



The right connection
The right environment

Throttle / Check Valves TCG / TC

Ref. No. H04737
Release: May 2026

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Description

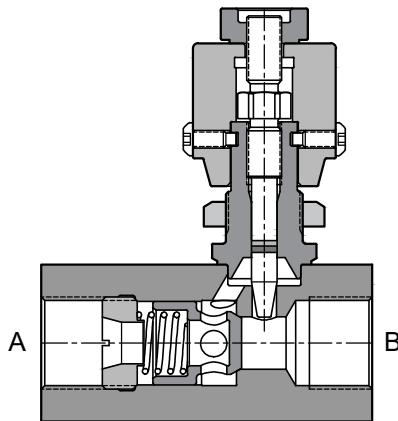
The Valve allows accurate adjustment of flow by throttling action. The throttling can be varied by rotation of the Hand knob.

The valve is also equipped with a built - in check valve for free reverse flow.

The valve is not viscosity or pressure compensated.



Section



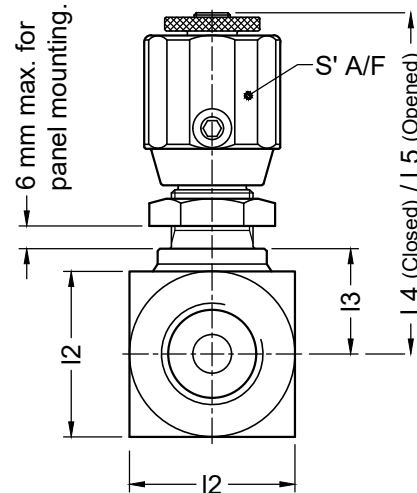
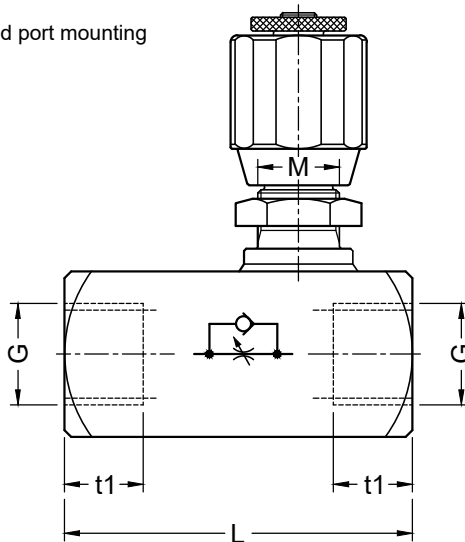
Model : TCG

Hydraulic Symbol



Unit Dimensions

In-line threaded port mounting



Dimensions in mm.

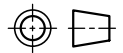


Table-1

| Part code | Size | G | l2 | l3 | l4 | l5 | M | t 1 | S | L | Pr. bar | Mass (Kg) |
|------------------|-------|---------|----|------|-------|-------|---------|-----|----|-----|---------|-----------|
| TCG02-2.0 | NG-06 | G 1/4 | 25 | 17.5 | 69.5 | 76.5 | M18x1.5 | 12 | 30 | 64 | 315 | 0.45 |
| TCG03-2.0 | NG-08 | G 3/8 | 30 | 20.0 | 72.0 | 79.0 | M18x1.5 | 13 | 30 | 70 | 315 | 0.59 |
| TCG04-2.0 | NG-10 | G 1/2 | 35 | 23.5 | 89.0 | 99.0 | M22x1.5 | 14 | 41 | 80 | 315 | 0.96 |
| TCG06-2.0 | NG-15 | G 3/4 | 45 | 28.5 | 94.0 | 104.0 | M22x1.5 | 17 | 41 | 95 | 315 | 1.42 |
| TCG08-2.0 | NG-20 | G 1 | 50 | 35.0 | 128.0 | 145.0 | M36x2.0 | 18 | 50 | 125 | 315 | 2.80 |
| TCG10-2.0 | NG-25 | G 1.1/4 | 60 | 40.0 | 133.0 | 150.0 | M36x2.0 | 21 | 50 | 142 | 315 | 3.90 |
| TCG12-2.0 | NG-30 | G 1.1/2 | 70 | 45.0 | 138.0 | 155.0 | M36x2.0 | 22 | 50 | 150 | 315 | 5.30 |



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In-line Tube mounting

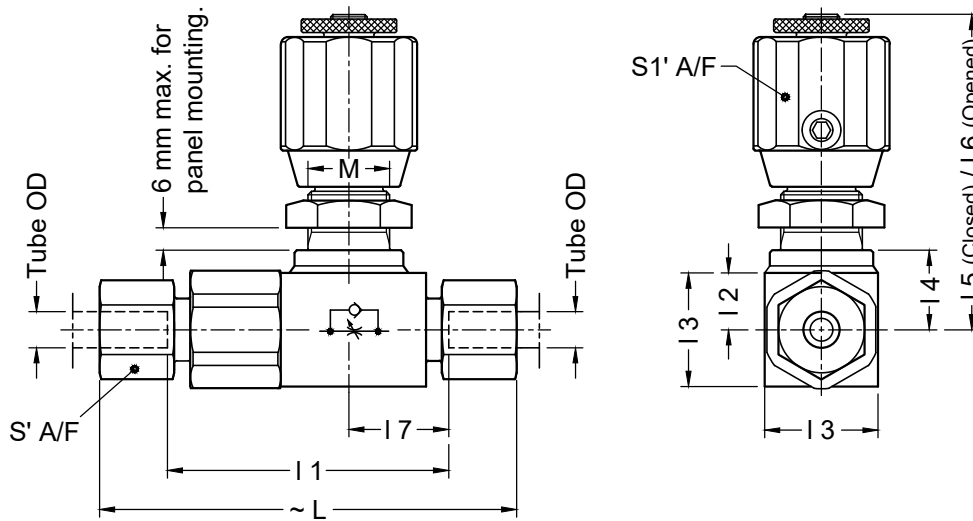


Table-2

| Part code | Tube OD | Pressure Series | Pressure (bar) | Size | I 1 | I 3 | I 4 | I 5 | I 6 | I 7 | M | S | S1 | L |
|------------|---------|-----------------|----------------|-------|-------|------|------|-------|-------|------|---------|----|----|-------|
| TC06PL-2.0 | 06 | L | 250 | | 57.0 | | | | | 20.0 | | 14 | | 87.0 |
| TC08PL-2.0 | 08 | L | 250 | | 57.0 | | | | | 20.0 | | 17 | | 87.0 |
| TC06PS-2.0 | 06 | S | 315 | NG-06 | 61.0 | 25.0 | 17.5 | 69.5 | 76.5 | 22.0 | M18x1.5 | 17 | 30 | 91.0 |
| TC08PS-2.0 | 08 | S | 315 | | 61.0 | | | | | 22.0 | | 19 | | 91.0 |
| TC10PL-2.0 | 10 | L | 250 | | 63.0 | | | | | 21.0 | | 19 | | 93.0 |
| TC10PS-2.0 | 10 | S | 315 | NG-08 | 64.0 | 30.0 | 20.0 | 72.0 | 79.0 | 21.5 | M18x1.5 | 22 | 30 | 97.0 |
| TC12PS-2.0 | 12 | S | 315 | | 64.0 | | | | | 21.5 | | 24 | | 97.0 |
| TC12PL-2.0 | 12 | L | 250 | | 70.0 | | | | | 22.0 | | 22 | | 100.0 |
| TC15PL-2.0 | 15 | L | 250 | NG-10 | 72.0 | 35.0 | 23.5 | 89.0 | 99.0 | 23.0 | M22x1.5 | 27 | 41 | 102.0 |
| TC16PS-2.0 | 16 | S | 315 | | 74.0 | | | | | 23.5 | | 30 | | 110.0 |
| TC18PL-2.0 | 18 | L | 160 | NG-15 | 80.5 | 45.0 | 28.5 | 94.0 | 104.0 | 24.5 | M22x1.5 | 32 | 41 | 113.5 |
| TC20PS-2.0 | 20 | S | 315 | | 82.5 | | | | | 25.5 | | 36 | | 125.5 |
| TC22PL-2.0 | 22 | L | 160 | NG-20 | 109.0 | 50.0 | 35.0 | 128.0 | 145.0 | 36.5 | M36x2.0 | 36 | 50 | 142.0 |
| TC25PS-2.0 | 25 | S | 315 | | 108.0 | | | | | 36.0 | | 46 | 50 | 156.0 |
| TC28PL-2.0 | 28 | L | 100 | NG-25 | 120.0 | 60.0 | 40.0 | 133.0 | 150.0 | 39.5 | M36x2.0 | 41 | 50 | 153.0 |
| TC30PS-2.0 | 30 | S | 250 | | 120.0 | | | | | 39.5 | | 50 | 50 | 173.0 |
| TC35PL-2.0 | 35 | L | 100 | NG-30 | 130.0 | 70.0 | 45.0 | 138.0 | 155.0 | 40.5 | M36x2.0 | 50 | 50 | 173.0 |
| TC42PL-2.0 | 42 | L | 100 | | 129.0 | | | | | 40.0 | | 60 | 50 | 175.0 |
| TC38PS-2.0 | 38 | S | 250 | | 131.0 | | | | | 41.0 | | 60 | | 193.0 |

Technical Specifications

- Construction----- Conical throttling spool with rotation of hand knob for flow adjustment.
Poppet valve for free reverse flow.
- Mounting style ----- Inline port or tube mounting.
- Mounting position ----- Optional
- Flow direction ----- Adjustable throttled flow from A to B, free flow from B to A.
- Operating pressure ----- Refer Table -1 and Table-2.
- Hydraulic medium ----- Mineral oil.
- Viscosity range ----- 10 cSt to 380 cSt.
- Fluid temperature range ----- -20 °C to +80 °C
- Fluid cleanliness requirement ----- As per ISO 4406 20/18/15
- Nom. flow handling capacity ----- Refer graphs



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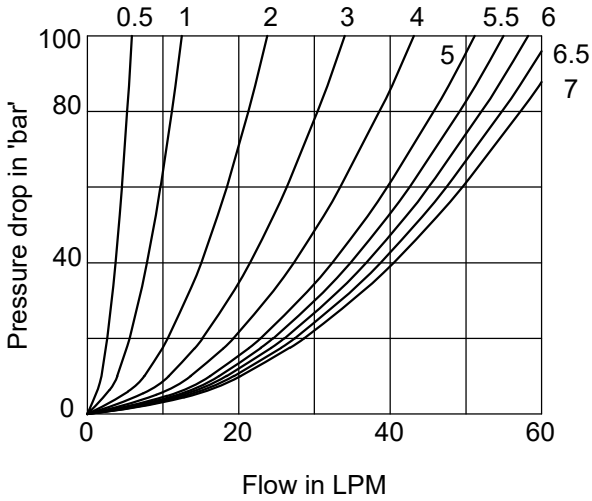
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Expected performance curves

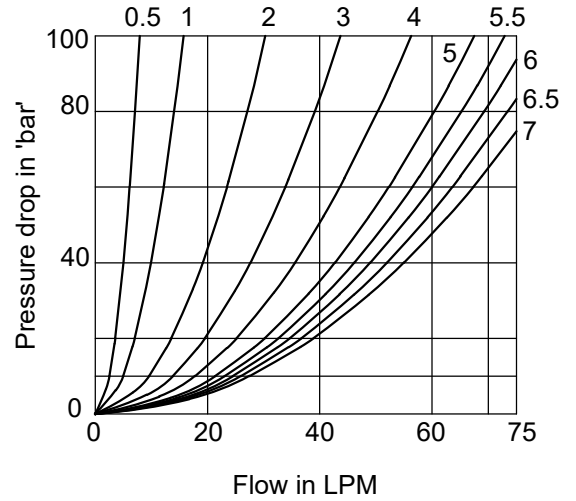
Oil used : ISO VG 68
Viscosity : 68 cSt @ 40 °C
Direction of flow : A to B

Graphs below shows Throttle position (No. of turns) from Closed position

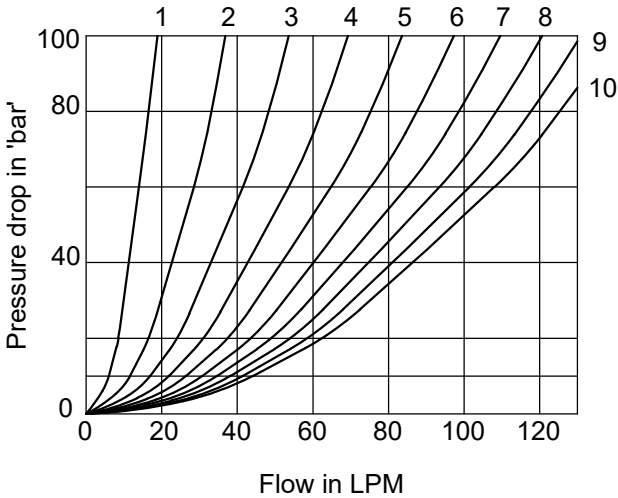
NG-06



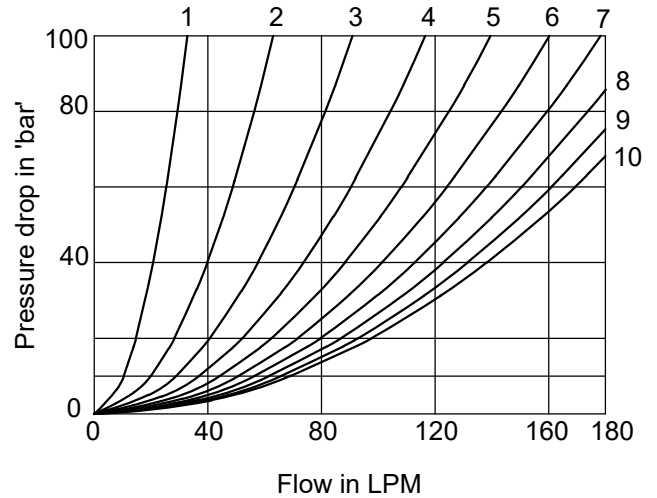
NG-08



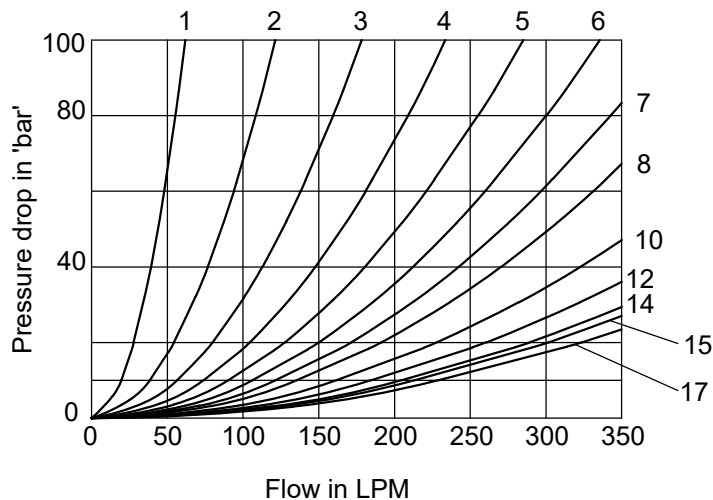
NG-10



NG-15



NG-20, NG-25 and NG-30





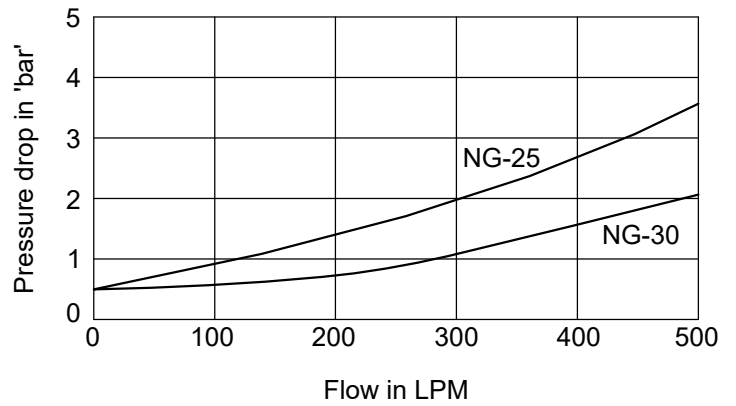
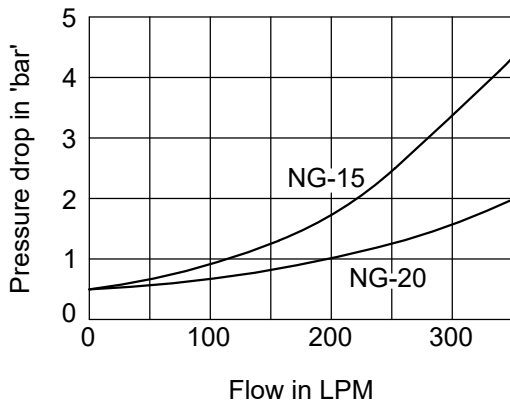
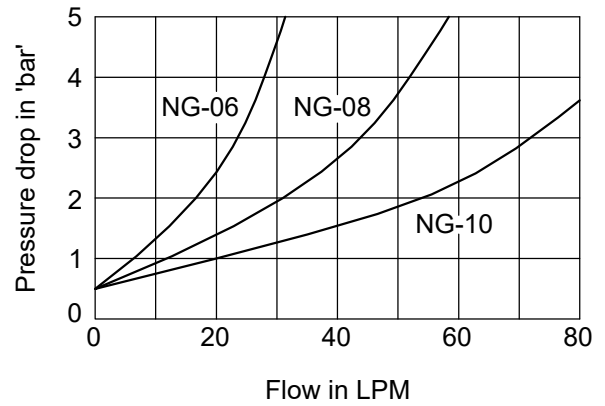
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Direction of free flow from 'B' to 'A'



Ordering Code

TC **G02** | | | **2.0**

Throttle / Check Valve

Design Series
Subject to revision

| | | |
|-------------------------|--------|------------|
| For Valves with G Ports | G 1/4 | G02 |
| | G3/8 | G03 |
| | G 1/2 | G04 |
| | G3/4 | G06 |
| | G 1 | G08 |
| | G1.1/4 | G10 |
| | G1.1/2 | G12 |

| | |
|-------------|-------------|
| Seals | |
| Omit | Nitrile |
| V | FKM (Viton) |

| | |
|--|----|
| For Valves with Tube ends (Will have Double bite ferrule) | 6 |
| | 8 |
| | 10 |
| | 12 |
| | 15 |
| | 16 |
| | 18 |
| | 20 |
| | 22 |
| | 25 |
| | 28 |
| | 30 |
| | 35 |
| | 38 |
| | 42 |

| | |
|---|---------------------------|
| Pressure Series (For valves with tube ends only) | |
| Omit | For valves with G threads |
| L | Low Pressure |
| S | High Pressure |

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Due to continuous improvement in the design of the product,
the actual product supplied may look different than shown above.