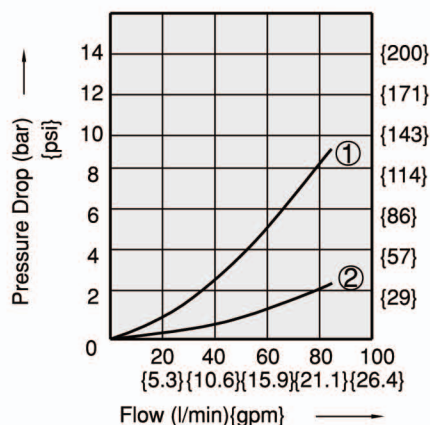
- B: handle on B port side.

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

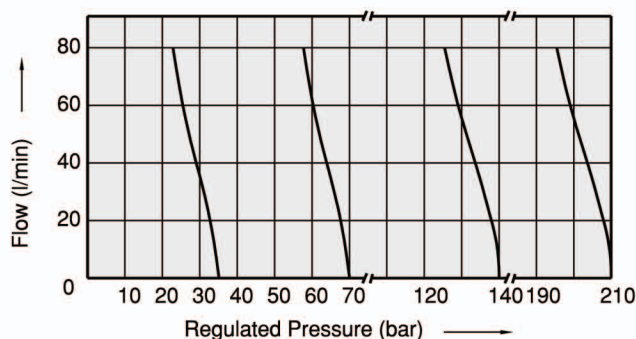
Pressure Drop Characteristic

DGMGV-05-P- *-10



Regulated Pressure Versus Flow Diagram

DGMGV-05-P- *-10



1. differential pressure variation versus variation of flow between inlet port and use port
2. differential pressure variation versus variation of flow between use port and discharge port

DGM-05

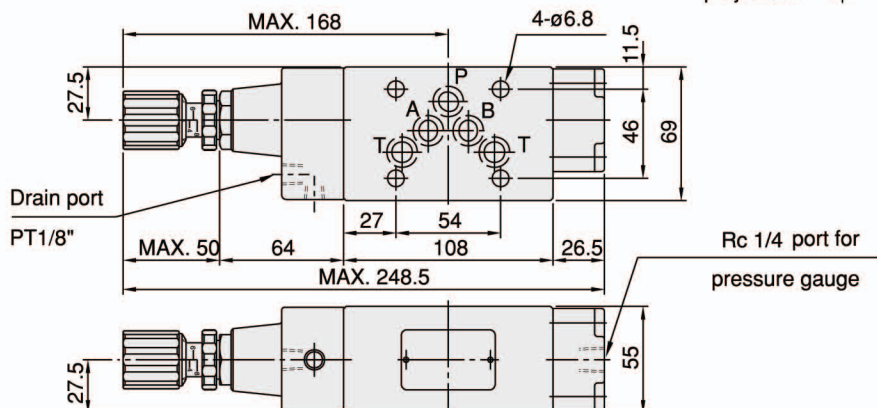
Dimensions :

EDGMGV05 Size 10

DGMGV-05-P- *-10

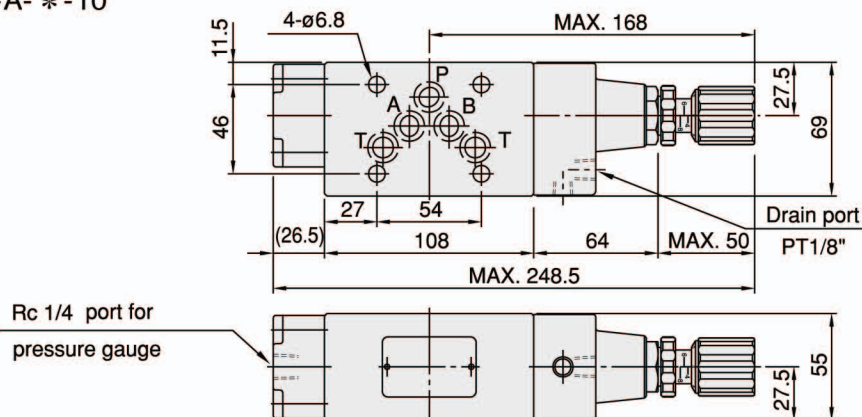
DGMGV-05-B- *-10

3rd angle projection

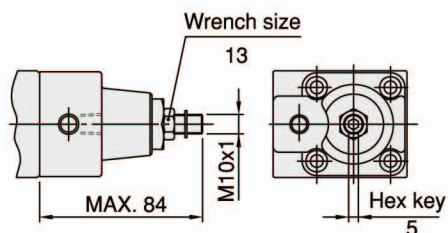


DGMGV-05-P- *-10-B

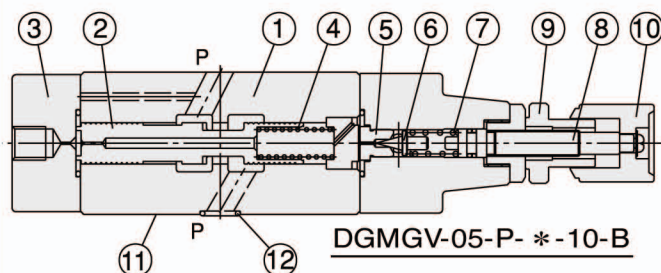
DGMGV-05-A- *-10



DGMGV-05- *- *-20



Cross Section Drawing :

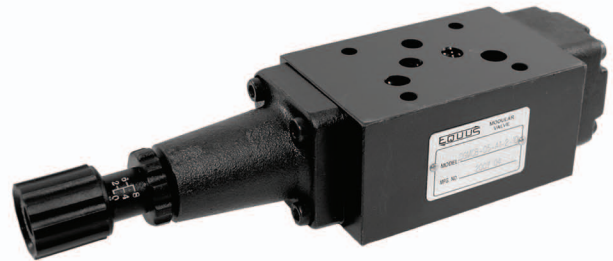


- | | |
|------------------------|--|
| 1. Body | 9. Locking nut |
| 2. Spool | 10. Adjustment element |
| 3. Cover | 11. Connections to DIN 24340 from A10; |
| 4. Adjustment spring 1 | valve fixing screws M6 DIN 912-10.9, |
| 5. Seat | tightening torque 12~15 Nm |
| 6. Poppet | 12. O-ring AS586-014(Hs90) |
| 7. Adjustment spring 2 | for ports A,B,P and T |
| 8. Setting screw | |

Characteristics :

- Highest performance in NG 10.
- Direct operated pressure counter balance valve.
- Used for actuator back pressure control.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- Connections to DIN, ISO and CETOP.

EDGMCB05 Size 10



Model: DGMCB-05-A1-1-10

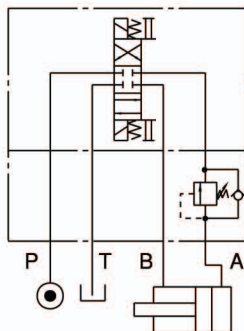
Specification :

Maximum flow	80 ℓ /min {21.1 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Pressure adjusting range	1: 7.0~70 bar
	2: 35~140 bar
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+50°C

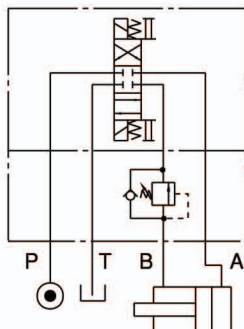
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	A type	3.5 kg
	B type	3.5 kg

Hydraulic Configuration :

DGMCB-05-A1- *-10

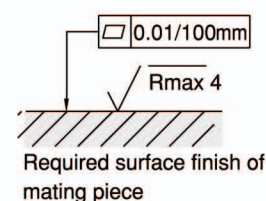
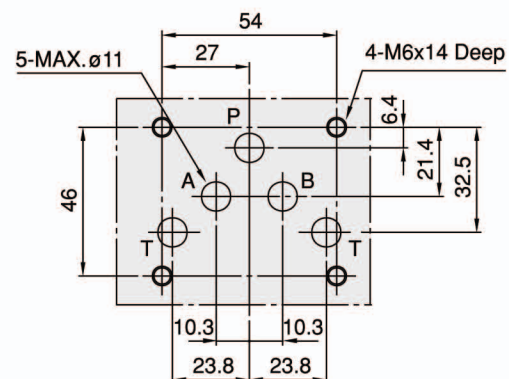


DGMCB-05-B1- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



Ordering Code :

EDGMCB05 Size 10

DGM CB - 05 - A1 - 1 - 10 - * *

1 2 3 4 5 6 7 8

1 Sandwich Plate Design

2 Pressure Counter Balance Valve

3 Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4 Control Port

- A: A port.
- B: B port.

5 Type

- 1: internal pilot , internal drain.

6 Pressure Adjusting Range

- 1: 7.0 ~ 70 bar.
- 2: 35 ~ 140 bar.

7 Design Number

- 10: with handle.
- 20: without handle.

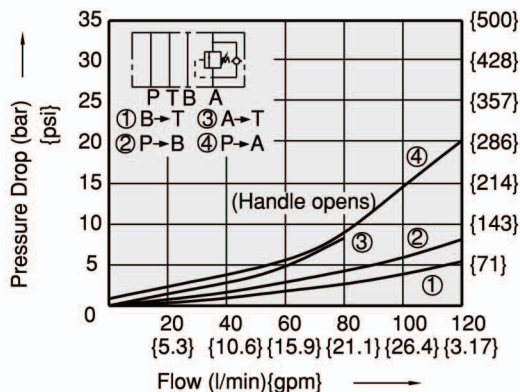
8 Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

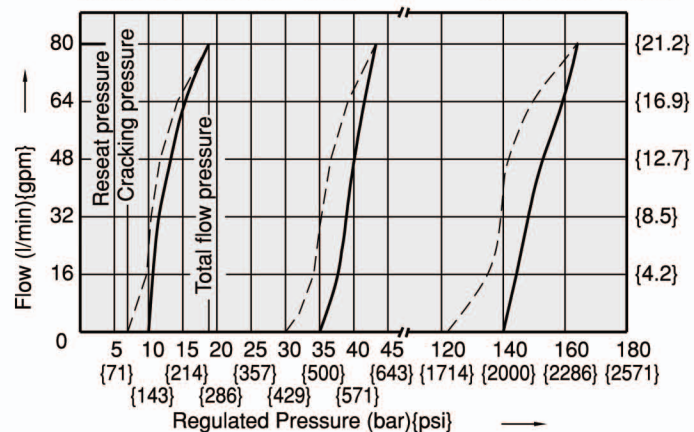
Pressure Drop Characteristic

DGMCB-05-A1- *-10



Regulated Pressure Versus Flow Diagram

DGMCB-05-A1- *-10 — pressure increasing
DGMCB-05-B1- *-10 - - - pressure decreasing



PRESSURE RELIEF VALVE

SANDWICH PLATE DESIGN



Ordering Code :

EDGMRV03 Size 6

DGM RV - 03 - P - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Relief Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- P: single; acting on port P, discharge to port T.
- W: double; acting on ports A and B, discharge to port T.
- A: single; acting on port A, discharge to port T.
- B: single; acting on port B, discharge to port T.

5

Pressure Adjusting Range

- 0: 7~35 bar. • 1: 7~70 bar. • 2: 7~140 bar. • 3: 7~210 bar. • 4: 35~320 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

Optional Inquiry

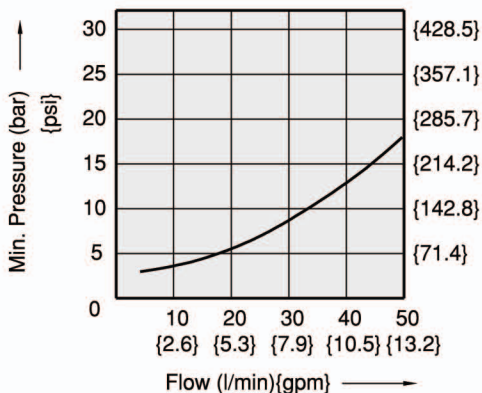
- Q: direct operated pressure relief valves.

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

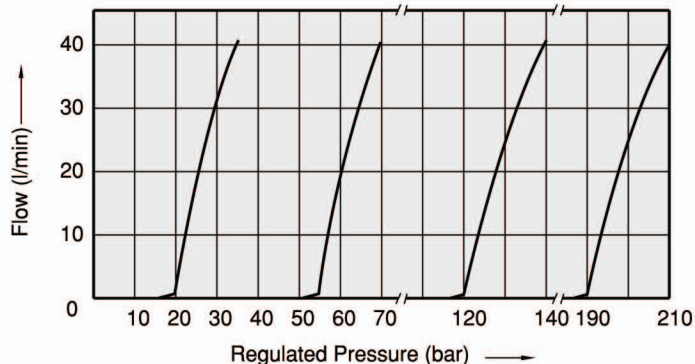
Minimum Pressure Versus Flow Diagram

DGMRV-03- *-1-10



Regulated Pressure Versus Flow Diagram

DGMRV-03- *- *-10



DGM-03

COUNTER BALANCE VALVE SANDWICH PLATE DESIGN

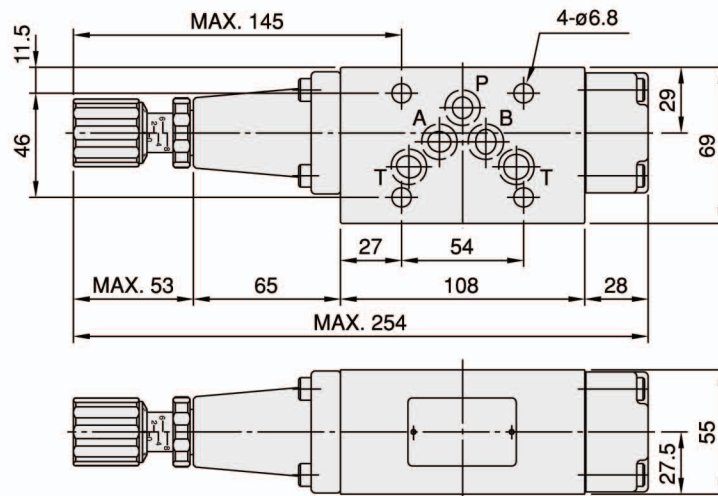
EQUUS

Dimensions :

EDGMCB05 Size 10

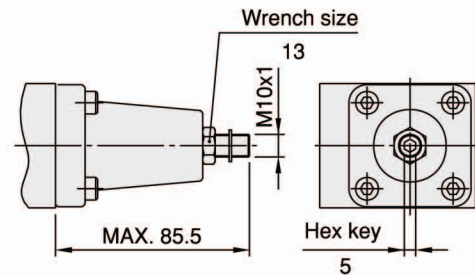
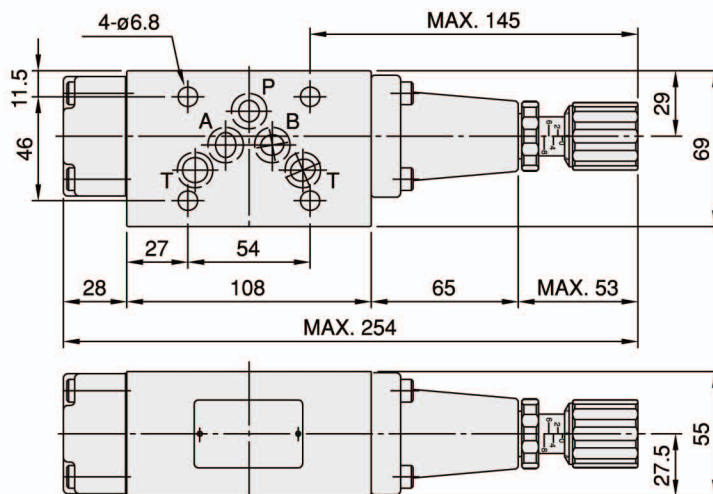
DGMCB-05-A1- *-10

3rd angle projection

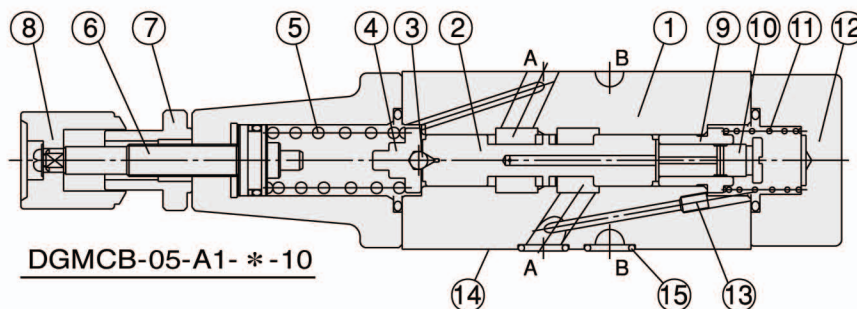


DGMCB-05-B1- *-10

DGMCB-05- *- *-20



Cross Section Drawing :

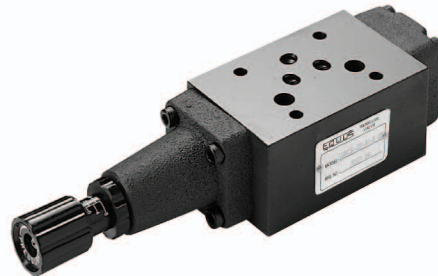


- | | | | | |
|-------------|-----------------------|-------------------|--|----------------------------|
| 1. Body | 5. Adjustment spring | 9. Sleeve | 13. Orifice | 15. O-ring AS586-014(Hs90) |
| 2. Spool | 6. Setting screw | 10. Piston | 14. Connections to DIN 24340 from A10; | for ports A,B,P and T |
| 3. Ball | 7. Locking nut | 11. Sleeve spring | valve fixing screws M6 DIN 912-10.9, | |
| 4. Retainer | 8. Adjustment element | 12. Cover | tightening torque 12~15 Nm | |

Characteristics :

- Highest performance in NG 10.
- Direct operated pressure sequence valve.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- Connections to DIN, ISO and CETOP.

EDGMSV05 Size 10



Model: DGMSV-05-P2-1-10

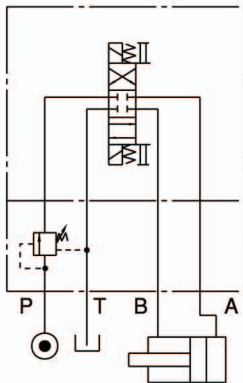
Specification :

Maximum flow	80 ℓ /min {21.2 GPM}
Maximum operating pressure	320 bar {4750 PSI}
Pressure adjusting range	1: 7.0~70 bar
	2: 35~140 bar
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C

Viscosity range	15~400 mm²/s
Hydraulic oil	ISO VG 32, 46, 68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AC-05-4-A
Weight	3.5 Kg

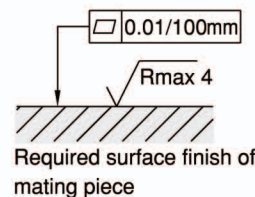
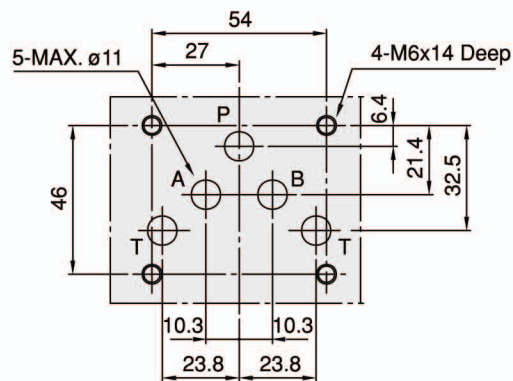
Hydraulic Configuration :

DGMSV-05-P2- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



PRESSURE SEQUENCE VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMSV05 Size 10

DGM SV - 05 - P2 - 1 - 10 - * *

1

2

3

4 5

6

7

8

1

Sandwich Plate Design

2

Pressure Sequence Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Control Port

- P: P port.

5

Type

- 2: internal pilot, external drain.

6

Pressure Adjusting Range

- 1: 7.0 ~ 70 bar.
- 2: 35 ~ 140 bar.

7

Design Number

- 10: with handle.
- 20: without handle.

8

Optional Inquiry

Performance Curves :

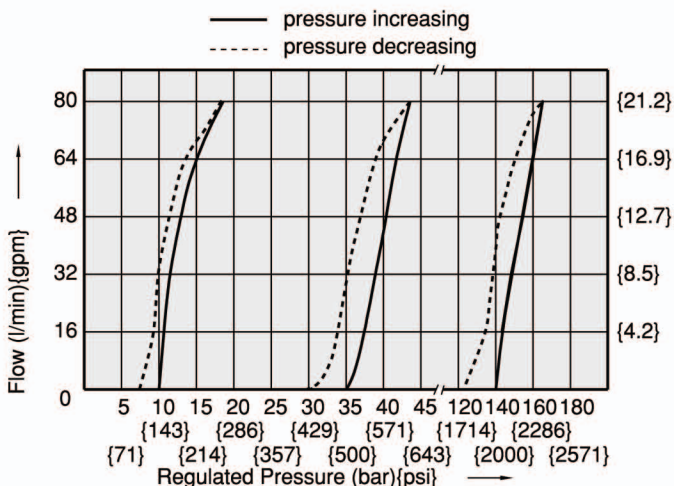
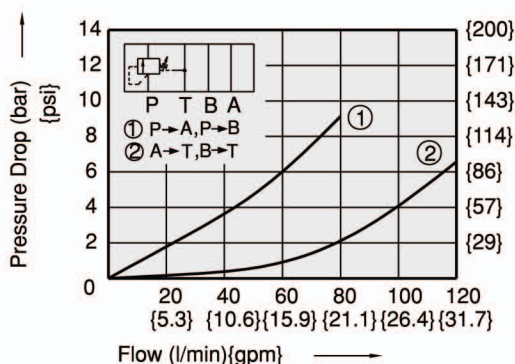
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Regulated Pressure Versus Flow Diagram

DGMSV-05-P2- *-10

DGMSV-05-P2- *-10



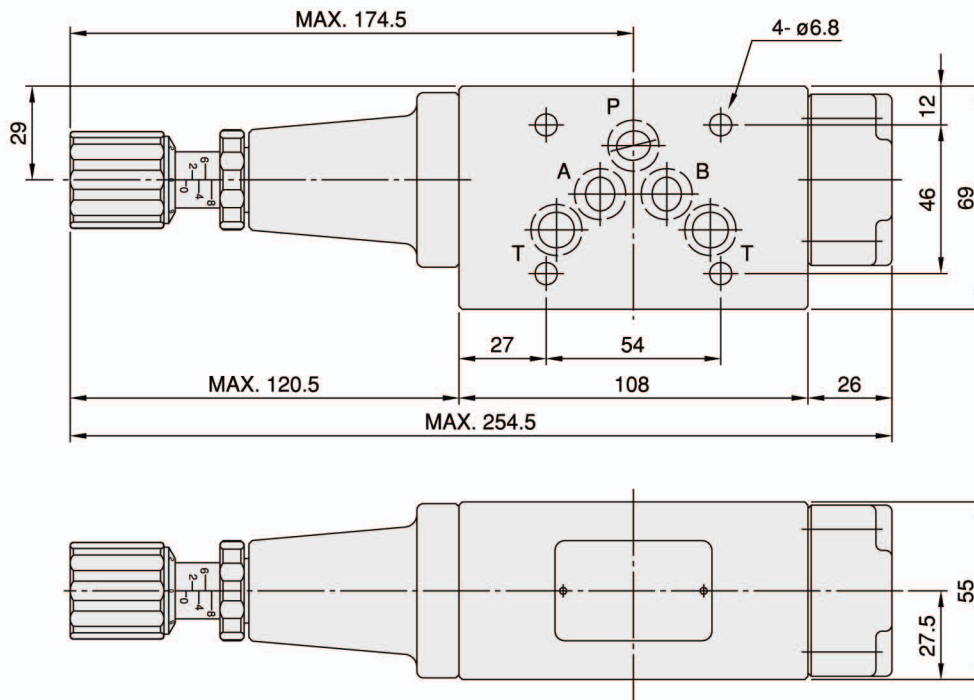
DGM-05

Dimensions :

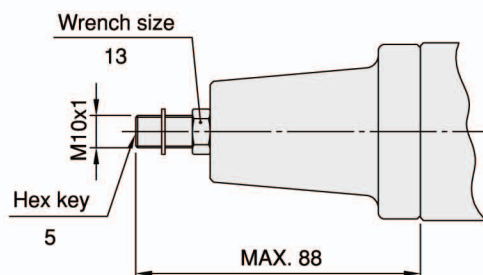
DGMSV05 Size 10

DGMSV-05-P2- *-10

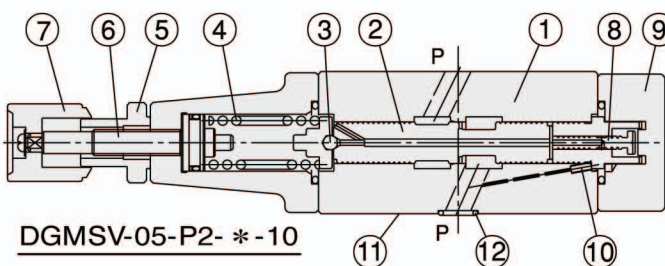
3rd angle projection



DGMSV-05-P2- *-20



Cross Section Drawing :



DGMSV-05-P2- *-10

- | | |
|-----------------------|--|
| 1. Body | 9. Cover |
| 2. Spool | 10. Choke |
| 3. Ball | 11. Connections to DIN 24340 from A10; |
| 4. Adjustment spring | valve fixing screws M6 DIN 912-10.9, |
| 5. Locking nut | tightening torque 12~15 Nm |
| 6. Setting screw | 12. O-ring AS586-014(Hs90) |
| 7. Adjustment element | for ports A,B,P and T |
| 8. Piston | |

Characteristics :

- Highest performance in NG 10.
- Sandwich plate design.
- Be used for actuator speed control.
- Connections to DIN, ISO and CETOP.

EDGMTV05 Size 10



Specification :

Model: DGMTV-05-P-10

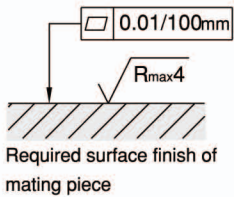
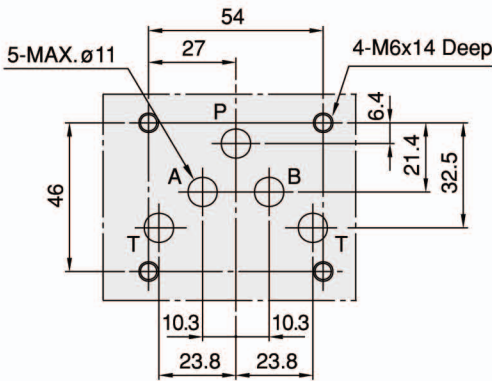
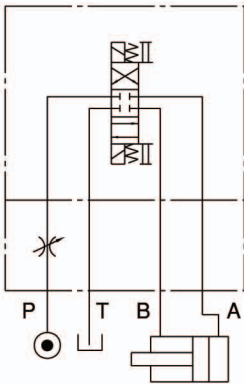
Maximum flow	100 ℓ/min {26.5 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

Hydraulic oil		ISO VG 32, 46, 68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	P type	2.5 Kg
	T type	2.5 Kg

Hydraulic Configuration :

Installation Dimensions :

DGMTV-05-P-10



Ordering Code :

EDGMTV05 Size 10

DGM TV - 05 - P - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Flow Regulator Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- P: single; acting on port P.

5

Design Number

- 10: with handle.
- 20: without handle.

6

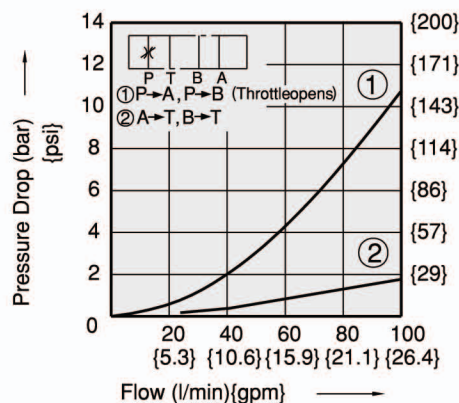
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

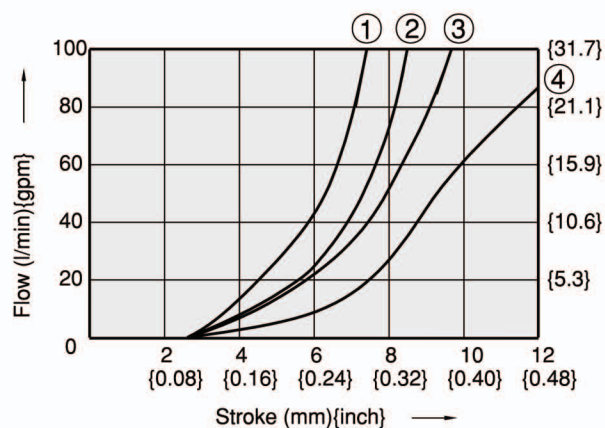
Pressure Drop Characteristic

DGMTV-05-P-10



Stroke Versus Flow Diagram

DGMTV-05-P-10



- ① Pressure Difference= 140 bar{2000psi}
- ② Pressure Difference= 70 bar{1000psi}
- ③ Pressure Difference= 35 bar{500psi}
- ④ Pressure Difference= 10 bar{143psi}

FLOW REGULATOR VALVE SANDWICH PLATE DESIGN

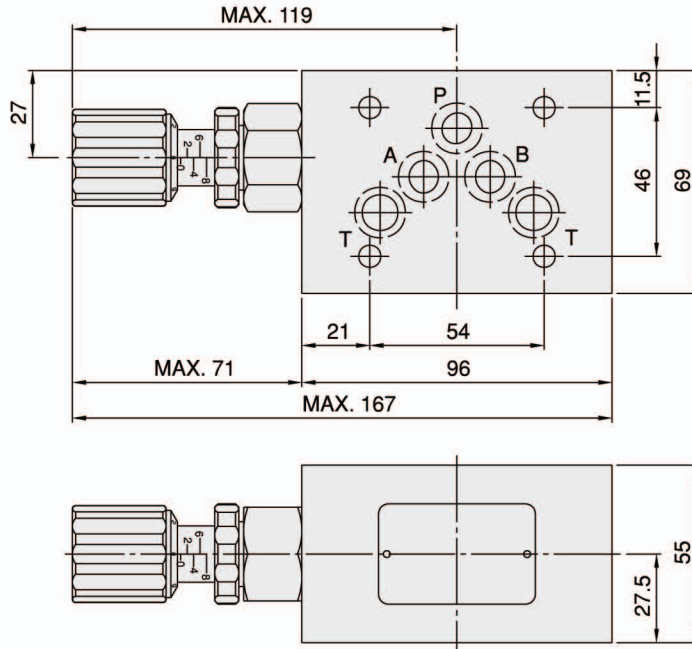


Dimensions :

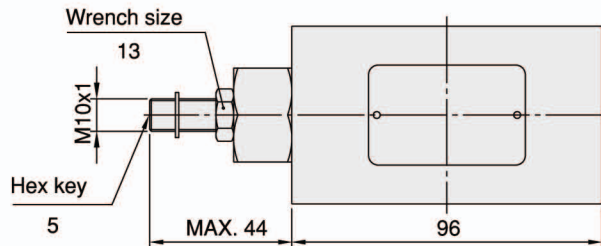
EDGMTV05 Size 10

DGMTV-05-P-10

3rd angle
projection

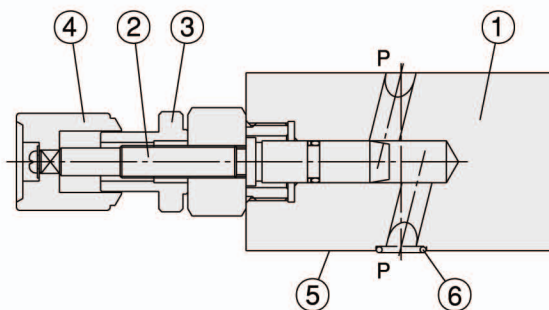


DGMTV-05-P-20



Cross Section Drawing :

DGMTV-05-P-10



1. Body.
2. Setting screw.
3. Locking nut.
4. Adjustment element.
5. Connections to DIN 24340 from A10; valve fixing screws M6 DIN 912-10.9, tightening torque 12~15 Nm.
6. O-ring AS586-014(Hs90) for ports A,B,P and T.

DGM-05

Characteristics :

- Highest performance in NG 10.
- Sandwich plate design.
- Connections to DIN, ISO and CETOP.

EDGMTC05 Size 10



Specification :

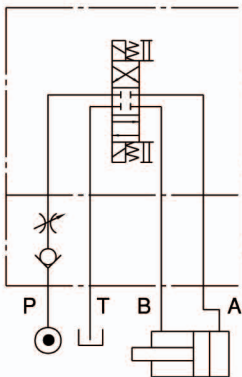
Model: DGMTC-05-P-10

Maximum flow	100 ℓ/min {26.5 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Check valve cracking pressure	0.4 bar {5.7 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C

Viscosity range	15~400 mm²/s
Hydraulic oil	ISO VG 32, 46, 68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AC-05-4-A
Weight	3.0 Kg

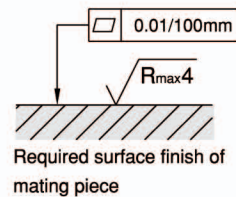
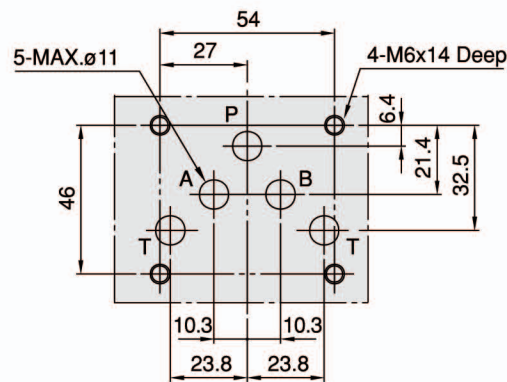
Hydraulic Configuration :

DGMTC-05-P-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



FLOW REGULATOR WITH CHECK VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMTC05 Size 10

DGM TC - 05 - P - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Flow Regulator Valve with Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- P: single; acting on port P.

5

Design Number

- 10: with handle.
- 20: without handle.

6

Optional Inquiry

Performance Curves :

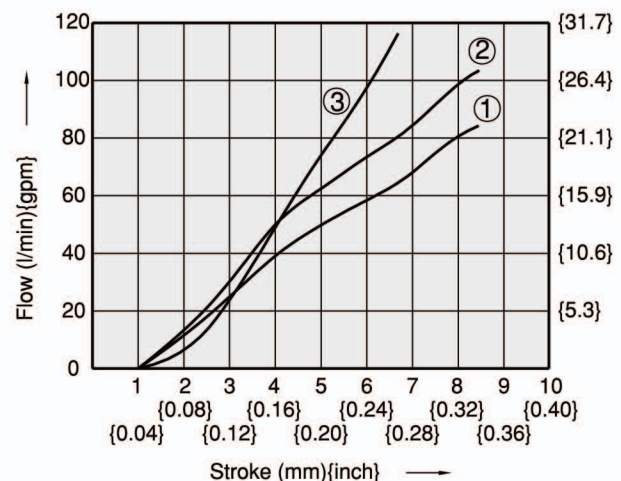
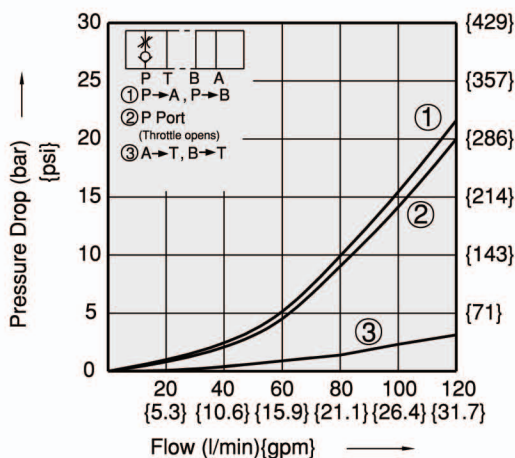
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Stroke Versus Flow Diagram

DGMTC-05-P-10

DGMTC-05-P-10



- ① Pressure Difference= 10 bar{143psi}
- ② Pressure Difference= 15 bar{214psi}
- ③ Pressure Difference= 50 bar{714psi}

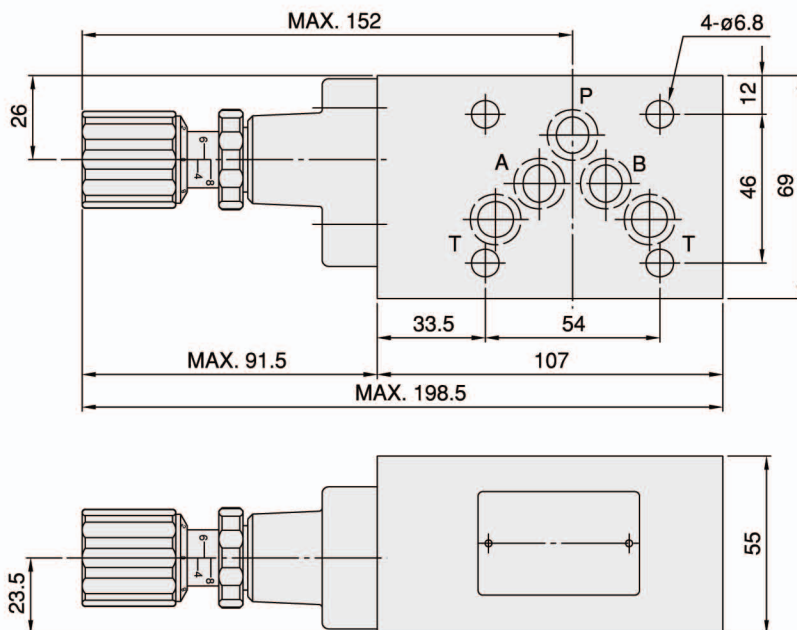
DGM-05

Dimensions :

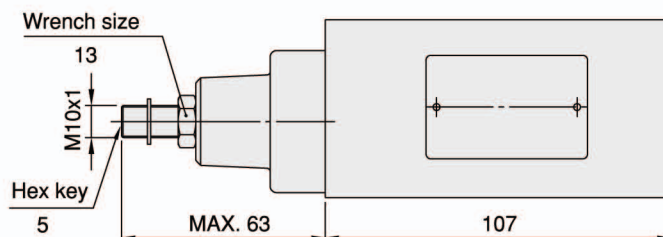
EDGMTC05 Size 10

DGMTC-05-P-10

3rd angle projection

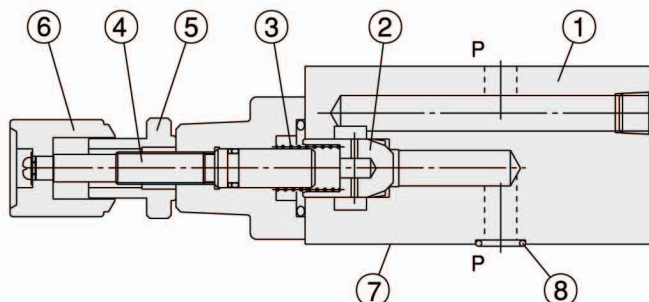


DGMTC-05-P-20



Cross Section Drawing :

DGMTC-05-P-10



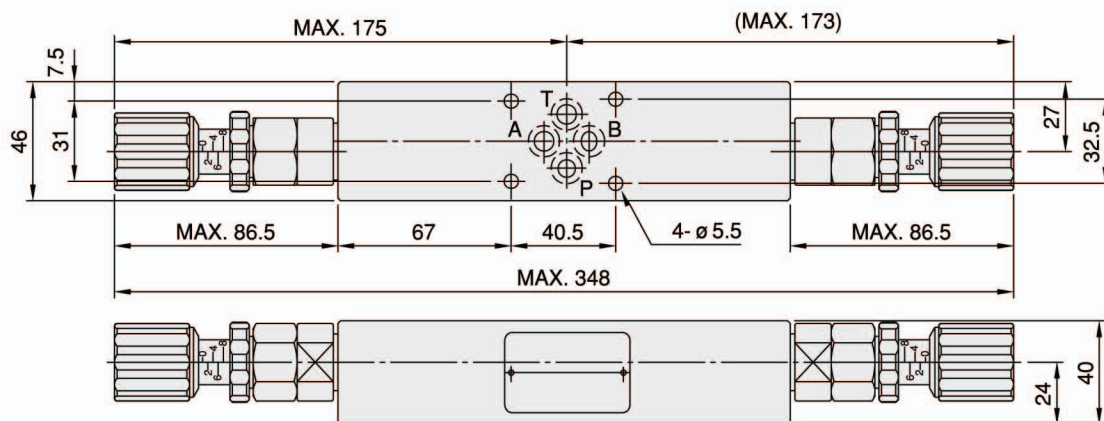
1. Body.
2. Throttle.
3. Spring.
4. Setting screw.
5. Locking nut.
6. Adjustment element.
7. Connections to DIN 24340 from A10;
valve fixing screws M6 DIN 912-10.9,
tightening torque 12~15 Nm.
8. O-ring AS586-014(Hs90)
for ports A,B,P and T.

Dimensions :

EDGMRV03 Size 6

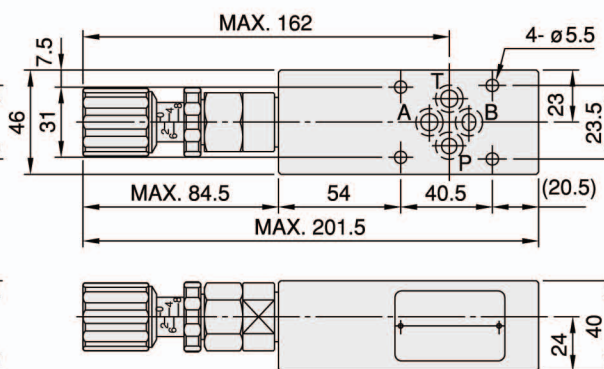
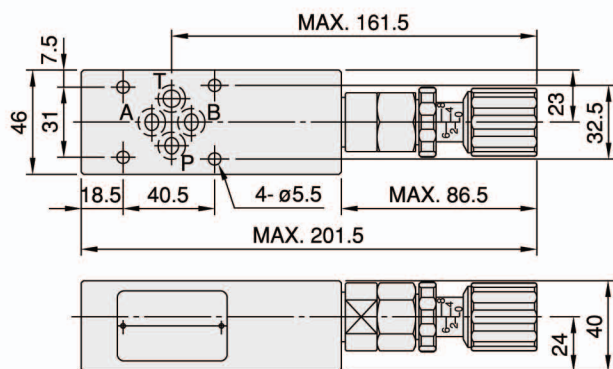
DGMRV-03-W- *-10

3rd angle projection

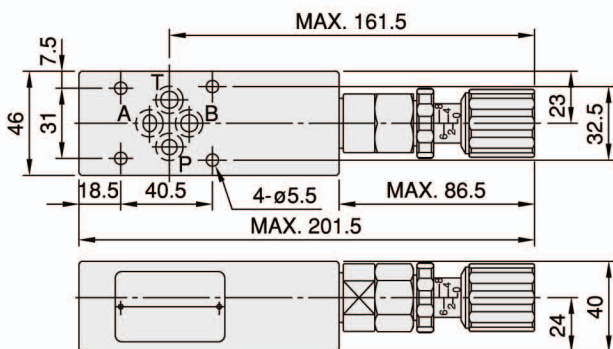


DGMRV-03-P- *-10

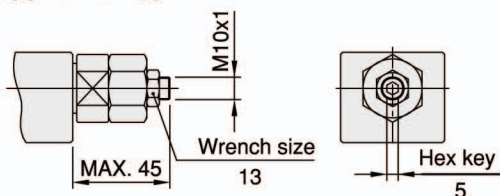
DGMRV-03-A- *-10



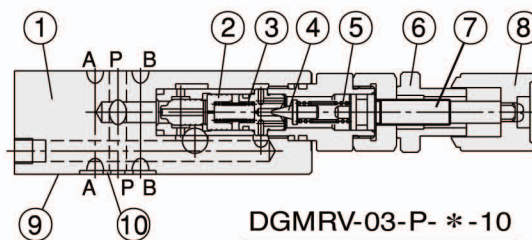
DGMRV-03-B- *-10



DGMRV-03- *- *-20



Cross Section Drawing :



DGMRV-03-P- *-10

- | | |
|----------------------------|----------------------------|
| 1. Body. | 9. Connections to DIN |
| 2. Balanced poppet. | 24340 from A6; valve |
| 3. Balanced poppet spring. | fixing screws M5 DIN |
| 4. Pilot valve poppet. | 912-10.9, tightening |
| 5. Adjustment spring. | torque 8~9 Nm. |
| 6. Locking nut. | 10. O-ring 1B-P9 for ports |
| 7. Setting screw. | A, B, P and T. |
| 8. Adjustment element. | |

Characteristics :

- Highest performance in NG 10.
- Sandwich plate design.
- For limiting the main or pilot fluid flow of 2 actuator connections.
- For meter-in or meter-out control.
- Connections to DIN, ISO and CETOP.

EDGMTC05 Size 10



Model: DGMTC-05-W-O-10

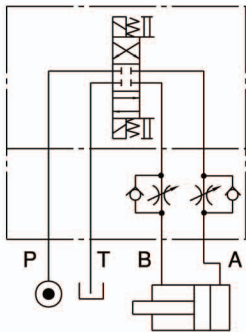
Specification :

Maximum flow	100 l/min {26.5 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Check valve cracking pressure	1.0 bar {14.3 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

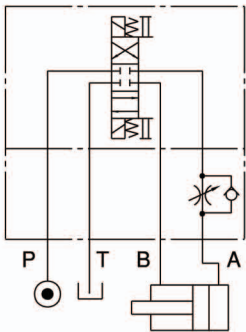
Hydraulic oil		ISO VG 32, 46, 68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	W type	3.1 Kg
	A type	3.0 Kg
	B type	3.0 kg

Hydraulic Configuration :

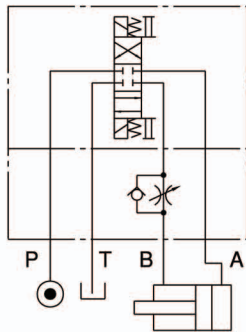
DGMTC-05-W-O-10



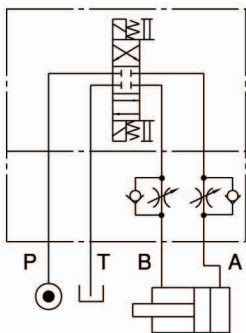
DGMTC-05-A-O-10



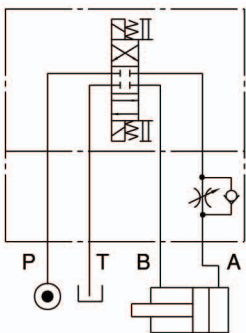
DGMTC-05-B-O-10



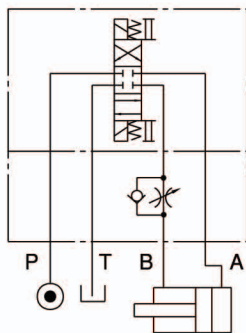
DGMTC-05-W-I-10



DGMTC-05-A-I-10



DGMTC-05-B-I-10



Ordering Code :

EDGMTC05 Size 10

DGM TC - 05 - W - 0 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Flow Regulator with Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- W: double: acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5

Control Way

- O: Metered out, control of flow discharged from the actuator.
- I: Metered in, control of flow entering the actuator.

6

Design Number

- 10: with handle.
- 20: without handle.

7

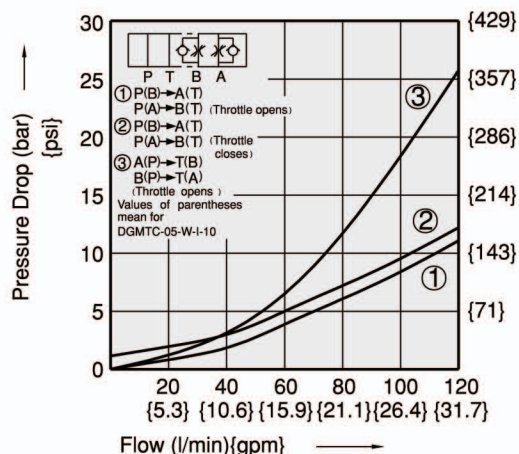
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

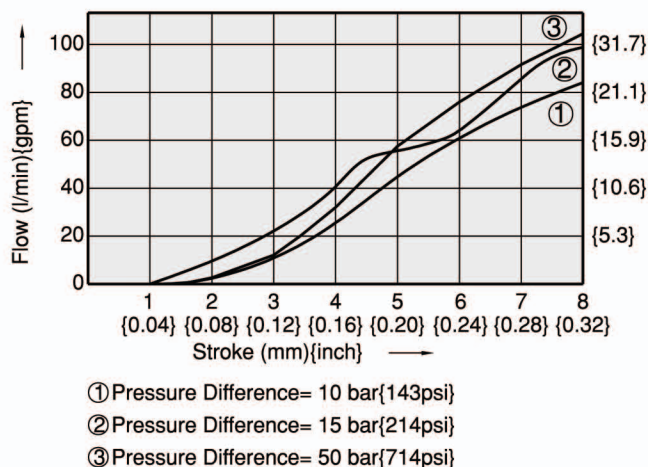
Pressure Drop Characteristic

DGMTC-05-W-O(I)-10
(DGMTC-05-W-I-10)



Stroke Versus Flow Diagram

DGMTC-05-W-O(I)-10
DGMTC-05-A-O(I)-10
DGMTC-05-B-O(I)-10



FLOW REGULATOR WITH CHECK VALVE SANDWICH PLATE DESIGN

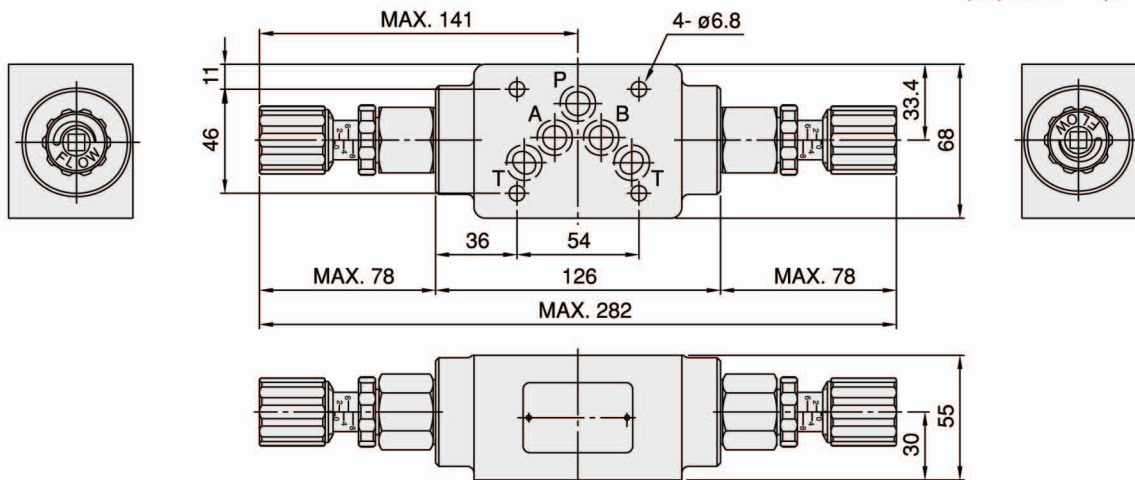
EQUUS

Dimensions :

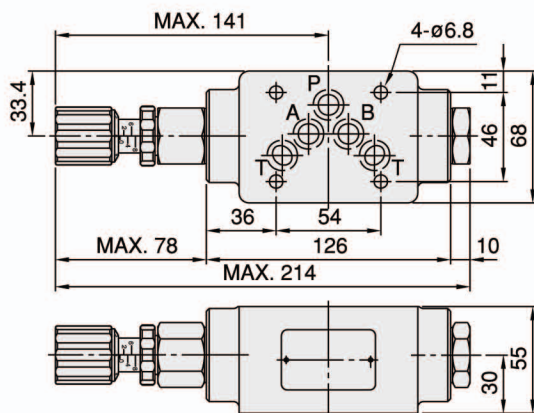
EDGMTC05 Size 10

DGMTC-05-W-O-10

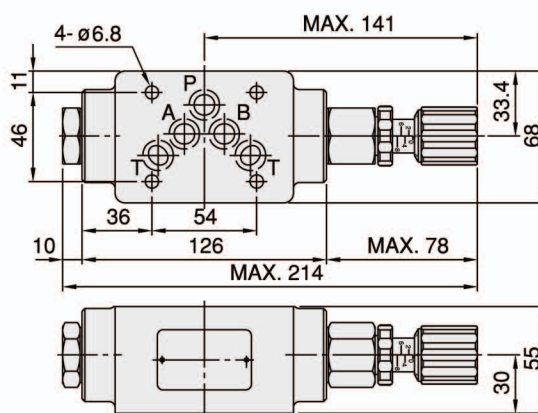
3rd angle projection



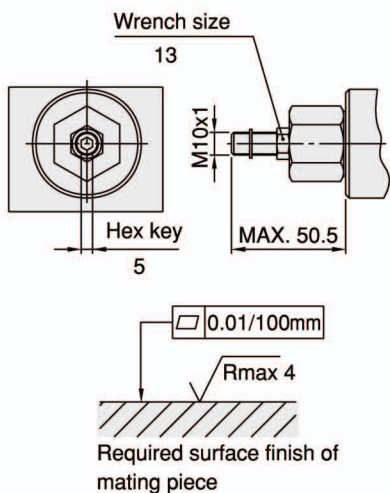
DGMTC-05-A-O-10



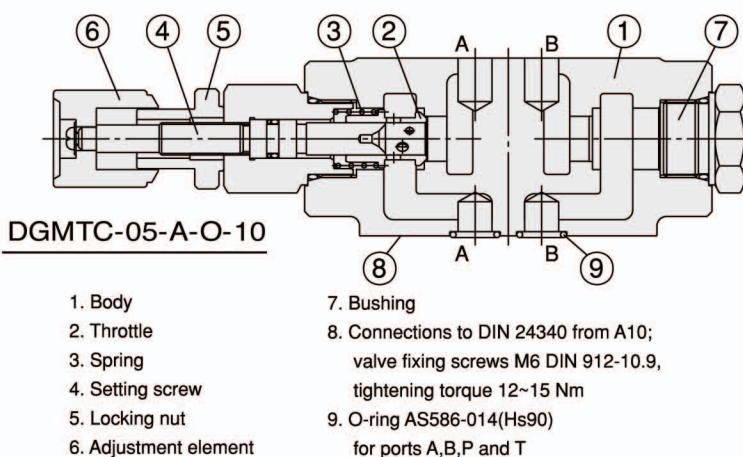
DGMTC-05-B-O-10



DGMTC-05- *-O-20



Cross Section Drawing :



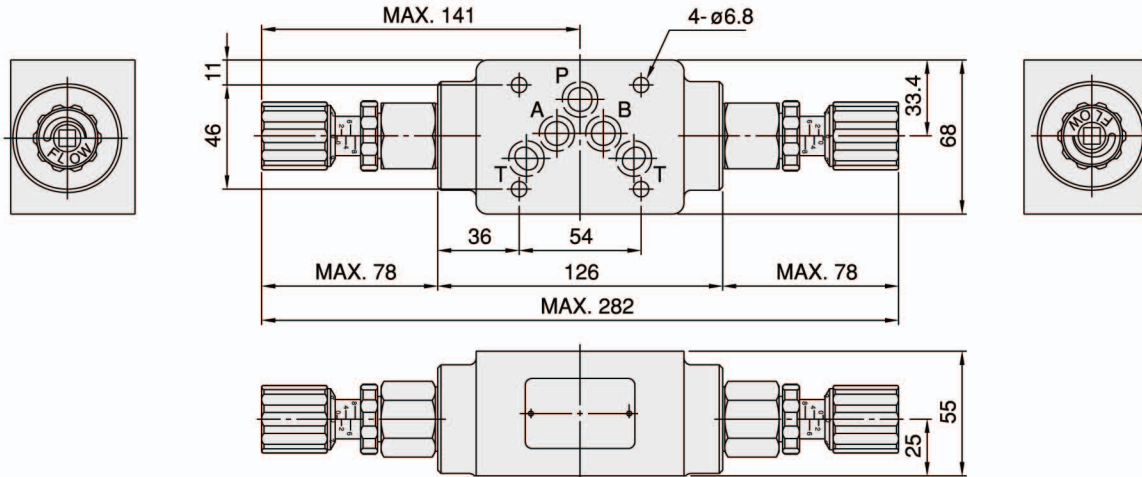
DGM-05

Dimensions :

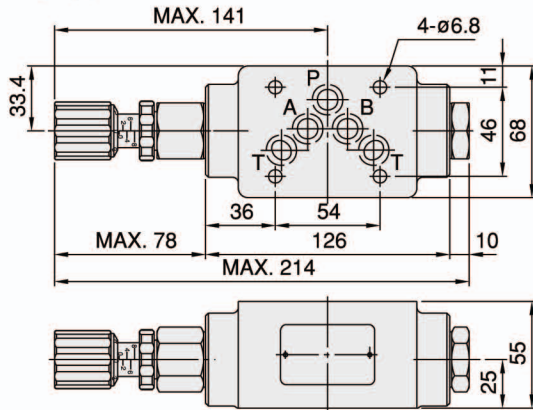
EDGMTC05 Size 10

DGMTC-05-W-I-10

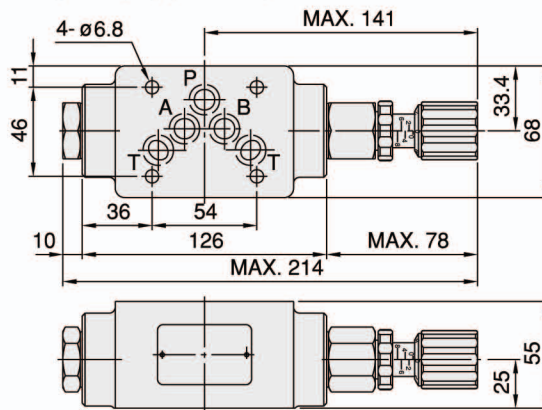
3rd angle projection



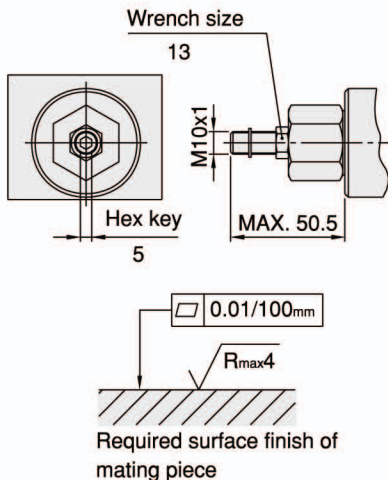
DGMTC-05-A-I-10



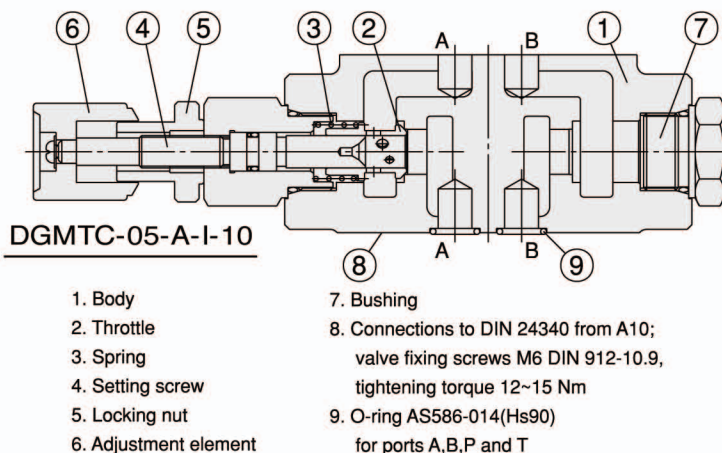
DGMTC-05-B-I-10



DGMTC-05- *-I-20



Cross Section Drawing :



Characteristics :

- Highest performance in NG 10.
- Sandwich plate design for use in vertical stacking assemblies.
- Direct operated check valve.
- 4 different isolating functions.
- Connections to DIN, ISO and CETOP.

EDGMCV05 Size 10



Specification :

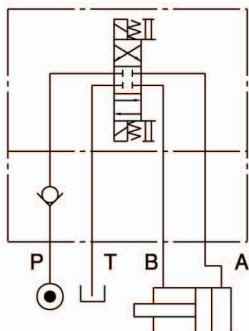
Model: DGMCV-05-P-1-10

Maximum flow	100 l/min {26.5 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Spring cracking pressure	1: 0.4 bar{5.7 PSI}
	2: 3.5 bar{50 PSI}
	3: 5.0 bar{71 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s

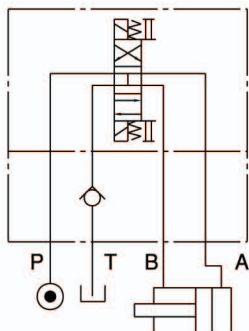
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	P type	2.8 kg
	T type	2.8 kg
	A type	3.6 kg
	B type	3.6 kg

Hydraulic Configuration :

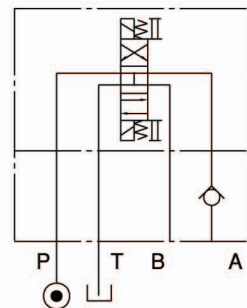
DGMCV-05-P- *-10



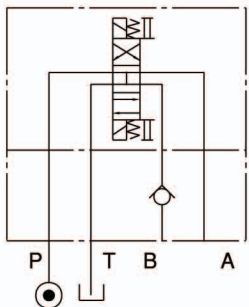
DGMCV-05-T- *-10



DGMCV-05-A- *-10



DGMCV-05-B- *-10



Ordering Code :

EDGMCV05 Size 10

DGM CV - 05 - P - 1 - 10 - * *

1 2 3 4 5 6 7

1 Sandwich Plate Design

2 Check Valve

3 Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4 Configuration

- P : single; acting on port P.
- T : single; acting on port T.
- A : single; acting on port A.
- B : single; acting on port B.

5 Spring Cracking Pressure

- 1: 0.4 bar.
- 2: 3.5 bar.
- 3: 5.0 bar.

6 Design Number

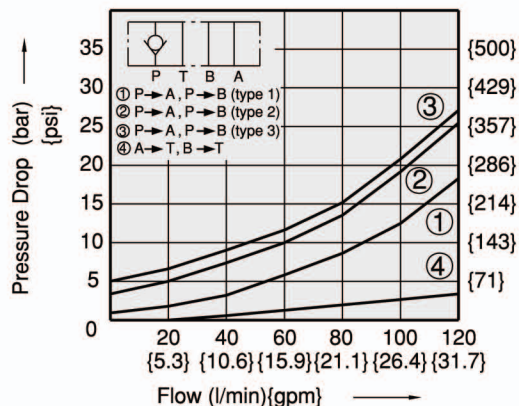
7 Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

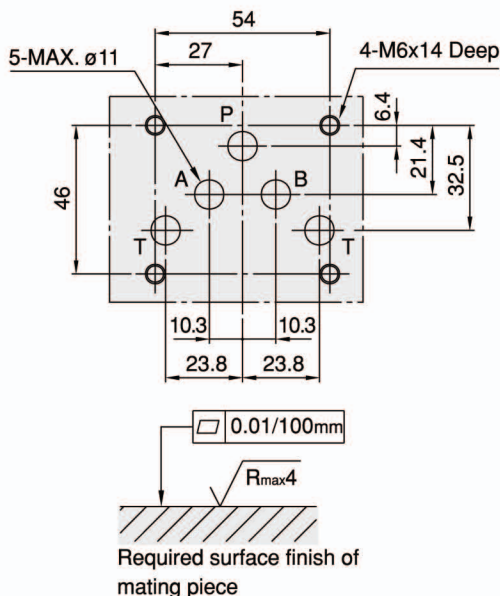
Pressure Drop Characteristic

DGMCV-05-P- *-10



Installation Dimensions :

(Machined valve mounting face with position of ports)



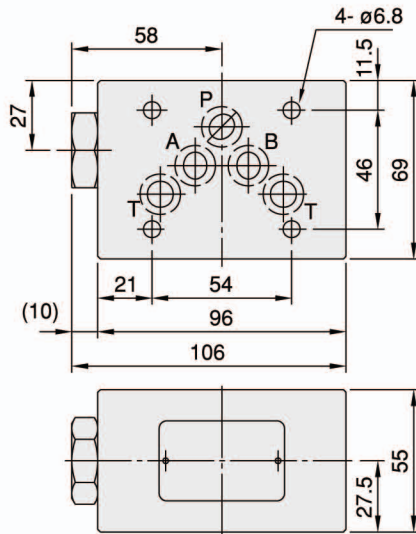
CHECK VALVE SANDWICH PLATE DESIGN



Dimensions :

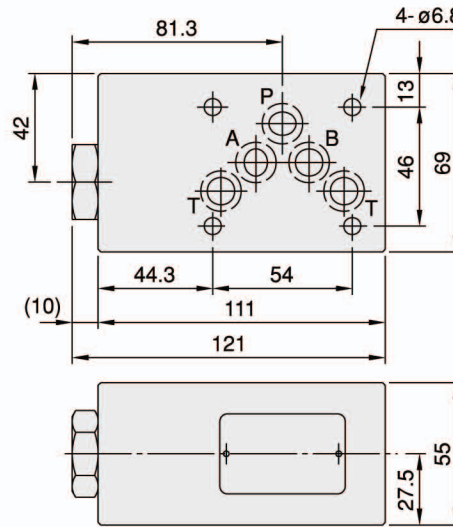
EDGMCV05 Size 10

DGMCV-05-P- *-10

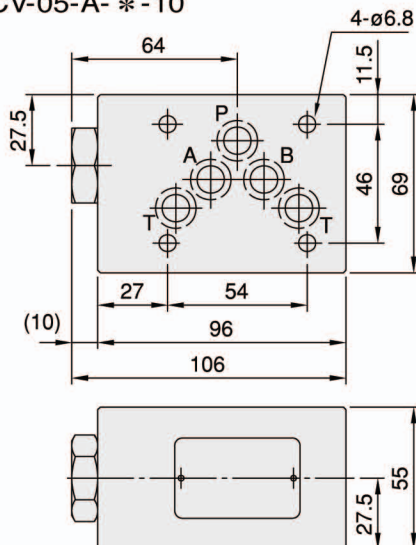


DGMCV-05-T- *-10

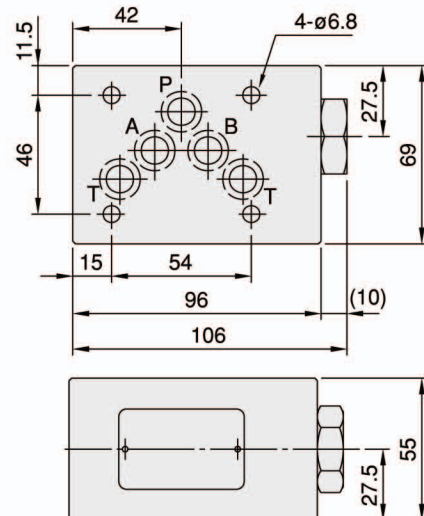
3rd angle projection



DGMCV-05-A- *-10

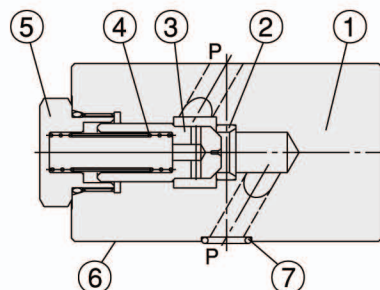


DGMCV-05-B- *-10



Cross Section Drawing :

DGMCV-05-P- *-10



1. Body
2. Seat
3. Poppet
4. Spring
5. Nut
6. Connections to DIN 24340 from A10;
valve fixing screws M6 DIN 912-10.9,
tightening torque 12~15 Nm
7. O-ring AS586-014(Hs90)
for ports A,B,P and T

Characteristics :

- Highest performance in NG 10.
- Sandwich plate design for use in vertical stacking assemblies.
- Direct operated check valve.
- Be incorporated between A,B port and T port.
- This check valve of a certain type can be used for suction.
- Connections to DIN, ISO and CETOP.

EDGMAC05 Size 10



Model: DGMAC-05-W-10

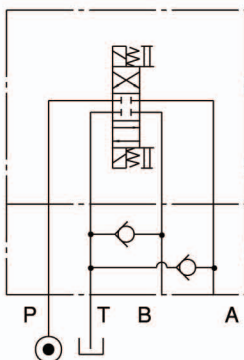
Specification :

Maximum flow	100 l/min{26.5 GPM}
Maximum operating pressure	320 bar{4570 PSI}
Spring cracking pressure	0.15 bar{2.14 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C

Viscosity range	15~400 mm²/s
Hydraulic oil	ISO VG 32,46,68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AC-05-4-A
Weight	3.5 kg

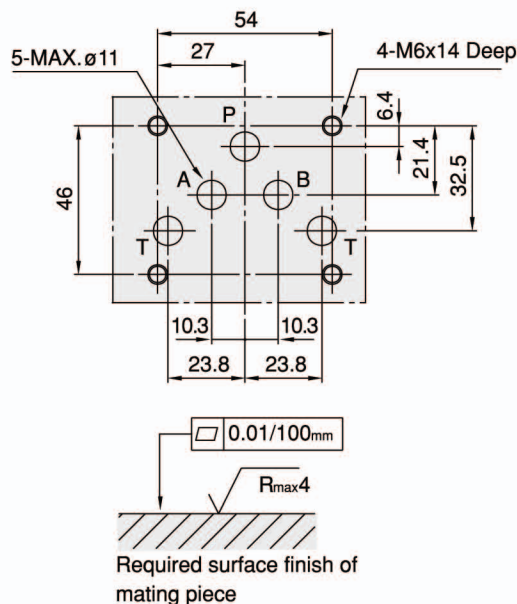
Hydraulic Configuration:

DGMAC-05-W-10



Installation Dimensions :

(Machined valve mounting face
with position of ports)



VACUUM CHECK VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMAC05 Size 10

DGM AC - 05 - W - 10 - * *

1

2

3

4

5

6

1

Sandwich Plate Design

2

Vacuum Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- W: double; be incorporated between A,B port and T port.

5

Design Number

6

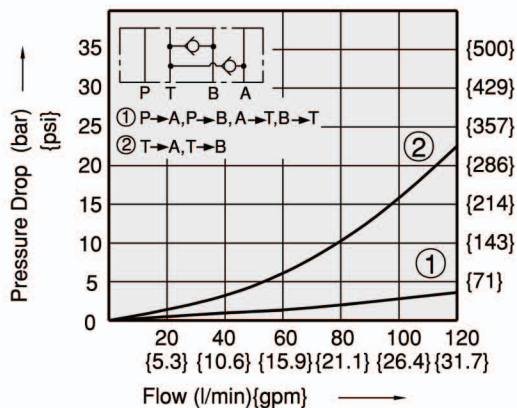
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

DGMAC-05-W-10



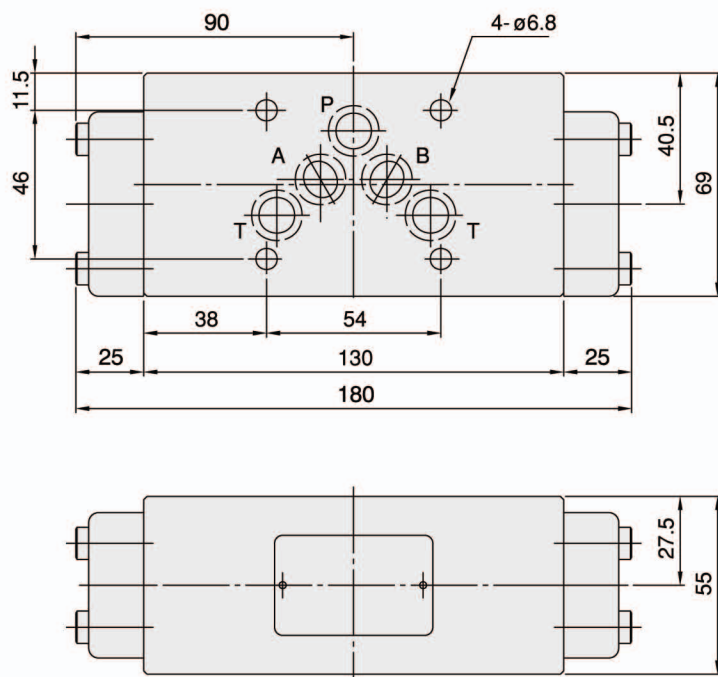
DGM-05

Dimensions :

EDGMAC05 Size 10

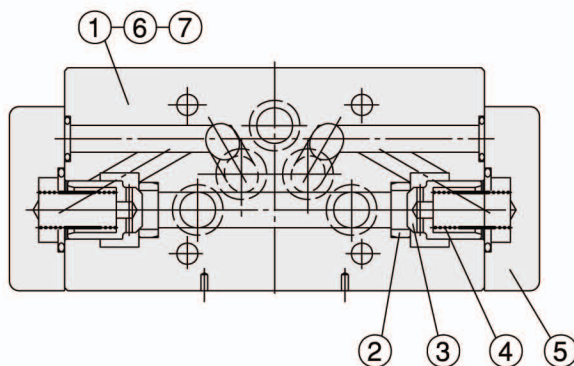
DGMAC-05-W-10

3rd angle
projection



Cross Section Drawing :

DGMAC-05-W-10



1. Body.
2. Seat.
3. Poppet.
4. Spring.
5. Cover.
6. Connections to DIN 24340 from A10;
valve fixing screws M6 DIN 912-10.9,
tightening torque 12~15 Nm.
7. O-ring AS586-014(Hs90)
for ports A, B, P and T.

Characteristics :

- Highest performance in NG 6.
- Direct operated pressure relief valves.
- Sandwich plate design.
- 2 pressure adjusting ranges.
- 3 optional directions of flow.
- With one or two pressure relief cartridges.
- Connections to DIN, ISO and CETOP.

DGMBV03 Size 6



DGM-03

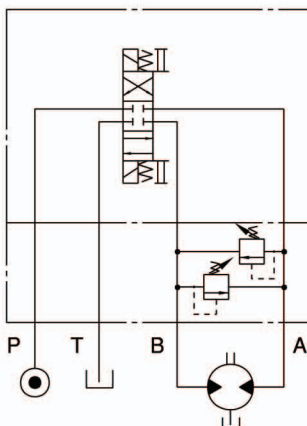
Model: DGMBV-03-W-1-10

Specification :

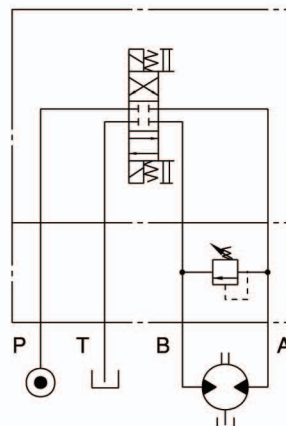
Maximum flow	20 ℓ /min {5.3 GPM}	
Maximum operating pressure	320 bar {4570 PSI}	
Pressure adjusting range	1: 8~70 bar	
	3: 35~210 bar	
Ambient temperature	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32, 46, 68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AB-03-4-A	
Weight	W type	1.5 Kg
	A type	1.4 Kg
	B type	1.4 Kg

Hydraulic Configuration :

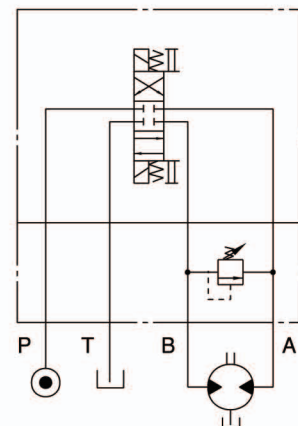
DGMBV-03-W- *-10



DGMBV-03-A- *-10



DGMBV-03-B- *-10



Characteristics :

- Highest performance in NG 10.
- Sandwich plate design.
- Pilot operated check valve.
- For leak free sealing of one or two actuator port.
- Connections to DIN, ISO and CETOP.

EDGMPC05 Size 10



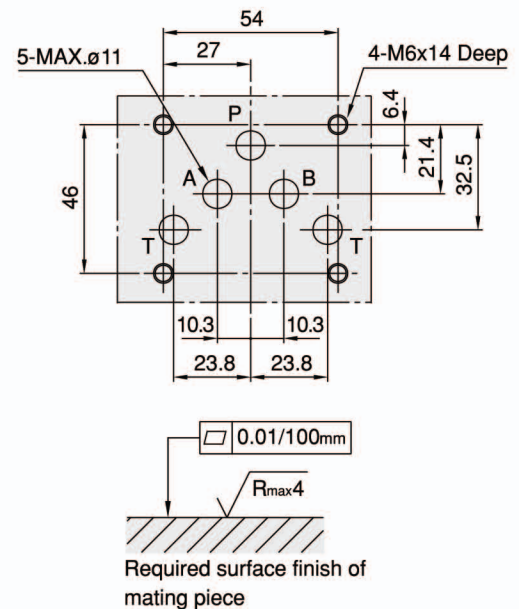
Model: DGMPC-05-W-1-10

Specification :

Maximum flow		100 ℓ/min{26.5 GPM}
Maximum operating pressure		320 bar{4570 PSI}
Spring cracking pressure		1: 2 bar{29 PSI}
		2: 5 bar{71 PSI}
Area ratio	Pilot piston	1
	Check valve seat	0.33
	Needle valve seat	-
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	W type	3.6 kg
	A type	3.6 kg
	B type	3.6 kg

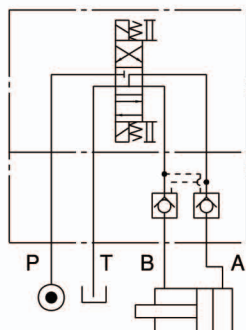
Installation Dimensions :

(Machined valve mounting face with position of ports)

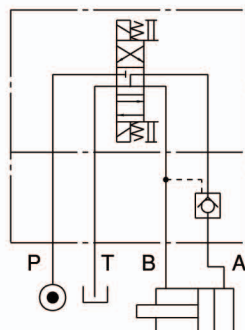


Hydraulic Configuration :

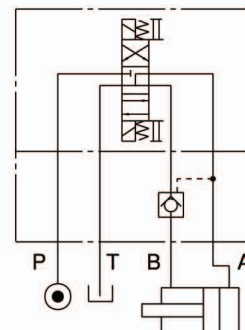
DGMPC-05-W- *-10



DGMPC-05-A- *-10



DGMPC-05-B- *-10



Ordering Code :

EDGMPC05 Size 10

DGM PC - 05 - W - 1 - 10 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pilot Operated Check Valve

3

Nominal Valve Size

- Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4

Configuration

- W: double; acting on ports A and B.
- A : single; acting on port A.
- B : single; acting on port B.

5

Spring Cracking Pressure

- 1: 2 bar.
- 2: 5 bar.

6

Design Number

7

Optional Inquiry

Performance Curves :

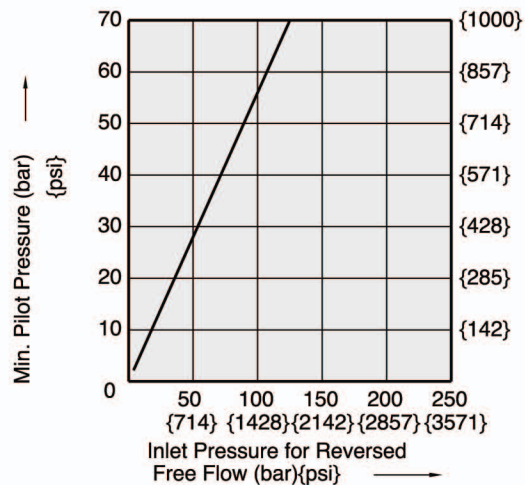
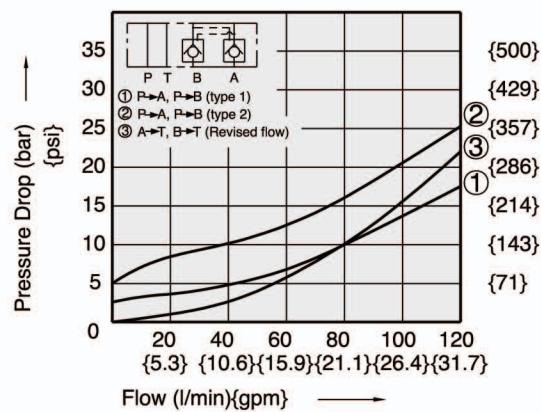
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Min. Pilot Pressure Characteristic

DGMPC-05-W- *-10

DGMPC-05-W- *-10



PILOT OPERATED CHECK VALVE SANDWICH PLATE DESIGN



Dimensions :

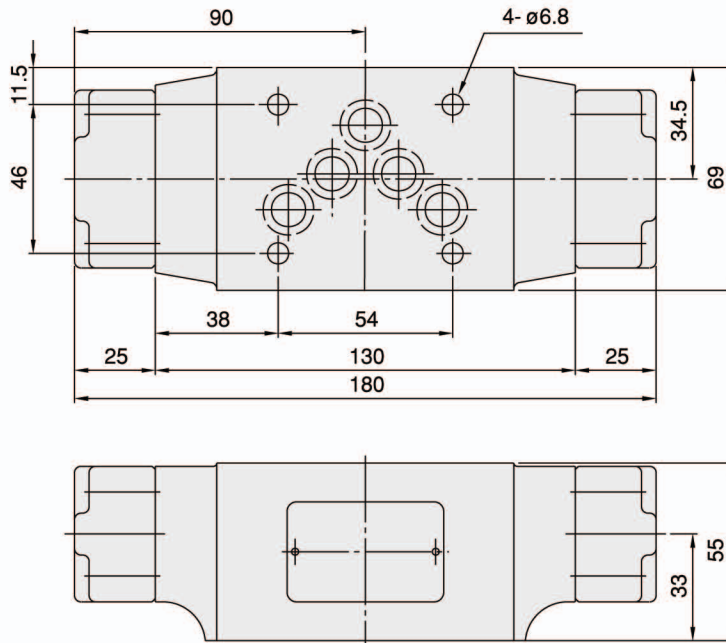
EDGMPC05 Size 10

DGMPC-05-W- *-10

DGMPC-05-A- *-10

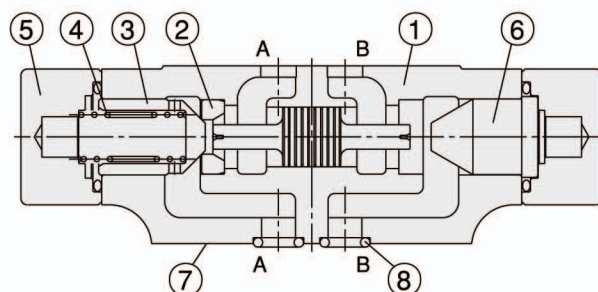
DGMPC-05-B- *-10

3rd angle projection



Cross Section Drawing :

DGMPC-05-A- *-10



DGM-05

Characteristics :

- Highest performance in NG 10.
- Sandwich plate design.
- Pilot operated check valve with decompression.
- For leak free sealing of one or two actuator ports.
- Connections to DIN, ISO and CETOP.

EDGMPD05 Size 10



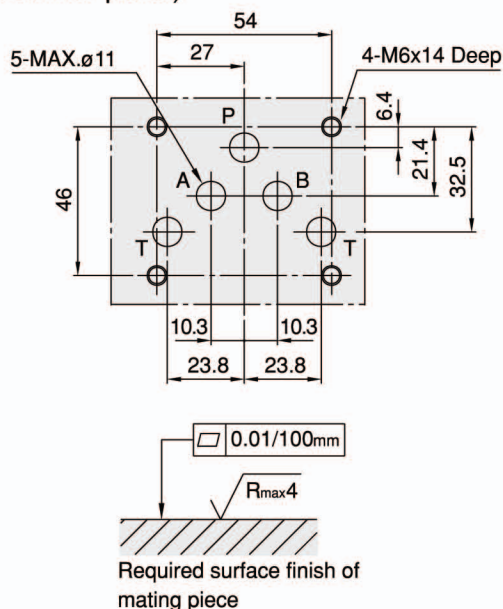
Model: DGMPD-05-W-1-10

Specification :

Maximum flow		100 l/min{26.5 GPM}
Maximum operating pressure		320 bar{4570 PSI}
Spring cracking pressure		1: 2 bar{29 PSI}
		2: 5 bar{71 PSI}
Area ratio	Pilot piston	1
	Check valve seat	0.49
	Needle valve seat	0.07
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AC-05-4-A
Weight	W type	3.6 kg
	A type	3.6 kg
	B type	3.6 kg

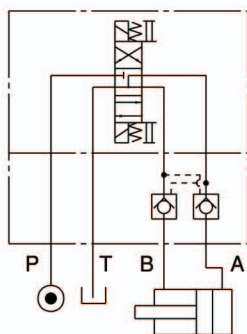
Installation Dimensions :

(Machined valve mounting face with position of ports)

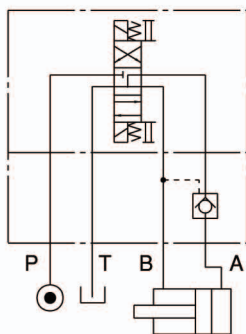


Hydraulic Configuration :

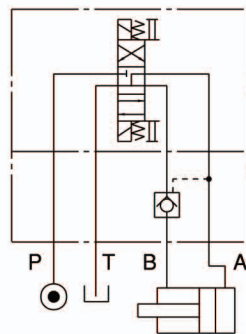
DGMPD-05-W- *-10



DGMPD-05-A- *-10



DGMPD-05-B- *-10



PILOT OPERATED CHECK VALVE WITH DECOMPRESSION
SANDWICH PLATE DESIGN



Ordering Code :

EDGMPD05 Size 10

DGM PD - 05 - W - 1 - 10 - * *
1 2 3 4 5 6 7

1 **Sandwich Plate Design**

2 **Pilot Operated Check Valve with Decompression**

3 **Nominal Valve Size**

• Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.

4 **Configuration**

- W: double; acting on ports A and B.
- A: single; acting on port A.
- B: single; acting on port B.

5 **Spring Cracking Pressure**

- 1: 2 bar.
- 2: 5 bar.

6 **Design Number**

7 **Optional Inquiry**

Performance Curves :

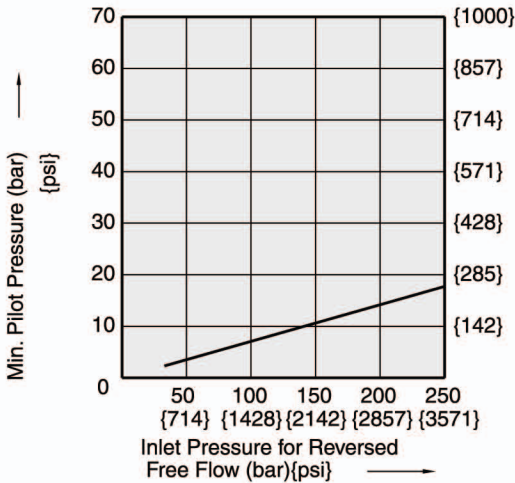
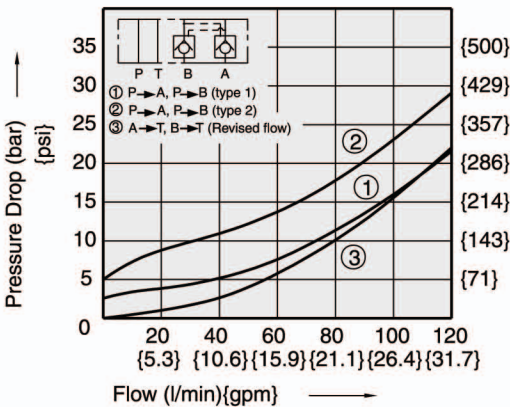
Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Min. Pilot Pressure Characteristic

DGMPD-05-W- *-10

DGMPD-05-W- *-10



DGM-05

Dimensions :

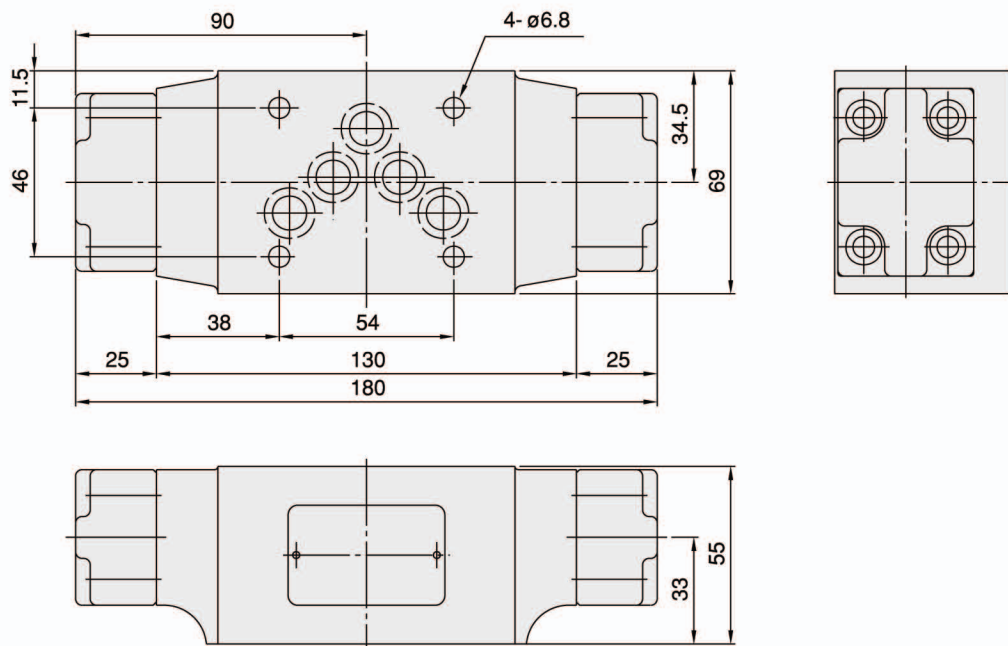
EDGMPD05 Size 10

DGMPD-05-W- *-10

DGMPD-05-A- *-10

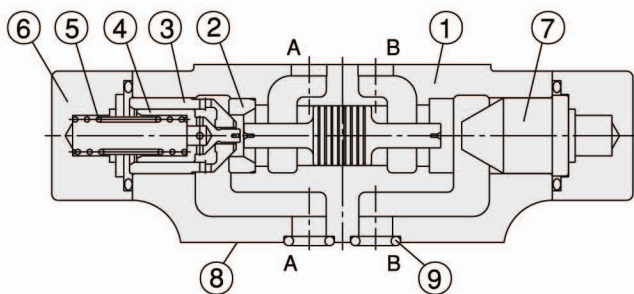
DGMPD-05-B- *-10

3rd angle projection



Cross Section Drawing :

DGMPD-05-A- *-10



1. Body.
2. Seat.
3. Poppet-1.
4. Poppet-2.
5. Spring.
6. Cover.
7. Bushing.
8. Connections to DIN 24340 from A10;
valve fixing screws M6 DIN 912-10.9,
tightening torque 12~15 Nm.
9. O-ring AS586-014(Hs90)
for ports A, B, P and T.



Model: DGMFB-05-1-10

Specification :

Maximum flow	100 ℓ /min {26.5 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Ambient temperature range	-20°C~+50°C
Hydraulic fluid temperature	-20°C~+70°C
Hydraulic oil	ISO VG 32, 46, 68
Mounting pattern	ISO 4401-AC-05-4-A

Ordering Code :

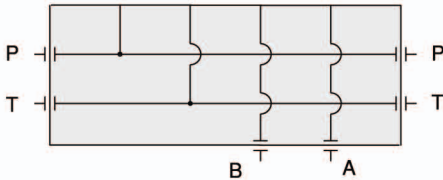
DGM FB - 05 - 1 - 10 - * *

1	2	3	4	5	6
1	Sandwich Plate Design				
2	Manifold Block				
3	Nominal Valve Size				
● Nominal valve size: NG 10, CETOP 5 and ISO 4401-05.					
4	Number of Controls in Vertical Stacking Design				
●2: for 2 controls ●5: for 5 controls ●3: for 3 controls ●6: for 6 controls ●4: for 4 controls					
5	Design Number				
6	Optional Inquiry				

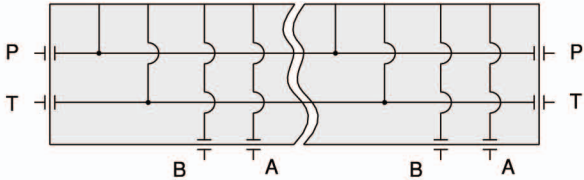
EDGMFB05 Size 10

Hydraulic configuration :

DGMFB-05-1-10



DGMFB-05- *-10

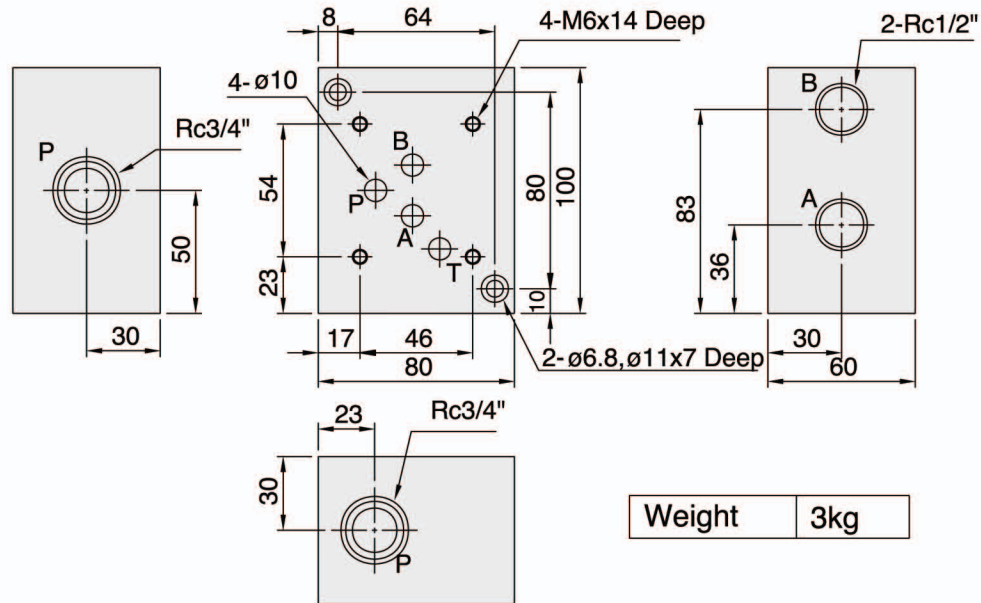


DGM-05

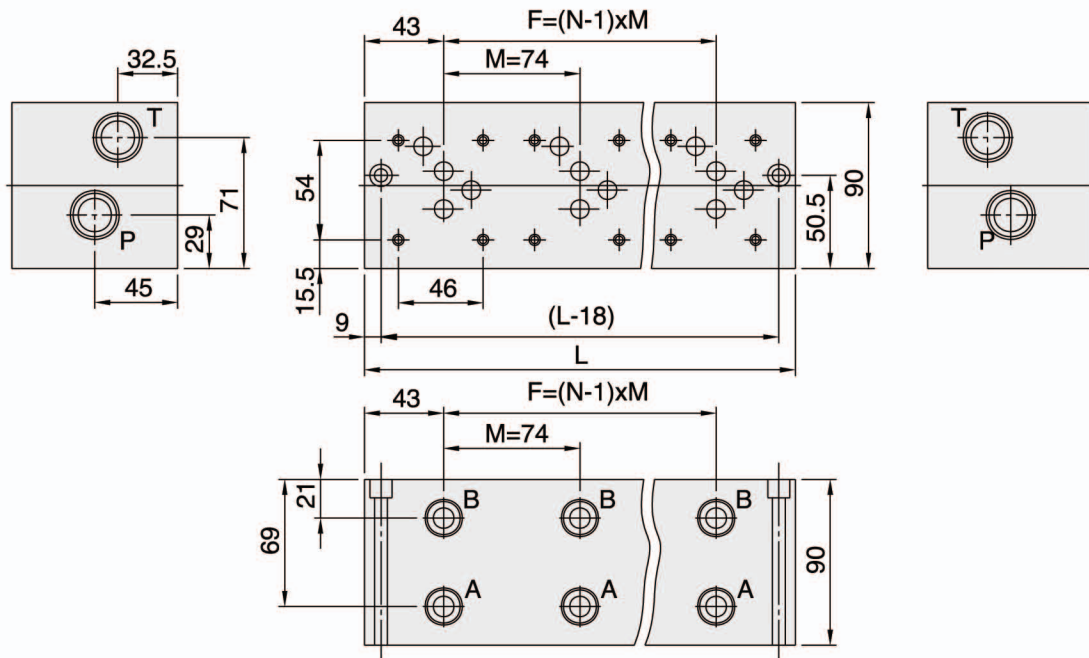
Dimensions :

EDGMFB05 Size 10

DGMFB-05-1-10



DGMFB-05- *-10



Mounting Dimensions

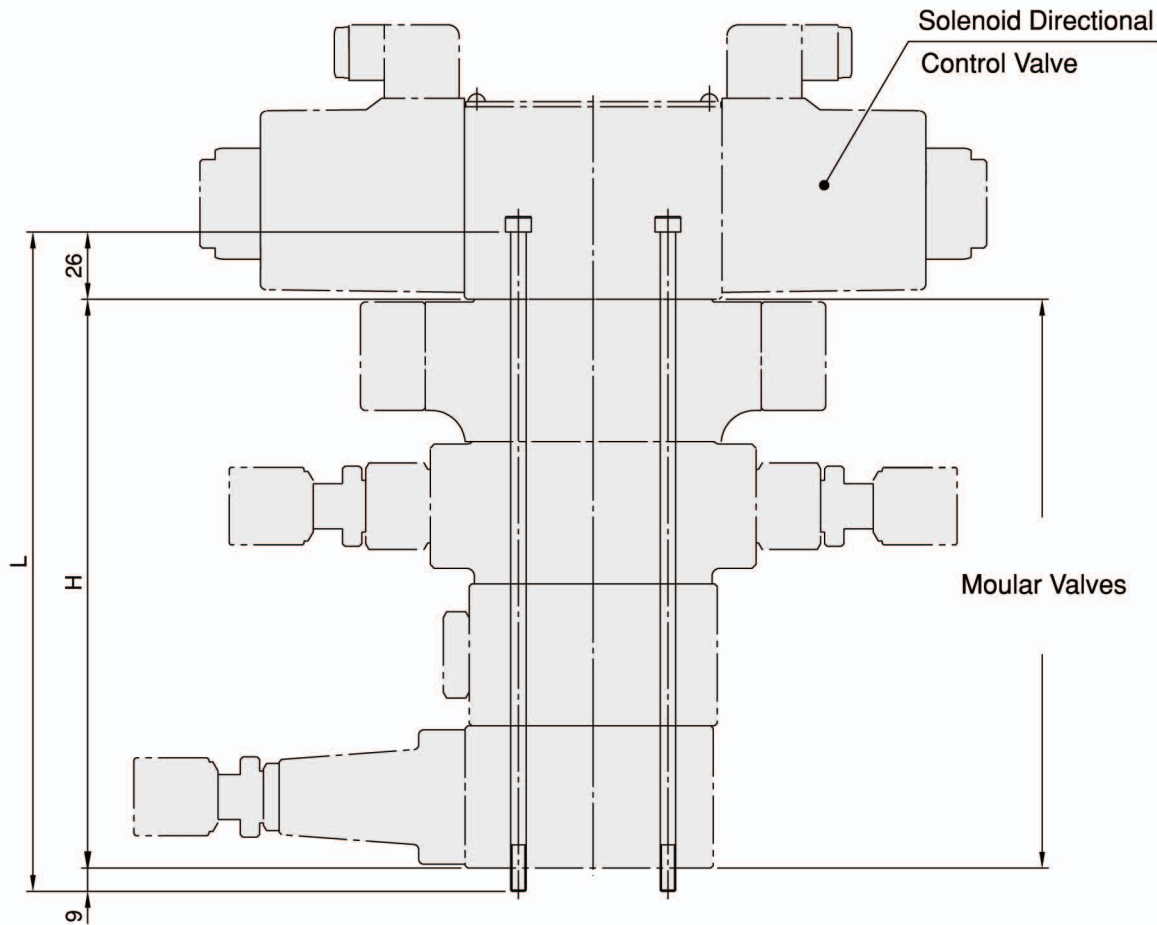
Types	N	F	L	A	B	P	T	Weight (kg)
DGMFB-05-2-10	2	74	164	Rc1/2"	Rc3/4"			10.4
DGMFB-05-3-10	3	148	238					15
DGMFB-05-4-10	4	222	312					19.7

Mounting Dimensions

Types	N	F	L	A	B	P	T	Weight (kg)
DGMFB-05-5-10	5	296	386	Rc1/2"	Rc3/4"			24.4
DGMFB-05-6-10	6	370	460					29

Hexagon Socket Head Bolt:

05 Size 10



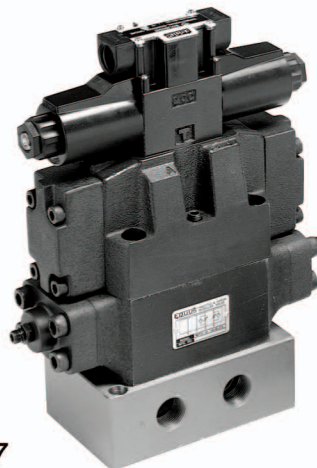
DGM-05

Numbers of the moular valves	H	L	Bolt length	
			Metric	Inch
1	55	90	M6x90Lx4 pcs.	1/4"~20UNCx3-5/8"Lx4 pcs.
2	110	145	M6x145Lx4 pcs.	1/4"~20UNCx5-3/4"Lx4 pcs.
3	165	200	M6x200Lx4 pcs.	1/4"~20UNCx7-1/2"Lx4 pcs.
4	220	255	M6x255Lx4 pcs.	1/4"~20UNCx10-1/8"Lx4 pcs.

Characteristics :

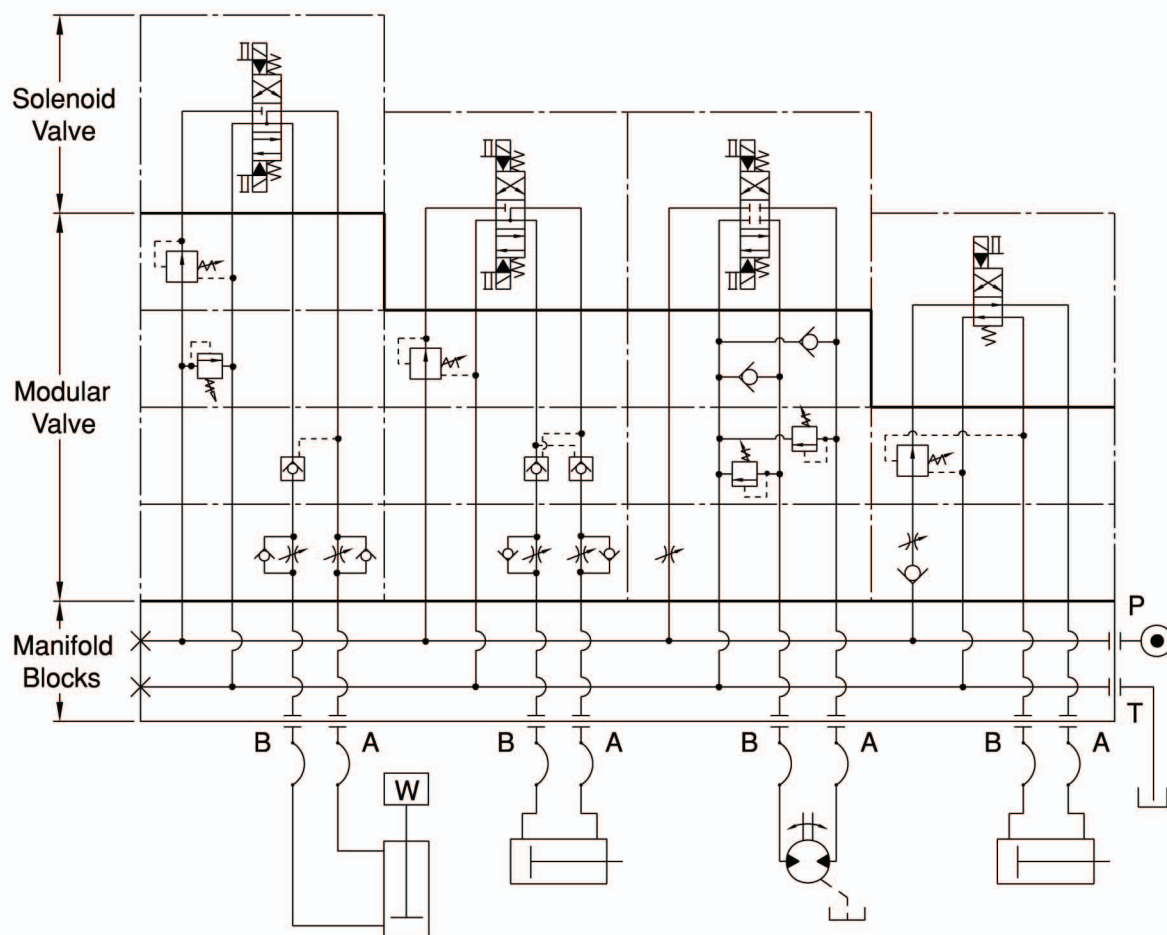
07 Size 16

- Highest performance in NG 16.
- Compacting stacking valves.
- Eliminating intervalve piping and fittings.
- Reducing leakage and installation costs.
- Max. Operating Pressure: 32 MPa.
- Max. Flow: 300 ℓ /min.
- Connections to DIN, ISO and CETOP.



DGM-07
Modular Valve Series

Stacking Example:



Ordering Code :

EDGMBV03 Size 6

DGM **BV** **-** **03** **-** **W** **-** **1** **-** **10** **-** ***** *****

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Brake Valve

3

Nominal Valve Size

- Nominal valve size: NG 6, CETOP 3 and ISO 4401-03.

4

Configuration

- W: double; acting on ports A and B, with the relieved pressure cross-discharged.
- A: single; acting on port A, discharged to port B.
- B: single; acting on port B, discharged to port A.

5

Pressure Adjusting Range

- 1: 8~70 bar.
- 3: 35~210 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

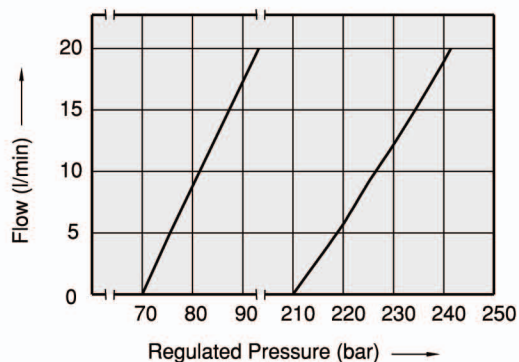
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

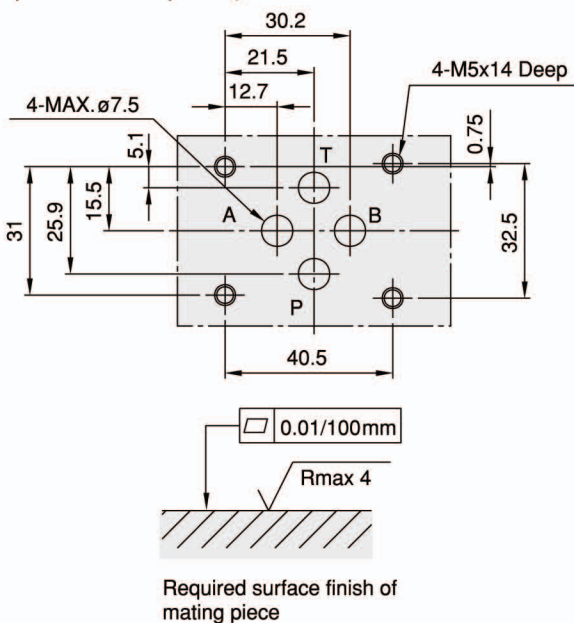
**Regulated Pressure Versus
Flow Diagram**

DGMBV-03- * - *-10



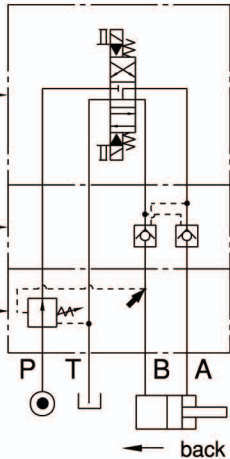
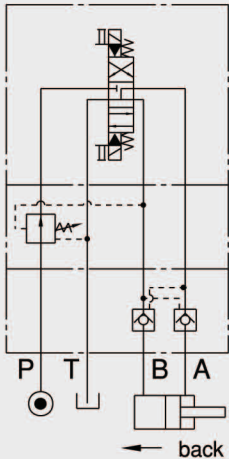
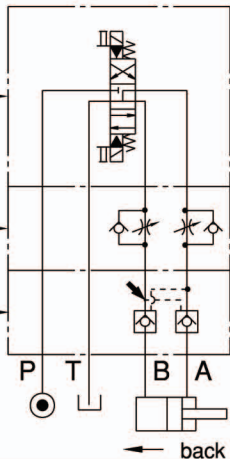
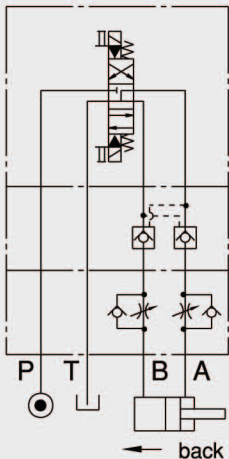
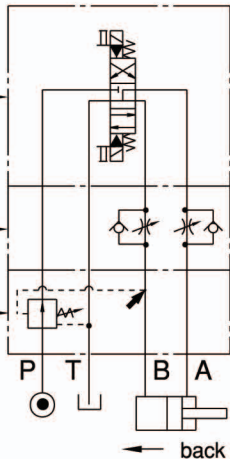
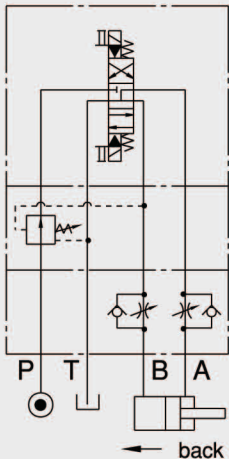
Installation Dimensions :

(Machined valve mounting face with
position of ports)



Care in Application :

07 Size 16

Valve Name	Wrong Example	Correct Example	Instructions
Solenoid operated directional control valve Pilot operated check valve (DGMPD-07-W- *-10) Pressure reducing valve (DGMGV-07-B- *-20)			When DGMGV-07-B and DGMPD-07-W are used together in the same circuit, the right circuit is correct, and the left is wrong, as DGMPD-07-W would not be totally closed.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-07-W-O-20) Pilot operated check valve (DGMPD-07-W- *-10)			When DGMTC-07-W-O and DGMPD-07-W are used together in the same circuit , DGMTC-07-W-O should be installed closer to the cylinder ports, otherwise the cylinder may have a "knocking" phenomenon happened.
Solenoid operated directional control valve Flow regulator with metered out check (DGMTC-07-W-O-20) Pressure reducing valve (DGMGV-07-B- *-20)			When DGMGV-07-B and DGMTC-07-W-O are used together in the same circuit, the right circuit is correct, and the left is wrong, as the function of DGMGV-07-B will be affected when oil flow from B port to T port. Because DGMTC-07-W-O will create a pressure which will cause DGMGV-07-B to reduce the pressure too low, and the cylinder then can not operate with enough force or move smoothly.

DGM-07

List of Modular Valve Series :

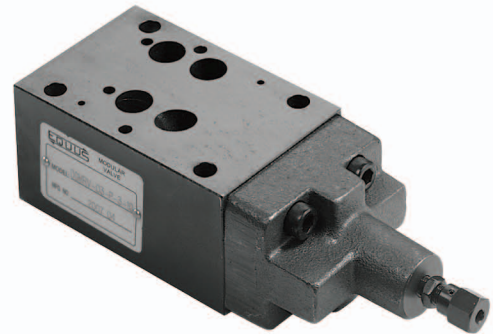
07 Size 16

Classification	Valve Name	Valve Model	Pressure Adjusting Range (bar)	Max. Flow (L/min)	Hydraulic Symbol	Weight (Kg)	Refer Page
Directional Control Valve	Solenoid Valve	DG07- *- *-70	320	300			J 21-28
Pressure Control Valve	Relief Valve	DGMRV-07-P- *-20	1: 7~70 2: 7~140 3: 7~210	300		7.4	92
	Reducing Valve (Balance type)	DGMGV-07-P- *-20	1: 7~70	300		8.6	95
		DGMGV-07-A- *-20	2: 7~140			8.6	
		DGMGV-07-B- *-20	3: 7~210			8.6	
	Counter Balance Valve	DGMCB-07-A1- *-20	1: 5~35	300		8.7	98
		DGMCB-07-B1- *-20	2: 20~140			8.7	
Flow Control Valve	Flow Regulator With Metered Out Check	DGMTC-07-W-O-20	Cracking Pressure: 1.0	300		6.9	101
		DGMTC-07-A-O-20				6.7	
		DGMTC-07-B-O-20				6.7	
	Flow Regulator With Metered In Check	DGMTC-07-W-I-20	Cracking Pressure: 1.0	300		6.9	101
		DGMTC-07-A-I-20				6.7	
		DGMTC-07-B-I-20				6.7	
Directional Control Valve	Check Valve	DGMCV-07-P- *-10	Cracking Pressure: 1: 0.4 2: 3.5 3: 5.0	300		4.6	105
		DGMCV-07-T- *-10				6.5	
		DGMCV-07-A- *-10				4.6	
	Pilot Check Valve (With decompression)	DGMPD-07-W- *-10	Cracking Pressure: 1: 2 2: 5	300		7.0	108
		DGMPD-07-A- *-10				7.0	
		DGMPD-07-B- *-10				7.0	

Characteristics :

- Highest performance in NG 16.
- Double stage pressure relief valves with balance poppet.
- Sandwich plate design.
- 3 pressure ranges.
- Connections to DIN, ISO and CETOP.

EDGMRV07 Size 16



Specification :

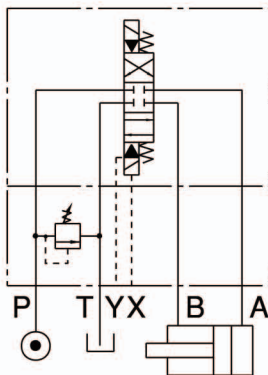
Model: DGMRV-07-P-1-20

Maximum flow	300 ℓ /min {79.3 GPM}
Maximum operating pressure	320 bar {4570 PSI}
Pressure adjusting range	1: 7~70 bar
	2: 7~140 bar
	3: 7~210 bar
Ambient temperature range	-20°C~+50°C

Hydraulic fluid temperature	-20°C~+70°C
Viscosity range	15~400 mm²/s
Hydraulic oil	ISO VG 32,46,68
Fluid cleanliness	NAS Class 9 MAX.
Mounting pattern	ISO 4401-AC-05-4-A
Weight	7.4 kg

Hydraulic Configuration :

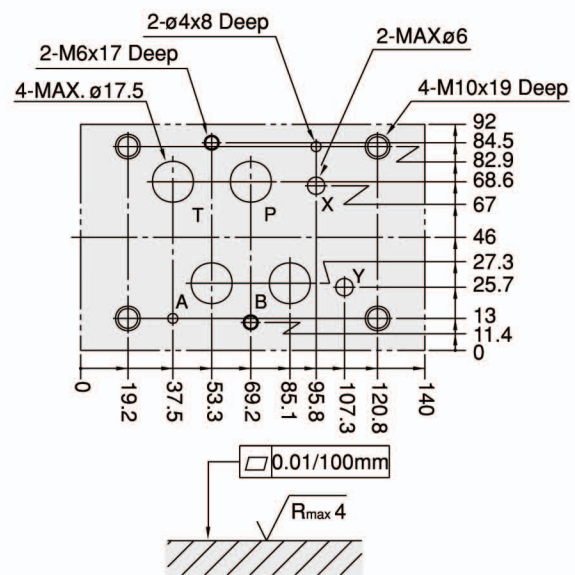
DGMRV-07-P- *-20



Installation Dimensions :

(Machined valve mounting face with position of ports)

Mounting Surface: ISO 4401-AD-07-4-A



Required surface finish of mating piece when fitting the valve without subplate

Ordering Code :

EDGMRV07 Size 16

DGM RV - 07 - P - 1 - 20 - * *

1 2 3 4 5 6 7

1 Sandwich Plate Design

2 Pressure Relief Valve

3 Nominal Valve Size

- Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.

4 Configuration

- P: single; acting on port P, discharge to port T.

5 Pressure Adjusting Range

- 1: 7 ~ 70 bar.
- 2: 7 ~ 140 bar.
- 3: 7 ~ 210 bar.

6 Design Number

- 10: with handle.
- 20: without handle.

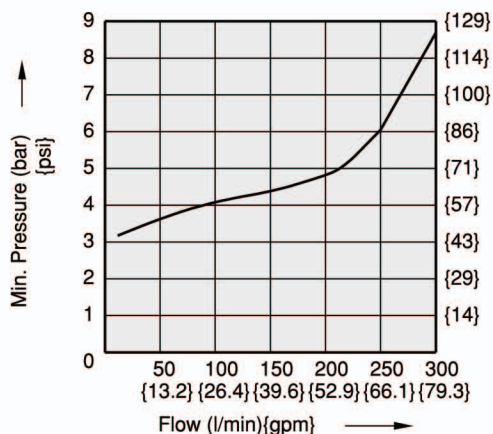
7 Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

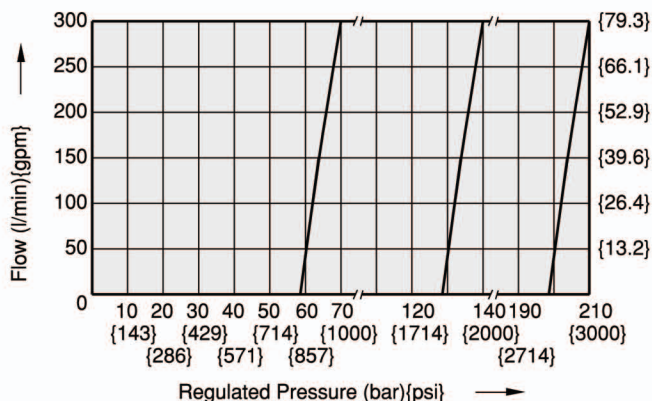
Minimum Pressure Versus
Flow Diagram

DGMRV-07-P-1-20



Regulated Pressure Versus
Flow Diagram

DGMRV-07- *-20



PRESSURE RELIEF VALVE SANDWICH PLATE DESIGN

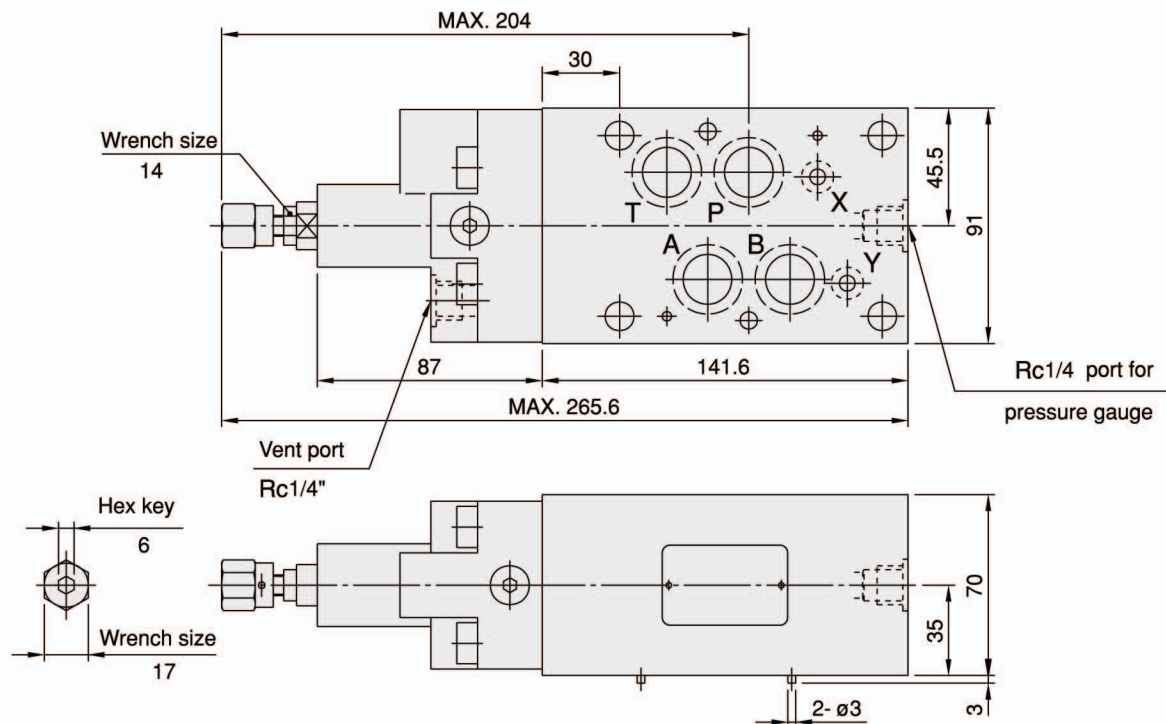
EQUUS

Dimensions :

EDGMRV07 Size 16

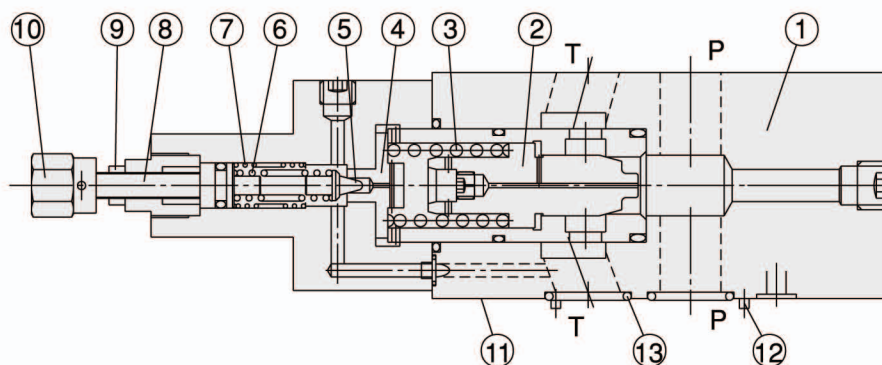
DGMRV-07-P- *-20

3rd angle projection



Cross Section Drawing :

DGMRV-07-P- *-20



- | | | |
|---------------------------|--|-------------------------------------|
| 1. Body | 7. Adjustment spring 2 | 12. 2 locating pins |
| 2. Balanced poppet | 8. Setting screw | 13. O-ring: |
| 3. Balanced poppet spring | 9. Locking nut | Ports A,B,P,T: AS568-118(NBR,Hs90); |
| 4. Seat | 10. Adjustment element | Ports X,Y: AS568-013(NBR,Hs90) |
| 5. Pilot valve poppet | 11. Connections to DIN 24340 from A16; | |
| 6. Adjustment spring 1 | 6 through holes for fixing screws | |

DGM-07

Characteristics :

- Highest performance in NG 16.
- Double stage pressure reducing valve.
- Sandwich plate design.
- 3 pressure adjusting ranges.
- 3 optional effective directions of flow.
- Pressure reduction in ports A,B or P.
- Connections to DIN, ISO and CETOP.

EDGMGV07 Size 16



Model: DGMGV-07-P-1-20

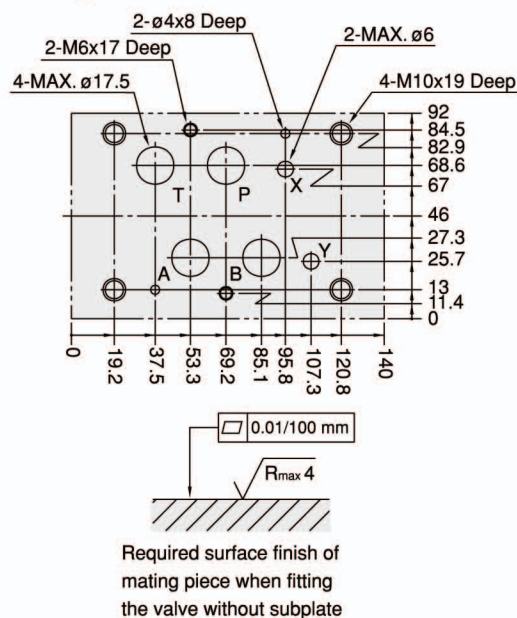
Specification :

Maximum flow	300 ℓ/min{79.3 GPM}	
Maximum operating pressure	320 bar{4570 PSI}	
Pressure adjusting range	1:	7~70 bar
	2:	7~140 bar
	3:	7~210 bar
Ambient temperature range	-20°C~+50°C	
Hydraulic fluid temperature	-20°C~+70°C	
Viscosity range	15~400 mm²/s	
Hydraulic oil	ISO VG 32,46,68	
Fluid cleanliness	NAS Class 9 MAX.	
Mounting pattern	ISO 4401-AD-07-4-A	
Weight	P type	8.6 kg
	A type	8.6 kg
	B type	8.6 kg

Installation Dimensions :

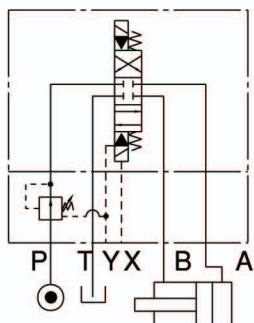
(Machined valve mounting face with position of ports)

Mounting Surface: ISO 4401-AD-07-4-A

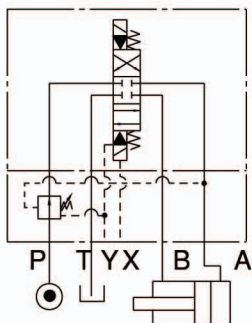


Hydraulic Configuration :

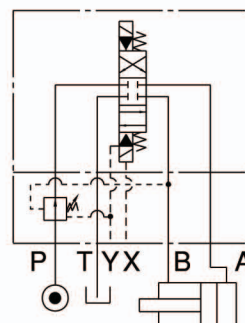
DGMGV-07-P- *-20



DGMGV-07-A- *-20



DGMGV-07-B- *-20



PRESSURE REDUCING VALVE SANDWICH PLATE DESIGN



Ordering Code :

EDGMGV07 Size 16

DGM GV - 07 - P - 1 - 20 - * *

1

2

3

4

5

6

7

1

Sandwich Plate Design

2

Pressure Reducing Valve

3

Nominal Valve Size

- Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.

4

Configuration

- P: reduced pressure on P port.
- A: reduced pressure on A port.
- B: reduced pressure on B port.

5

Pressure Adjusting Range

- 1: 7 ~ 70 bar.
- 2: 7 ~ 140 bar.
- 3: 7 ~ 210 bar.

6

Design Number

- 10: with handle.
- 20: without handle.

7

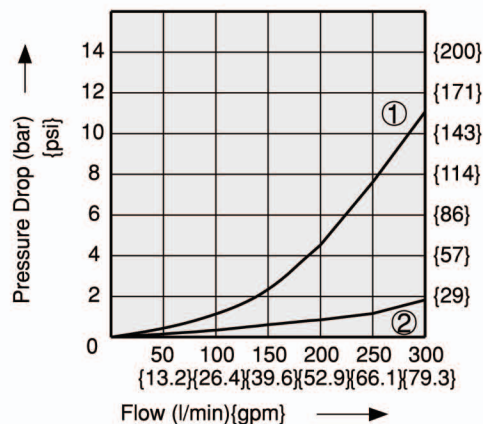
Optional Inquiry

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

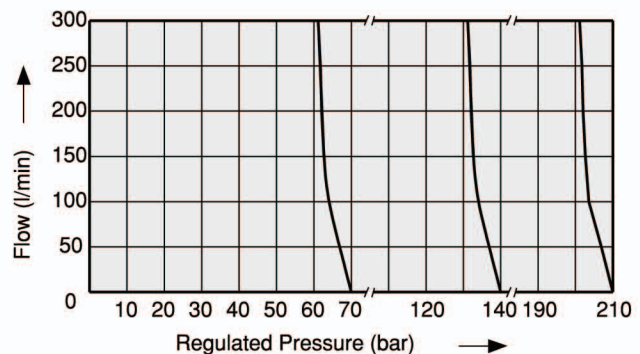
Pressure Drop Characteristic

DGMGV-07-P- *-20



Regulated Pressure Versus Flow Diagram

DGMGV-07-P- *-20



1. differential pressure variation versus variation of flow between inlet port and use port
2. differential pressure variation versus variation of flow between use port and discharge port

Dimensions :

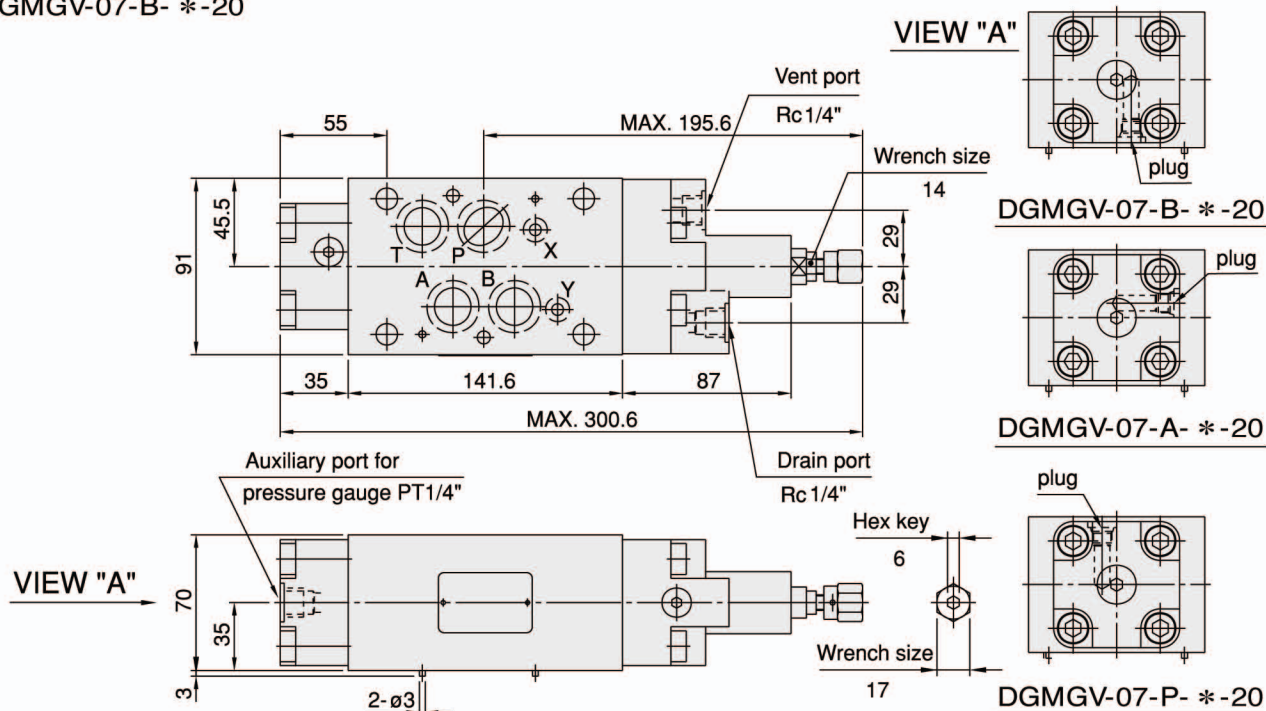
EDGMGV07 Size 16

DGMGV-07-P- *-20

DGMGV-07-A- *-20

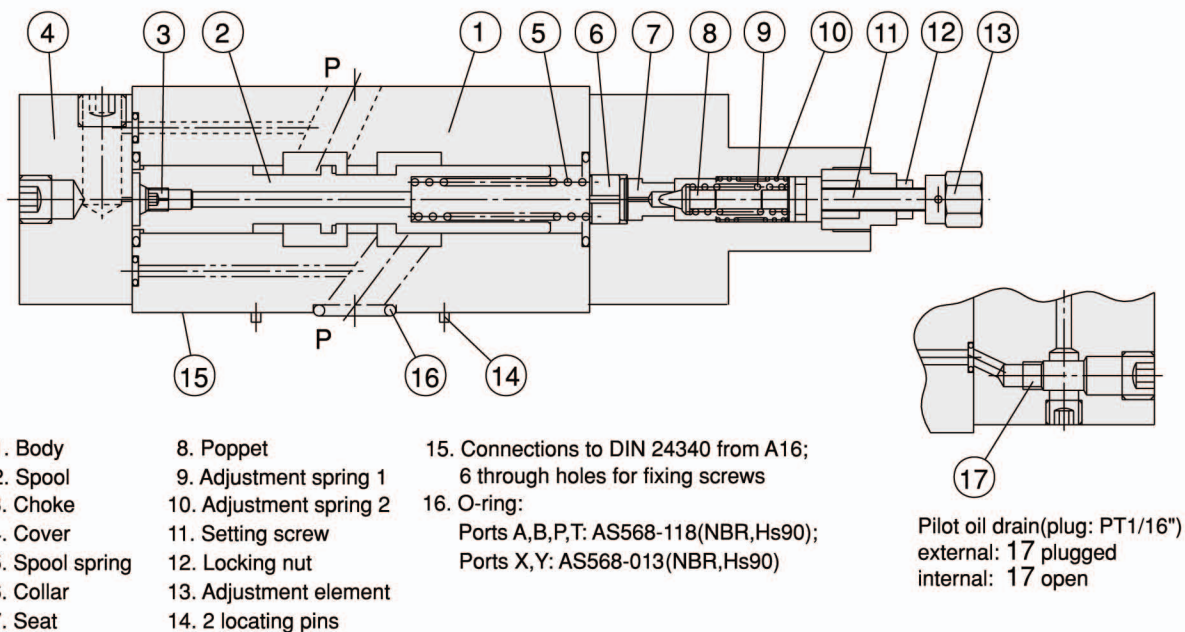
DGMGV-07-B- *-20

3rd angle projection



Cross Section Drawing :

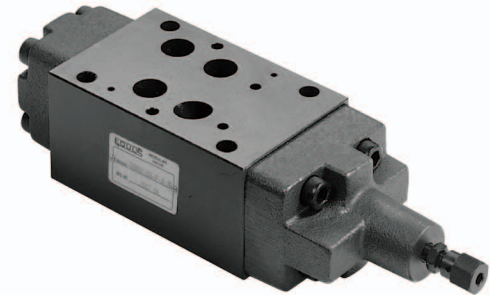
DGMGV-07-P- *-20



Characteristics :

- Highest performance in NG 16.
- Direct operated pressure counter balance valve.
- Used for actuator back pressure control.
- Sandwich plate design.
- Connections to DIN, ISO and CETOP.

EDGMCB07 Size 16



Model: DGMCB-07-B1-1-20

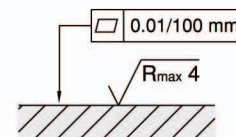
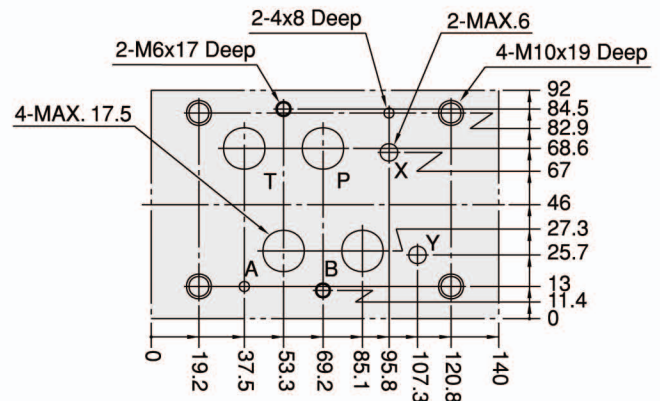
Specification :

Maximum flow		300 ℓ /min {79.3 GPM}
Maximum operating pressure		320 bar {4570 PSI}
Pressure adjusting range		1: 5~35 bar
		2: 20~140 bar
Ambient temperature range		-20°C~+50°C
Hydraulic fluid temperature		-20°C~+70°C
Viscosity range		15~400 mm²/s
Hydraulic oil		ISO VG 32,46,68
Fluid cleanliness		NAS Class 9 MAX.
Mounting pattern		ISO 4401-AD-07-4-A
Weight	A type	8.7 kg
	B type	8.7 kg

Installation Dimensions :

(Machined valve mounting face with position of ports)

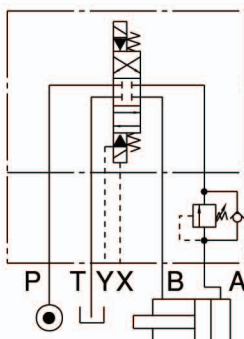
Mounting Surface: ISO 4401-AD-07-4-A



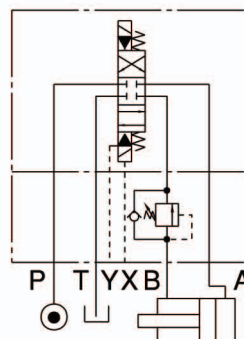
Required surface finish of mating piece when fitting the valve without subplate

Hydraulic Configuration :

DGMCB-07-A1- *-20



DGMCB-07-B1- *-20



Ordering Code :

EDGMCB07 Size 16

DGM CB - 07 - B1 - 1 - 20 - * *

1 2 3 4 5 6 7 8

1 **Sandwich Plate Design**

2 **Pressure Counter Balance Valve**

3 **Nominal Valve Size**

- Nominal valve size: NG 16, CETOP 7 and ISO 4401-07.

4 **Control Port**

- A: A port.
- B: B port.

5 **Type**

- 1: internal pilot , internal drain.

6 **Pressure Adjusting Range**

- 1: 5 ~ 35 bar
- 2: 20 ~ 140 bar

7 **Design Number**

- 10: with handle
- 20: without handle

8 **Optional Inquiry**

Performance Curves :

Viscosity of Hydraulic Fluid: 32 mm²/s

Pressure Drop Characteristic

Regulated Pressure Versus Flow Diagram

