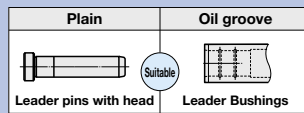


PRECISION LEADER PINS

— HEAD · PLAIN PRESS-FIT LENGTH DESIGNATION TYPE · PRESS-FIT DIAMETER · LENGTH DESIGNATION TYPE —

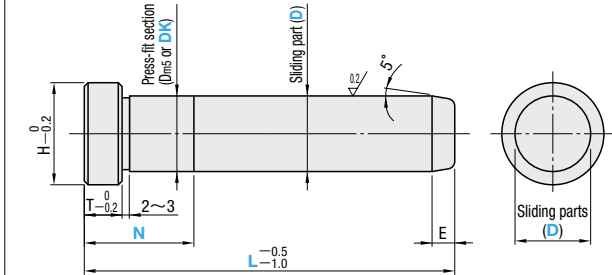


Ⓢ Non JIS material definition is listed on P.1351 - 1352



RoHS

GPHL (Press-fit diameter Dm5 · length designation type)
GPH-XL (Press-fit diameter · length designation type)



Ⓢ Recommended mold temperature for the usage of a precision leader pin and bushing is 80°C or less because of a little clearance between them. (☞ P.878)
 Ⓢ A center hole may be left on one or both ends.

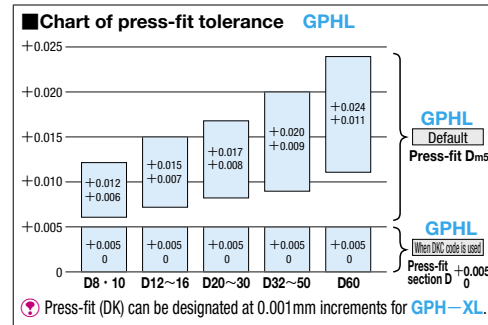
Sliding parts D	Press-fit section Dm5 GPHL	T	H	E
8	8	11	3	
10	10	13	4	
12	12	17		
13	13	18		
16	16	21		
20	20	25		
25	25	30	5	
28	28	33		
30	30	35		
32	32	37		
35	35	40		
40	40	45		
50	50	55	8	
60	60	65		

☑ SUJ2 ☑ 58HRC~(Induction hardening)

Order **Part Number** — **L** — **N** — **DK**
GPHL 25 — **250** — **N100**
GPH-XL25 — **250** — **N100** — **DK25.009**

Days to Ship **Quotation**

Alterations **Part Number** — **L(LC)** — **N** — **DK** — **(OC · MC · GC...etc.)**
GPH-XL 25 — **LC 249** — **N100** — **DK25.009** — **GC-E20-K10**
 ☒ Combination of GC with OC not available.



Ⓢ Press-fit (DK) can be designated at 0.001mm increments for **GPH-XL**.

Alteration details ☞ P.879 · 880

Alterations	Code	Spec.	1Code															
	LC	Total length alteration LC=1mm increments Shortens the full length (L) as shown in the drawing. (Tip dimension E remains unchanged.) Ⓢ Lmin.<LC<Lmax.																
	OC	Adds oil grooves. Ⓢ Please note that the designation range of N dimension is changed. Alteration details ☞ P.880																
	MC	Tip tapping ☒ Not available for D=8 or 10 <table border="1"> <tr><th>D</th><th>M×Pitch</th><th>ℓ</th></tr> <tr><td>12 · 13</td><td>M 6×1.0</td><td>12</td></tr> <tr><td>16</td><td>M10×1.5</td><td>20</td></tr> <tr><td>20</td><td>M12×1.75</td><td>24</td></tr> <tr><td>25~60</td><td>M16×2.0</td><td>32</td></tr> </table>	D	M×Pitch	ℓ	12 · 13	M 6×1.0	12	16	M10×1.5	20	20	M12×1.75	24	25~60	M16×2.0	32	Quotation
D	M×Pitch	ℓ																
12 · 13	M 6×1.0	12																
16	M10×1.5	20																
20	M12×1.75	24																
25~60	M16×2.0	32																
	DKC	Press-fit section tolerance alteration Dm5 → D +0.005 Ⓢ Available for GPHL																
	GA	Adds a tap to attach a leader assist pin. Ⓢ Available for D40 · 50 · 60. Alteration details ☞ P.879																

Alterations	Code	Spec.	1Code									
	MMC	Tapping on the head ☒ Not available for D=8 and 10. <table border="1"> <tr><th>D</th><th>M×Pitch</th><th>ℓ</th></tr> <tr><td>12~20</td><td>M5×0.8</td><td>10</td></tr> <tr><td>25~60</td><td>M8×1.25</td><td>16</td></tr> </table>	D	M×Pitch	ℓ	12~20	M5×0.8	10	25~60	M8×1.25	16	
D	M×Pitch	ℓ										
12~20	M5×0.8	10										
25~60	M8×1.25	16										
	GC	Tapers the tip. [Designation method] GC-E20-K10 E=1mm increments K=1° increments 1° ≤ K ≤ 10° Ⓢ E>20 of D16~30 is available only when L ≥ 50.	Quotation									
		Ⓢ The tapered part is to be cut.										
	AC	Groove processing for air relief [Designation method] AC124 AC=1mm increments 10 ≤ AC ≤ L-(N+5)										

P Price **Quotation**

■ GPHL (Press-fit diameter Dm5 · length designation type)

Part Number Type	D	L 5mm increments	N 1mm increments	U/Price 1~9	Part Number Type	D	L 5mm increments	N 1mm increments	U/Price 1~9	Part Number Type	D	L 5mm increments	N 1mm increments	U/Price 1~9
GPHL	8	30~40	10~60	Quotation	GPHL	25	40~60	13~120	Quotation	35	60~100	13~130	Quotation	
		45~50												
		55~80												
	10	30~40	10~80			25	40~60			40	60~140	15~200		
		45~80												
		55~80												
	12	30~40	13~80			28	40~60			50	80~140	17~200		
		45~80												
		55~120												
	13	30~40	13~80			30	40~60			50	100~150	20~200		
		45~80												
		55~120												
16	30~40	13~80	32	40~60	50	100~150	20~200							
	45~80													
	55~120													
20	30~40	13~100	32	40~60	50	100~150	20~200							
	45~80													
	55~120													

Ⓢ Designate Nmin. value when no press-fit section is required. ex. D=13 → N=5 Ⓢ Please designate press-fit length with N ≤ L-E.
 Ⓢ No press-fitting section when N=T+(2 or 3).

■ GPH-XL (Press-fit diameter · length designation type)

Part Number Type	D	L 5mm increments	N 1mm increments	Press-fit diameter DK 0.001mm increments	U/Price 1~9	Part Number Type	D	L 5mm increments	N 1mm increments	Press-fit diameter DK 0.001mm increments	U/Price 1~9	
GPH-XL	8	30~50	10~60	8.000~8.050	Quotation	32	50~60	13~130	32.000~32.050	Quotation		
		55~80										
		85~120										
	10	30~50	10~80			10.000~10.050	35				50~60	35.000~35.050
		55~80										
		85~120										
	12	30~50	10~80			12.000~12.050	40				50~60	40.000~40.050
		55~80										
		85~120										
	13	30~50	13~80			13.000~13.050	50				50~60	50.000~50.050
		55~80										
		85~120										
16	30~50	13~80	16.000~16.050	60	50~60	60.000~60.050						
	55~80											
	85~120											
20	30~50	13~100	20.000~20.050	25	50~60	25.000~25.050						
	55~80											
	85~120											
25	30~50	13~120	25.000~25.050	28	50~60	28.000~28.050						
	55~80											
	85~120											
30	30~50	13~130	30.000~30.050	30	50~60	30.000~30.050						
	55~80											
	85~120											

Ⓢ DK tolerance of press-fit diameter of D32~60: DK±0.003
 Ⓢ Designate press-fit length with N ≤ L-E.

Ⓢ DK tolerance of press-fit diameter of D8~30: DK±0.002