# SystemStak™

## Flow Restrictor Valves

*Danfoss*

**DGMFN-3-41**

### General Description

These valves regulate flow by means of an adjustable orifice which is not pressure compensated, and flow through the valve is entirely dependent upon pressure drop at any particular setting of the orifice.

Dual service-line models with an integral non-return valve around each control orifice provide for meter-in or meter-out control; single line versions of these are available.

For flow restriction in P or T lines (where reverse free flow is not required) models without check valves are available.
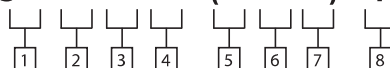
Adjustment options are either screw/locknut or handknob.

**Typical Section**
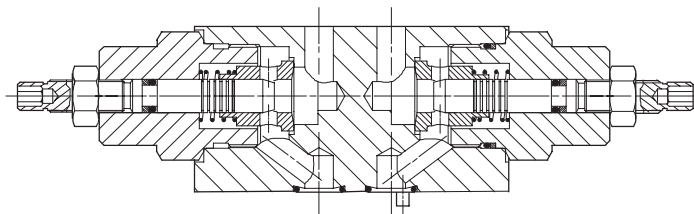


## Model Code

**DGMFN -3- \*  -\* \* \*  (-\* \* \*) - 41**

1  2  3  4  5  6  7  8

1 **Direction of flow control (with respect to machine actuator)**
**X** – Meter-in control, applicable to lines A and B
**Y** – Meter-out control, applicable to lines A and B
**Z** – Meter-in control, line P only and meter-out control, line T only.

2 **Location of control function (single model or first line of dual model)**
**P** – Line P (single model only)
**T** – Line T (single model only)
**A** – Line A (single model or first line of dual model)
**B** – Line B (single model only)

3 **Type of control needle/orifice (single model or first line of dual model)**
**1** – Fine control
**2** – Standard control

4 **Adjuster type (single model or first line of dual model)**
**H** – Handknob
**W** – Screw/locknut

5 **Control in second line**
**B** – Line B (use for dual models with "A" specified at 2 )
Omit for single models

6 **Type of control needle/orifice (second line of dual models)**
Options as in 3
Omit for single models

7 **Adjuster type (second line of dual models)**
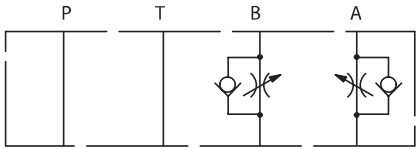Options as in 4
Omit for single models

8 **Design number, 41 series**
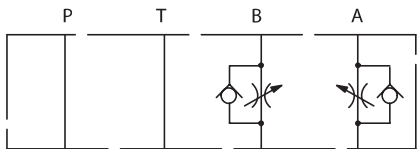Subject to change. Installation dimensions unaltered for design numbers 40 to 49 inclusive.
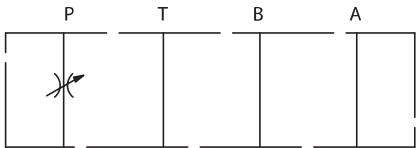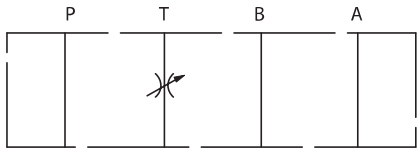
# Functional Symbols

DGMFN-3-X-A**-B**

DGMFN-3-YA**-B**

DGMFN-3-Z-P**

DGMFN-3-Z-T**

# Operational Data

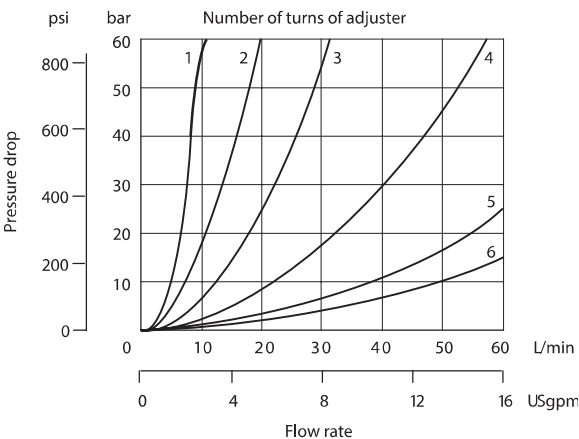| | |
|---|---|
| Maximum flow rate | 60 L/min (16 USgpm) |
| Maximum operating pressure | 315 bar (4500 psi) |
| Pressure drops | See graphs |
| Mounting position | Optional |
| Mass approximate | 1.1 kg (2.2 lb) |

# Performance Characteristics

**Pressure Drop**

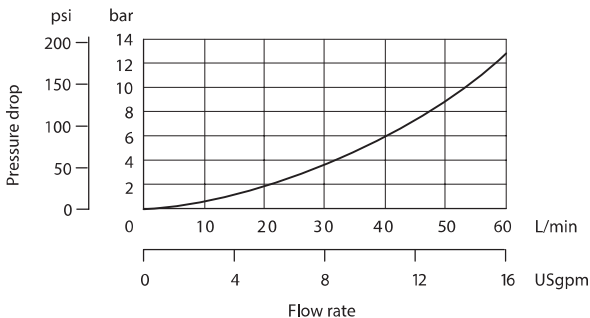Typical performance with mineral oil at 21 cSt (102 SUS) and at 50º C(122º F)    ●

Type "1" needle (see model codes    and    )  6
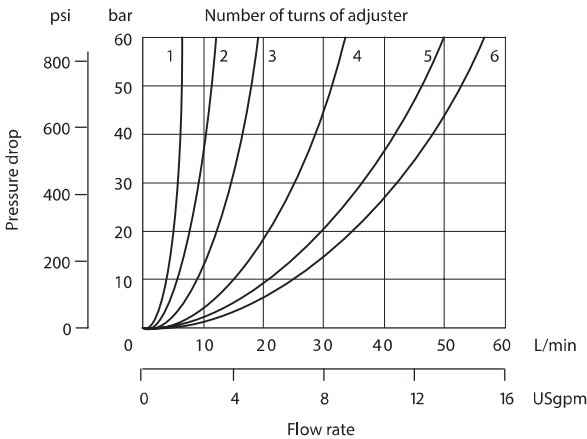
Type "2" needle (see model codes    and    )  6

Free flow through check valve

● For other viscosities see "Further Information".
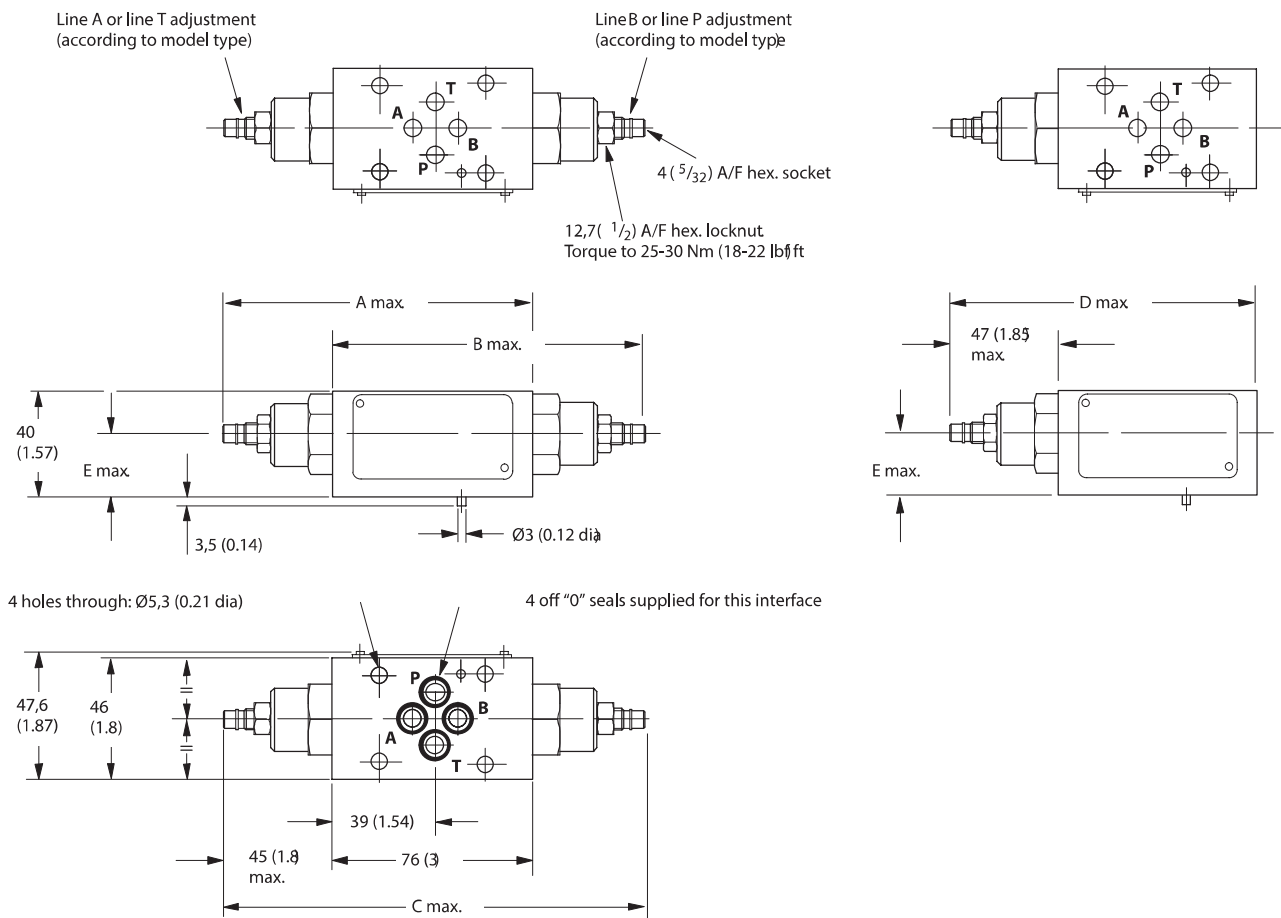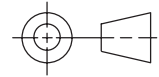
**DGMFN-3-X-\*\*\*(-\*\*\*)-41**
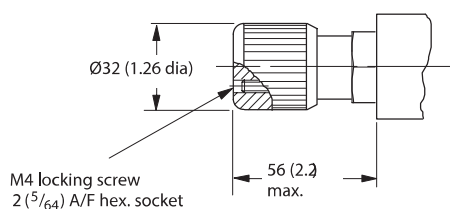**DGMFN-3-Y-\*\*\*(-\*\*\*)-41**
**DGMFN-3-Z-\*\*\*-41**

Models with type W adjuster

To adjust valve setting, slacken off locknut and turn screw ■
Re-tighten locknut after completing adjustment.

Line A or line T adjustment
(according to model type)

Line B or line P adjustment
(according to model type)

4 ( ⁵/₃₂) A/F hex. socket

12,7( ¹/₂) A/F hex. locknut.
Torque to 25-30 Nm (18-22 lbf ft)

A max.

B max.

40
(1.57)

E max.

3,5 (0.14)

Ø3 (0.12 dia)

D max.

47 (1.85)
max.

E max.

4 holes through: Ø5,3 (0.21 dia)

4 off "O" seals supplied for this interface

47,6
(1.87)

46
(1.8)

P   B

A   T

39 (1.54)

45 (1.8)
max.

76 (3)

C max.

Type H adjuster

Ø32 (1.26 dia)

M4 locking screw
2 (⁵/₆₄) A/F hex. socket

56 (2.2)
max.

■ Turn clockwise to decrease flow (increase restriction);
counter-clockwise to increase flow (reduce restriction).

| Model | A | B | C | D | E |
|---|---|---|---|---|---|
| DGMFN-3-X-A*W-41 | 121 (4.76) | – | – | – | 16,75 (0.7) |
| DGMFN-3-X-A*W-B*W-41 | – | – | 167 (6.6) | – | 16,75 (0.7) |
| DGMFN-3-X-B*W-41 | – | 122 (4.8) | – | – | 16,75 (0.7) |
| DGMFN-3-Y-A*W-41 | 121 (4.76) | – | – | – | 23,25 (0.9) |
| DGMFN-3-Y-A*W-B*W-41 | – | – | 167 (6.6) | – | 23,25 (0.9) |
| DGMFN-3-Y-B*W-41 | – | 122 (4.8) | – | – | 23,25 (0.9) |
| DGMFN-3-Z-P*W-41 | – | – | – | 123 (4.8) | 16,75 (0.7) |
| DGMFN-3-Z-T*W-41 | – | – | – | 123 (4.8) | 23,25 (0.9) |