



# NEEDLE VALVES

## GCT -02 (1/4) GCTR

### Threaded Connections

## FLOW CONTROLS

Specifications/Model Number Designation/Hydraulic Fluids

**Up to 35 MPa (5080 PSI)**

Used as stop valves for pressure gauge lines and small-capacity line. Also can be used as restrictors for regulating flow rates in pilot lines.



### Specifications

Model Numbers		Max. Flow L/min (U.S.GPM)	Max. Operating Pressure MPa (PSI)	Approx. Mass kg (lbs.)
In-Line Type	Angle Type			
GCT-02-32*	GCTR-02-32*	★	35 (5080)	0.34 (.75)

★ Depends on allowable pressure drops. See flow vs. adjustment revolutions characteristics and pressure drop at full open characteristics.

### Model Number Designation

F-	GCT	-02	-32	*
Special Seals	Series Number	Valve Size	Design Number	Design Standards
<b>F:</b> Special Seals for Phosphate Ester Type Fluids (Omit if not required)	<b>GCT :</b> In-line Type Needle Valve, Threaded Connection  <b>GCTR :</b> Angle Type Needle Valve, Threaded Connection	<b>02</b>	<b>32</b>	Refer to ★

Graphic Symbol



★ Design Standards: None.....Japanese Standard "JIS"  
80.....European Design Standard  
90.....N. American Design Standard

### Hydraulic Fluids

#### Fluid Types

Any type of hydraulic fluids listed in the table below can be used.

Petroleum base oils	Use fluids equivalent to ISO VG32 or VG46.
Synthetic fluids	Use phosphate ester or polyol ester fluid. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used.
Water containing fluids	Use water-glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your Yuken representatives in advance.

#### Recommended Viscosity and Oil Temperatures

Viscosity ranging between 15 - 400 mm<sup>2</sup>/s (77 - 1800 SSU).

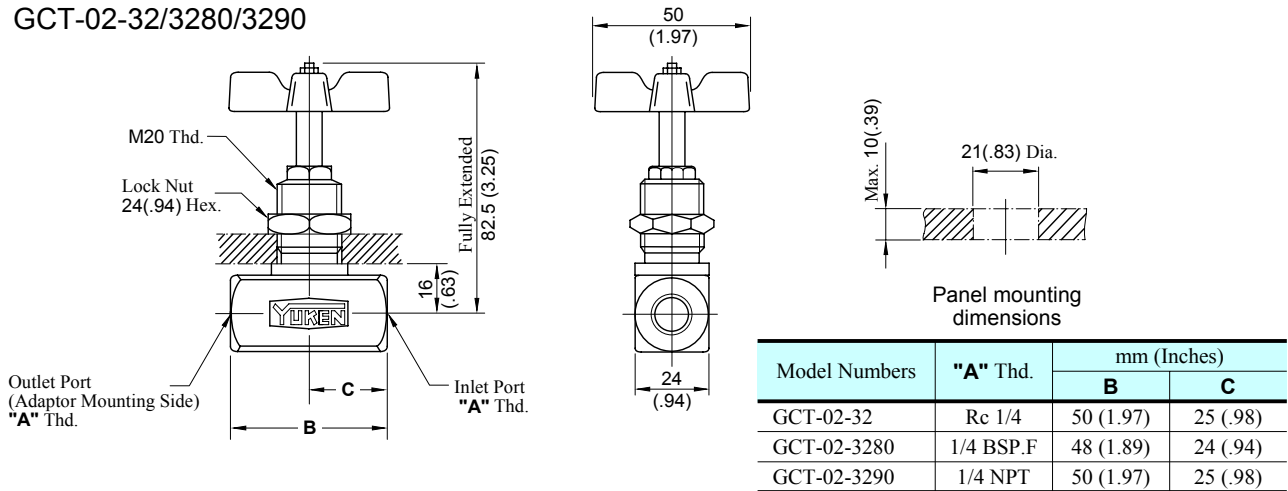
Oil temperatures between -15/+70°C (5 - 158°F).

Use hydraulic fluids which satisfy the recommended viscosity and oil temperatures given above.

#### Control of Contamination

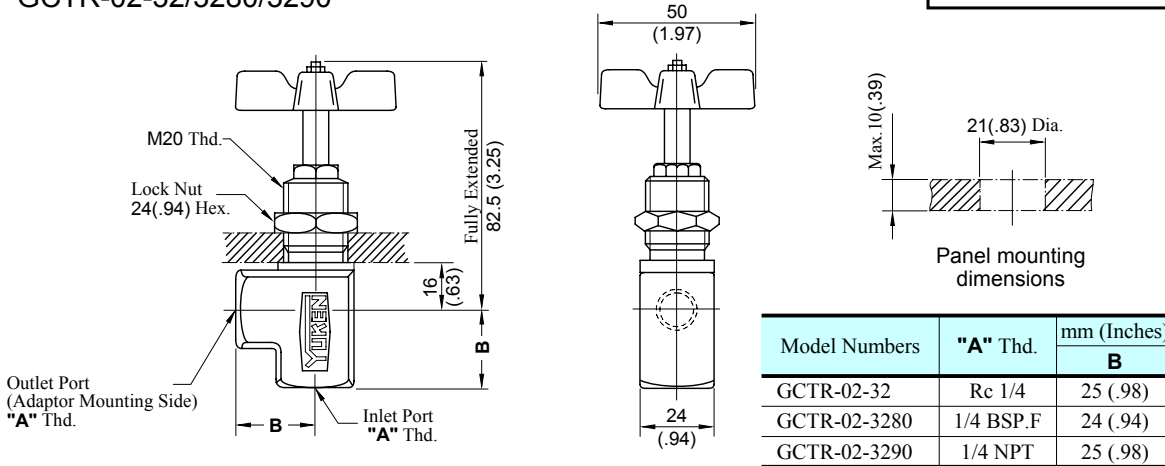
Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valves. Please maintain the degree of contamination within NAS 1638-Grade 12. Use 25 μm or finer line filter.

#### GCT-02-32/3280/3290



DIMENSIONS IN  
MILLIMETRES (INCHES)

#### GCTR-02-32/3280/3290



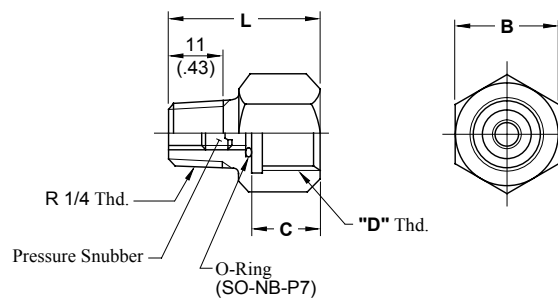
#### Adaptor

Used where pressure gauges are attached directly to needle valves. Equipped with pressure snubber for reducing harmful surges to protect pressure gauges.

Adaptors are not accessories to needle valves. Order them referring to the table below

For the models shown here, only Japanese standard specifications are available.

AG-02S  
AG-03S  
AG-04S

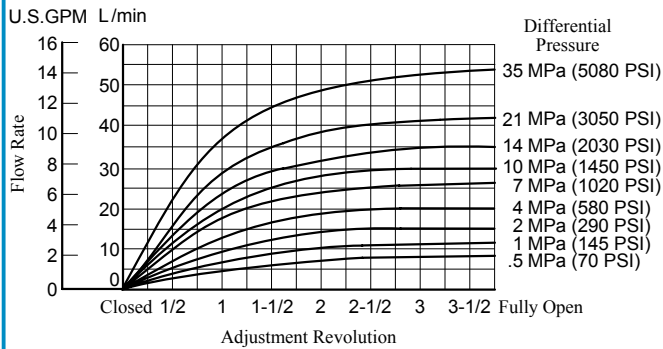


DIMENSIONS IN  
MILLIMETRES (INCHES)

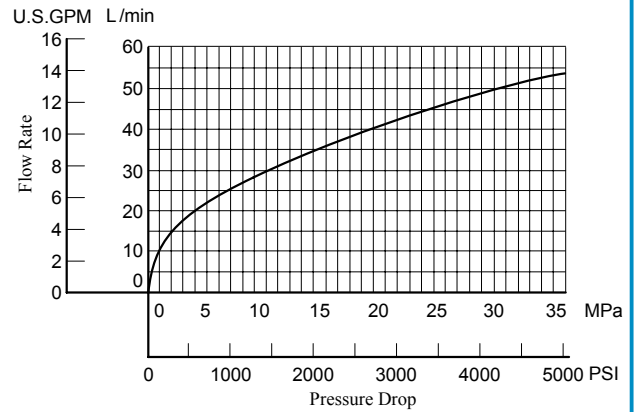
Adaptor Type	Thread Size "D" Thd.	Dimensions mm (Inches)			Approx. Mass kg (lbs.)
		B	C	L	
AG-02S	G 1/4	24 (.94)	14 (.55)	32 (1.26)	0.075 (.165)
AG-03S	G 3/8	24 (.94)	16 (.63)	35 (1.38)	0.075 (.165)
AG-04S	G 1/2	27 (1.06)	18 (.71)	37 (1.46)	0.08 (.176)

Hydraulic Fluid: Viscosity 20 mm<sup>2</sup>/s (98 SSU), Specific Gravity 0.850

#### Flow vs. Adjustment Revolutions



#### Pressure Drop at Full Open

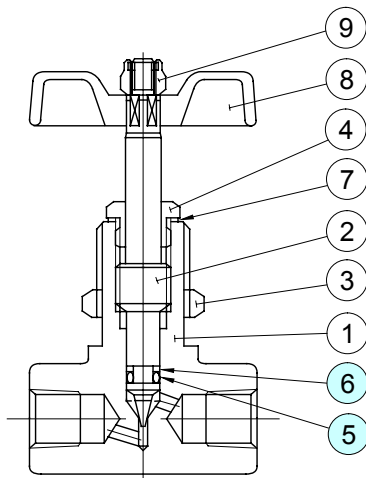


#### List of Seals

GCT-02-32/3280/3290  
GCTR-02-32/3280/3290

#### CAUTION

When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.



#### List of Seals

Item	Name of Parts	Part Numbers	Qty.
5	O-Ring	SO-NA-P5	1
6	Back Up Ring	SO-BB-P5	1

Note : When ordering the seals, please specify the seal kit number from the table below.

#### List of Seal Kits

Model Numbers	Seal Kit Numbers
GCT-02	KS-GCT-02-32
GCTR-02	