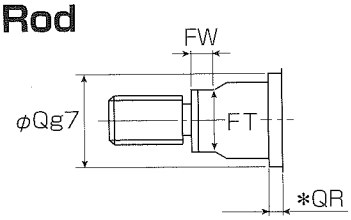
TC Single Rod

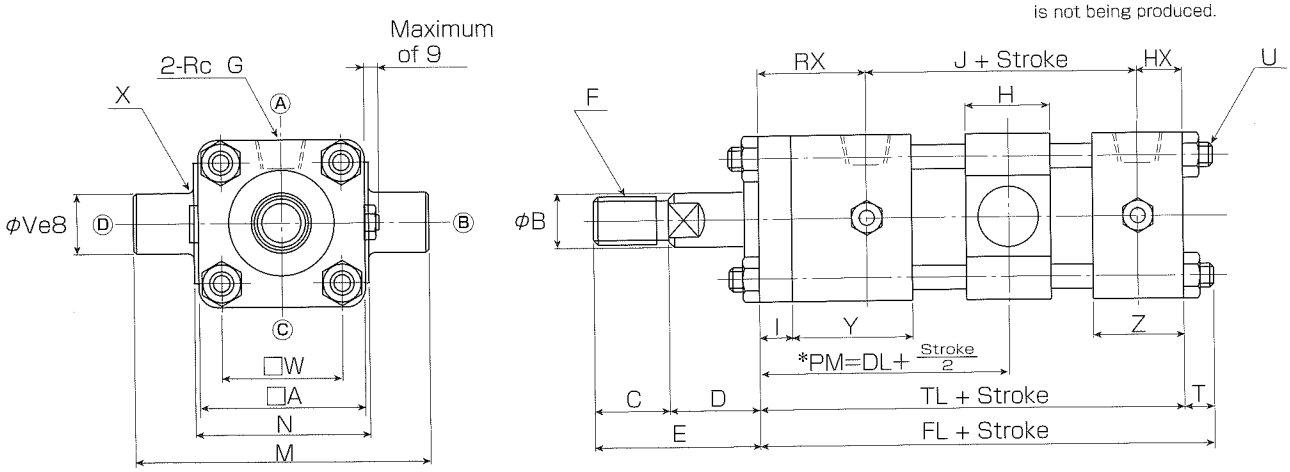


*QR Dimensions

Standard Specifications	
B, C Rods	φ32 :12 φ40~φ200 :10 φ224・φ250 : 9
A Rods	φ32~φ250 : Please refer to the table.

Coolant Proof Specifications			
Bore	A rod	B rod	C rod
φ32	9	11	10
φ40	11	9	9
φ50	11	9	9
φ63	13	9	9
φ80	12	9	9
φ100	—	10	9

Note) Coolant Proof Specifications are from φ32 to φ100. The φ100 A Rod is not being produced.



Note 1) Ⓐ,Ⓑ,Ⓒ,Ⓓ are the positioning relationships for the port, valve, etc.
Note 2) The length of the thread (C dimension) of the lock nut-end fitting will be the recommended thread length for the lock nut assembly given on P.49.
Note 3) The 32 bore check valve will just be out of 4mm from the cover surface.
※When the size of PM differs from the notation of a catalogue, please direct independently.
Keep in mind that a switch may not be attached with a stroke depending on PM size in the case of switch adjusted specifications. smallness of PM size several or less points are omitted.

■TC Type Basic Table of Dimensions

[ ] indicates no switch, switch adjusted specifications (up to φ140) are common ranges.] Units:mm

Symbol / Bore	B Rod φB	C	E	F	D	TL	J	FL	DL	RX	HX	I	Y	Z	T	H	U	□A	□W	N	M	X	φV	RcG
φ32	18	25	55	M16 P1.5	30	141	90	151	83	36	15	11	40	30	10	28	M8 P1.25	55	40	58 $^{0}_{-0.3}$	98	R2	20	3/8
φ40	22.4	30	60	M20 P1.5	30	141	90	153	83	36	15	11	38	28	12	28	M10 P1.25	65	45	69 $^{0}_{-0.3}$	109	R2	20	3/8
φ50	28	35	65	M24 P1.5	30	155	96	167	91	42	17	13	44	32	12	33	M10 P1.25	75	52	85 $^{0}_{-0.35}$	135	R2.5	25	1/2
φ63	35.5	45	80	M30 P1.5	35	163	102	178	97	44	17	15	44	32	15	42	M12 P1.5	90	65	98 $^{0}_{-0.35}$	161	R2.5	31.5	1/2
φ80	45	60	95	M39 P1.5	35	184	108	202	111	56	20	18	56	38	18	42	M16 P1.5	110	80	118 $^{0}_{-0.35}$	181	R2.5	31.5	3/4
φ100	56	75	115	M48 P1.5	40	192	114	212	116	58	20	20	56	38	20	52	M18 P1.5	135	98	145 $^{0}_{-0.4}$	225	R3	40	3/4
φ125	71	95	140	M64 P2	45	220	129	243	132	66	25	24	65	48	23	57	M22 P1.5	165	122	175 $^{0}_{-0.4}$	275	R3	50	1
φ140	80	110	160	M72 P2	50	230	137	254	138	68	25	26	65	48	24	77	M24 P1.5	185	138	195 $^{0}_{-0.46}$	321	R4	63	1
φ150	85	115	165	M76 P2	50	240	145	267	144	70	25	28	65	48	27	77	M27 P1.5	196	148	206 $^{0}_{-0.46}$	332	R4	63	1
φ160	90	120	175	M80 P2	55	253	155	280	152	73	25	31	65	48	27	87	M27 P1.5	210	160	218 $^{0}_{-0.46}$	360	R4	71	1
φ180	100	140	195	M95 P2	55	275	171	304	161	74	30	33	69	58	29	97	M30 P1.5	235	182	243 $^{0}_{-0.46}$	403	R4	80	1 1/4
φ200	112	150	205	M100 P2	55	301	181	332	177	85	35	37	83	70	31	107	M33 P1.5	262	200	272 $^{0}_{-0.52}$	452	R5	90	1 1/2
φ224	125	180	240	M120 P2	60	305	180	341	181	90	35	42	83	70	36	117	M39 P1.5	292	225	300 $^{0}_{-0.52}$	500	R5	100	1 1/2
φ250	140	195	260	M130	65	346	197	385	206	107	42	47	102	84	39	117	M42	325	250	335 $^{0}_{-0.57}$	535	R5	100	2

■Code

The switch codes are not necessary for the standard specifications.

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲
FS-	SA	1	TC	100	B	B	320	A	B	D-	□	-Y	P	N	J				
FFR-	SA	1	TC	100	B	B	320	A	B	D-	2C	-Y	P	N	J				

①Series Name	FS: 7 MPa, FF: 14MPa
②Switch Adjusted Specifications	"R" is affixed in the case of cylinders with switch adjusted specifications. FSR: 7MPa switch adjusted specifications; FFR: 14MPa switch adjusted specifications
③Single/Double Classification	S: Single Rod Type W: Double Rod Type
④Standard Special Note1) Classification	A: Standard Dimensions
⑤Packing Material	1. Nitrile Rubber (Standard) 2. Urethane Rubber 3. Fluoric Rubber 6. Coolant Proof Nitrile Rubber 7. Coolant Proof Fluoric Rubber 9. Hydrogenated Nitrile Rubber
⑥Mounting	S・LA・LB・LC・FA・FB・FC・FD・CF・CA・CB・CC・TA・TC
⑦Bore (㎜)	32・40・50・63・80・100・125・140・150・160・180・200・224・250 (Specifications for switch adjusted:φ32 toφ140;φ32 toφ180 is standard for the Double Rod Type. The Double Rod Type with switch adjusted specifications is standard).
⑧Type of Rod	A: A Rod (Standard Equivalent) B: B Rod (Standard) C: C Rod (Standard)
⑨Cushion Format	B: Cushion on Both Sides R: Head-side Cushion H: Cap-side Cushion N: No Cushion
⑩Stroke Length (㎜)	Indicate the stroke (refer to P.13 for Maximum Stroke)
⑪Port Location	Refer to P.15 and then indicate A, B, C or D.
⑫Cushion Valve Location	Refer to P.15 and then indicate A, B, C or D. O: No Cushion or Fixed Cushion
⑬Air Bleed Location	Refer to P.15 and then indicate A, B, C or D. No notation : Not necessary (Standard Equivalent)
⑭Switch Quantity Note2)	Mentioned the quantity. 1A. When the switch is not needed in a switch-adjusted specifications.
⑮Switch Type	C:TOV3 J:TOV5 CK:T5V3 CL:T5V5 DT:T2V3 DU:T2V5 CW:T2YV3 CH:TOH3 JH:TOH5 FJ: TOV-0.5 (For a DC connector system) FW: TOV-0.5 (For an AC connector system) XX: Special Part Please refer to P.136 for more detailed information on switches.
⑯End Joint	T: Single Protrusion End Joint Y: Double Protrusion End Joint S: Spherical Bearing End Joint F: F Connector No notation: None
⑰Pin	P: CB or the Y joint has a pin attached P2: CB and the Y joint have a pin attached G: Pin with Grease Nipple No notation: None (at φ125 or less, the pin is attached as standard equipment)
⑱Lock Nut	N: Available (3 types) N2: Two lock nuts (3 types × 2 pieces) No notation: None
⑲Bellows	J: Neoprene JS: Silicon Glass Cloth JA: Aluminum Foil Glass Cloth JC: Conex No notation: None (In the case where there are any other material specifications, please specify them).

Note 1) The Special Standard Classification will be selected and mentioned at our company. Indicated in the product label.
Note 2) Switches are shipped unattached to prevent breakage.