

PN16

BRONZE GLOBE VALVE

Screwed-in Bonnet, Rising Stem
Threaded ends to BS21 (JIS B0203)

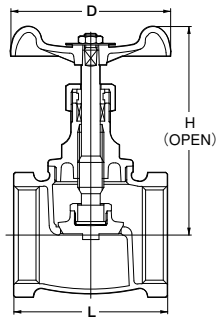
16 bar at 100°C, 7 bar at 170°C, P-T rating : See page 01



Fig. PN16A

- Threaded ends to BS21 (JIS B0203)

Taper pipe threads for connection shall refer to JIS B0203 standards, while the length of useful threads and the positions of gauge planes are built on KITZ standard.



Materials

Parts	Material
Body	Bronze
Bonnet	Brass
Stem	Dezincification Resistant Brass
Disc	Bronze
Gland Packing	Aramid Fibers Graphite

Dimensions

Nominal Size	NPS DN	mm					
		1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50
L Threaded end to end		48	53	63	73	81	94
H Height, valve open		69	80	94	104	127	147
D Handwheel diameter		55	60	70	80	90	100

KITZ Bronze and Brass Materials to JIS Standards

JIS H5120 (Copper & Copper Alloy Castings)

Cast bronze Class 6	Designation	Chemical composition (%)										Mechanical property	
		Cu	Sn	Zn	Pb	Ni	Fe	P	Sb	Al	Si	Tensile strength	Elongation (%)
	CAC406 (BC6)	83.0-87.0	4.0-6.0	4.0-6.0	4.0-6.0	1.0 Max.	0.3 Max.	0.05 Max.	0.2 Max.	0.01 Max.	0.01 Max.	195 Min. (N/mm ²)	15 Min.

JIS H3250 (Copper & Copper Alloy Rods and Bars)

Forged brass Alloy No.3771	Designation		Chemical composition (%)				Mechanical property	
	Extruded	Drawn	Cu	Pb	Fe + Sn	Zn	Tensile strength	Elongation (%)
	C3771BE	C3771BD	57.0-61.0	1.0-2.5	1.0 Max.	Remainder	315 Min. (N/mm ²)	15 Min.

JIS H3250 (Copper & Copper Alloy Rods and Bars)

Free-cutting brass Alloy No.3604	Designation		Chemical composition (%)					Mechanical property	
	Extruded	Drawn	Cu	Pb	Fe	Fe + Sn	Zn	Tensile strength	Elongation (%)
	C3604BE	C3604BD	57.0-61.0	1.8-3.7	0.5 Max.	1.0 Max.	Remainder	335 Min. (N/mm ²)	—

KITZ Bronze and Brass Materials to ASTM Standards

ASTM B62

Chemical composition (%)											Mechanical properties		
Copper	Tin	Lead	Zinc	Nickel & Cobalt	Iron	Sulfur	Phosphorus	Antimony	Aluminum	Silicon	Minimum		
84.0-86.0	4.0-6.0	4.0-6.0	4.0-6.0	1.0 Max.	0.30 Max.	0.08 Max.	0.05 Max.	0.25 Max.	0.005 Max.	0.005 Max.	Tensile strength 30 ksi	Yield strength 14 ksi	Elongation in 2 in. 20%

ASTM B584 C84400

Chemical composition (%)											Mechanical properties		
Copper	Tin	Lead	Zinc	Nickel & Cobalt	Iron	Sulfur	Phosphorus	Antimony	Aluminum	Silicon	Minimum		
78.0-82.0	2.3-3.5	6.0-8.0	7.0-10.0	1.0 Max.	0.40 Max.	0.08 Max.	0.02 Max.	0.25 Max.	0.005 Max.	0.005 Max.	Tensile strength 29 ksi	Yield strength 13 ksi	Elongation in 2 in. 18%

ASTM B283 C37700

Chemical composition (%)				Mechanical properties		
Copper	Lead	Iron	Zinc	Minimum		
58.0-61.0	1.5-2.5	0.30 Max.	Remainder	Tensile strength 50 ksi	Yield strength 18 ksi	Elongation in 4x thickness 25%