

Oilgear

HYDRAULIC MODULAR VALVE CHECK VALVE MC/MPC



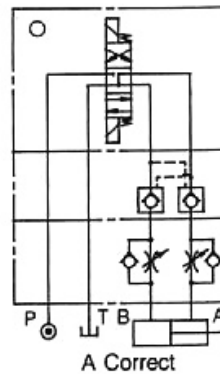
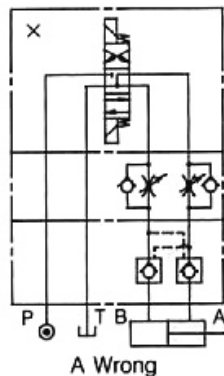
FEATURES

Modular type of pressure controls, flow controls, and check valves are sandwiched between directional control valves and their subplates or manifolds. They use no piping and share a common mounting surface, and are the ultimate in modern design, compactness and efficiency. They reduce the possibility of leakage, vibration, flow noise caused by piping. The compactness takes less space, ease the installation and maintenance.

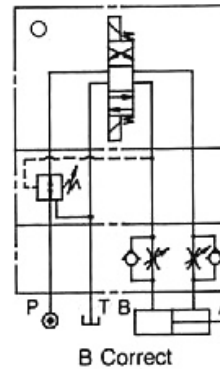
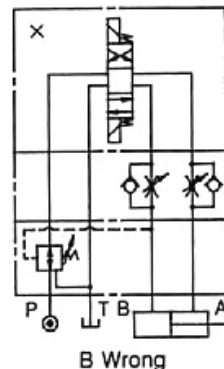
They are available in both D03 and D05 sizes.

CIRCUITRY EXAMPLES

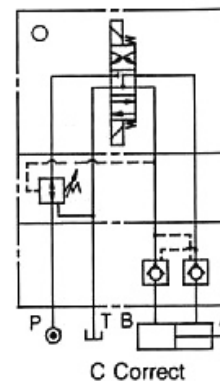
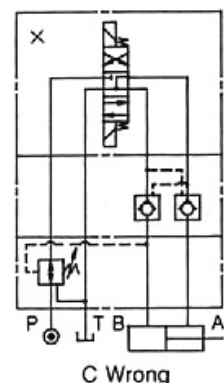
A.
Solenoid directional valve
Pilot operated modular
check valve (for A, B lines)
Modular reducing valve (for B line)



B.
Solenoid directional valve
Modular flow control valve (for
A, B lines, metering out)
Modular reducing valve (for B
line)



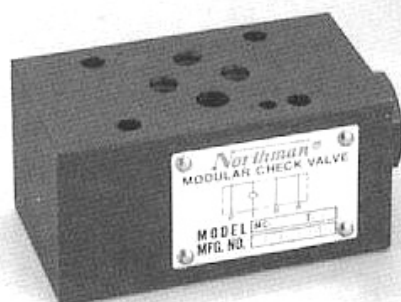
C.
Solenoid directional valve
Modular flow control valve (for
A, B lines, metering out)
Modular pilot operated check
valve (for A, B lines)



A.
When MT-***B and MPC-***W are used together in same circuit, the right circuit is correct usage, and left is wrong, as the MPC would not be totally closed.

B.
When MPR-***B and MT-***W are used together in same circuit, the right circuit is correct usage, and left is wrong, as the function of pressure reducing valve will be affected when oil flow from B to T. Because the metering out throttle/check valve will create a pressure which will cause pressure reducing valve to reduce the pressure too low, and the cylinder then can not operate with enough force or move smoothly.

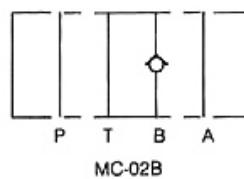
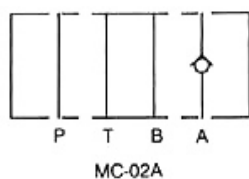
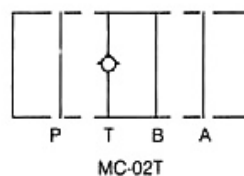
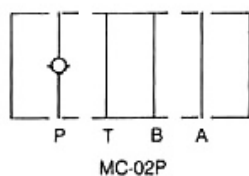
C.
When MT-***W and MPC-***W are used together in same circuit, the MT should be installed closer to the cylinder ports, otherwise cylinder may have a "knocking" phenomenon happened.



SPECIFICATIONS

Max. operating pressure	210 Kgf/cm ² (3000PSI)
Max. flow capacity	35 LPM (9.3 GPM)

SYMBOLS



HOW TO ORDER

MC - 02P - 05 - 20

DESIGN NUMBER

CRACKING PRESSURE :
05 : 0.5 KGF/CM² (7 PSI)
50 : 3.5KGF/CM² (50 PSI)

FUNCTION PORT :
P : P PORT
A : A PORT
B : B PORT
T : T PORT

PORT SIZE : 1/4" (D03)

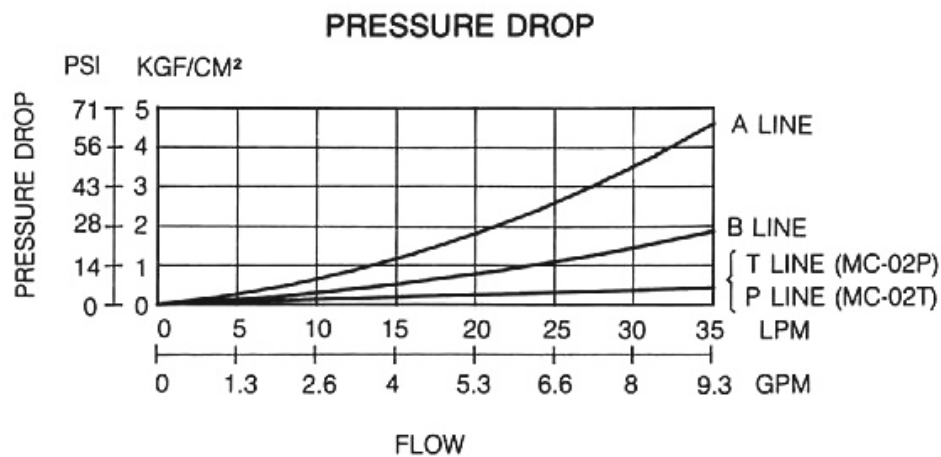
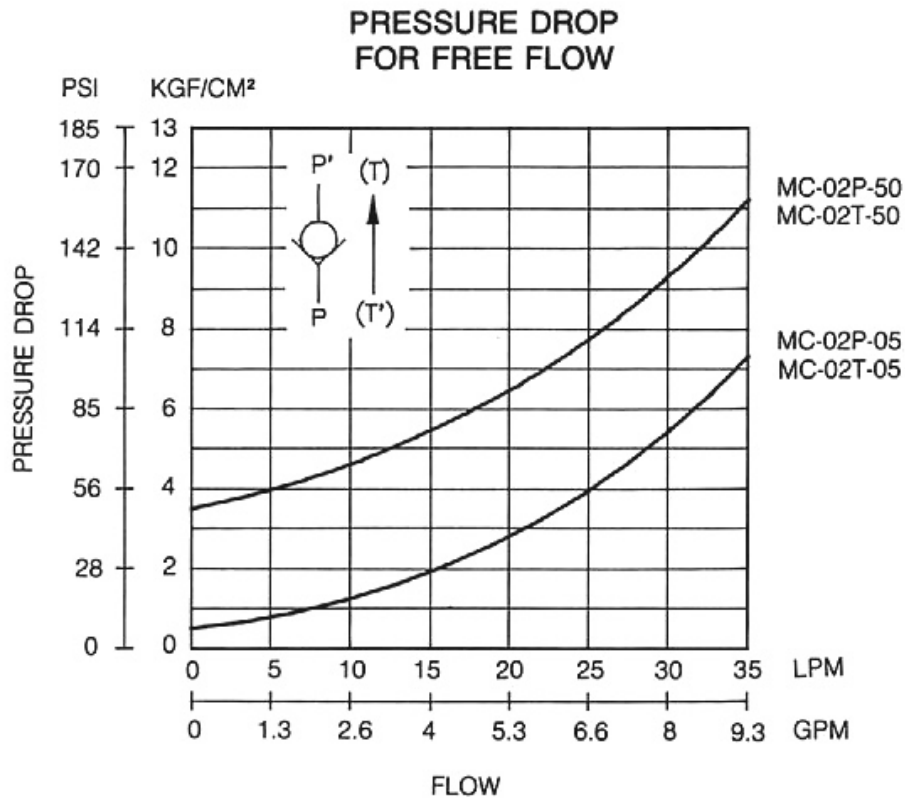
MODULAR CHECK VALVE

PERFORMANCE CURVES

TEST CONDITIONS

Viscosity: 35 CST

Temperature: 50°C

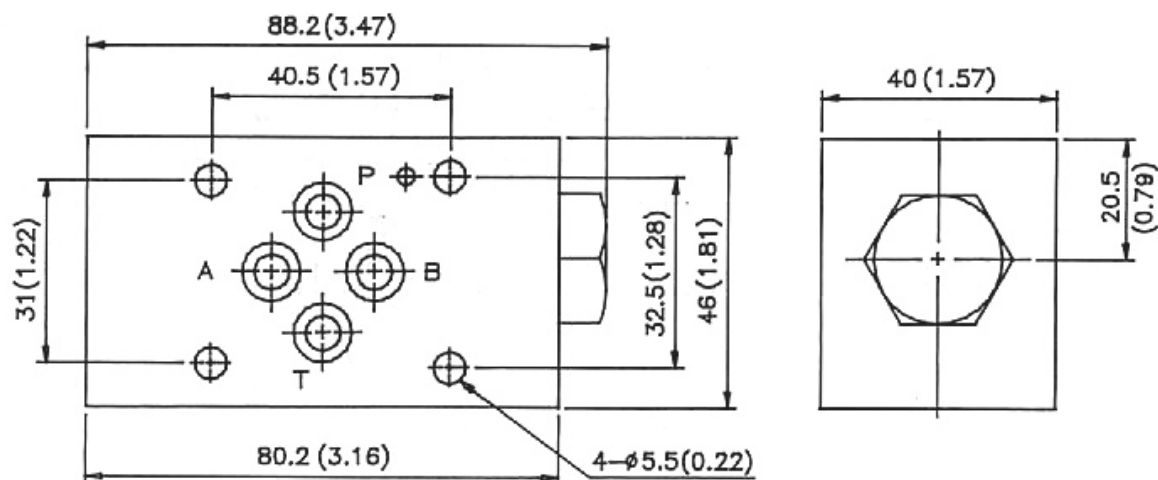


INSTALLATION DIMENSIONS

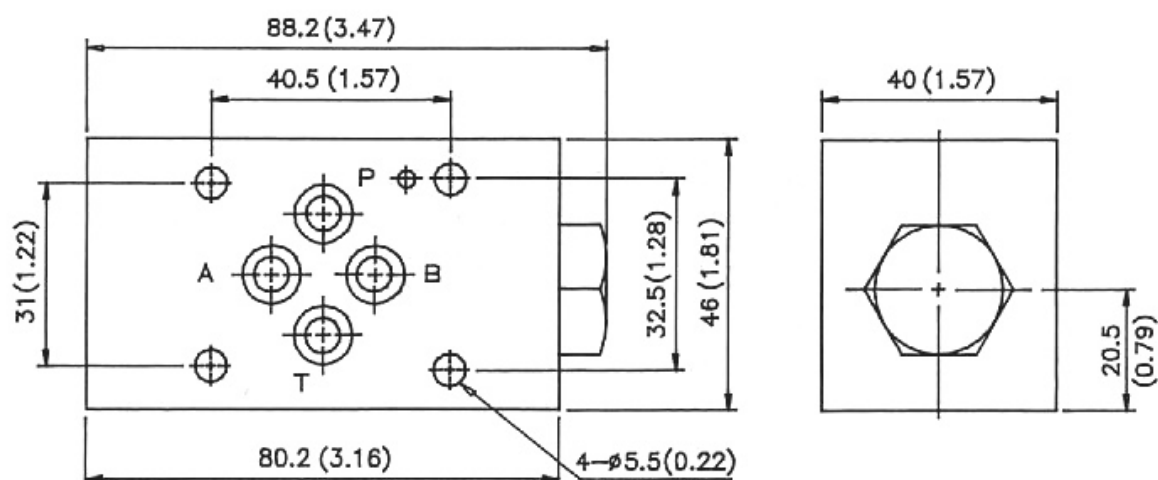
UNIT: mm(inch)

WEIGHT: 1.2 kgs (2.65 lbs)

MC-02P-**-20



MC-02T-**-20

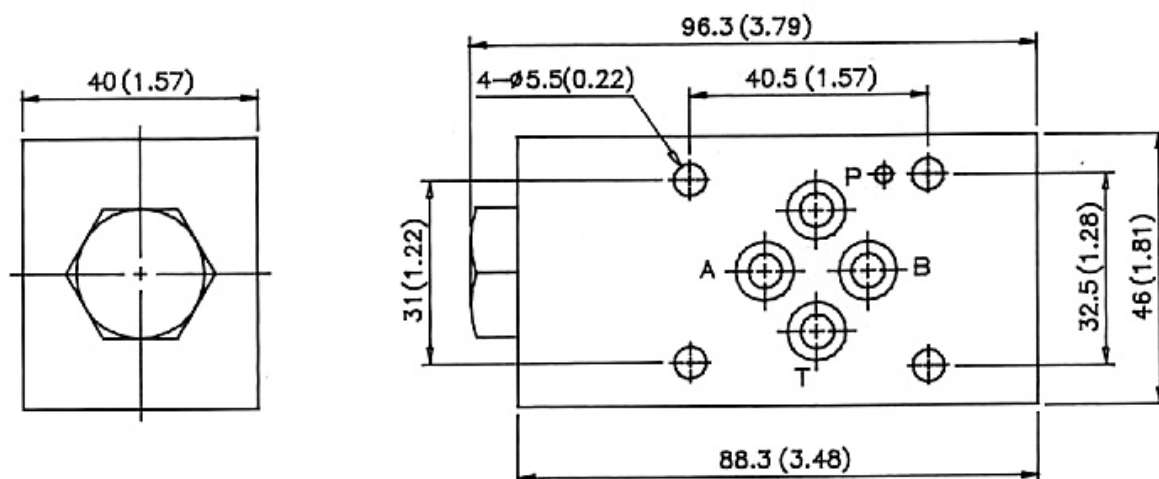


INSTALLATION DIMENSIONS

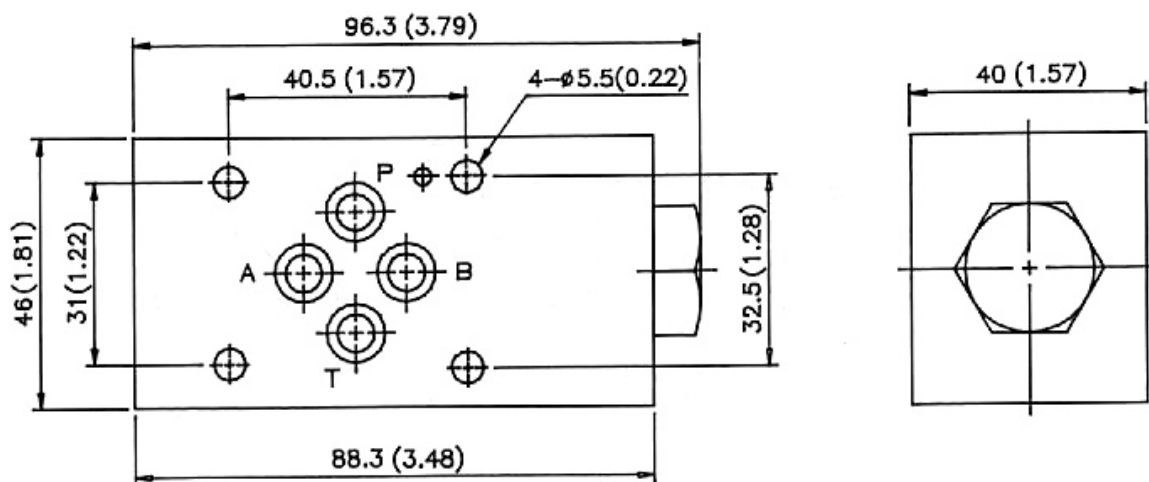
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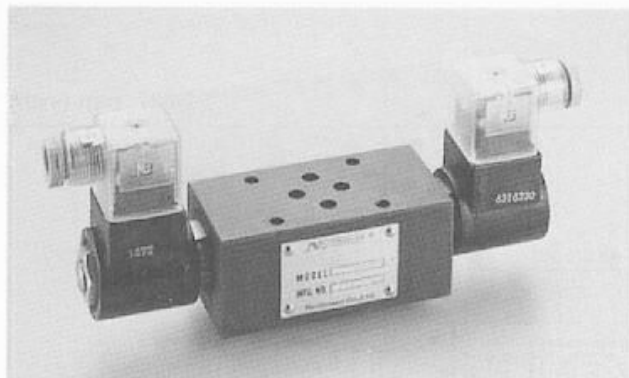
WEIGHT: 1.2 kgs (2.65 lbs)

MC-02A-**-20



MC-02B-**-20





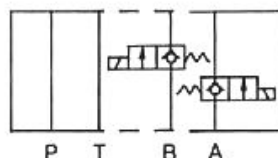
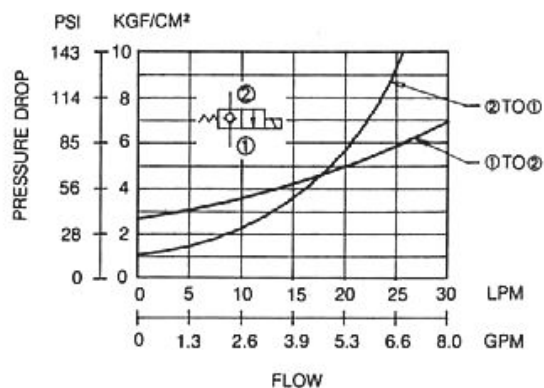
SPECIFICATIONS

Max. operating pressure	210 Kg/cm ² (3000PSI)
Max. flow capacity	30 LPM (8 GPM)

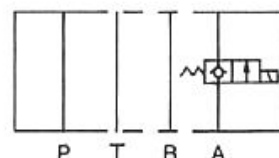
SYMBOLS

PERFORMANCE CURVES

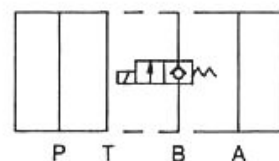
PRESSURE DROP



MSC-02W-*****-NC-***



MSC-02A-*****-NC-***



MSC-02B-*****-NC-***

HOW TO ORDER

MSC - 02W - 230AP - NC - 10

OPTION:

- 10: WITHOUT MANUAL OVERRIDE OPTION
- 20: WITH MANUAL OVERRIDE OPTION

CONTROLLED MODEL:
NC: NORMALLY CLOSED

WIRING:

AP: 1/2" CONDUIT FOR AC COIL

DL: LEADWIRES FOR DC COIL

AG: DIN CONNECTOR FOR AC COIL

DG: DIN CONNECTOR FOR DC COIL

COIL VOLTAGE:

12: 12VDC

24: 24VDC

115: 115VAC

230: 230VAC

FUNCTION PORT :

W: A & B PORT

A: A PORT

B: B PORT

PORT SIZE: 1/4" (D03)

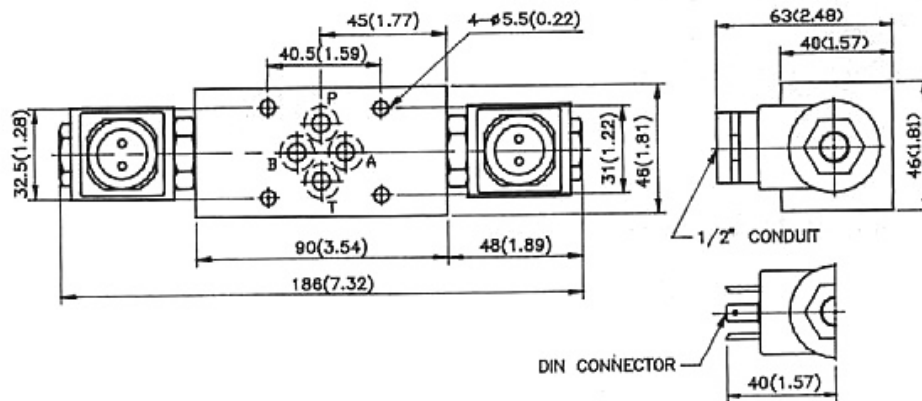
MODULAR SOLENOID CHECK VALVE

INSTALLATION DIMENSIONS

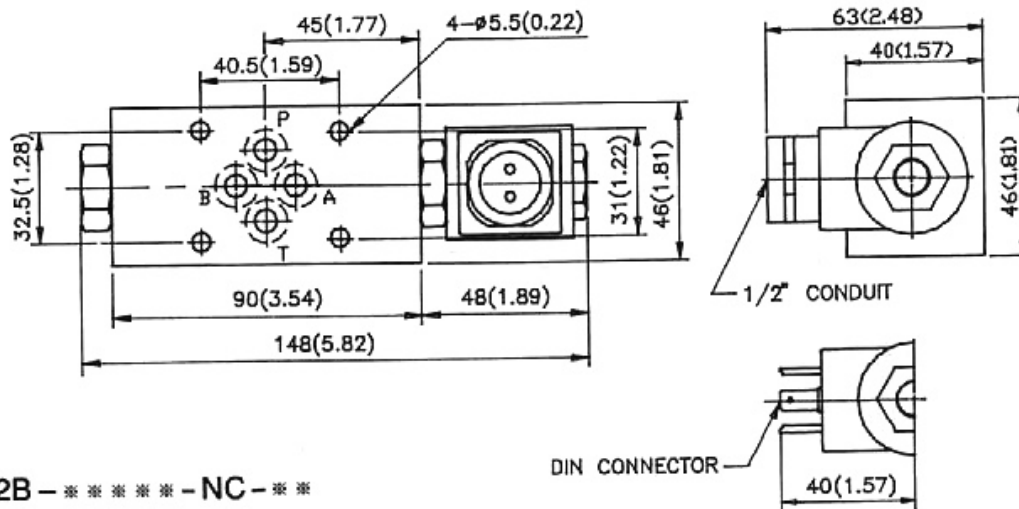
UNIT: mm (inch)

MSC-02W-*****-NC-***

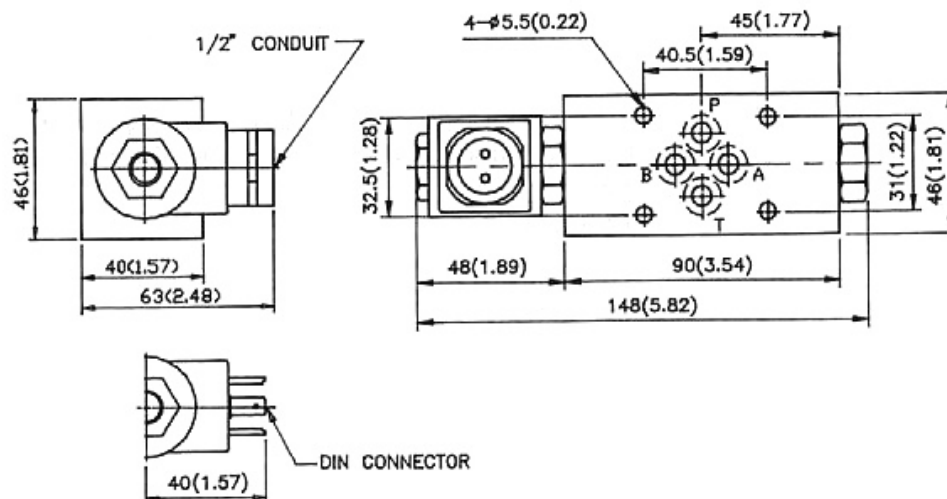
WEIGHT: 1.4 kgs (3.1 lbs)

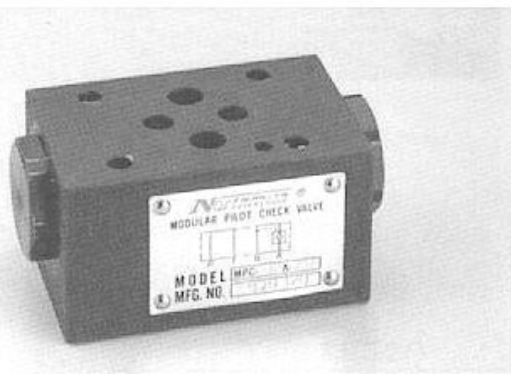


MSC-02A-*****-NC-***



MSC-02B-*****-NC-***

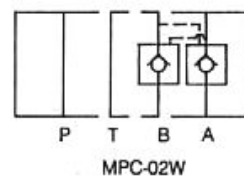
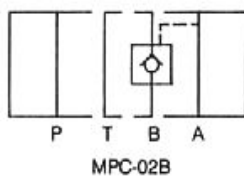
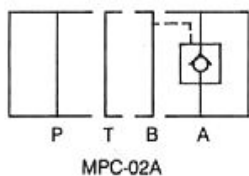




SPECIFICATIONS

Max. operating pressure	210 Kg/cm ² (3000PSI)
Max. flow capacity	35 LPM (9.3 GPM)

SYMBOLS



HOW TO ORDER

MPC - 02W - 30

DESIGN NUMBER

FUNCTION PORT :

A : A PORT

B : B PORT

W : A&B PORT

PORT SIZE : 1/4" (D03)

MODULAR PILOT CHECK VALVE

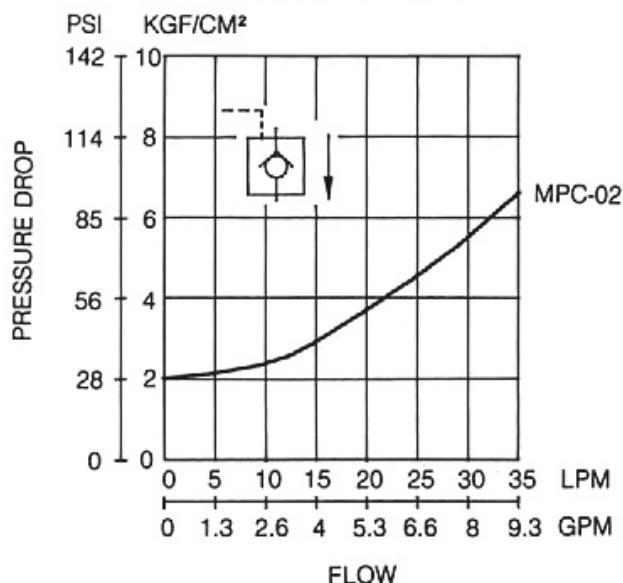
PERFORMANCE CURVES

TEST CONDITIONS

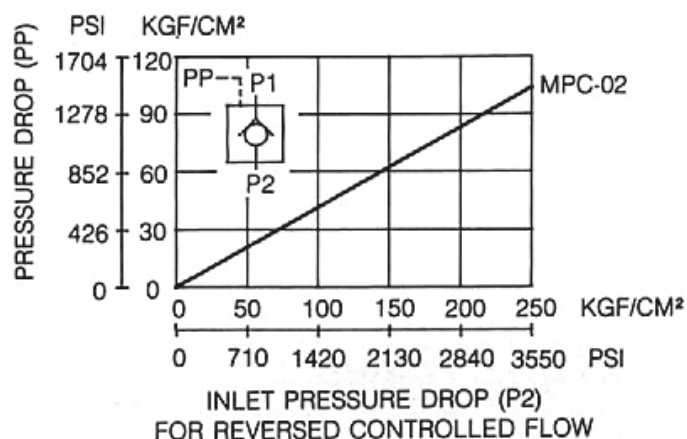
Viscosity: 35 CST

Temperature: 50°C

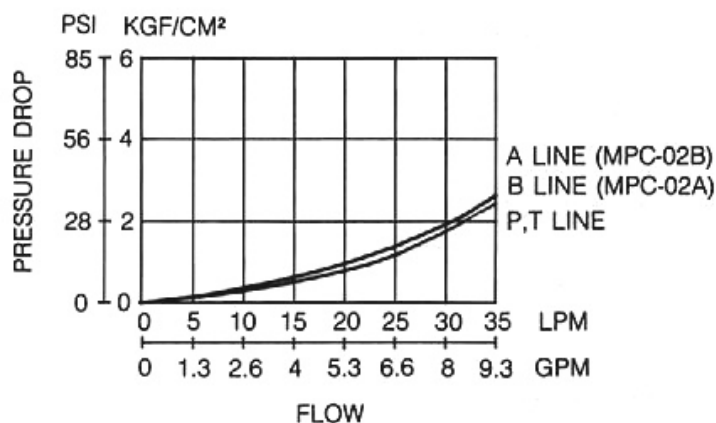
PRESSURE DROP FOR FREE FLOW



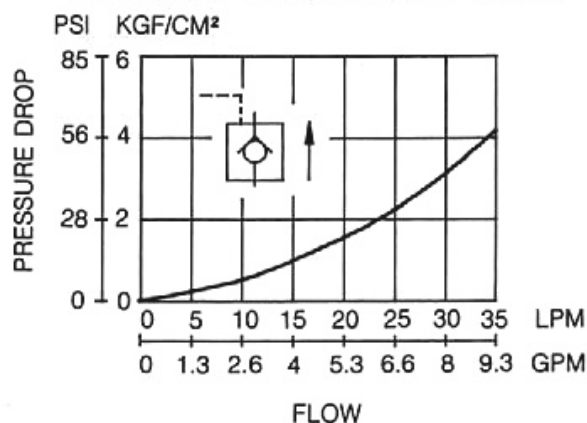
MIN. PILOT PRESSURE



PRESSURE DROP



PRESSURE DROP FOR REVERSE CONTROLLED FLOW

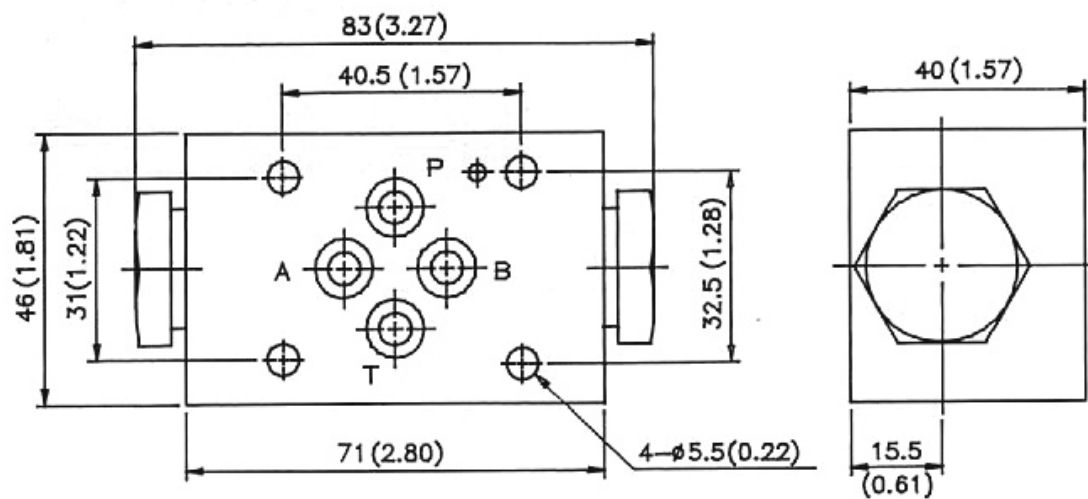


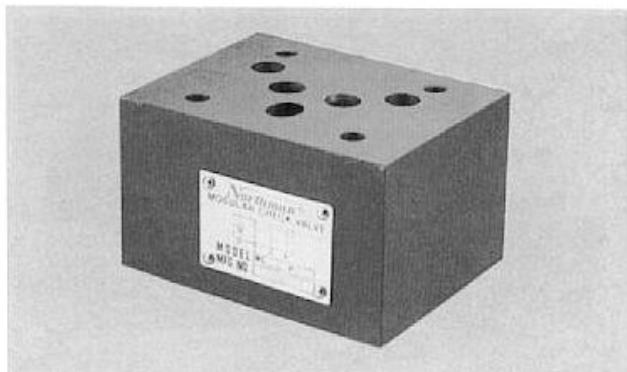
INSTALLATION DIMENSIONS

UNIT: mm(inch)

WEIGHT: 1.1 kgs (2.43 lbs)

MPC-02 * -30

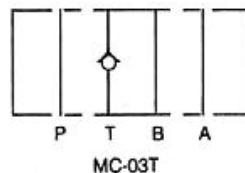
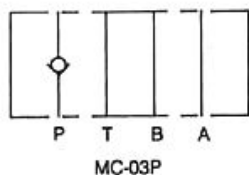




SPECIFICATIONS

Max. operating pressure	210 Kg/cm ² (3000PSI)
Max. flow capacity	70 LPM (20 GPM)

SYMBOLS



HOW TO ORDER

MC - 03P - 05 - 30

DESIGN NUMBER

CRACKING PRESSURE:
05 : 0.5KGF/CM² (7PSI)
50 : 3.5KGF/CM² (50PSI)

FUNCTION PORT :
P : P PORT
T : T PORT

PORT SIZE : 3/8" (D05)

MODULAR CHECK VALVE

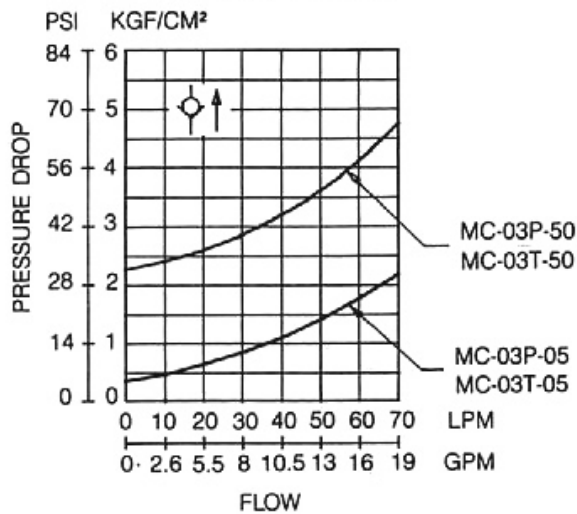
PERFORMANCE CURVES

TEST CONDITIONS

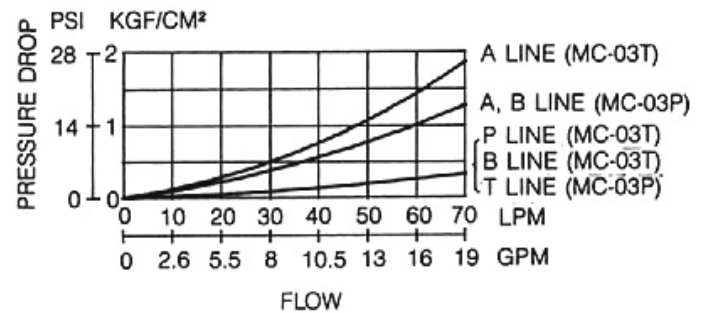
Viscosity: 35 CST

Temperature: 50°C

PRESSURE DROP FOR FREE FLOW



PRESSURE CROP

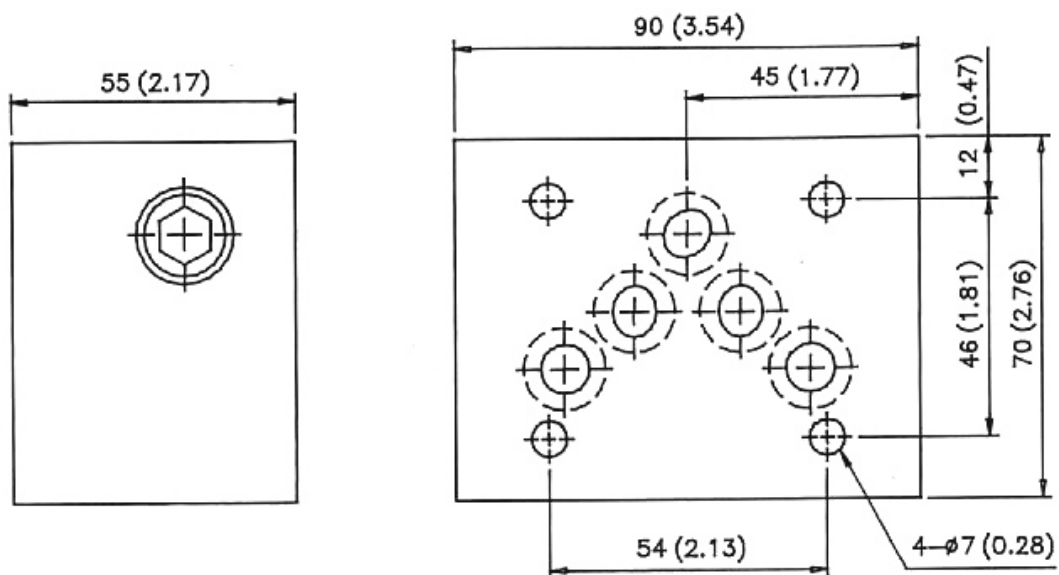


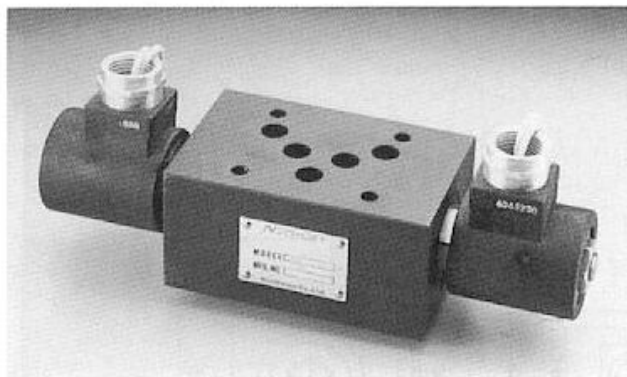
INSTALLATION DIMENSIONS

UNIT: mm(inch)

WEIGHT: 2.3kgs(5.07lbs)

MC-03*-*-*-30

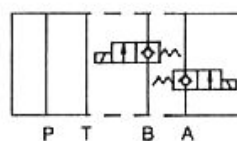




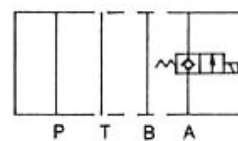
SPECIFICATIONS

Max. operating pressure	210 Kgf/cm ² (3000PSI)
Max. flow capacity	30 LPM (8 GPM)

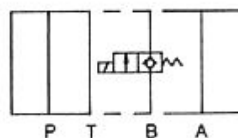
SYMBOLS



MSC-03W-***-NC-***



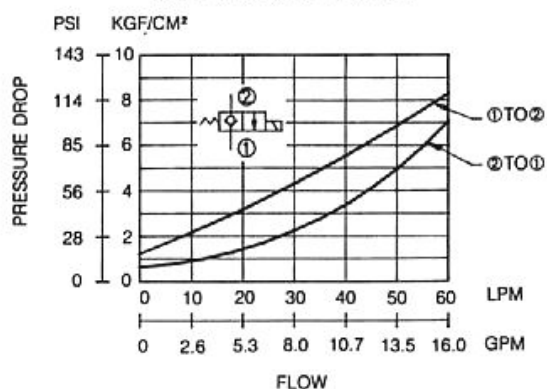
MSC-03A-***-NC-***



MSC-03B-***-NC-***

PERFORMANCE CURVES

PRESSURE DROP



HOW TO ORDER

MSC - 03W - 230AP - NC - 10

OPTION :
10: WITHOUT MANUAL OVERRIDE OPTION
20: WITH MANUAL OVERRIDE OPTION

CONTROLLED MODEL
NC: NORMALLY CLOSED

WIRING:
AP: 1/2" CONDUIT FOR AC COIL
DL: LEADWIRES FOR DC COIL

AG: DIN CONNECTOR FOR AC COIL
DG: DIN CONNECTOR FOR DC COIL

COIL VOLTAGE:
12: 12VDC
24: 24VDC
115: 115VAC
230: 230VAC

FUNCTION PORT :
W: A & B PORT
A: A PORT
B: B PORT

PORT SIZE: 3/8" (D05)

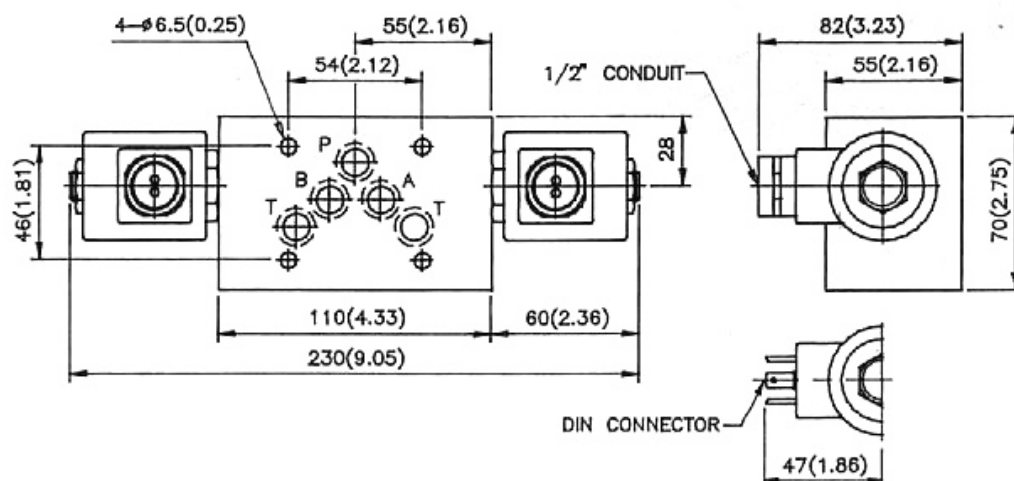
MODULAR SOLENOID CHECK VALVE

INSTALLATION DIMENSIONS

UNIT: mm (inch)

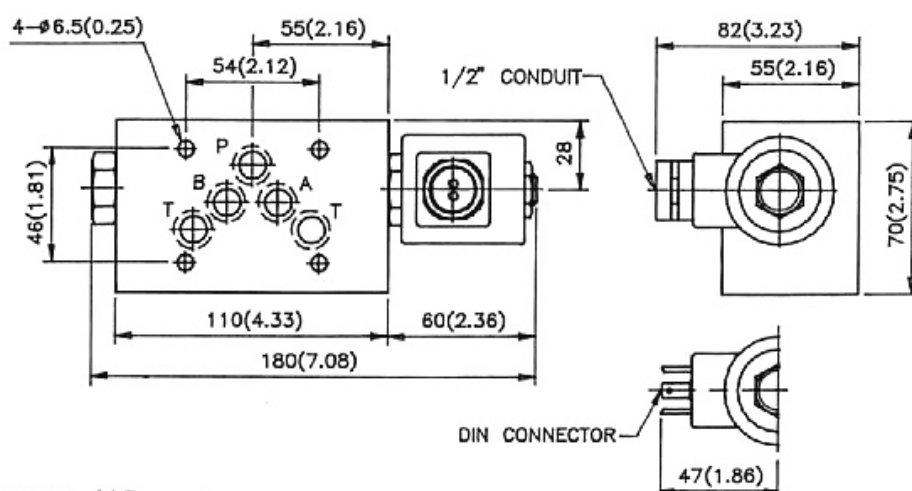
MSC-03W-*****-NC-***

WEIGHT: 3.4 kgs (7.5 lbs)

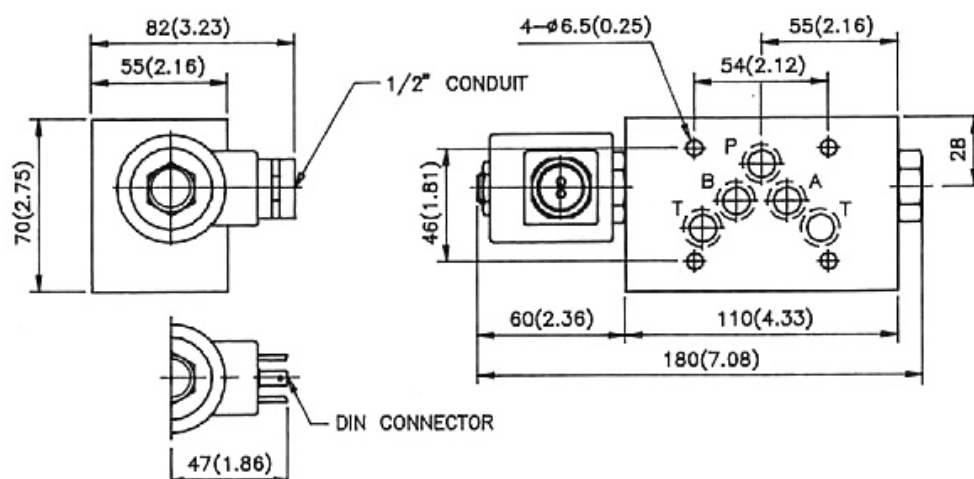


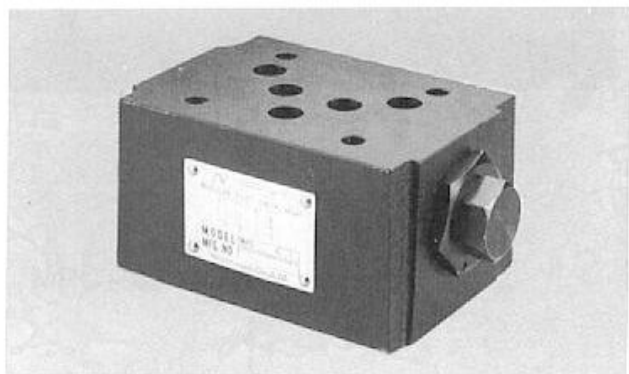
MSC-03A-*****-NC-***

WEIGHT: 2.9 kgs (6.39 lbs)



MSC-03B-*****-NC-***

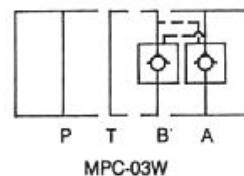
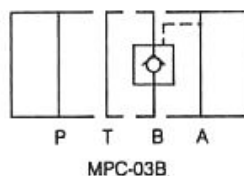
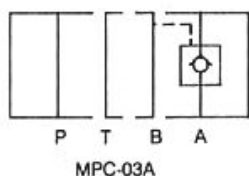




SPECIFICATIONS

Max. operating pressure	210 Kgf/cm ² (3000PSI)
Max. flow capacity	70 LPM (20 GPM)

SYMBOLS



HOW TO ORDER

MPC-03W-30

DESIGN NUMBER

FUNCTION PORT :
A : A PORT
B : B PORT
W : A&B PORT

PORT SIZE : 3/8" (D05)

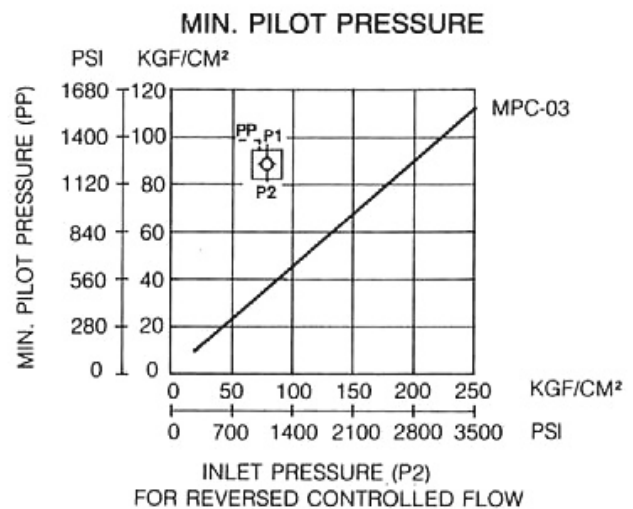
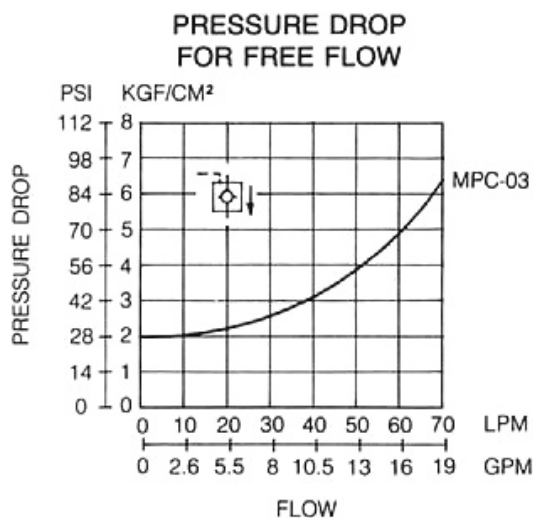
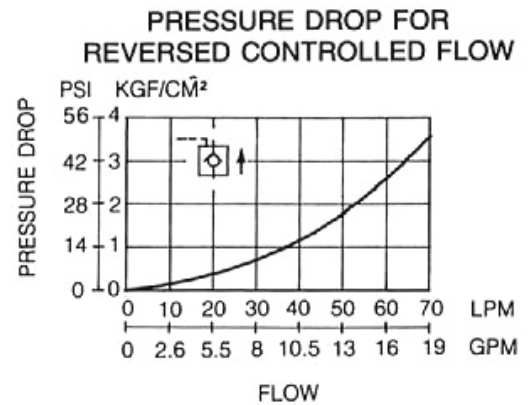
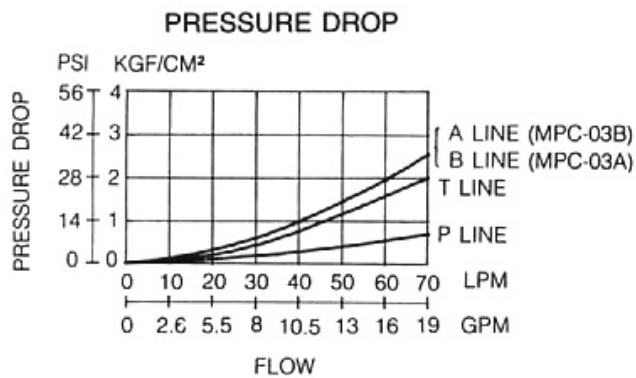
MODULAR CHECK VALVE

PERFORMANCE CURVES

TEST CONDITIONS

Viscosity: 35 CST

Temperature: 50°C

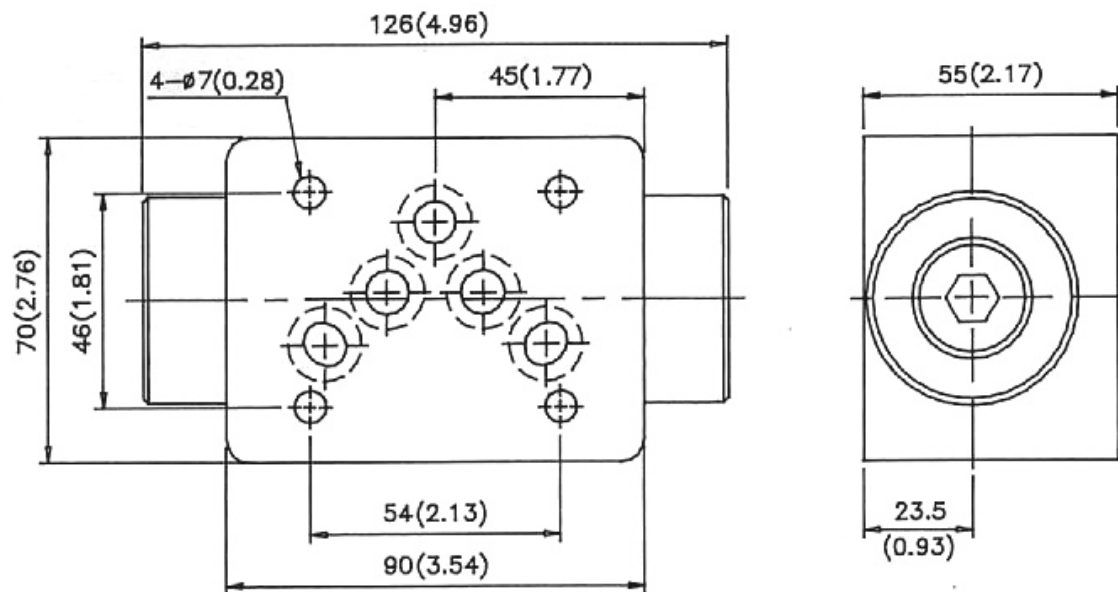


INSTALLATION DIMENSIONS

UNIT: mm(inch)

WEIGHT: 3.4 kgs(7.5lbs)

MPC-03※-30



MODULAR PILOT CHECK VALVE

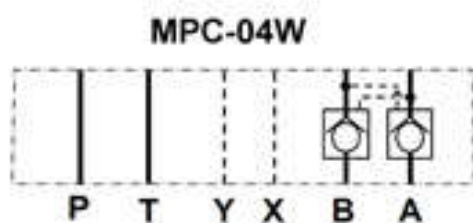
MPC-04 SERIES

The modular pilot-operated check valve will allow free flow in one direction and block flow in the opposite direction. It functions to positively hold the actuator in a neutral position. Movement is restored by an automatic pilot pressure signal when the directional control valve shifts to move the actuator. It operates on the A & B ports.

As a modular valve, this valve mounts between an NFPA D07 size directional control valve and the subplate. A longer than standard bolt kit is required when mounting modular valves in a stack.



Symbols



Model Code

MPC – 04 W – 50 – **

1

2

3

4

5

1 Series

MPC: Modular Pilot
Check Valve

3 Function Port

W: A & B, Meter-Out

2 Mounting Style

04: NFPA Size D07

4 Spring

50: Spring PSI

5 Design Number

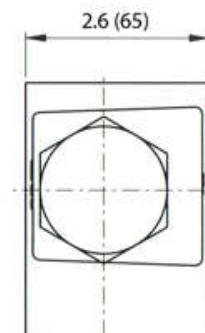
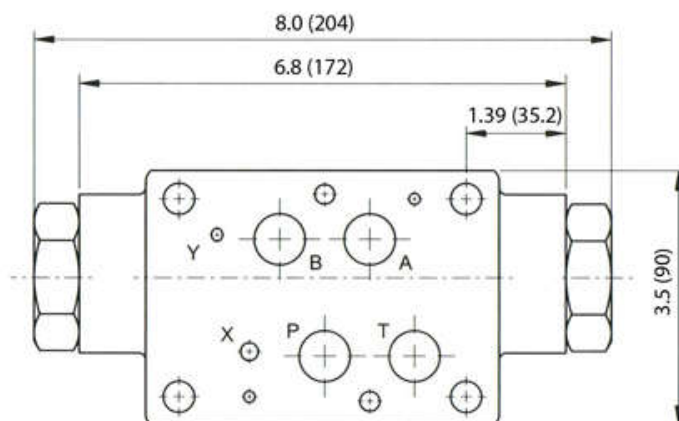
Features

Max. operating pressure	250 BAR (3675 PSI)
Max. flow capacity	190 LPM (50 GPM)

Dimensions

MPC-04W

Inch (mm)





Sede Mundial

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www.oilgear.com

Oilgear do Brasil Hidráulica Ltda.

Av. Ricardo Bassoli Cezare, 1009 Jd. das Bandeiras
13050-080 Campinas-SP Brasil
Tel/Fax: +55 19 3307-7866

www.oilgear.com.br

Para obter informações adicionais sobre seu aplicativo ou sobre os produtos referenciados neste manual, entre em contato com a Oilgear mais próxima. Acesse o website da Oilgear para obter uma relação completa de nossos endereços.