

1

How to Order ?

Series No	Cushion Type	Type No.	Bore X	Stroke	Adjustable stroke	Magnet No.	Seal material	Mounting type	Thread type
VB: X type barrel LB: Round barrel	C: Air cushion	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type	32 40 50 63 80 ... 320	25 50 75 ... 75	10 20 30 40 50 75 100	Blank: No Magnet S: With Magnet	Black: TPU seal	Blank: No CA CB CR LB FA FB	Blank: G P: PT T: NPT

Order Example:

VBC series, double shaft air cylinder, Bore 40mm, stroke 50mm, with magnet, TPU seal material, CA mounting accessory, NPT thread.
ERP code is: VBCD 40X50-S-CA-T

Note: 1. If cylinder with several different mounting accessories, please use this sequential coding: CA/CB/CR/LB/FA/FB/UA/YJ/BJ/FD
2. VBC series, bore range: $\Phi 32$ - $\Phi 200$; LBC series, bore range: $\Phi 32$ - $\Phi 320$

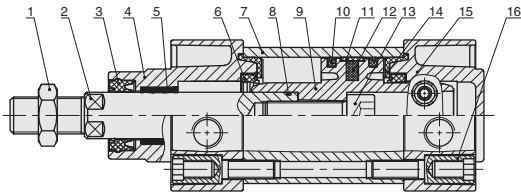
Specifications

Bore Size (mm)	32	40	50	63	80	100	125	160	200	250	320
Acting type	Double Acting										
Working medium	Clean Air(40 μ m filtration)										
Working pressure (MPa)	0.1-1.0										
Guaranteed pressure (MPa)	1.5										
Working temperature (°C)	-20-80(Dry air)										
Speed range (mm/s)	50-800										
Cushion type	Adjustable Cushion										
Cushion stroke (mm)	27	30	36	34	35	42	50	39			
Mounting type	LB FA FB CA CB CR										
Port size $\text{\textcircled{1}}$	G1/8	G1/4	G3/8	G1/2	G3/4	G1					

$\text{\textcircled{1}}$ NPT, PT port size is optional.

Bore (mm)	Standard stroke (mm)										Max. stroke (mm)											
32	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	1900					
40	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	1900		
50-320	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	600	700	800	900	1000	1900

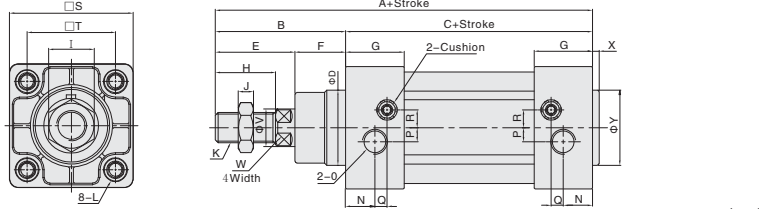
Internal Structure



NO.	Part name	Material
1	Nut	Carbon steel
2	Piston rod	S45C hard chrome carbon steel
3	Piston rod seal	TPU
4	Head cover	Aluminum alloy
5	Self lubricating bearing	Bronze powder
6	Cushion seal	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	TPU
11	Wear ring	PTFE
12	Magnet	Plastic
13	Hexagon screw	Carbon steel
14	Cushion pad	TPU
15	Rear cover	Aluminum alloy
16	Bolt	Carbon steel

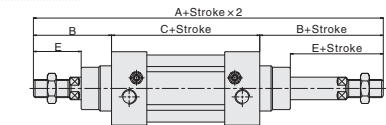
Main dimensions

VBC



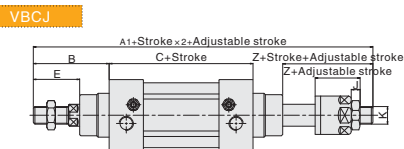
Bore/Sign	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W	X	Y
32	142	48	94	30	29	19	27.5	22	17	6	M10x1.25	M6	13	1/8"	5.5	6	6	47	32.5	12	10	3	30
40	159	54	105	35	33	21	32	24	17	7	M12x1.25	M6	17	1/4"	6	7.5	8.5	53	38	16	13	3.5	35
50	175	69	106	40	42	27	31	32	23	8	M16x1.5	M8	15.5	1/4"	7.5	6.5	9.5	65	46.5	20	17	3.5	40
63	190	69	121	45	42	27	33	32	23	8	M16x1.5	M8	16.5	3/8"	7.5	7.5	11.5	75	56.5	20	17	4	45
80	214	86	128	45	53	33	33	40	26	10	M20x1.5	M10	16.5	3/8"	9	7.5	13.5	95	72	25	22	4	45
100	229	91	138	55	55	36	37	40	26	10	M20x1.5	M10	18.5	1/2"	9.5	8.5	13.5	115	89	25	22	4	55
125	279	119	160	60	74	45	46	54	41	13.5	M27x2.0	M12	23	1/2"	14	12	14	140	110	32	27	-	-
160	332	152	180	65	94	58	50	72	55	18	M36x2.0	M16	25	3/4"	15	12	20	180	140	40	36	-	-
200	347	167	180	75	110	57	50	72	55	18	M36x2.0	M16	25	3/4"	-	-	220	175	40	36	-	-	
250	388	188	200	90	121	67	52	83	65	21	M42x2.0	M20	26.5	G1	20.5	7.5	21	270	220	50	45	10	90

Note: With magnet and without magnet, the dimensions are same.

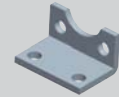


Bore/Sign	A	A1	B	C	E	Z	J	K
32	190	188	48	94	29	27	6	M10x1.25
40	213	208	54	105	33	28	7	M12x1.25
50	244	233	69	106	42	31	8	M16x1.5
63	259	248	69	121	42	31	8	M16x1.5
80	300	286	86	128	53	39	10	M20x1.5
100	320	304	91	138	55	39	10	M20x1.5
125	398	372.5	119	160	74	35	13.5	M27x2.0
160	484	448	152	180	94	40	18	M36x2.0
200	514	462	167	180	110	40	18	M36x2.0
250	576	531	188	200	121	76	21	M42x2.0

Note: 1. With magnet and without magnet, the dimensions are same.
2. Not marked dimension is same as VBC standard type.
3. LBC series dimensions is same as VBC.



Dimension of Mounting Accessories



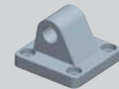
Dimension of LB type

Model/Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-VBC32LB	158	142	8	47	32	24	32	7	4
FJ-VBC40LB	179	161	9	53	36	28	36	9	4
FJ-VBC50LB	190	170	10	65	45	32	45	9	5
FJ-VBC63LB	209	185	12	75	50	32	50	9	5
FJ-VBC80LB	248	210	19	95	63	41	63	12.5	6
FJ-VBC100LB	258	220	19	115	75	41	71	14.5	6
FJ-VBC125LB	290	250	20	140	90	45	90	16.5	8
FJ-VBC160LB	340	300	20	180	115	60	115	18.5	10
FJ-VBC200LB	380	320	30	220	135	70	135	24	12



Dimension of FA/FB type

Model/Sign	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ-VBC32FA	11	7	30.5	10	47	32	80	64	4.5	7	32.5
FJ-VBC40FA	11	7	35.5	10	53	36	90	72	4.5	9	38
FJ-VBC50FA	14	9	40.5	12	65	45	110	90	5.5	9	46.5
FJ-VBC63FA	14	9	45.5	12	75	50	125	100	5.5	9	56.5
FJ-VBC80FA	17	11	45.5	16	95	63	154	126	7	12.5	72
FJ-VBC100FA	17	11	55.5	16	115	75	186	150	7	14.5	89
FJ-VBC125FA	19	13	60.5	20	140	90	224	180	8	16.5	110
FJ-VBC160FA	25	17	65.5	20	180	115	280	230	10.5	18.5	140
FJ-VBC200FA	25	17	75.5	25	220	135	320	270	10.5	24	175



Dimension of CA type

Model/Sign	S	T	DC	DD	DE	DJ	DO
FJ-VBC32CA	47	32.5	22	9	10	13	25.8
FJ-VBC40CA	53	38	25	12	12	16	27.8
FJ-VBC50CA	65	46.5	27	12	12	17	31.8
FJ-VBC63CA	75	56.5	32	15	16	22	39.7
FJ-VBC80CA	95	72	36	15	16	22	49.7
FJ-VBC100CA	115	89	41	20	20	27	59.7
FJ-VBC125CA	140	110	50	25	25	33	69.7
FJ-VBC160CA	180	140	55	30	30	35.5	89.7
FJ-VBC200CA	220	175	60	30	30	36	89.7



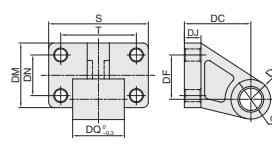
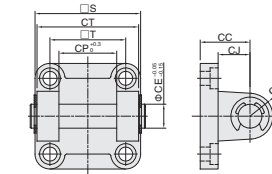
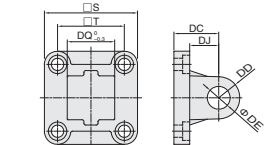
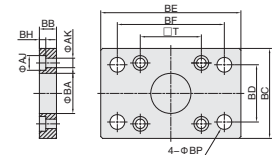
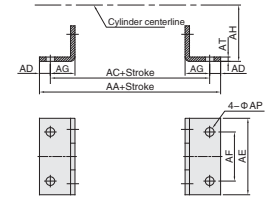
Dimension of CB type

Model/Sign	CC	CD	CE	CJ	CP	CT	S	T
FJ-VBC32CB	22	9	10	13	26	45	47	32.5
FJ-VBC40CB	25	12	12	16	28	52	53	38
FJ-VBC50CB	27	12	12	17	32	60	65	46.5
FJ-VBC63CB	32	15	16	22	40	70	75	56.5
FJ-VBC80CB	36	15	16	22	50	90	95	72
FJ-VBC100CB	41	20	20	27	60	110	115	89
FJ-VBC125CB	50	25	25	31	70	130	140	110
FJ-VBC160CB	55	30	30	35.5	90	170	180	140
FJ-VBC200CB	60	30	30	36	90	170	220	175



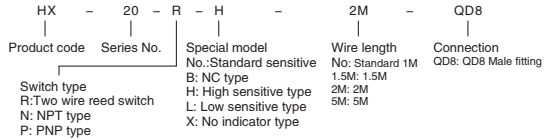
Dimensions of CR type

Model/Sign	S	T	DC	DD	DE	DF	DJ	DQ	DM	DN
FJ-VBC32CR	51	38	32	10	10	21	8	25.8	31	18
FJ-VBC40CR	54	41	36	11	12	24	10	27.8	35	22
FJ-VBC50CR	65	50	45	13	12	33	12	31.8	45	30
FJ-VBC63CR	67	52	50	15	16	37	12	39.7	50	35
FJ-VBC80CR	86	66	63	15	16	47	14	49.7	60	40
FJ-VBC100CR	96	76	71	19	20	55	15	59.7	70	50
FJ-VBC125CR	124	94	90	22.5	25	70	20	69.7	90	60



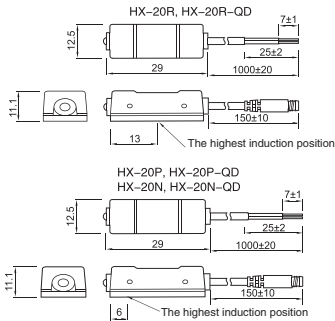


How to Order?

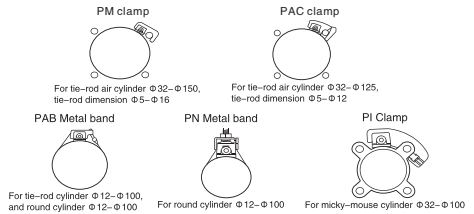


- Note: 1. Testing with standard magnet: $\Phi 15.5 \times \Phi 8 \times 5t$ (Plastic magnet) ;
 2. Sine wave/X, Y, Z3 axial direction/ each axial direction three times/ each time 11ms;
 3. complex amplitude 1.5mm/10Hz-55Hz sweep frequency, last one minute/ each time X, Y, Z axial direction for one hour;
 4. 1-No/2-output short circuit protection/3=Power reverse connection protection/4=Surge absorption protection

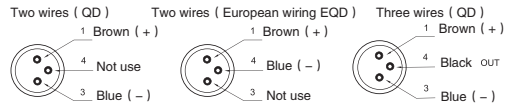
Dimensions



Installation of HX-20

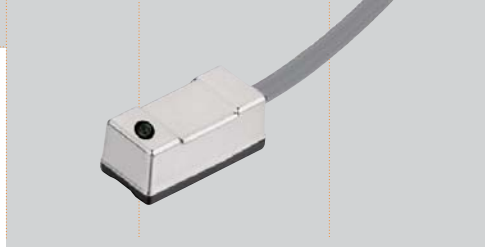


QD fitting wiring



Specification

Type	HX-20H	HX-20RB	HX-20N	HX-20P
Connect Diagram				
Parameter				
Wiring method	2-Wire Type		3-Wire Type	
Switching logic	SPST Normally Open	SPST Normally close	Solid State Output, Normally Open	
Sensor type	Reed switch		NPN type (Input)	PNP type (Output)
Operating voltage	5-240V DC/AC	5-120V DC/AC	5-30V DC	
Max. switching current	100 mA max.		200 mA max.	
Contact rating	10 W max.		6 W max.	
Current consumption	None		20mA @ 24V DC max	
Voltage drop	3.5V max.		0.5V max @ 200mA	
Leakage current	None		0.01mA max.	
Indicator	Green LED		Red LED	Green LED
Max. exchange frequency	200Hz		1000Hz	
Temperature range			10-70°C	
Shock	30G		50G	
Vibration			9G	
Enclosure classification	None		IEC 529 IP67 (NEMA 6)	
Protection circuit			Power reverse connection protection	Surge absorption protection
Cable	2.8Φ、2C, Gray color, oil resistance PVC		2.8Φ、3C, Gray color, oil resistance PVC	

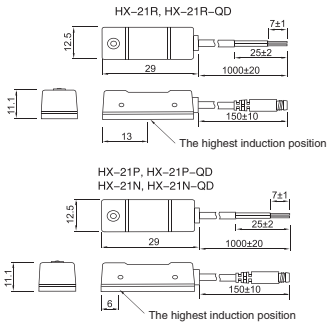


How to Order?

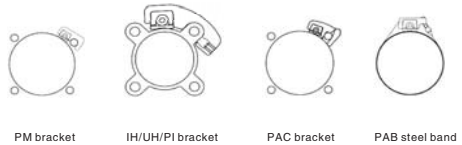
HX	-	21	-	R	-	H	-	2M	-	QD8
Product code		Series No.		Special model			Wire length		Connection	
Switch type		No.: Standard sensitive		No.: Standard 1M		No.: Standard 1M		QD8: QD8 Male fitting		
R: Two wire reed switch		B: NC type		H: High sensitive type		1.5M: 1.5M				
N: NPT type		L: Low sensitive type		X: No indicator type		2M: 2M				
P: PNP type						5M: 5M				

- Note: 1. Testing with standard magnet: $\Phi 15.5 \times \Phi 8 \times 5$ (Plastic magnet) ;
 2. Sine wave/X, Y, Z3 axial direction/ each axial direction three times/ each time 11ms;
 3. complex amplitude 1.5mm/10Hz~55Hz sweep frequency, last one minute/ each time X, Y, Z axial direction for one hour;
 4. 1=No/2=output short circuit protection/3=Power reverse connection protection/4=Surge absorption protection

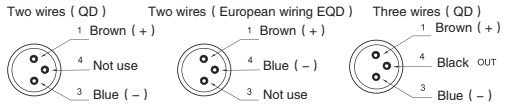
Dimensions



Installation of HX-21



QD fitting wiring



Specification

Type	HX-21R	HX-21RB	HX-20N	HX-20P
Connect Diagram				
Parameter				
Wiring method	2-Wire Type		3-Wire Type	
Switching logic	SPST Normally Open	SPST常闭型	Solid State Output, Normally Open	
Sensor type	Reed switch		NPN type (Input)	PNP type (Output)
Operating voltage	5-240V DC/AC	5-120V DC/AC	5-30V DC	
Max. switching current	100 mA max.		200 mA max.	
Contact rating	10 W max.		6 W max.	
Current consumption	None		20mA @ 24V DC max	
Voltage drop	3.5V max.		0.5V @ 200mA max	
Leakage current	None		0.01mA max.	
Indicator			Red LED	Green LED
Max. exchange frequency	200Hz		1000Hz	
Temperature range			10 - 70°C	
Shock	30G		50G	
Vibration			9G	
Enclosure classification			IEC 529 IP67 (NEMA 6)	
Protection circuit	None		Power reverse connection protection	Surge absorption protection
Cable	4.0Φ, 2C, Gray color, oil resistance PVC		4.0Φ, 3C, Black color, oil resistance PVC	