Fulcrum Pins

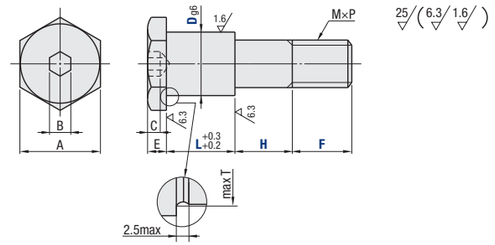
Low Head Stepped, with Lock Nut

Fulcrum Pins –
Low Head Stepped, with Lock Nut

RoHS 10

Type		Material	Surface Treatment	Hardness
Standard	Configurable			
CMSG	FCMSG	4137 Alloy Steel Equivalent	Black Oxide	33~38 HRC min.
SCMSG	FSCMSG	304 Stainless Steel	—	—

D Tolerance	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12–18	-0.006 -0.017
20	-0.007 -0.020



! Hex head A and B are not aligned.
! Precaution for Use: Tighten the external Hex (A) for final installation.

Standard

Part Number Type	Dg6	L	H 0.1 mm Increment	A	B	C	E	F	M x P (Coarse Thread)	T
CMSG SCMSG	6	5 6 9 10 12	2.0–50.0	10	3	2	5	7	4 x 0.7	6.5
	8	5 6 9 10 12 16		13	5	3		9	6 x 1.0	8.7
	10	10 12 16 19 22 25	3.0–70.0	17	6	4		12	8 x 1.25	10.8
	12			19						12.8
	13				8	5	6	16	10 x 1.5	14
	15	16 19 22 25	4.0–80.0	24	10	6	7	18	12 x 1.75	17
	16									
	18			27		7	8			19
	20		4.0–100.0	30	14			24	16 x 2.0	21

Configurable

Part Number Type	Dg6	L 1 mm Increment	H 0.1 mm Increment	F 1 mm Increment	A	B	C	E	M x P (Coarse Thread)	T
FCMSG FSCMSG	6	5–12	2.0–50.0	4–7	10	3	2	5	4 x 0.7	6.5
	8	5–16		6–9	13	5	3		6 x 1.0	8.7
	10	10–25	3.0–70.0	8–12	17	6	4		8 x 1.25	10.8
	12				19					12.8
	13			10–16		8	5	6	10 x 1.5	14
	15		4.0–80.0	12–18	24	10	6	7	12 x 1.75	17
	16									
	18				27		7	8		19
	20		4.0–100.0	16–24	30	14			16 x 2.0	21

Part Number Example

Part Number - L - H - F

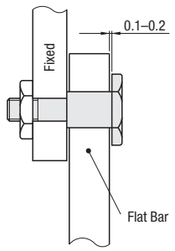
CMSG15 - 16 - 20.5
FSCMSG12 - 13 - 8 - 10

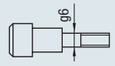
Part Number Alterations

Part Number - L - H - F - (HKC)

CMSG10 - 12 - 15.2 - HKC

Application Example



Alterations	Code	Spec.
	HKC	Dimension H will have an outer diameter tolerance of g6. ! Dimension H Applicable Range

D	H
6, 8	10– 50
10, 12–13	15– 70
15–16, 18	20– 80
20	20–100

MiSUMi

Precision Pivot Pins

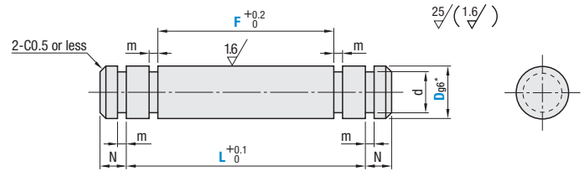
Retaining Rings / Tapped Ends

Precision Pivot Pins –
Retaining Rings

RoHS 10

Type	Material	Surface Treatment	Accessory	
CNPR	1045 Carbon Steel or Equivalent	Black Oxide	Retaining Rings 4 Pcs.	Material Spring Steel
SCNPR	304 Stainless Steel	—		Material 304 Stainless Steel

D Tolerance (g6)	
3	-0.002 -0.008
4–6	-0.004 -0.012
8, 10	-0.005 -0.014
12–16	-0.006 -0.017
20, 25	-0.007 -0.020



Part Number Type	D	1 mm Increment L	F	N	d	Tolerance	m	Tolerance	Attached Retaining Ring Shape	JIS Normal	Sprint Steel	304 SS
CNPR SCNPR	3	8–60	5–47	2	2	+0.06 0	0.5	+0.05 0	E Type	No. 2	NETW2	NETWS2
	4	9–60	5–48		3		0.7	+0.1 0		No. 3	NETW3	NETWS3
	5	14–60	10–56		4	+0.075 0				No. 4	NETW4	NETWS4
	6	14–100	10–96		5					No. 5	NETW5	NETWS5
	8			3	7	+0.09 0	0.9			No. 7	NETW7	NETWS7
	10	20–100	15–95		9.6	0 -0.09	1.15	+0.14 0	C Type	No. 10	STWN10	STWN10
	12	20–200	15–195	4	11.5					No. 12	STWN12	STWN12
	13	30–200	25–195		12.4	0 -0.11				No. 13	STWN13	STWN13
	14				13.4					No. 14	STWN14	STWN14
	15				14.3					No. 15	STWN15	STWN15
	16	35–200	30–195		15.2					No. 16	STWN16	STWN16
	20				19	0 -0.21	1.35			No. 20	STWN20	STWN20
	25				23.9					No. 25	STWN25	STWN25

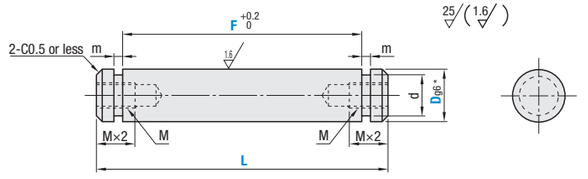
! F≤L-(2m+2) ! For details, please refer to **P.4021**.

Precision Pivot Pins –
Tapped Ends

RoHS 10

Type	Material	Surface Treatment	Accessory	
CNPP	1045 Carbon Steel or Equivalent	Black Oxide	Retaining Ring 2 Pcs.	Material Spring Steel
SCNPP	304 Stainless Steel	—		Material 304 Stainless Steel

D Tolerance (g6)	
8, 10	-0.005 -0.014
12–16	-0.006 -0.017
20, 25	-0.007 -0.020



Part Number Type	D	1 mm Increment L	F	M (Coarse Thread)	d	Tolerance	m	Tolerance	Attached Retaining Ring Shape	JIS Normal	Sprint Steel	304 SS
CNPP SCNPP	8	14–100	10–96	M4	7	+0.09 0	0.9	+0.1 0	E Type	No. 7	NETW7	NETWS7
	10	20–100	15–95	M6	9.6	0 -0.09	1.2	+0.14 0	C Type	No. 10	STWN10	STWN10
	12	20–200	15–195		11.5					No. 12	STWN12	STWN12
	13	30–200	25–195	M8	12.4	0 -0.11				No. 13	STWN13	STWN13
	14				13.4					No. 14	STWN14	STWN14
	15				14.3					No. 15	STWN15	STWN15
	16	35–200	30–195	M10	15.2					No. 16	STWN16	STWN16
	20			M12	19	0 -0.21	1.4			No. 20	STWN20	STWN20
	25			M16	23.9					No. 25	STWN25	STWN25

! F≤L-(2+2m) ! For details, please refer to **P.4021**.

Part Number Example

Part Number - L - F

CNPR15 - 120 - F100
CNPP20 - 80 - F60

Application Example