

Mark 58G Series

In-Line Back Pressure Regulators

The Mark 58G is available in sizes up to 2" (DN50) in carbon steel or stainless steel. Diaphragms can be either Jorlon, Stainless Steel or Elastomer. Low flow versions with Cv values as low as 0.26 are available in certain sizes.

FEATURES

- Easy to maintain and service – top entry access to plug and diaphragm
- Large effective diaphragm area – reduces droop for increased accuracy and sensitivity
- Large orifices and body passages – provides high flow capacities
- "Tight Shutoff" – choice of ANSI CL VI bubble tight soft seat or ANSI CL IV hard seat
- Versatile application – use on steam, air, gas liquids or chemicals



MK58G

SPECIFICATIONS

Sizes: 1/4" through 2" (DN8 through DN50)

End Connections

- Threaded — FNPT, BSPT, BSPP
- ANSI Flanges — 150#, 300# (1/2" – 2")
- DIN Flanges — PN10/16, PN25/40 (1/2" – 2")

Body Materials

- Carbon Steel
- Stainless Steel

Flow Capacity Cv (Kv)

- Cv 0.26 (0,22); 0.52 (0,45); 1.1 (0,95); 2.0 (1,7); 3.0 (2,6); 3.4 (2,9); 3.8 (3,3); 4.5 (3,9); 5.5 (4,8); 6.5 (5,6); 10.5 (9,1); 14 (12,1); 20 (17,3)

Hard Seat Plug

- 17-4PH plug with EPDM (Option 'H') -20°F to 500°F (-29°C to 260°C)
- 17-4PH plug with Viton (Option 'F') -20°F to 400°F (-29°C to 204°C)

Soft Seat Plug

- Buna-N / 316 (Option 'B') -20°F to 200°F (-29°C to 93°C)
- Viton / 316 (Option 'V') -20°F to 350°F (-29°C to 177°C)
- EPDM / 316 (Option 'J') -20°F to 350°F (-29°C to 177°C)

Maximum Inlet Pressure: 300 psi (20,7 bar)

Stem: 17-4PH Stainless Steel

Seat: Stainless Steel

Spring Housing: Cast Iron

Diaphragm

- Buna-N: -20°F to 200°F (-29°C to 93°C)
- EPDM: -20°F to 350°F (-29°C to 177°C); (290°F / 143°C for continuous steam)
- Jorlon: 20°F to 450°F (-29°C to 232°C)
- 316/316L SST: -20°F to 500°F (-29°C to 260°C)
- Viton/Nomex: -20°F to 450°F (-29°C to 232°C)

Shutoff

- Class IV - Hard Seat
- Class VI - Soft Seat

F_L Value

- 1/4" - 1" is 0.80
- 1 1/2" - 2" is 0.85

Spring Ranges PSI (BAR)

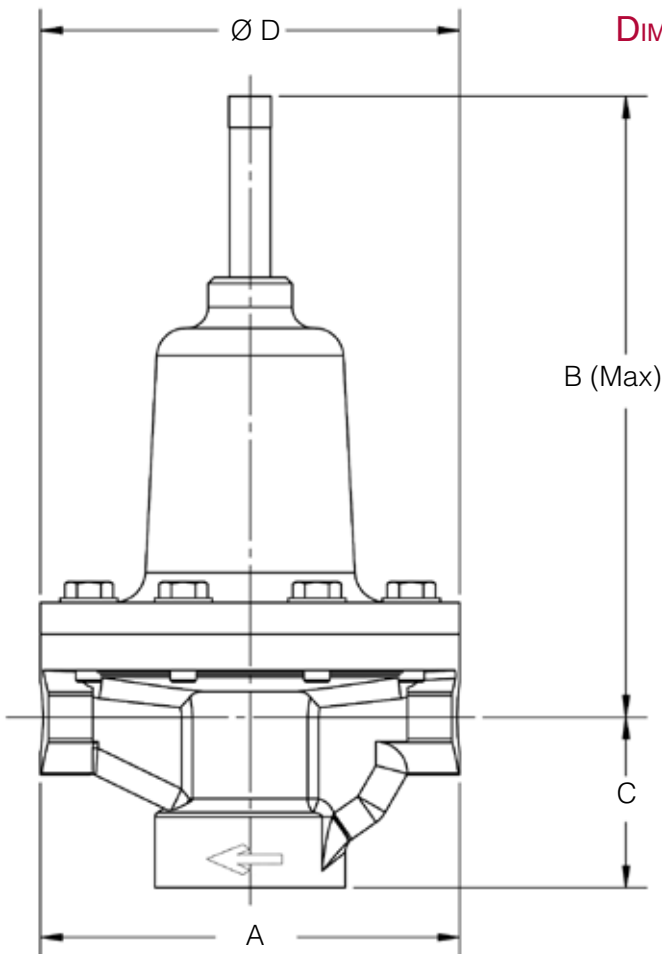
| Size (DN) | PSI | BAR |
|--------------------------------|---------------------------------------|--|
| 1/4" to 1/2" (DN8 to DN15) | 1-10; 5-25; 20-50; 40-200; 175-275 | 0,1-0,7; 0,3-1,7; 1,4- 3,5; 2,8-13,8; 12,1- 19,0 |
| 3/4" & 1" (DN20 & DN25) | 1-7; 5-22; 15-105; 95-145; 135-215 | 0,1-0,5; 0,3-1,5; 1,0- 7,2; 6,6-10,0; 9,3-14,8 |
| 1-1/2" to 2" (DN40 to DN50) | 1-20; 15-70; 60- 105; 95-150 | 0,1-1,4; 1,0-4,8; 4,1- 7,2; 6,6-10,3 |

SPECIFICATIONS, CONTINUED

Cv (Kv) Values

| Trim 1/4" - 1/2" | |
|---|--|
| Cv (Kv) | |
| 0.26 (0,22) | |
| 0.52 (0,45) | |
| 1.1 (0,95) | |
| 2.0 (1,7) | |
| 1/4": 1.4 (1,2); 3/8": 3.3 (2,8); 1/2": 3.4 (2,9) | |
| Trim 3/4" & 1" | |
| Cv (Kv) | |
| 2.0 (1,7) | |
| 3.0 (2,6) | |
| 3.8 (3,3) / 4.5 (3,9)* | |
| 5.5 (4,8) / 6.5 (5,6)* | |
| Trim 1-1/2" & 2" | |
| Cv (Kv) | |
| 10.5 (9,1) | |
| 14 (12,1) | |
| 20 (17,3) | |

* Cv for Metal / Elastomer Diaphragm



DIMENSIONS

- Threaded Ends – inches (metric)

| Size (DN) | Dimensions — Inches (mm) | | | | Weight lbs (Kgs) |
|-------------|--------------------------|-------------|-----------|------------|------------------|
| | A | B | C | D | |
| 1/2" (15) | 5.0 (127) | 5.3 (134) | 2.04 (51) | 5.0 (127) | 11 (5) |
| 3/4" (20) | 5.0 (127) | 8.79 (223) | 2.12 (53) | 6.81 (172) | 20 (9) |
| 1" (25) | 5.0 (127) | 8.79 (223) | 2.12 (53) | 6.81 (172) | 20 (9) |
| 1-1/2" (40) | 7.50 (191) | 16.82 (427) | 2.12 (53) | 9.38 (238) | 68 (31) |
| 2" (50) | 7.50 (191) | 16.82 (427) | 2.12 (53) | 9.38 (238) | 68 (31) |

For 1/4" NPT, use 1/2" NPT with reducer bushings.

ORDERING SCHEMATIC

| Model No | Size | Body Mat'l |
|----------|------|------------|
| | | |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| | | | | | |

| 7 | 8 | 9 | 10 |
|---|---|---|----|
| | | | |

| Model | |
|-------|----------|
| 58G | Standard |

| Size | |
|------|---------------|
| 025 | 1/4" (DN8)* |
| 050 | 1/2" (DN15) |
| 075 | 3/4" (DN20) |
| 100 | 1" (DN25) |
| 150 | 1-1/2" (DN40) |
| 200 | 2" (DN50) |

* 1/2" NPT with 1/4" NPT reducer bushings.

| Body Material | |
|---------------|------------------------|
| CS | Carbon Steel (WCB) |
| S6 | Stainless Steel (CF8M) |

| End Connections | |
|-----------------|---------|
| PT | NPT |
| BT | BSPT |
| BP | BSPP |
| F5 | 150# FE |
| F3 | 300# FE |

| Material & Trim 1/2" | | | |
|----------------------|--------|--------|------|
| 3 - Material | | 4 - Cv | |
| B | Buna-N | 1 | 0.26 |
| V | Viton | 2 | 0.52 |
| J | EPDM | 3 | 1.1 |
| M | Hard | 4 | 2.0 |
| | | 6 | 3.4 |

| Material & Trim 3/4" & 1" | | | |
|---------------------------|--------|--------|------------|
| 3 - Material | | 4 - Cv | |
| B | Buna-N | 4 | 2.0 |
| V | Viton | 5 | 3.0 |
| J | EPDM | 7 | 3.8 / 4.5* |
| M | Hard | 8 | 5.5 / 6.5* |

| Material & Trim 1-1/2" & 2" | | | |
|-----------------------------|--------|--------|------|
| 3 - Material | | 4 - Cv | |
| B | Buna-N | 9 | 10.5 |
| V | Viton | A | 14 |
| J | EPDM | B | 20 |
| M | Hard | | |

* Cv for Metal / Elastomer Diaphragm

| Range | |
|-------------------------|-------------------------|
| 1/2" (DN15) | |
| C2 | 1 - 10 (0,07 - 0,7) |
| C8 | 5 - 25 (0,3 - 1,7) |
| 54 | 20 - 50 (1,4 - 3,5) |
| CJ | 40 - 200 (2,8 - 13,8) |
| CW | 175 - 275 (12,1 - 19,0) |
| ZZ | Non-Standard |
| 3/4", 1" (DN20, DN25) | |
| C1 | 1 - 7 (0,07 - 0,5) |
| C7 | 5 - 22 (0,3 - 1,5) |
| CD | 15 - 105 (1,0 - 7,2) |
| CR | 95 - 145 (6,6 - 10,0) |
| CU | 135 - 215 (9,3 - 14,8) |
| ZZ | Non-Standard |
| 1-1/2", 2" (DN40, DN50) | |
| C3 | 1 - 20 (0,07 - 1,4) |
| CC | 15 - 70 (1,0 - 4,8) |
| CN | 60 - 105 (4,1 - 7,2) |
| CS | 95 - 150 (6,6 - 10,3) |
| ZZ | Non-Standard |

| Diaphragm | |
|-----------|--------------|
| BN | Buna-N |
| EP | EPDM |
| JL | Jorlon |
| S6 | 316SST |
| VI | Viton |
| ZZ | Non-Standard |

| Actuator | |
|-------------------------|---|
| 1/2" (DN15) | |
| M1 | S6 Diaph/Ranges 20-50 & below |
| E1 | VI, BN & JL Diaph/Ranges 20-50 & below |
| M2 | S6 Diaph/Ranges 40-200 & above |
| E2 | VI, BN & JL Diaph/Ranges 40-200 & above |
| ZZ | Non-Standard |
| 3/4", 1" (DN20, DN25) | |
| MD | For Metal Diaph (S6) All Ranges |
| E1 | VI, BN & JL Diaph/Ranges 5-22 & below |
| E2 | VI, BN & JL Diaph/Ranges 15-105 & above |
| ZZ | Non-Standard |
| 1-1/2", 2" (DN40, DN50) | |
| MD | For Metal Diaph (S6) / All Ranges |
| ED | VI, BN & JL Diaph. All Ranges |
| ZZ | Non-Standard |

