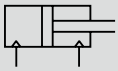


Linear slide cylinder Double acting/single rod

LCG Series

● Bore size: ø6/ø8/ø12/ø16/ø20/ø25

JIS symbol 

RoHS CAD

Specifications

Item		LCG					
Bore size mm		ø6	ø8	ø12	ø16	ø20	ø25
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		0.7 (≈100 psi, 7 bar)					
Min. working pressure MPa		0.15 (≈22 psi, 1.5 bar) (*1)					
Proof pressure MPa		1.05 (≈150 psi, 10.5 bar)					
Ambient temperature °C		-10 (14°F) to 60 (140°F) (no freezing)					
Port size	Main body side	M3	M5			Rc1/8	
	Main body back	M3				M5	Rc1/8
Stroke tolerance mm		$^{+2.0}_{0}$ (*2)					
Working piston speed mm/s		50 to 500 (*3)					
Cushion		With rubber cushion					
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)					
Allowable absorbed energy J		Refer to Table 3 on page 188.					

*1: 0.2 MPa when using ø6 shock absorber stopper.
*2: Note that there will be a slight gap between the end plate and floating bush if no stopper is attached.
*3: Keep within 50 to 200 mm/s when using a stroke adjusting stopper.
*4: The stroke adjusting stopper for 0.3 MPa and over working pressure is the metal sealing.

Stroke length

Bore size (mm)	Standard stroke length (mm)
ø6	10, 20, 30, 40, 50
ø8	10, 20, 30, 40, 50, 75
ø12	10, 20, 30, 40, 50, 75, 100
ø16	10, 20, 30, 40, 50, 75, 100, 125
ø20	10, 20, 30, 40, 50, 75, 100, 125, 150
ø25	10, 20, 30, 40, 50, 75, 100, 125, 150

Note: Products with stroke lengths other than the above are not available.

With buffer specifications

Specifications other than the below are same as the above common specifications.

Item		Description					
Bore size mm		ø6	ø8	ø12	ø16	ø20	ø25
Buffer stroke length mm		4		9		10	
Buffer part spring load	When set N	3	5	10	13	17	21
	When operated N	7	8	14	20	25	29

*1: In the type with buffer, adjusting the rod side stroke length will shorten the buffer stroke length and increase the spring load when set.
*2: Keep the buffer stroke length less than the stroke length above. Otherwise, malfunctions or damage may result.

Theoretical thrust table

Refer to page 189.

Switch specifications

● 1-color/2-color display

Item	Reed 2-wire				Proximity 2-wire		Proximity 3-wire		
	T0H/T0V		T5H/T5V		T2H/T2V	T2WH/ T2WV	T3H/ T3V	T3PH/ T3PV	T3WH/ T3WV
Applications	For programmable controller, relay		For programmable controller, relay, IC circuit (without indicator lamp), serial connection		Dedicated for programmable controller		For programmable controller, relay		
Output method	-		-		-		NPN output	PNP output	NPN output
Power supply voltage	-		-		-		10 to 28 VDC		
Load voltage	12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 20 mA		100 mA or less		50 mA or less
Indicator lamp	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current	0 mA				1 mA or less		10 µA or less		
Weight g	1 m:18 3 m:49 5 m:80								

Item	Proximity 2-wire	Proximity 3-wire	Proximity 2-wire		Proximity 3-wire		
	F2S	F3S	F2H/F2V	F2YH/ F2YV	F3H/F3V	F3PH/F3PV (Made to order)	F3YH/ F3YV
Applications	Dedicated for programmable controller	For programmable controller, relay	Dedicated for programmable controller		For programmable controller, relay		
Output method	-	NPN output	-		NPN output	PNP output	NPN output
Power supply voltage	-	10 to 28 VDC	-		10 to 28 VDC	4.5 to 28 VDC	10 to 28 VDC
Load voltage	10 to 30 VDC	30 VDC or less	10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 20 mA	50 mA or less	5 to 20 mA		50 mA or less		
Indicator lamp	LED (Lit when ON)		Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Yellow LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current	1 mA or less	10 µA or less	1 mA or less		10 µA or less		
Weight g	1 m:10 3 m:29						

*1 : Refer to Ending Page 1 for detailed switch specifications and dimensions.
*2 : Switches other than the above models, such as switches with connectors, are also available. Refer to Ending Page 1.
*3 : The max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)
*4 : The F type switch uses a bend-resistant lead wire.

Cylinder weight

● Basic (Unit: g)

Bore size (mm)	Basic Stroke length (mm)								
	10	20	30	40	50	75	100	125	150
ø6	150	150	170	230	250	-	-	-	-
ø8	220	220	250	330	360	450	-	-	-
ø12	480	480	480	530	580	770	910	-	-
ø16	750	740	730	810	890	1,240	1,430	1,630	-
ø20	1,270	1,260	1,250	1,370	1,490	1,930	2,220	2,510	2,800
ø25	2,120	2,100	2,080	2,260	2,440	3,240	3,660	4,080	4,500

● Additional weight of options (Unit: g)

Bore size (mm)	Option/stopper code				With buffer
	S1 to S4	S5/S6	A1 to A4	A5/A6	B/BL
ø6	30	40	40	50	40
ø8	40	60	50	70	40
ø12	70	100	80	110	70
ø16	110	150	120	160	80
ø20	170	250	180	270	150
ø25	290	380	300	400	320