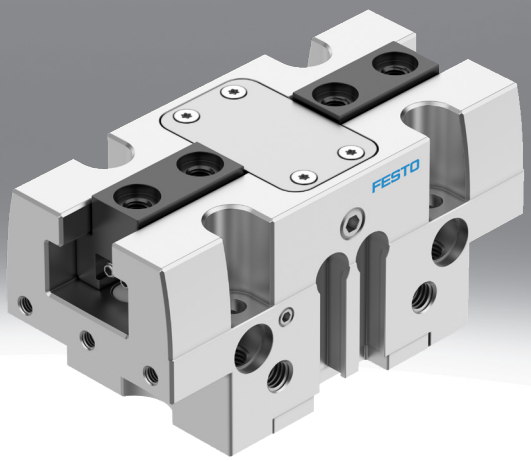
Parallel gripper HPPR



Characteristics

At a glance Link hppr

The robust pneumatic parallel gripper HPRR is suitable for demanding tasks, for example in general and machine tool construction as well as in battery production and the food industry. Variants with high force, spring support or different seals complete the portfolio.

- Space-optimized Parallel gripper for high forces and torques
- Suitable for external and internal gripping
- Ground jaws for high precision and absorption of maximum torques and process forces
- Gripper jaw guide protected against dust by sealing air

Engineering Tools Link engineering tools



Save time with engineering tools: Smart engineering for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in achieving this goal. Throughout the entire value chain, they help you size your system correctly, tap into unimagined productivity reserves or generate additional productivity. In every phase of your project, from initial contact to modernization of your machine, you will come across a number of tools that will prove beneficial to you.

Gripper selection:
- This tool helps you find the right grippers by simply entering the exact parameters for your application

Diagrams Link hppr



The diagrams shown in this document are also available online. There, it is possible to display precise values.

Position sensing

[A]	For proximity sensor

With the help of proximity switches, position detection allows for any position to be sensed.

Gripping force backup

[NC]	Closing



Closed by spring force in depressurized state

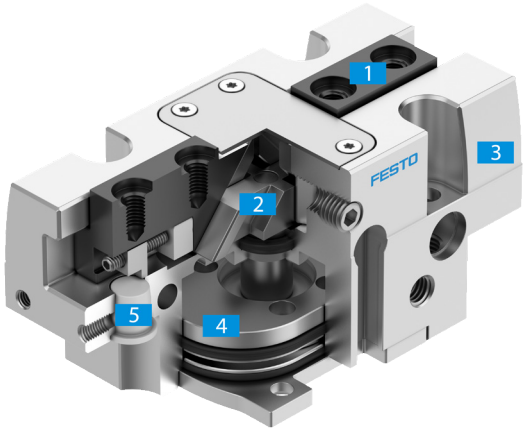
[NO]	Opening



Opened by spring force in depressurized state

Characteristics

Overview



[1] Gripper jaw
[2] Wedge with forced guidance
[3] Housing
[4] Piston with magnet
[5] Holder for proximity switch and position transmitter

Type code

001	Series	
HPPR	Parallel gripper	

002	Gripper property	
	Standard	
F	High gripping force	

003	Size [mm]	
12	12	
16	16	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	

004	Complete stroke [mm]	
2	2	
3	3	
4	4	
6	6	
8	8	
10	10	
12	12	
16	16	
20	20	
24	24	
32	32	

005	Position sensing	
A	For proximity sensor	

006	Gripping force backup	
	Without	
NC	Closing	
NO	Opening	

007	Special material properties	
F1A	Recommended for production plants for manufacturing lithium-ion batteries, F1A	

Datasheet

General technical data

Size	12		16		20		25		32		40		50		63	
Complete stroke	2	4	3	6	4	8	6	12	8	16	10	20	12	24	16	32
Stroke per gripper jaw	1	2	1.5	3	2	4	3	6	4	8	5	10	6	12	8	16
Structural design	Inclined plane Positively driven motion sequence															
Guide	Heavy-duty guide															
Actuator system	Pneumatic															
Mode of operation	Double-acting															
Gripping force backup	With-out Closing	Without Closing Opening														
Gripper function	Parallel															
Number of gripper jaws	2															
Max. mass per external gripper finger[1]	30 g		40 g		50 g		110 g		180 g		310 g		640 g		1,260 g	
Pneumatic connection	M3		M3 M5										M5 G1/8			
Sealing air pneumatic connection	M3						M5									
Pneumatic gripper repetition accuracy [2]	<0.02 mm				<0.04 mm				<0.05 mm							
Max. operating frequency of pneumatic gripper	3 Hz										2 Hz					
Position sensing	Via proximity switch															
Type of mounting	With internal thread and centering sleeve Via through-hole and centering sleeve With through-hole and dowel pin With internal thread and dowel pin															
Mounting position	Any															

1) Applies to unthrottled operation

2) Under constant exposure to operating conditions, end position variation occurs in the direction of movement of the gripper jaws, at 100 consecutive strokes

Operating and environmental conditions

Size	12	16	20	25	32	40	50	63
Operating pressure[1]	0.3 ... 0.8 MPa							
Operating pressure [2]	3 ... 8 bar							
Operating pressure[3]	43.5 ... 116 psi							
Operating pressure for sealing air	0 ... 0.05 MPa							
Operating pressure for sealing air	0 ... 0.5 bar							
Operating pressure for sealing air	0 ... 7.25 psi							
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]							
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)							
Ambient temperature [4]	5 ... 90°C							
Degree of protection	IP40							
Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27							
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6							
Relubrication interval for guidance elements	5 MioCyc							
Corrosion resistance class (CRC) [5]	1 - Low corrosion stress							

1) HPPR-...: 0.3 ... 0.8 MPa
HPPR-...-NO/-NC-...: 0.4 ... 0.8 MPa

2) HPPR-...: 3 ... 8 bar
HPPR-...-NO/-NC-...: 4 ... 8 bar

3) HPPR-...: 43.5 ... 116 psi
HPPR-...-NO/-NC-...: 58 ... 116 psi

4) Observe the operating range of the proximity switches

5) More information at www.festo.com/x/topic/kbk

Datasheet

Weight – HPPR-12 ... 16

Size	12					16					
Complete stroke	2 mm		4 mm			3 mm			6 mm		
Gripping force backup	Without	Closing	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening
Product weight	54 g	67 g	54 g	67 g	68 g	79 g	95 g		78 g	93 g	

Weight – HPPR-20 ... 25

Size	20						25					
Complete stroke	4 mm			8 mm			6 mm			12 mm		
Gripping force backup	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening
Product weight	129 g	148 g		126 g	145 g		255 g	332 g		245 g	323 g	

Weight – HPPR-32 ... 40

Size	32						40					
Complete stroke	8 mm			16 mm			10 mm			20 mm		
Gripping force backup	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening
Product weight	485 g	593 g	592 g	467 g	574 g		811 g	1,038 g	1,043 g	778 g	1,005 g	1,010 g

Weight – HPPR-50 ... 63

Size	50						63					
Complete stroke	12 mm			24 mm			16 mm			32 mm		
Gripping force backup	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening	Without	Closing	Opening
Product weight	1,384 g	1,815 g	1,824 g	1,320 g	1,750 g	1,760 g	2,685 g	3,423 g	3,432 g	2,567 g	3,287 g	3,296 g

Materials

Size	12	16	20	25	32	40	50	63
Housing material	Anodized aluminum							
End plate material	Wrought aluminum alloy, anodized							
Cover cap material	high-alloy stainless steel							
Gripper jaw material	high-alloy stainless steel							
Gripper finger material	Wrought aluminum alloy, anodized							
Piston rod material	High-alloy steel							
Material of piston	Wrought aluminum alloy, anodized							
Piston seal material	HNBR							
Material of spring	high-alloy stainless steel			Spring steel high-alloy stainless steel	high-alloy stainless steel			
Material of screws	Steel, chemically nickel-plated							
O-ring material	FPM		FPM HNBR	FPM				
Note on materials	RoHS compliant							
LABS (PWIS) conformity	VDMA24364-B1/B2-L							
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)							

Datasheet

Forces, without gripping force retention – HPPR-12 ... 16

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	12		16	
Complete stroke	2 mm	4 mm	3 mm	6 mm
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	<106 N	<58 N	<200 N	<116 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	<128 N	<70 N	<226 N	<130 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<53 N	<29 N	<100 N	<58 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<64 N	<35 N	<113 N	<65 N
Gripping force per gripper jaw at 6 bar, closing	98 N	54 N	190 N	106 N
Gripping force per gripper jaw at 6 bar, opening	120 N	66 N	214 N	120 N
Gripping force per gripper jaw at 6 bar, closing	49 N	27 N	95 N	53 N
Gripping force per gripper jaw at 6 bar, opening	60 N	33 N	107 N	60 N

Forces, without gripping force retention – HPPR-20 ... 25

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	20		25	
Complete stroke	4 mm	8 mm	6 mm	12 mm
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	<380 N	<196 N	<622 N	<304 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	<412 N	<210 N	<666 N	<326 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<190 N	<98 N	<311 N	<152 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<206 N	<105 N	<333 N	<163 N
Gripping force per gripper jaw at 6 bar, closing	354 N	176 N	596 N	296 N
Gripping force per gripper jaw at 6 bar, opening	378 N	188 N	644 N	318 N
Gripping force per gripper jaw at 6 bar, closing	177 N	88 N	298 N	148 N
Gripping force per gripper jaw at 6 bar, opening	189 N	94 N	322 N	159 N

Datasheet

Forces, without gripping force retention – HPPR-32 ... 40

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	32		40	
Complete stroke	8 mm	16 mm	10 mm	20 mm
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	<1040 N	<500 N	<1398 N	<808 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	<1114 N	<536 N	<1496 N	<864 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<520 N	<250 N	<699 N	<404 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<557 N	<268 N	<748 N	<432 N
Gripping force per gripper jaw at 6 bar, closing	994 N	482 N	1,360 N	786 N
Gripping force per gripper jaw at 6 bar, opening	1,064 N	516 N	1,456 N	840 N
Gripping force per gripper jaw at 6 bar, closing	497 N	241 N	680 N	393 N
Gripping force per gripper jaw at 6 bar, opening	532 N	258 N	728 N	420 N

Forces, without gripper jaw backup – HPPR-50 ... 63

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 20 mm

Size	50		63	
Complete stroke	12 mm	24 mm	16 mm	32 mm
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	<2702 N	<1236 N	<3784 N	<1798 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	<2864 N	<1310 N	<3972 N	<1888 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<1351 N	<618 N	<1892 N	<899 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	<1432 N	<655 N	<1986 N	<944 N
Gripping force per gripper jaw at 6 bar, closing	2,574 N	1,190 N	3,692 N	1,762 N
Gripping force per gripper jaw at 6 bar, opening	2,728 N	1,262 N	3,876 N	1,850 N
Gripping force per gripper jaw at 6 bar, closing	1,287 N	595 N	1,846 N	881 N
Gripping force per gripper jaw at 6 bar, opening	1,364 N	631 N	1,938 N	925 N

Datasheet

Forces, with gripping force backup – HPPR-12-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	12		
Complete stroke	2 mm	4 mm	
Gripping force backup	Closing		Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	140 ... 166 N	76 ... 92 N	24 ... 40 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	68 ... 94 N	36 ... 52 N	88 ... 104 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	70 ... 83 N	38 ... 46 N	12 ... 20 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	34 ... 47 N	18 ... 26 N	44 ... 52 N
Theoretical spring force per gripper jaw, closing	17 ... 30 N	9 ... 17 N	
Gripping force per gripper jaw at 6 bar, closing	130 ... 156 N	72 ... 88 N	20 ... 36 N
Gripping force per gripper jaw at 6 bar, opening	56 ... 82 N	30 ... 46 N	82 ... 98 N
Gripping force per gripper jaw at 6 bar, closing	65 ... 78 N	36 ... 44 N	10 ... 18 N
Gripping force per gripper jaw at 6 bar, opening	28 ... 41 N	15 ... 23 N	41 ... 49 N
Note on gripping force	dependent on stroke with integrated compression spring		

Forces, with gripping force backup – HPPR-16-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	16			
Complete stroke	3 mm		6 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	256 ... 298 N	102 ... 144 N	150 ... 176 N	56 ... 82 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	128 ... 170 N	282 ... 324 N	70 ... 96 N	164 ... 190 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	128 ... 149 N	51 ... 72 N	75 ... 88 N	28 ... 41 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	64 ... 85 N	141 ... 162 N	35 ... 48 N	82 ... 95 N
Theoretical spring force per gripper jaw, closing	28 ... 49 N		17 ... 30 N	
Gripping force per gripper jaw at 6 bar, closing	246 ... 288 N	92 ... 134 N	140 ... 166 N	46 ... 72 N
Gripping force per gripper jaw at 6 bar, opening	116 ... 158 N	270 ... 312 N	60 ... 86 N	154 ... 180 N
Gripping force per gripper jaw at 6 bar, closing	123 ... 144 N	46 ... 67 N	70 ... 83 N	23 ... 36 N
Gripping force per gripper jaw at 6 bar, opening	58 ... 79 N	135 ... 156 N	30 ... 43 N	77 ... 90 N
Note on gripping force	dependent on stroke with integrated compression spring			

Datasheet

Forces, with gripping force backup – HPPR-20-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	20			
Complete stroke	4 mm		8 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	484 ... 560 N	200 ... 276 N	248 ... 288 N	104 ... 144 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	232 ... 308 N	516 ... 592 N	118 ... 158 N	262 ... 302 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	242 ... 280 N	100 ... 138 N	124 ... 144 N	52 ... 72 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	116 ... 154 N	258 ... 296 N	59 ... 79 N	131 ... 151 N
Theoretical spring force per gripper jaw, closing	52 ... 90 N		26 ... 46 N	
Gripping force per gripper jaw at 6 bar, closing	458 ... 534 N	174 ... 250 N	228 ... 268 N	84 ... 124 N
Gripping force per gripper jaw at 6 bar, opening	198 ... 274 N	482 ... 558 N	96 ... 136 N	240 ... 280 N
Gripping force per gripper jaw at 6 bar, closing	229 ... 267 N	87 ... 125 N	114 ... 134 N	42 ... 62 N
Gripping force per gripper jaw at 6 bar, opening	99 ... 137 N	241 ... 279 N	48 ... 68 N	120 ... 140 N
Note on gripping force	dependent on stroke with integrated compression spring			

Forces, with gripping force backup – HPPR-25-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	25			
Complete stroke	6 mm		12 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	838 ... 990 N	254 ... 406 N	412 ... 486 N	122 ... 198 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	298 ... 450 N	882 ... 1,034 N	144 ... 220 N	432 ... 508 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	419 ... 495 N	127 ... 203 N	206 ... 243 N	61 ... 99 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	149 ... 225 N	441 ... 517 N	72 ... 110 N	216 ... 254 N
Theoretical spring force per gripper jaw, closing	108 ... 184 N		53 ... 91 N	
Gripping force per gripper jaw at 6 bar, closing	812 ... 964 N	228 ... 380 N	402 ... 478 N	112 ... 190 N
Gripping force per gripper jaw at 6 bar, opening	271 ... 422 N	854 ... 1,005 N	134 ... 210 N	422 ... 498 N
Gripping force per gripper jaw at 6 bar, closing	406 ... 482 N	114 ... 190 N	201 ... 239 N	56 ... 95 N
Gripping force per gripper jaw at 6 bar, opening	135 ... 211 N	427 ... 503 N	67 ... 105 N	211 ... 249 N
Note on gripping force	dependent on stroke with integrated compression spring			

Datasheet

Forces, with gripping force backup – HPPR-32-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	32			
Complete stroke	8 mm		16 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	1,378 ... 1,578 N	502 ... 702 N	662 ... 760 N	240 ... 338 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	576 ... 776 N	1,452 ... 1,652 N	276 ... 374 N	698 ... 796 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	689 ... 789 N	251 ... 351 N	331 ... 380 N	120 ... 169 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	288 ... 388 N	726 ... 826 N	138 ... 187 N	349 ... 398 N
Theoretical spring force per gripper jaw, closing	169 ... 269 N		81 ... 130 N	
Gripping force per gripper jaw at 6 bar, closing	1,332 ... 1,532 N	456 ... 656 N	644 ... 742 N	222 ... 320 N
Gripping force per gripper jaw at 6 bar, opening	526 ... 726 N	1,402 ... 1,602 N	256 ... 354 N	678 ... 776 N
Gripping force per gripper jaw at 6 bar, closing	666 ... 766 N	228 ... 328 N	322 ... 371 N	111 ... 160 N
Gripping force per gripper jaw at 6 bar, opening	263 ... 363 N	701 ... 801 N	128 ... 177 N	339 ... 388 N
Note on gripping force	dependent on stroke with integrated compression spring			

Forces, with gripping force backup – HPPR-40-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 10 mm

Size	40			
Complete stroke	10 mm		20 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	1,896 ... 2,186 N	610 ... 900 N	1,088 ... 1,250 N	366 ... 528 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	708 ... 998 N	1,994 ... 2,284 N	422 ... 584 N	1,144 ... 1,306 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	948 ... 1,093 N	305 ... 450 N	544 ... 625 N	183 ... 264 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	354 ... 499 N	997 ... 1,142 N	211 ... 292 N	572 ... 653 N
Theoretical spring force per gripper jaw, closing	249 ... 394 N		140 ... 221 N	
Gripping force per gripper jaw at 6 bar, closing	1,858 ... 2,148 N	572 ... 862 N	1,066 ... 1,228 N	344 ... 506 N
Gripping force per gripper jaw at 6 bar, opening	668 ... 958 N	1,954 ... 2,244 N	398 ... 560 N	1,120 ... 1,282 N
Gripping force per gripper jaw at 6 bar, closing	929 ... 1,074 N	286 ... 431 N	533 ... 614 N	172 ... 253 N
Gripping force per gripper jaw at 6 bar, opening	334 ... 479 N	977 ... 1,122 N	199 ... 280 N	560 ... 641 N
Note on gripping force	dependent on stroke with integrated compression spring			

Datasheet

Forces, with gripper jaw backup – HPPR-50-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 20 mm

Size	50			
Complete stroke	12 mm		24 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	3,604 ... 3,920 N	1,484 ... 1,800 N	1,724 ... 1,896 N	564 ... 736 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	1,646 ... 1,962 N	3,766 ... 4,082 N	638 ... 810 N	1,798 ... 1,970 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	1,802 ... 1,960 N	742 ... 900 N	862 ... 948 N	282 ... 368 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	823 ... 981 N	1,883 ... 2,041 N	319 ... 405 N	899 ... 985 N
Theoretical spring force per gripper jaw, closing	451 ... 609 N		247 ... 333 N	
Gripping force per gripper jaw at 6 bar, closing	3,476 ... 3,792 N	1,356 ... 1,672 N	1,684 ... 1,856 N	524 ... 696 N
Gripping force per gripper jaw at 6 bar, opening	1,558 ... 1,874 N	3,678 ... 3,994 N	596 ... 768 N	1,756 ... 1,928 N
Gripping force per gripper jaw at 6 bar, closing	1,738 ... 1,896 N	678 ... 836 N	842 ... 928 N	262 ... 348 N
Gripping force per gripper jaw at 6 bar, opening	779 ... 937 N	1,839 ... 1,997 N	298 ... 384 N	878 ... 964 N
Note on gripping force	dependent on stroke with integrated compression spring			

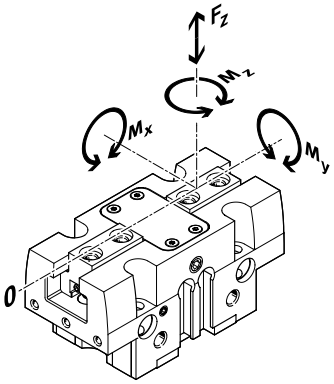
Forces, with gripper jaw backup – HPPR-63-...-NO/NC-...

Theoretical gripping force for a lever arm of 0 mm / measured gripping force at 20 mm

Size	63			
Complete stroke	16 mm		32 mm	
Gripping force backup	Closing	Opening	Closing	Opening
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	5,042 ... 5,796 N	1,772 ... 2,526 N	2,366 ... 2,706 N	890 ... 1,230 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	1,960 ... 2,714 N	5,230 ... 5,984 N	980 ... 1,320 N	2,456 ... 2,796 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	2,521 ... 2,898 N	886 ... 1,263 N	1,183 ... 1,353 N	445 ... 615 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	980 ... 1,357 N	2,615 ... 2,992 N	490 ... 660 N	1,228 ... 1,398 N
Theoretical spring force per gripper jaw, closing	629 ... 1,006 N		284 ... 454 N	
Gripping force per gripper jaw at 6 bar, closing	4,950 ... 5,704 N	1,680 ... 2,434 N	2,330 ... 2,670 N	854 ... 1,194 N
Gripping force per gripper jaw at 6 bar, opening	1,864 ... 2,618 N	5,134 ... 5,888 N	950 ... 1,290 N	2,426 ... 2,766 N
Gripping force per gripper jaw at 6 bar, closing	2,475 ... 2,852 N	840 ... 1,217 N	1,165 ... 1,335 N	427 ... 597 N
Gripping force per gripper jaw at 6 bar, opening	932 ... 1,309 N	2,567 ... 2,944 N	475 ... 645 N	1,213 ... 1,383 N
Note on gripping force	dependent on stroke with integrated compression spring			

Datasheet

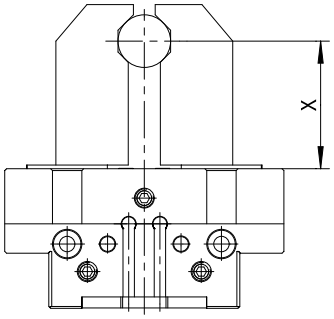
Characteristic load values at the gripper jaws



The indicated permissible forces and torques apply to a single gripper jaw. They include the lever arm, additional applied loads created by the workpiece or external gripper fingers and acceleration forces occurring during movement. The zero coordinate line (gripper jaw guide) must be taken into account when calculating torques.

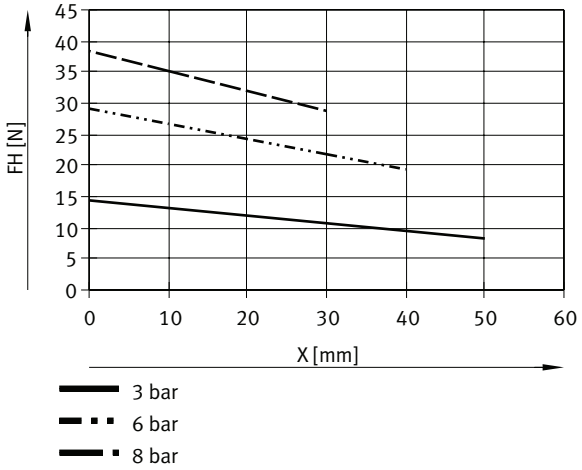
Size	12	16	20	25	32	40	50	63
Maximum force on gripper jaw Fz, static	80 N	200 N	700 N	1,200 N	1,800 N	2,500 N	3,200 N	5,000 N
Maximum torque on gripper jaw, Mx static	7 Nm	10 Nm	15 Nm	50 Nm	80 Nm	100 Nm	120 Nm	160 Nm
Maximum torque on gripper jaw, My static	10 Nm	12 Nm	15 Nm	45 Nm	60 Nm	90 Nm	120 Nm	180 Nm
Maximum torque on gripper jaw, Mz static	5 Nm	6 Nm	8 Nm	35 Nm	50 Nm	75 Nm	100 Nm	140 Nm

Gripping force FH per gripper jaw as a function of operating pressure/lever arm x – External gripping (closing), without gripper jaw backup



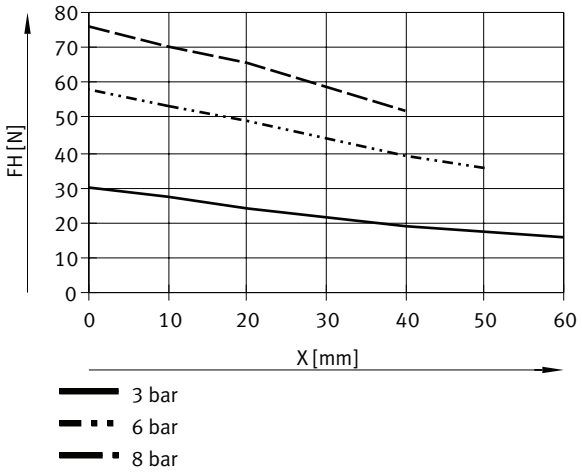
The gripping forces as a function of operating pressure and lever arm can be determined from the following diagrams.

External gripping (closing), without gripping force backup, standard gripping force – HPPR-12

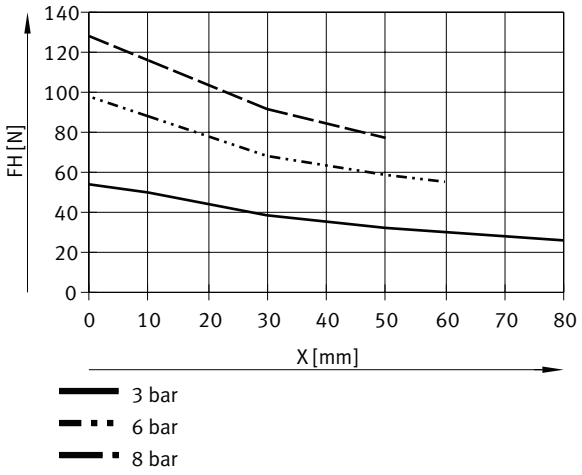


Datasheet

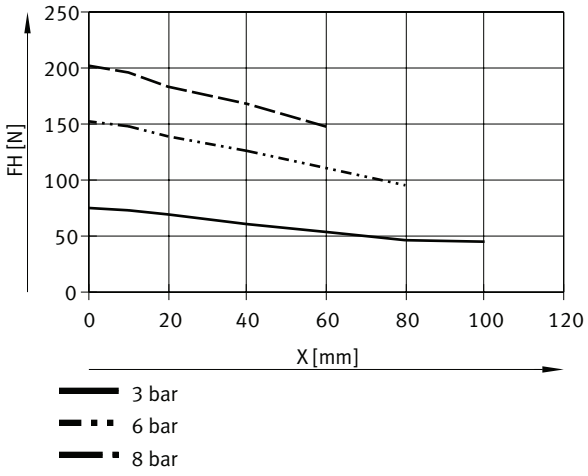
External gripping (closing), without gripping force backup, standard gripping force – HPPR-16



External gripping (closing), without gripping force backup, standard gripping force – HPPR-20

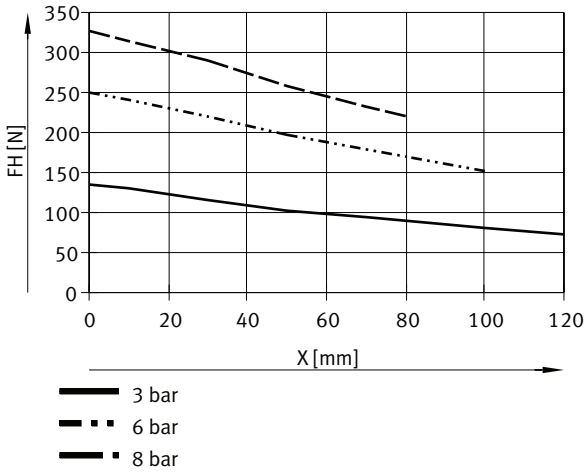


External gripping (closing), without gripping force backup, standard gripping force – HPPR-25

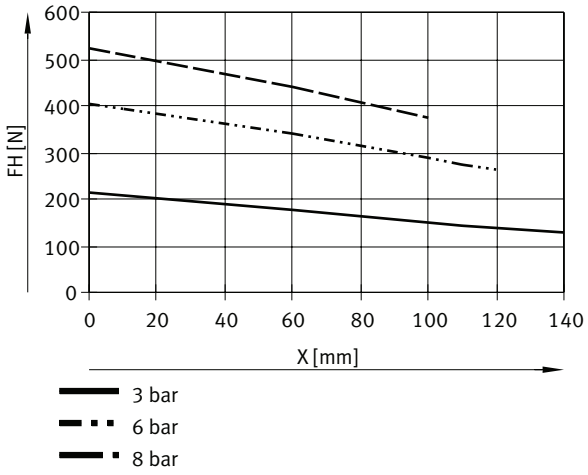


Datasheet

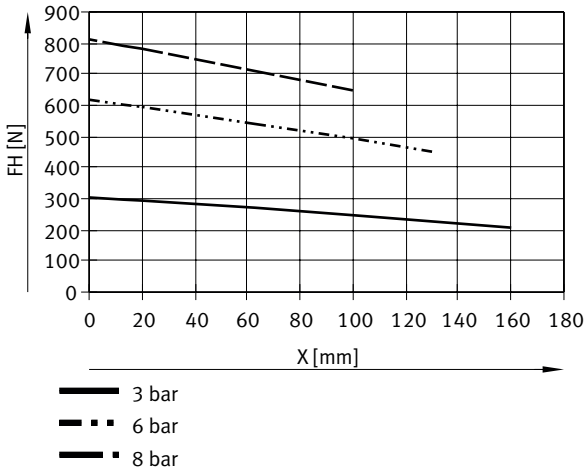
External gripping (closing), without gripping force backup, standard gripping force – HPPR-32



External gripping (closing), without gripping force backup, standard gripping force – HPPR-40

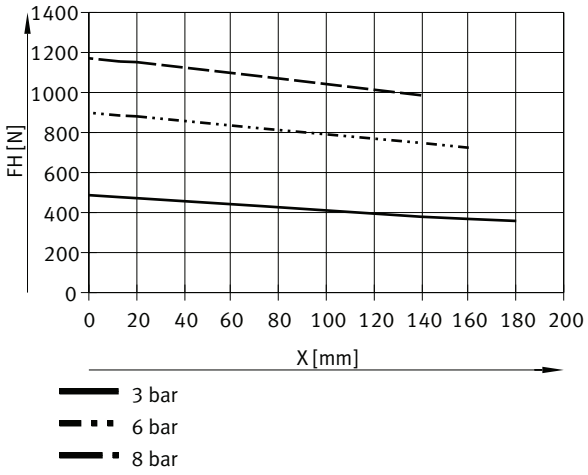


External gripping (closing), without gripper jaw backup, standard gripping force – HPPR-50

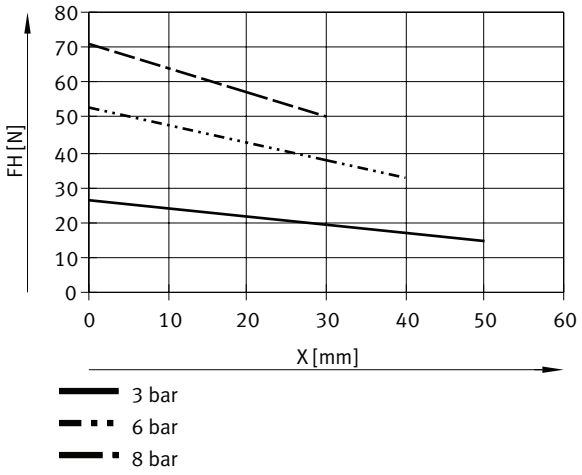


Datasheet

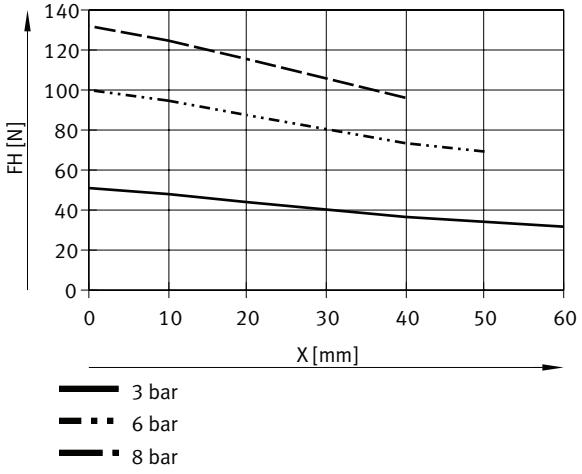
External gripping (closing), without gripper jaw backup, standard gripping force – HPPR-63



External gripping (closing), without gripping force backup, high gripping force – HPPR-F-12



External gripping (closing), without gripping force backup, high gripping force – HPPR-F-16



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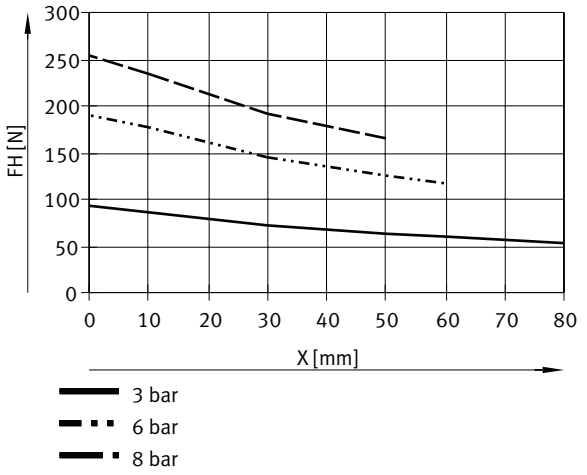
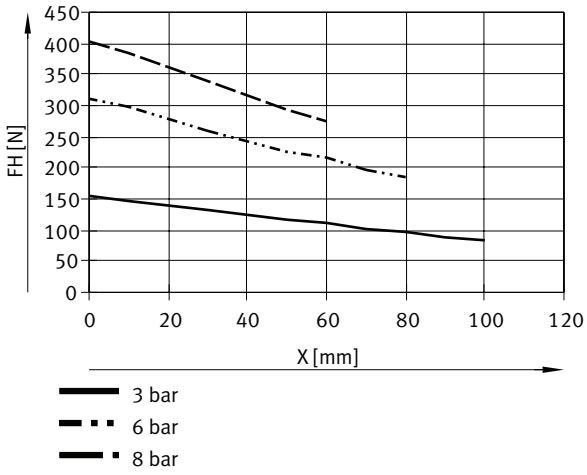
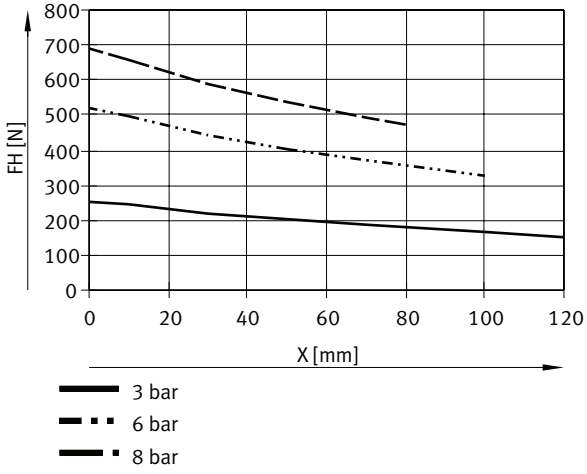
External gripping (closing), without gripping force backup, high gripping force – HPPR-F-20



External gripping (closing), without gripping force backup, high gripping force – HPPR-F-25

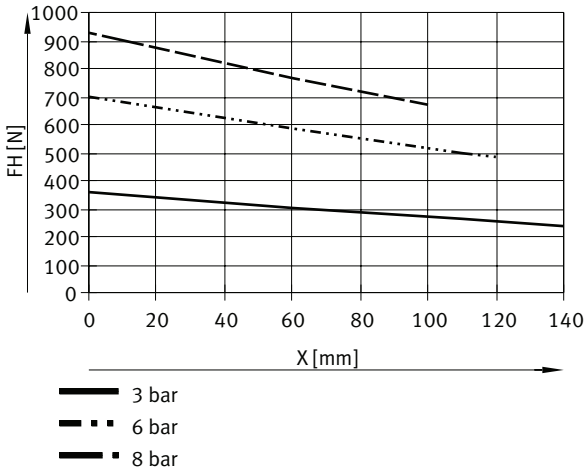


External gripping (closing), without gripping force backup, high gripping force – HPPR-F-32

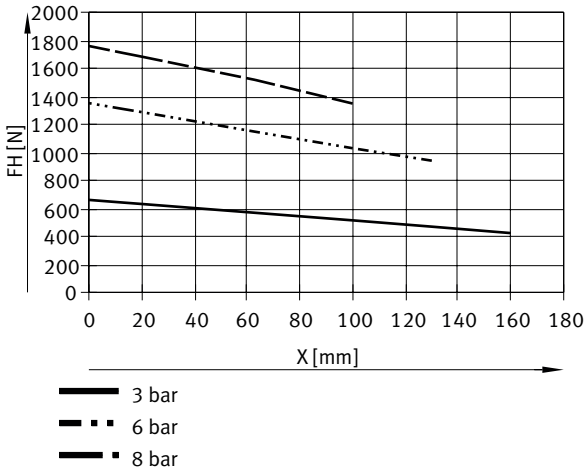


Datasheet

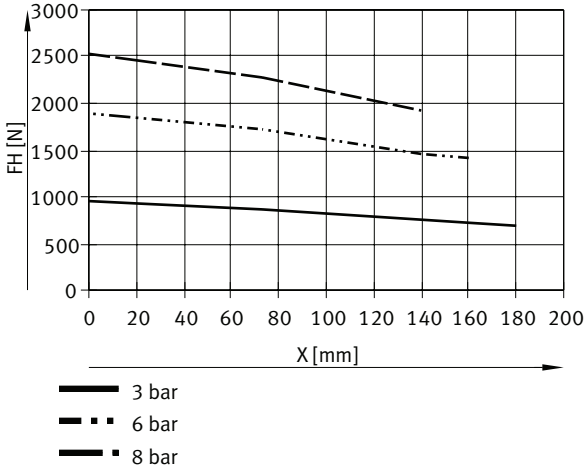
External gripping (closing), without gripping force backup, high gripping force – HPPR-F-40



External gripping (closing), without gripper jaw backup, high gripping force – HPPR-F-50

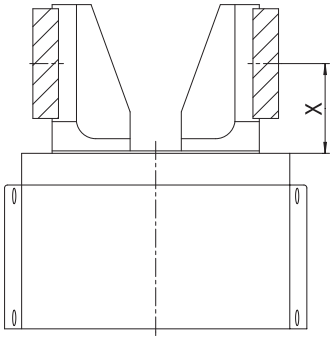


External gripping (closing), without gripper jaw backup, high gripping force – HPPR-F-63



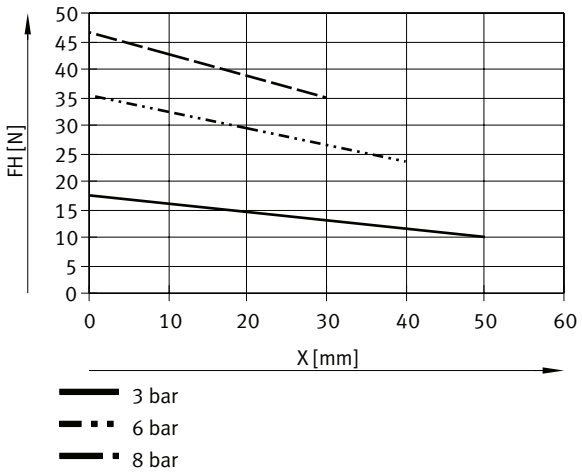
Datasheet

Gripping force FH per gripper jaw as a function of operating pressure/lever arm x – Internal gripping (opening), without gripper jaw backup

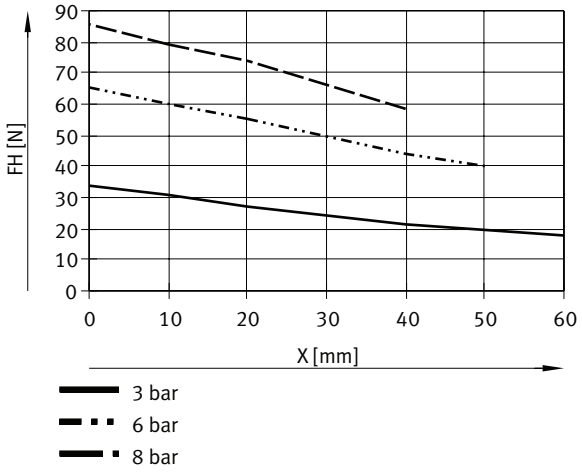


The gripping forces as a function of operating pressure and lever arm can be determined from the following diagrams.

Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-12

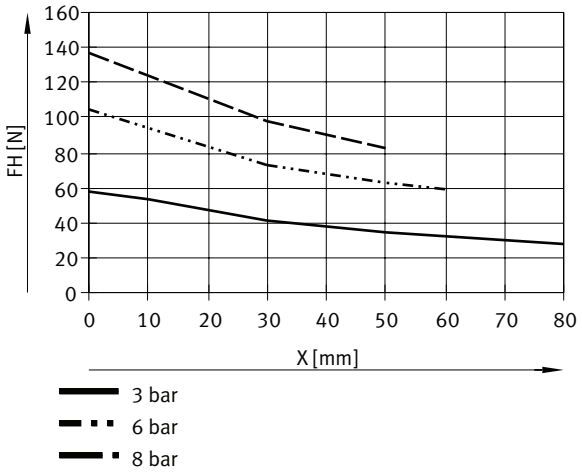


Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-16

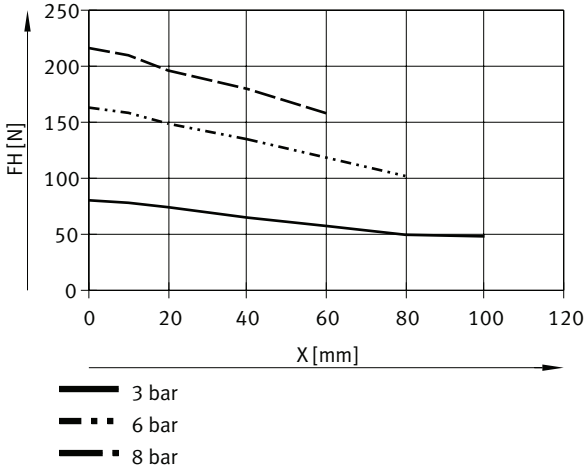


Datasheet

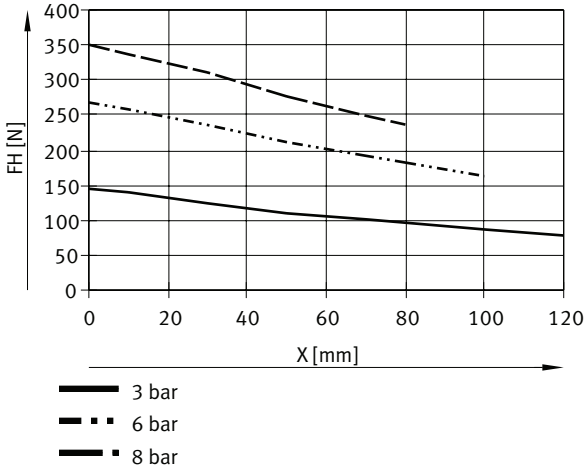
Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-20



Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-25

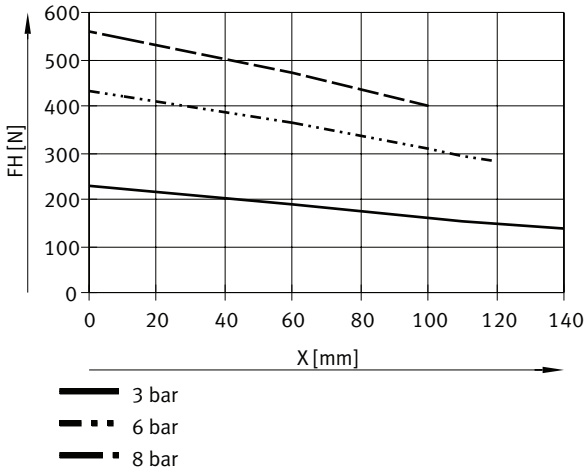


Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-32

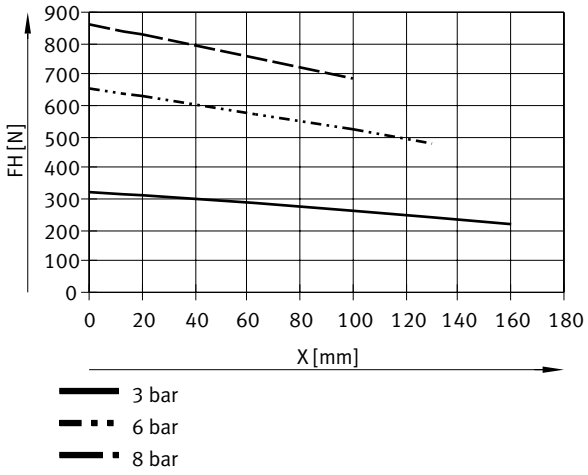


Datasheet

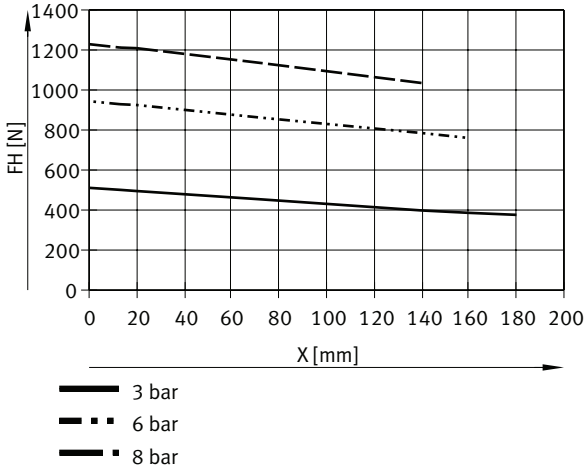
Internal gripping (opening), without gripping force backup, standard gripping force – HPPR-40



Internal gripping (opening), without gripper jaw backup, standard gripping force – HPPR-50

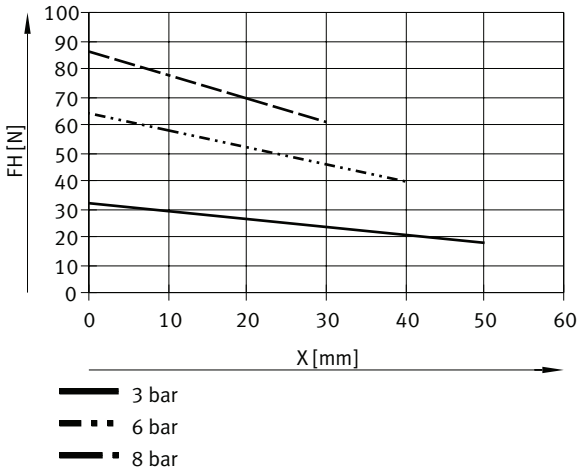


Internal gripping (opening), without gripper jaw backup, standard gripping force – HPPR-63

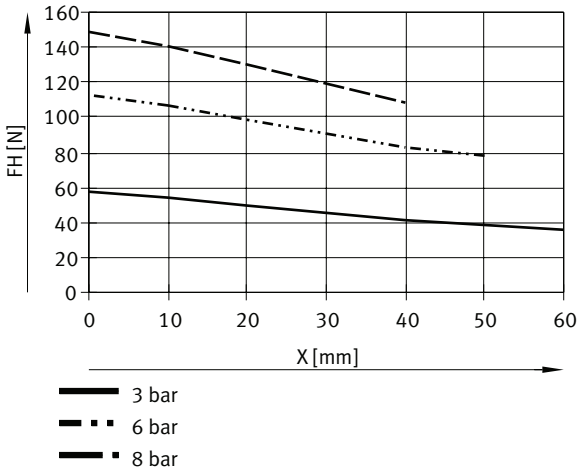


Datasheet

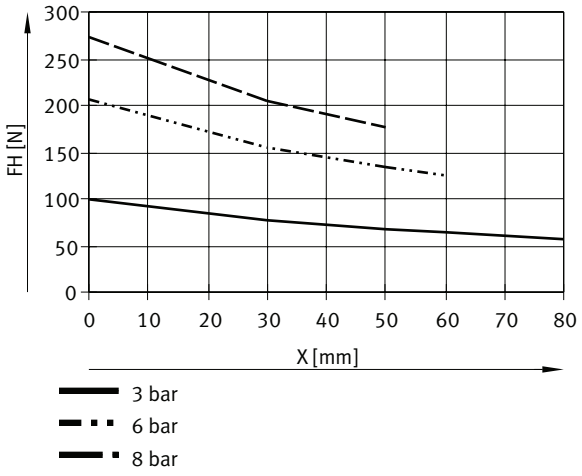
Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-12



Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-16

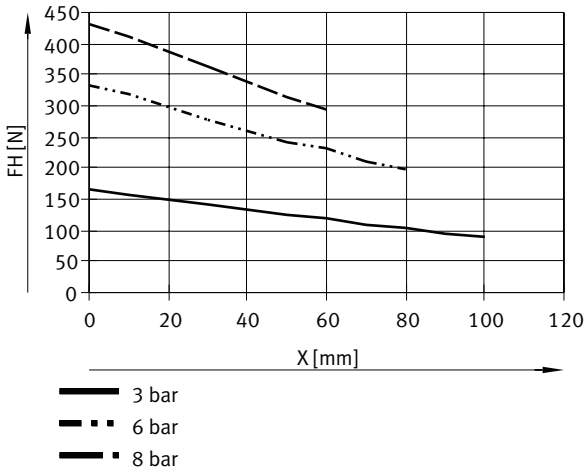


Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-20

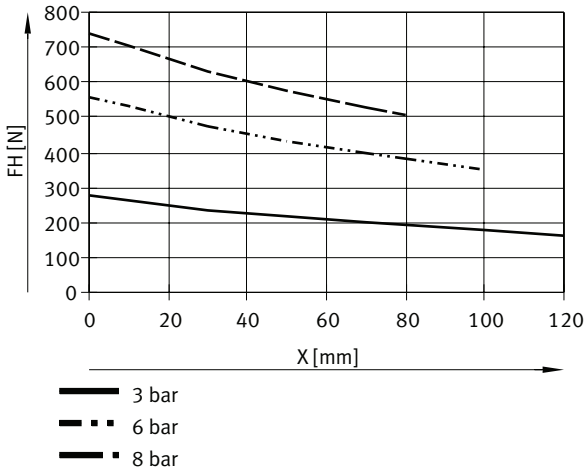


Datasheet

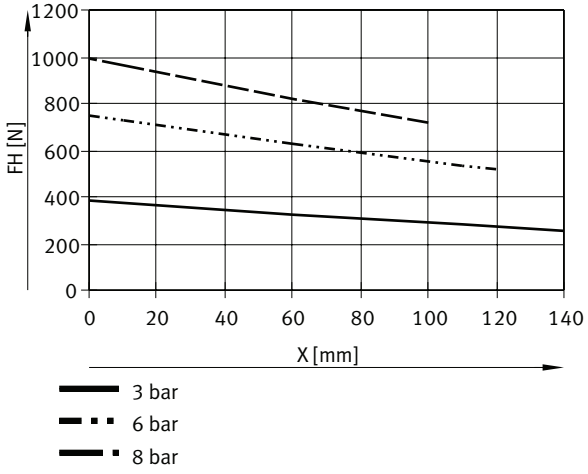
Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-25



Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-32

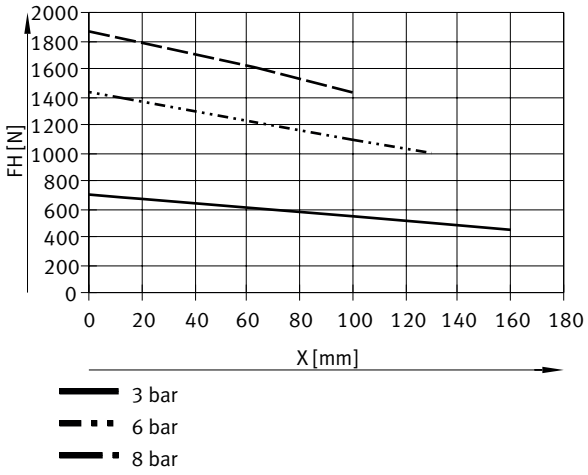


Internal gripping (opening), without gripping force backup, high gripping force – HPPR-F-40

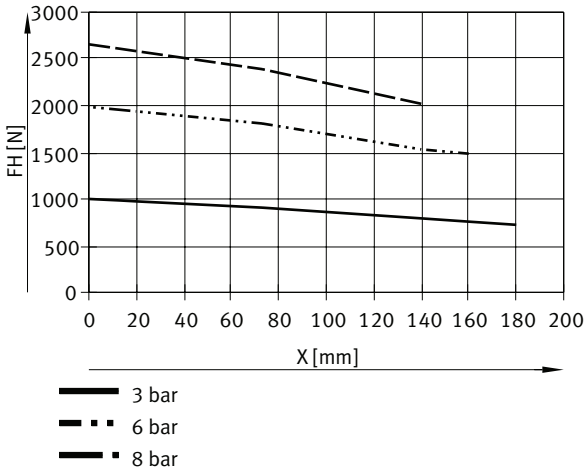


Datasheet

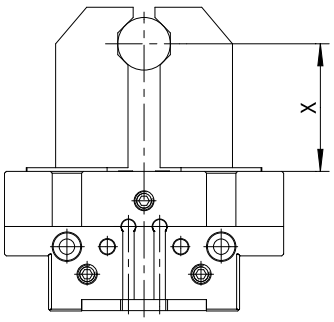
Internal gripping (opening), without gripper jaw backup, high gripping force – HPPR-F-50



Internal gripping (opening), without gripper jaw backup, high gripping force – HPPR-F-63



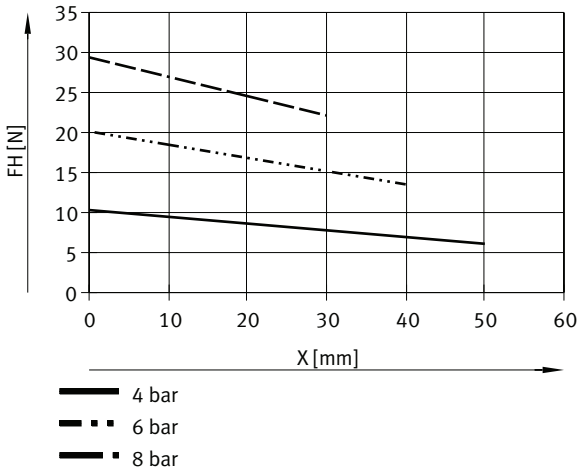
Gripping force FH per gripper jaw as a function of operating pressure/lever arm x – External gripping (closing), with gripper jaw backup



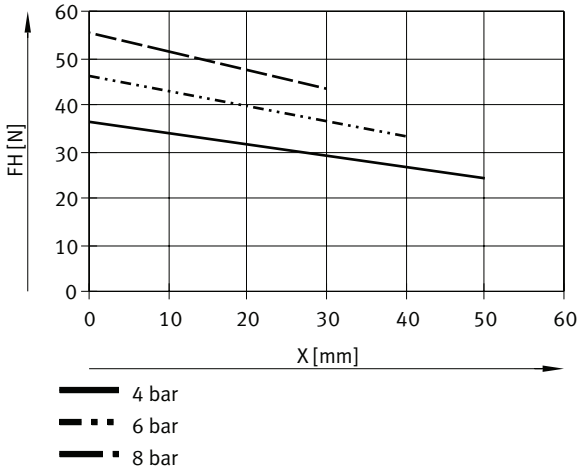
The gripping forces as a function of operating pressure and lever arm can be determined from the following diagrams.
The gripping force for external gripping (closing) was measured with the gripper fully open.

Datasheet

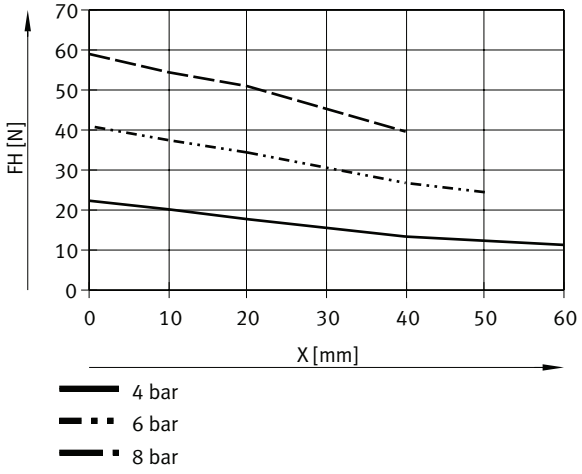
External gripping (closing), with gripping force backup, standard gripping force – HPPR-12-4-...-NO-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-12-4-...-NC-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-16-6-...-NO-...



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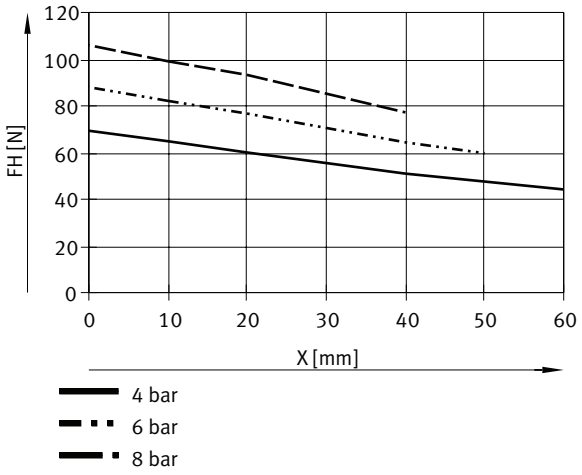
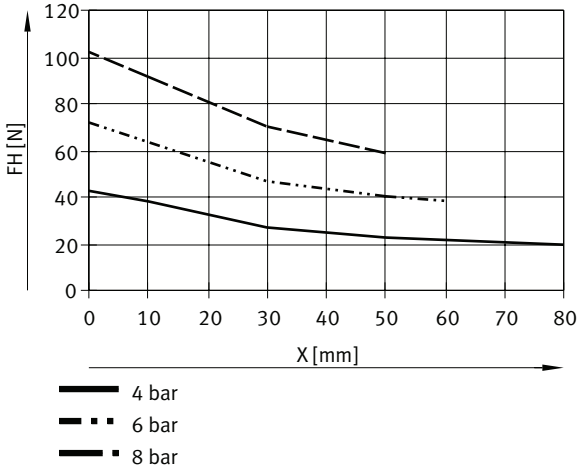
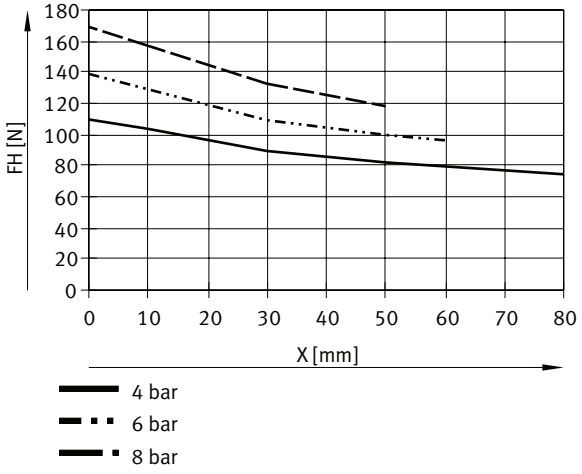
External gripping (closing), with gripping force backup, standard gripping force – HPPR-16-6-...-NC-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-20-8-...-NO-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-20-8-...-NC-...



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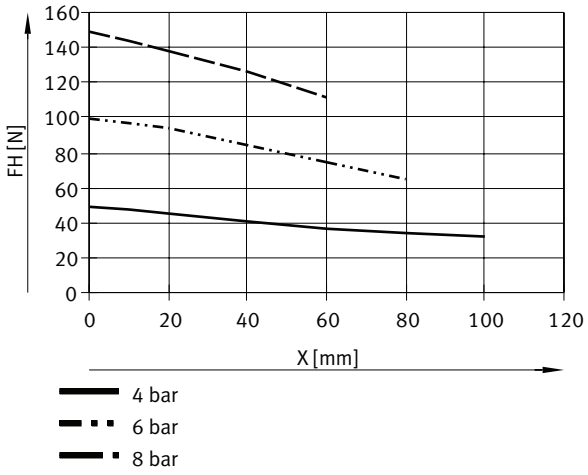
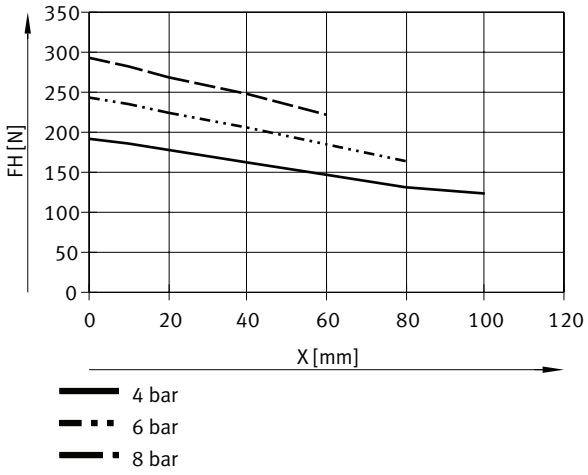
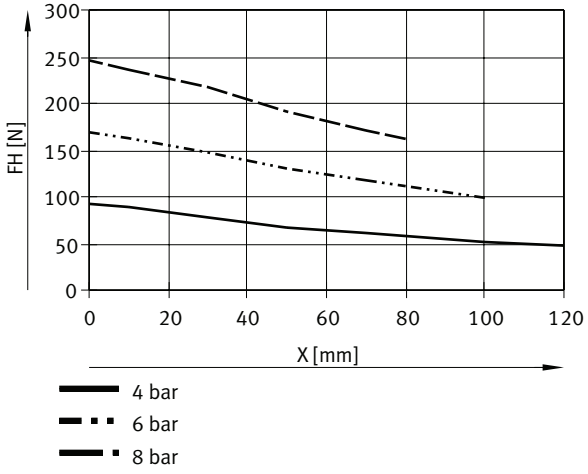
External gripping (closing), with gripping force backup, standard gripping force – HPPR-25-12-...-NO-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-25-12-...-NC-...

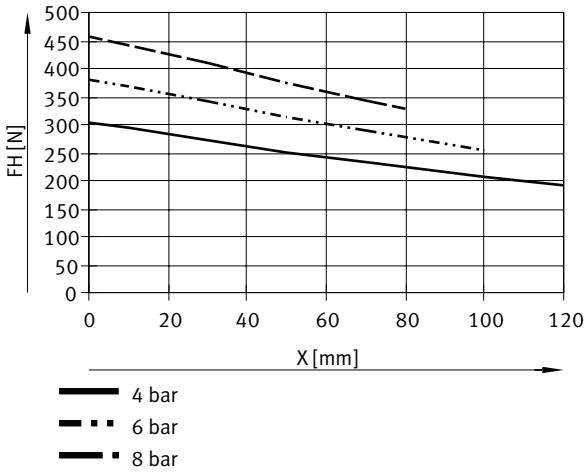


External gripping (closing), with gripping force backup, standard gripping force – HPPR-32-16-...-NO-...

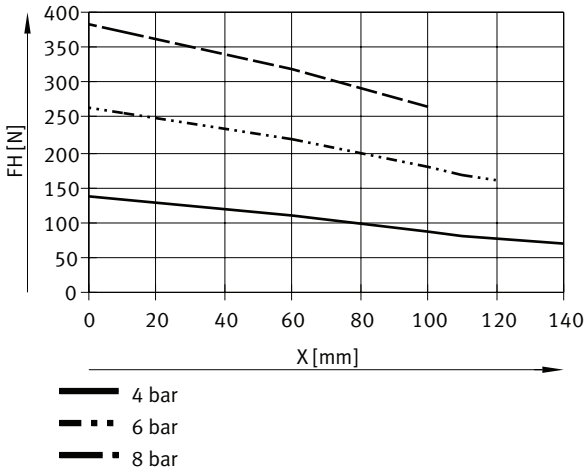


Datasheet

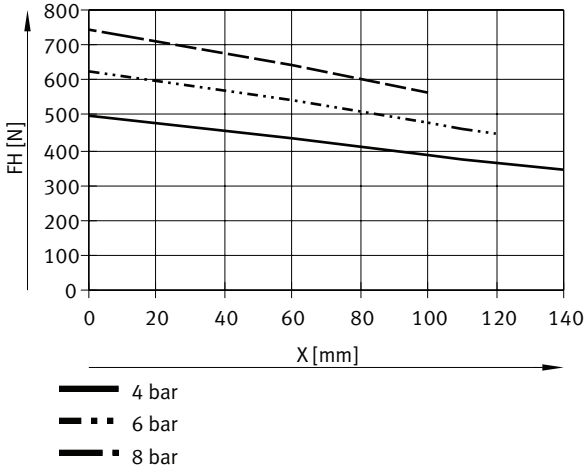
External gripping (closing), with gripping force backup, standard gripping force – HPPR-32-16-...-NC-...



External gripping (closing), with gripping force backup, standard gripping force – HPPR-40-20-...-NO-...

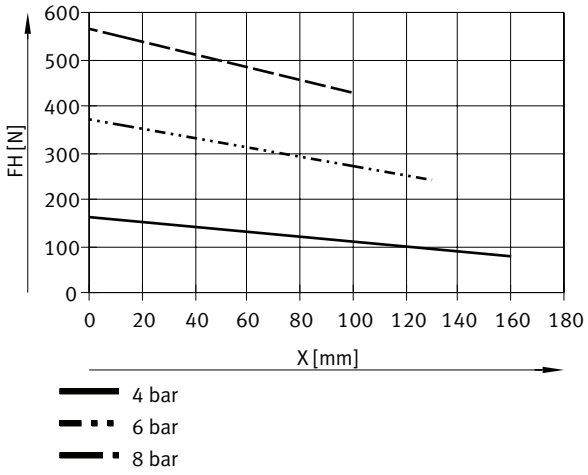


External gripping (closing), with gripping force backup, standard gripping force – HPPR-40-20-...-NC-...

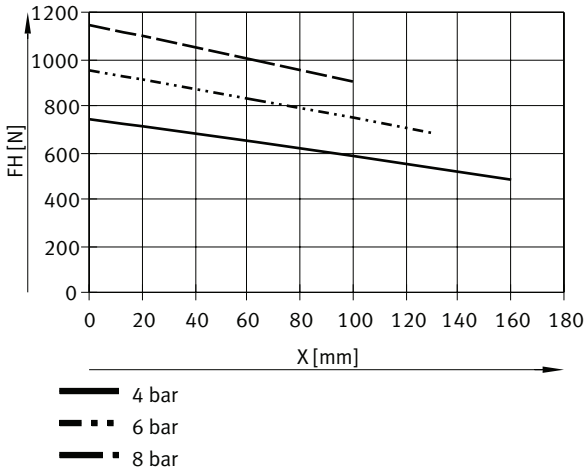


Datasheet

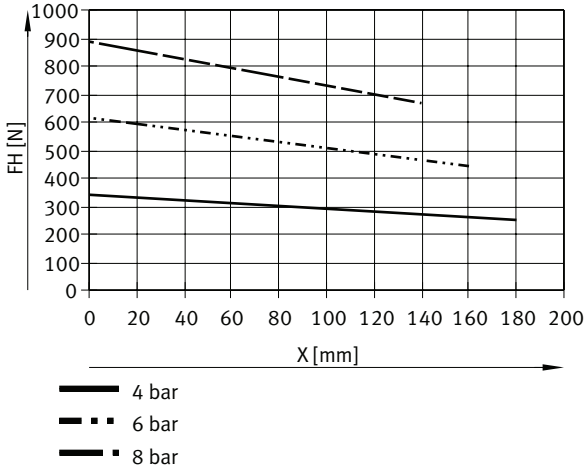
External gripping (closing), with gripper jaw backup, standard gripping force – HPPR-50-24-...-NO-...



External gripping (closing), with gripper jaw backup, standard gripping force – HPPR-50-24-...-NC-...

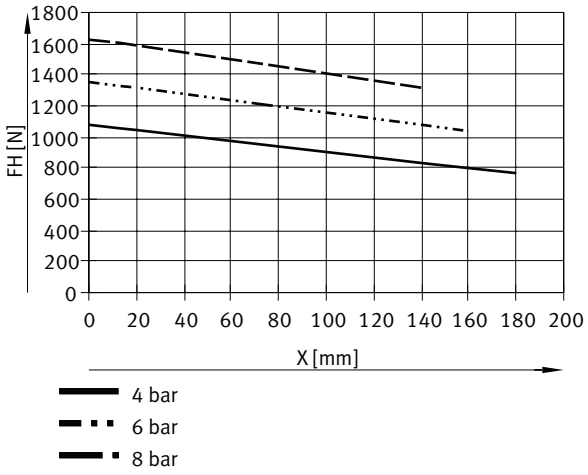


External gripping (closing), with gripper jaw backup, standard gripping force – HPPR-63-32-...-NO-...

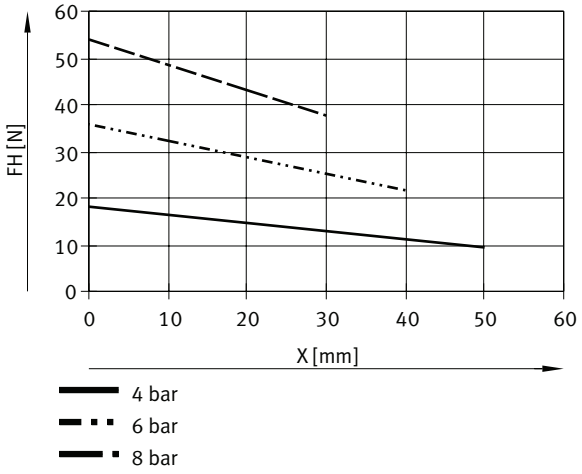


Datasheet

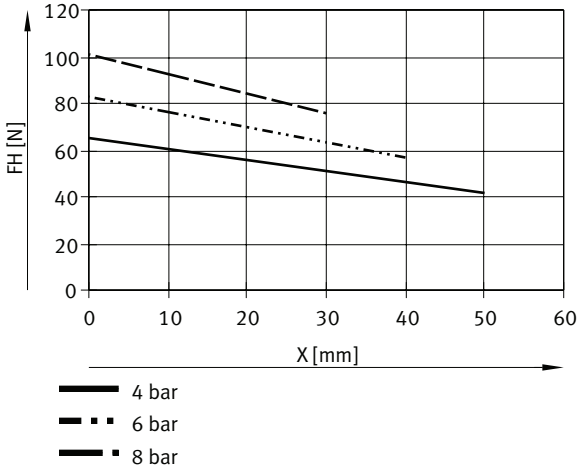
External gripping (closing), with gripper jaw backup, standard gripping force – HPPR-63-32-...-NC-...



External gripping (closing), with gripping force backup, high gripping force – HPPR-F-12-2-...-NO-...

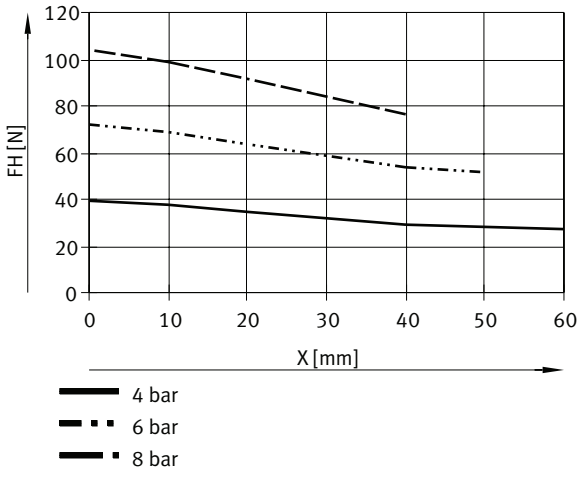


External gripping (closing), with gripping force backup, high gripping force – HPPR-F-12-2-...-NC-...

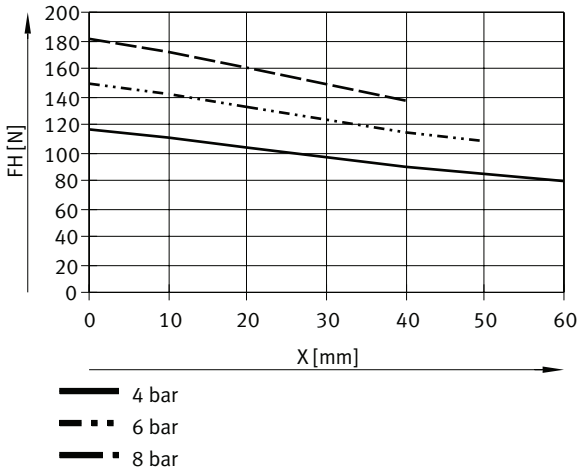


Datasheet

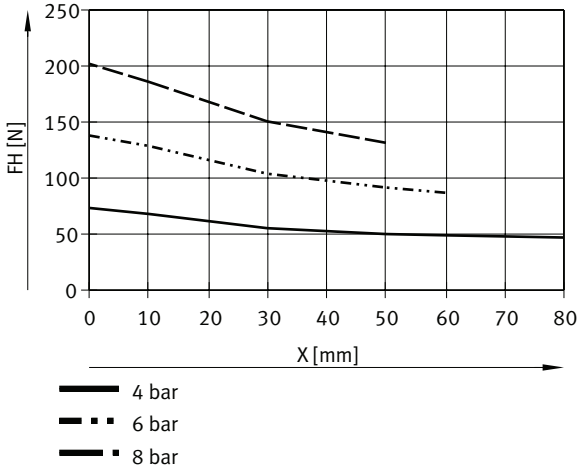
External gripping (closing), with gripping force backup, high gripping force – HPPR-F-16-3-...-NO-...



External gripping (closing), with gripping force backup, high gripping force – HPPR-F-16-3-...-NC-...

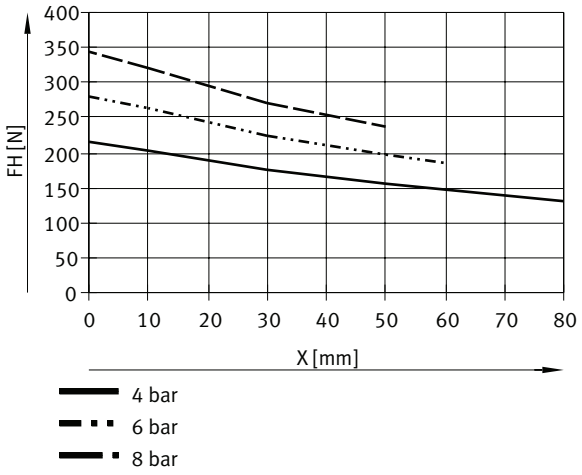


External gripping (closing), with gripping force backup, high gripping force – HPPR-F-20-4-...-NO-...

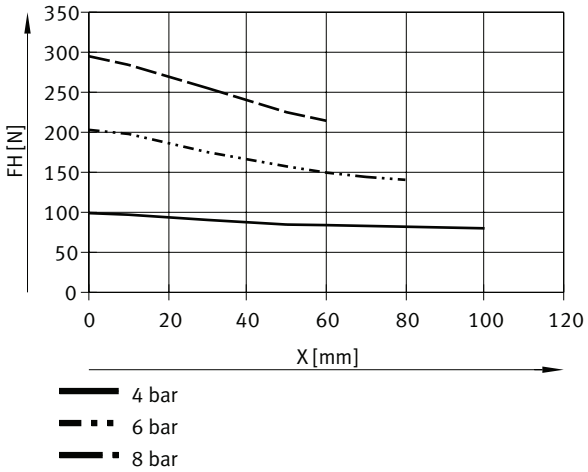


Datasheet

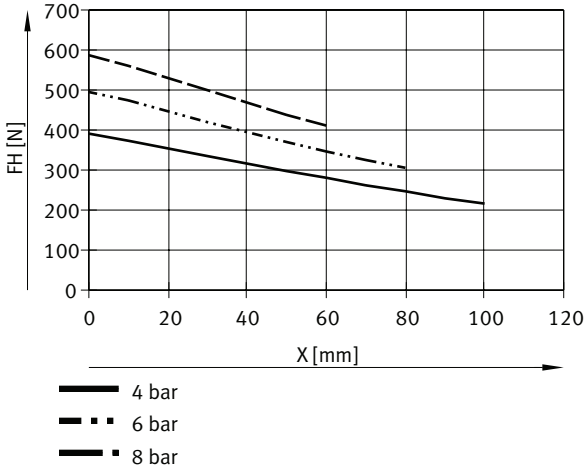
External gripping (closing), with gripping force backup, high gripping force – HPPR-F-20-4-...-NC-...



External gripping (closing), with gripping force backup, high gripping force – HPPR-F-25-6-...-NO-...

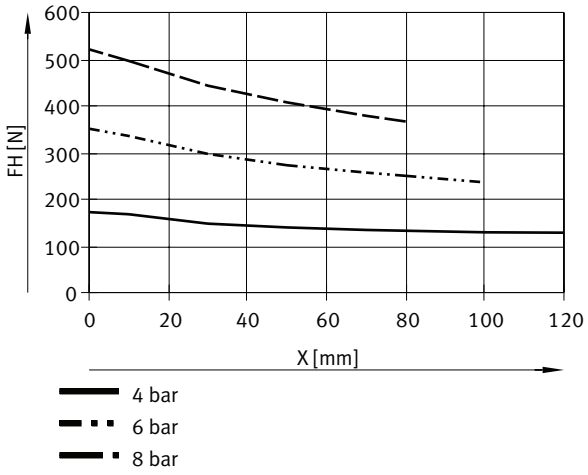


External gripping (closing), with gripping force backup, high gripping force – HPPR-F-25-6-...-NC-...

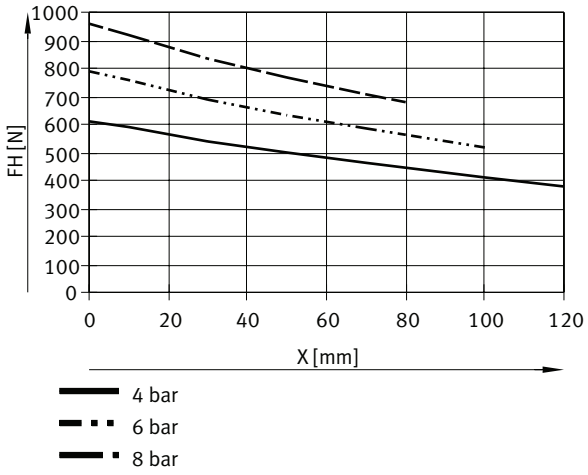


Datasheet

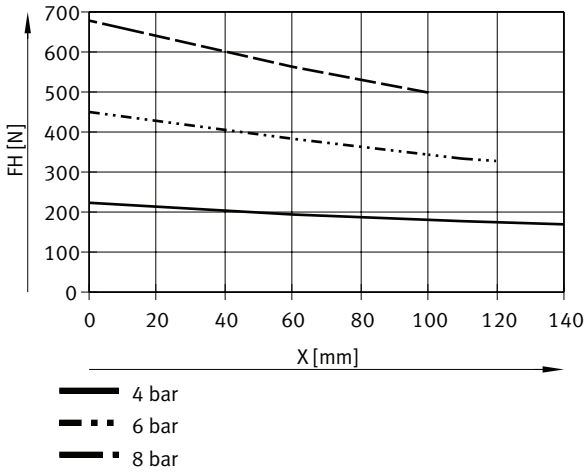
External gripping (closing), with gripping force backup, high gripping force – HPPR-F-32-8-...-NO-...



External gripping (closing), with gripping force backup, high gripping force – HPPR-F-32-8-...-NC-...

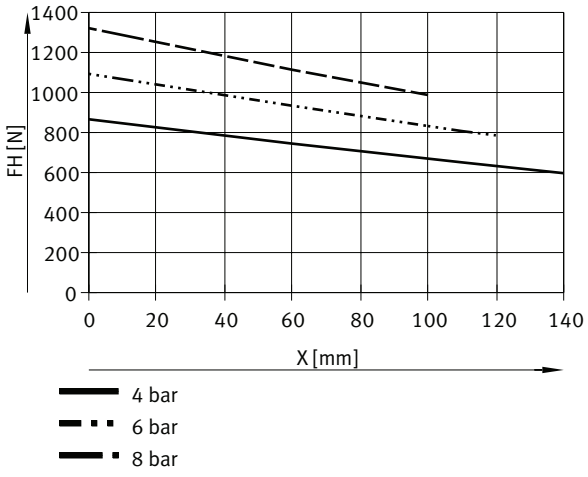


External gripping (closing), with gripping force backup, high gripping force – HPPR-F-40-10-...-NO-...

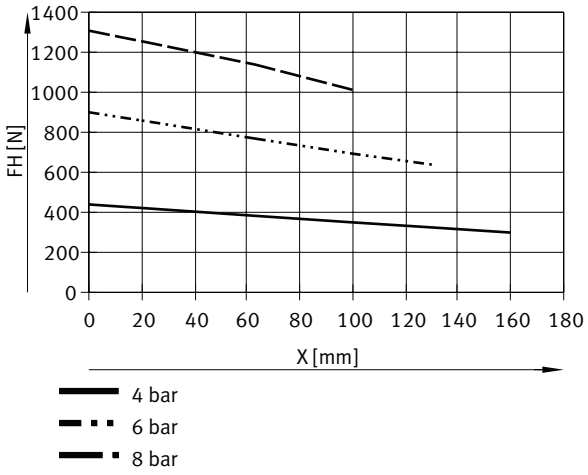


Datasheet

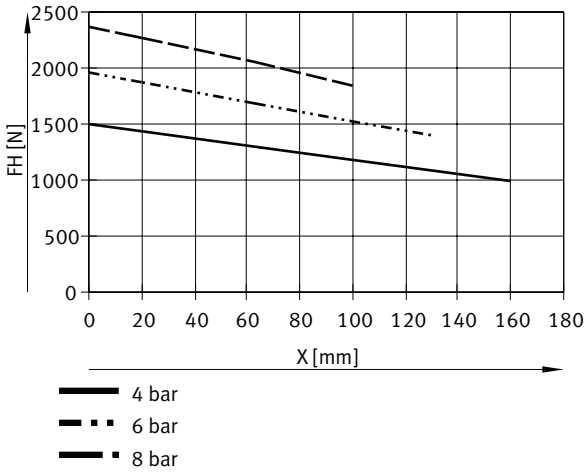
External gripping (closing), with gripping force backup, high gripping force – HPPR-F-40-10-...-NC-...



External gripping (closing), with gripper jaw backup, high gripping force – HPPR-F-50-12-...-NO-...

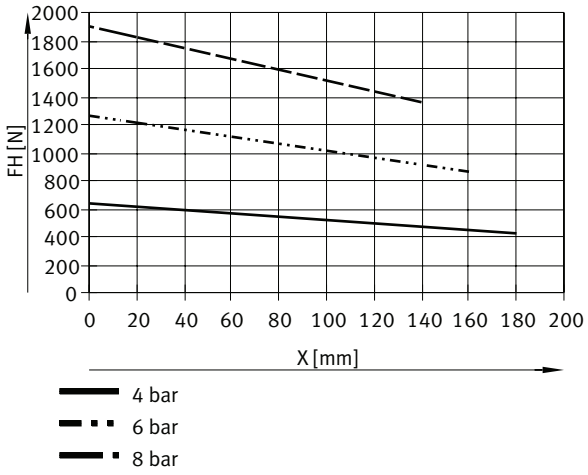


External gripping (closing), with gripper jaw backup, high gripping force – HPPR-F-50-12-...-NC-...

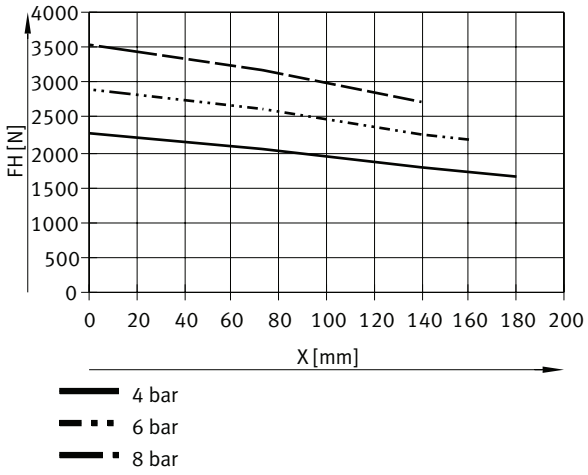


Datasheet

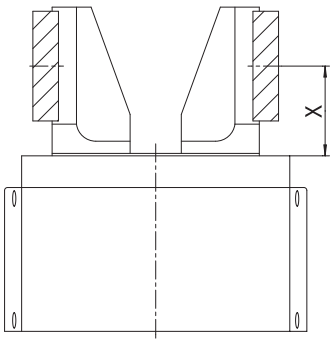
External gripping (closing), with gripper jaw backup, high gripping force – HPPR-F-63-16-...-NO-...



External gripping (closing), with gripper jaw backup, high gripping force – HPPR-F-63-16-...-NC-...



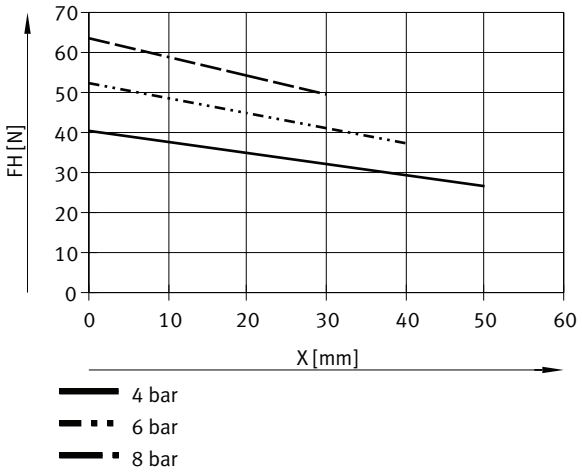
Gripping force FH per gripper jaw as a function of operating pressure/lever arm x – Internal gripping (opening), with gripper jaw backup



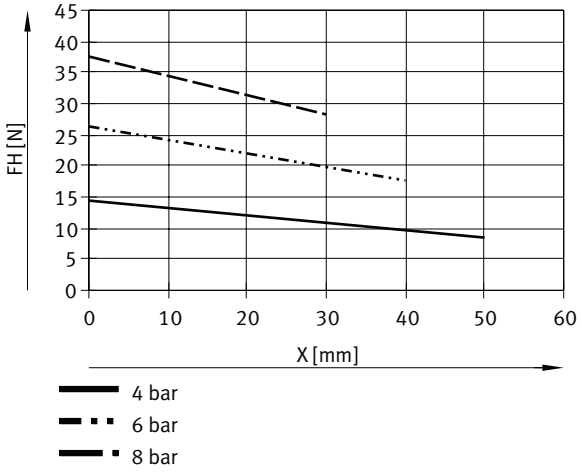
The gripping forces as a function of operating pressure and lever arm can be determined from the following diagrams.
The gripping force for internal gripping (opening) was measured with the gripper fully closed.

Datasheet

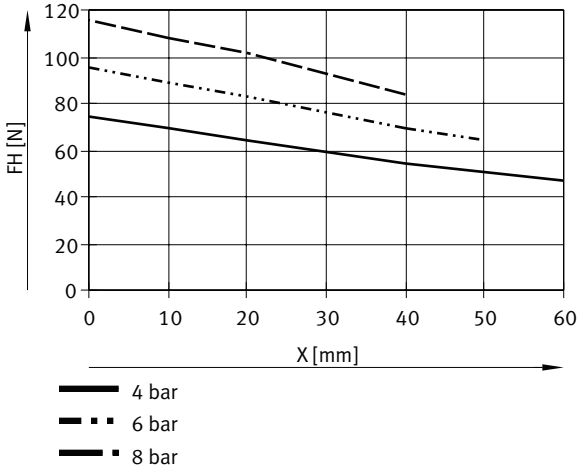
Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-12-4-...-NO-...



Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-12-4-...-NC-...

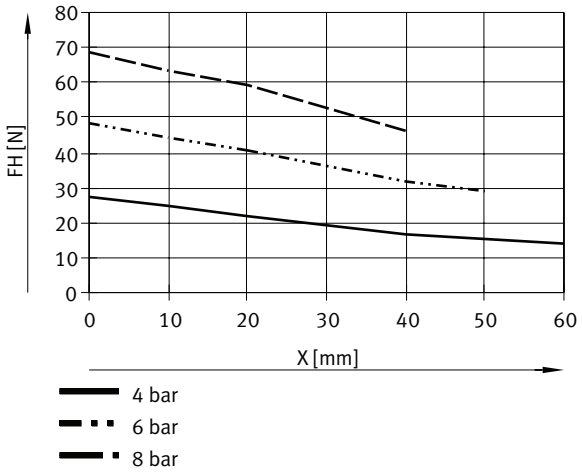


Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-16-6-...-NO-...

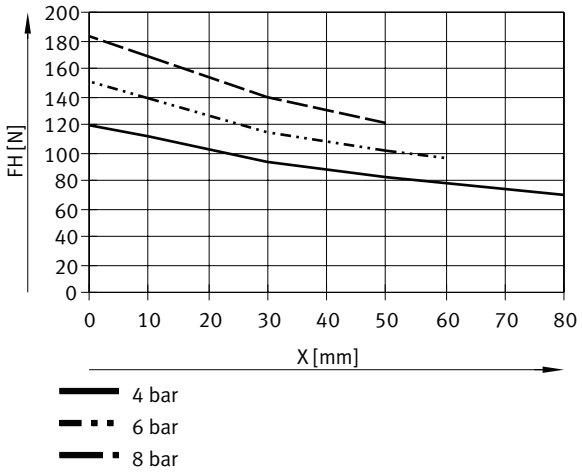


Datasheet

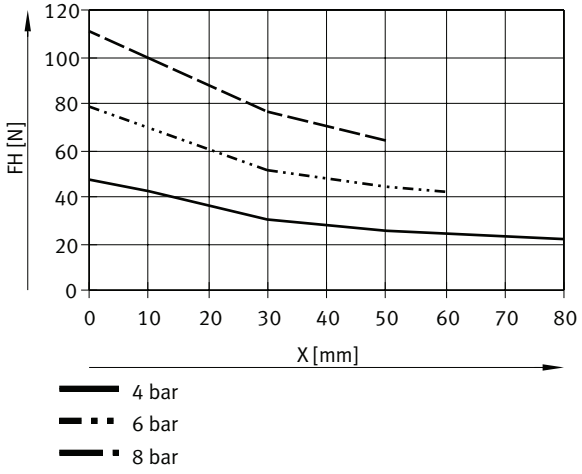
Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-16-6...-NC-...



Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-20-8-...-NO-...

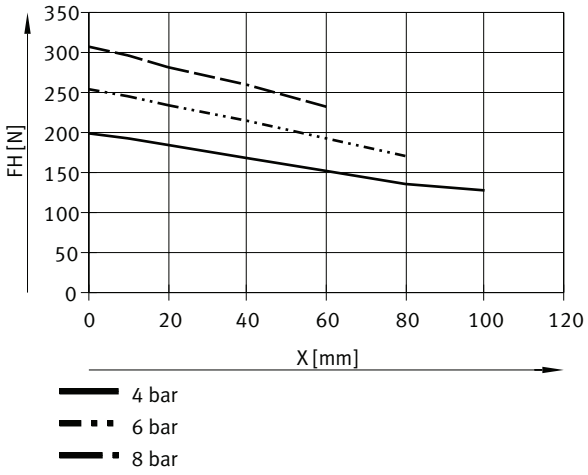


Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-20-8-...-NC-...

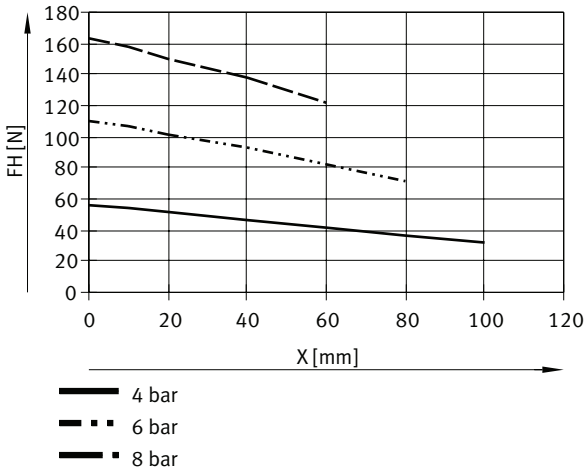


Datasheet

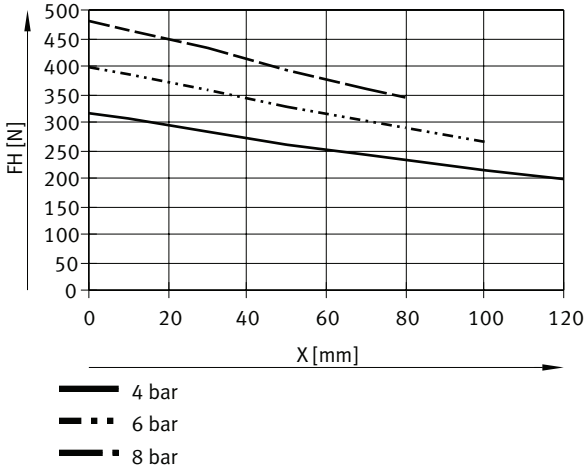
Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-25-12-...-NO-...



Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-25-12-...-NC-...



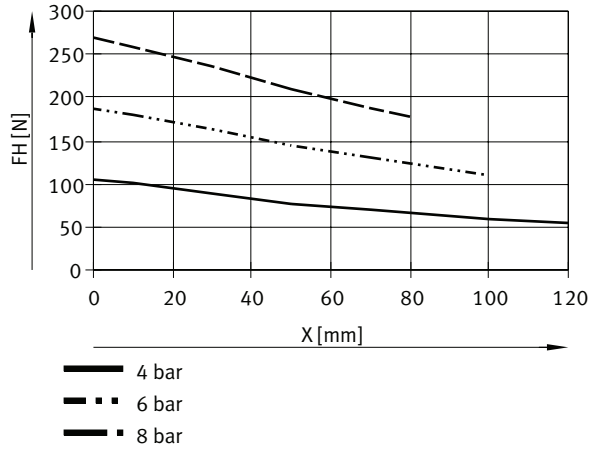
Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-32-16-...-NO-...



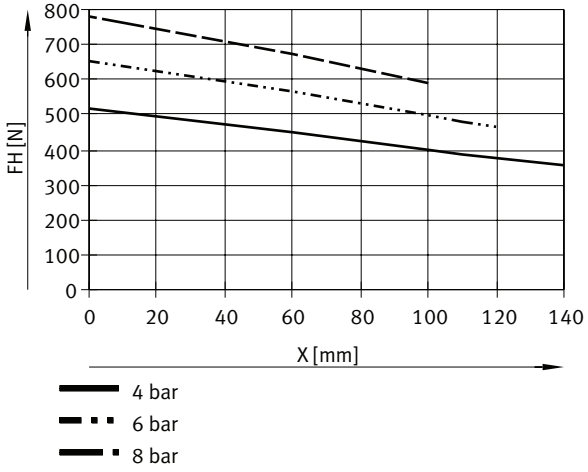
Datasheet

Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-32-16-...-NC-...

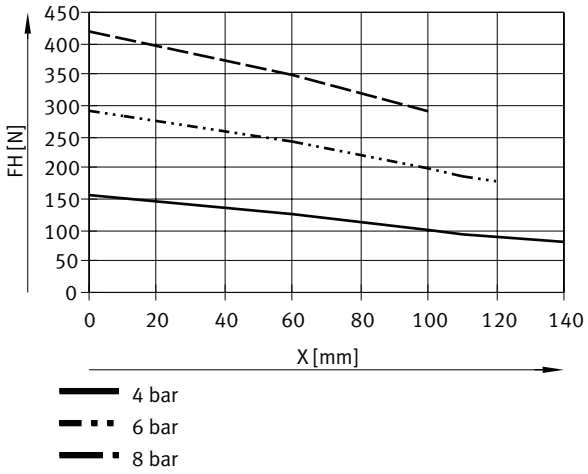
)



Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-40-20-...-NO-...

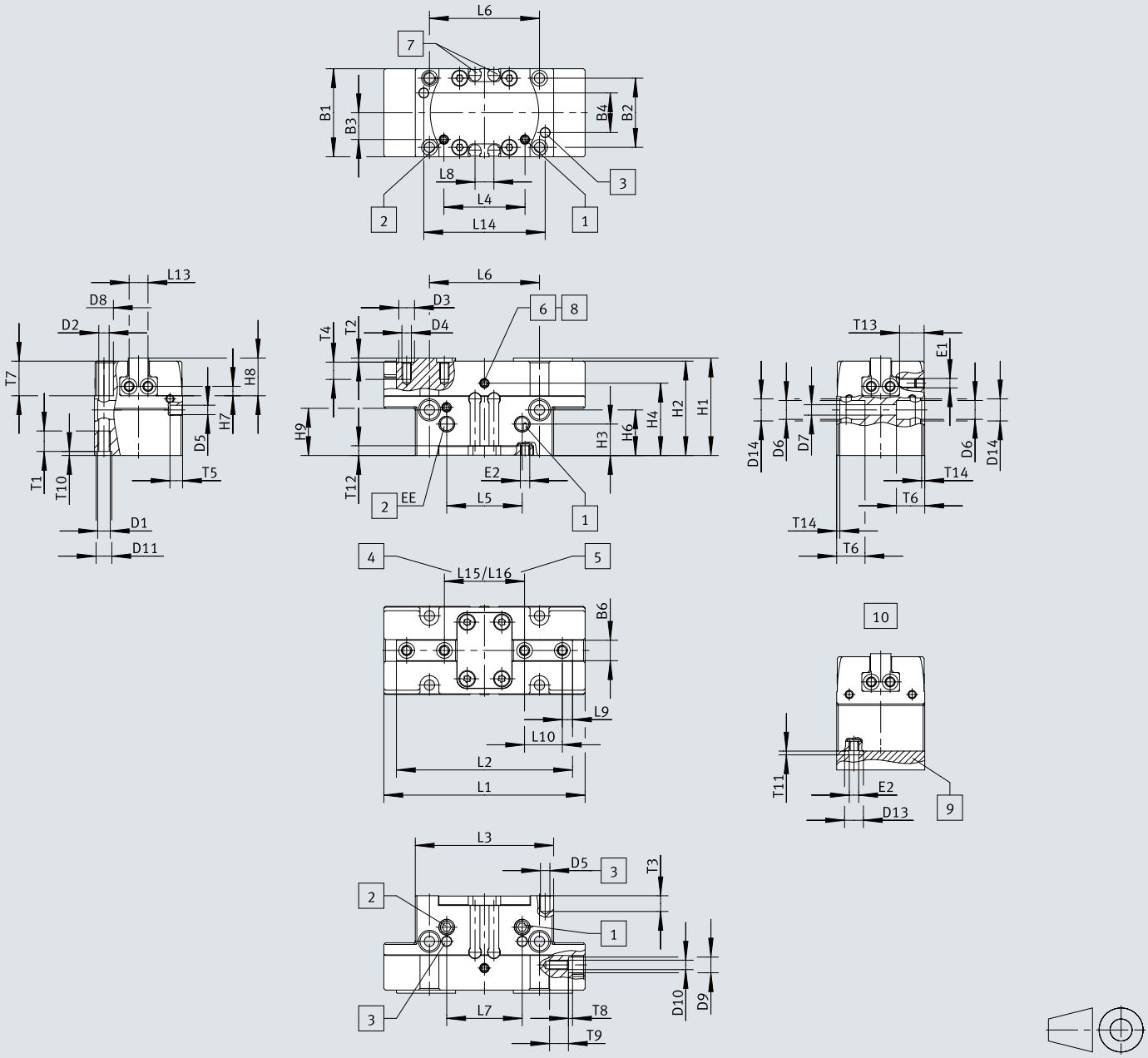


Internal gripping (opening), with gripping force backup, standard gripping force – HPPR-40-20-...-NC-...



Dimensions

Dimensions – Parallel gripper HPPR-12 ... 20 Download CAD data www.festo.com



[1] Open the compressed air connection. Either at the front, rear or underneath (the connections at the rear and underneath are sealed upon delivery).
[2] Close the compressed air connection. Either at the front, rear or underneath (the connections at the rear and underneath are sealed upon delivery).
[3] Drilled hole for dowel pin (not included in the scope of delivery)
[4] Gripper jaws open
[5] Gripper jaws closed
[6] Sealing air connection (sealed on delivery)
[7] Slot for proximity switch
[8] Lubrication nipple (sealed on delivery)
[9] O-ring: Ø 3x1.5
[10] Compressed air supply underneath

Dimensions

	B1 ±0,05	B2	B3 ±0,1	B4 ±0,02	B6 +0,5	D1	D2 ø	D3 ø H8	D4	D5 ø H8	D6 ø ±0,1	D7 ø +0,1	D8 ø +0,1	D9 ø H8
HPPR-12	22	16	2,9	8	4,8	M3	2,6	–	M2	2	4,6	2,6	4,6	–
HPPR-16	24	17	3	9	6	M3	2,6	5	M3	2	4,6	2,6	4,6	–
HPPR-20	28	22	8,5	12,6	6,5	M4	3,3	5	M3	3	6	3,3	6	5

	D10	D11 ø H8	D13 ø	D14 ø H8	EE	E1	E2	H1		H2		H3		H4	
								±0,05	[NO/NC] ±0,05	±0,05	[NO/NC] ±0,05	±0,1	[NO/NC] ±0,1		[NO/NC]
HPPR-12	M2	5	6	5	M3	M3	M3	25,3	32,2	24,8	31,7	9	9	20,3	27,2
HPPR-16	M2	5	6	5	M5	M3	M3	29	37	28	36	12	12	23,8	31,8
HPPR-20	M3	5	6	7	M5	M3	M3	31	38	30	37	10	15	23	30

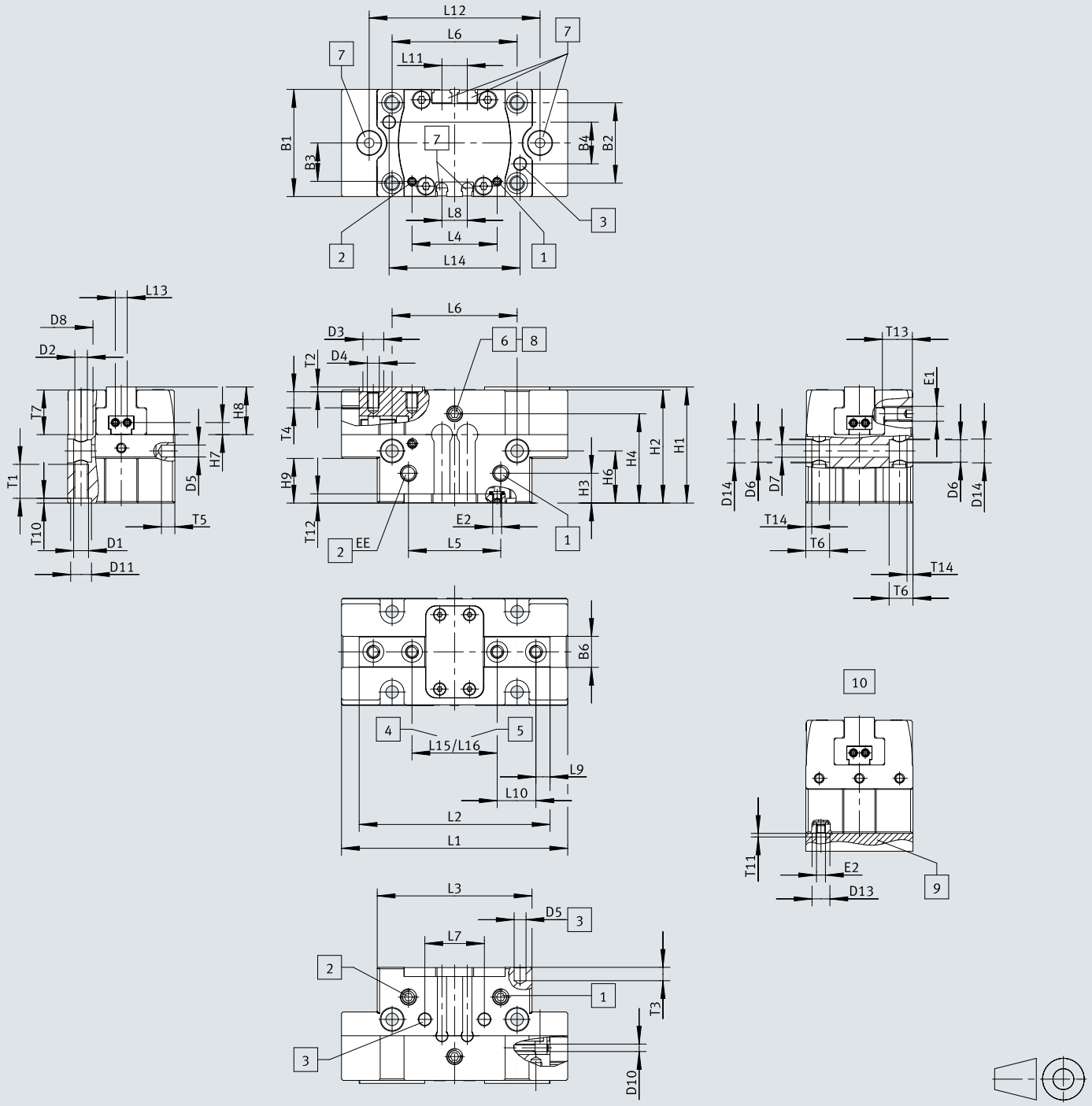
	H6		H7	H8	H9		L1	L2		L3	L4	L5	L6	L7
		[NO/NC]			±0,1	[NO/NC] ±0,1	+0,1		[F]	±0,1	±0,1	±0,1		
HPPR-12	13,5	20,4	2	7	12	18,9	41	37	39	36	21	20	29	17
HPPR-16	17,5	25,5	2,25	8,5	15	23	50	44	47	36	23,6	20	29	20
HPPR-20	14,5	21,5	3	12	15	22	64	56	60	44	25,8	24	35	24

	L8 ±0,1	L9		L10	L13	L14	L15		L16	T1 min.	T2 +0,1	T3 min.	T4 min.	T5 min.
			[F]					[F]						
HPPR-12	8,5	3,1	4,15	5,8	4,4	30	23	21	19	5,5	–	4	4	4
HPPR-16	6	3	4,6	8	6	32,2	28	25	22	5,5	1,3	4	5	4
HPPR-20	6	3,25	5,25	12	6	38,6	33,5	29,5	25,5	6,5	1,3	5	5,5	4

	T6	T7 +0,2	T8 +0,1	T9 min.	T10 +0,1	T11	T12		T13 min.	T14 +0,1
							min.	[NO/NC] min.		
HPPR-12	6	8	–	4	1,3	1,2	3	3	6	1,3
HPPR-16	8	7,2	–	4	1,3	1,2	3	3	5,5	1,3
HPPR-20	9	11	1,3	6	1,3	1,2	3	3	5,5	1

Dimensions

Dimensions – Parallel gripper HPPR-25 ... 63 Download CAD data www.festo.com



[1] Open the compressed air connection. Either at the front, rear or underneath (the connections at the rear and underneath are sealed upon delivery).
[2] Close the compressed air connection. Either at the front, rear or underneath (the connections at the rear and underneath are sealed upon delivery).
[3] Drilled hole for dowel pin (not included in the scope of delivery)
[4] Gripper jaws open
[5] Gripper jaws closed
[6] Sealing air connection (sealed on delivery)
[7] Slot for proximity switch
[8] Lubrication nipple (sealed on delivery)
[9] O-ring for HPPR-12... 40: Ø 3x1.5 / HPPR-50... 63: Ø 5x1.5
[10] Compressed air supply underneath

Dimensions

	B1 ±0,05	B2	B3 ±0,1	B4 ±0,02	B6 –0,05/ –0,1	D1	D2 ø	D3 ø H8	D4	D5 ø H8	D6 ø ±0,1	D7 ø +0,1	D8 ø +0,1
HPPR-25	36	27	13	14	10	M5	4,2	7	M4	4	7,5	4,2	8
HPPR-32	42	32	13,3	18	12	M5	4,2	9	M5	4	9,2	5,3	8
HPPR-40	50	38	17	20	14	M6	5,1	9	M6	5	11	6,4	9
HPPR-50	60	45	20	24	15,5	M8	6,8	9	M6	6	13,5	8,4	11
HPPR-63	72	56	24	36	20	M8	6,8	12	M10	6	13,5	8,4	11

	D10	D11 ø H8	D13 ø	D14 ø H8	EE	E1	E2	H1		H2		H3	
								±0,05	[NO/NC] ±0,05	±0,05	[NO/NC] ±0,05	±0,1	[NO/NC] ±0,1
HPPR-25	M2,5	7	6	8	M5	M5	M3	39	57	38	56	10	20
HPPR-32	M2,5	7	6	10	M5	M5	M3	49	67	48	66	12	30
HPPR-40	M2,5	9	6	12	M5	M5	M3	55	81	54	80	15	36
HPPR-50	M4	12	8	14	G1/8	M5	M5	63	93	62	92	15	30
HPPR-63	M4	12	8	14	G1/8	M5	M5	77	117	76	116	18	26

	H4		H6		H7	H8	H9		L1	L2		L3	L4
		[NO/NC]		[NO/NC]			±0,1	[NO/NC] ±0,1	+0,1		[F]	±0,1	±0,1
HPPR-25	30	48	17,5	35,5	4,05	16	15	33	76	64	70	52	28,6
HPPR-32	36	54	20	38	4,05	19	20	38	96	80	88	64	39
HPPR-40	41	67	25	51	4,05	22	24	50	120	100	110	80	47,4
HPPR-50	47	77	30	60	7	25,5	26	56	149	125	137	100	59
HPPR-63	56	96	28	68	7	32	32	72	192	160	176	125	74

	L5 ±0,1	L6	L7	L8 ±0,1	L9		L10	L11	L12	L13	L14	L15	
						[F]							[F]
HPPR-25	31	42	20	8,5	4,75	7,7	13	8	57,4	4	44	40,5	34,5
HPPR-32	40	52	30	10	5,5	9	16	10	72,6	4	54	53	45
HPPR-40	49	66	38	10	6	11	20	10	88	4	69	67	57
HPPR-50	63	82	60	10	7,5	14	24	10	113	6	86	85	73
HPPR-63	74	100	76	9	9,5	17	32	9	146	6	110	109	93

	L16	T1 min.	T2 +0,1	T3 min.	T4 min.	T5 min.	T6	T7 +0,2	T10 +0,1	T11	T12		T13 min.	T14 +0,1
											min.	[NO/NC] min.		
HPPR-25	28,5	11,4	1,6	4,5	5,4	4,5	8	15	1,6	1,2	3	3	6,7	2
HPPR-32	37	9,4	2,1	6	8,4	4,5	11	19	1,6	1,2	3	4	6,5	2
HPPR-40	47	10,5	2,1	6	10,5	6	12	20	2,1	1,2	4	4	6,5	2,6
HPPR-50	61	12,5	2,1	8	10,5	6	15	23	2,6	1,2	4	4	6,5	2,6
HPPR-63	77	12,5	2,6	8	15,5	7	25	35	2,6	1,2	5	5	6,5	2,6

Dimensions

Dimensions – Parallel gripper HPPR with connecting/centring sleeve ZBV/ ZBH (on the side of the gripper)

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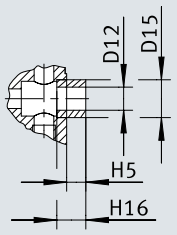
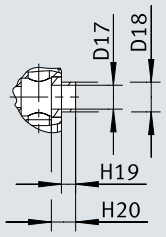
HPPR-A-12/16



HPPR-A-20...80

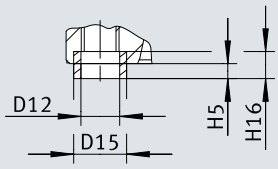


		D12 ø	D15 ø h7	D17 ø	D18 ø h7	H5	H16	H19	H20
HPPR-12-...	ZBH-5	3,2	5	3,2	5	1,1 $^{0/-0,3}$	2,4 $^{0/-0,2}$	1,1 $^{0/-0,3}$	2,4 $^{0/-0,2}$
HPPR-16-...	ZBH-5	3,2	5	3,2	5	1,1 $^{0/-0,3}$	2,4 $^{0/-0,2}$	1,1 $^{0/-0,3}$	2,4 $^{0/-0,2}$
HPPR-20-...	ZBV-7-5	3,2	5	3,2	5	1,1 $^{0/-0,4}$	2,1 $^{0/-0,3}$	1,1 $^{0/-0,4}$	2,1 $^{0/-0,3}$
HPPR-25-...	ZBV-8-7	5,3	7	5,3	7	1,5 $^{0/-0,5}$	3,5 $^{0/-0,4}$	1,5 $^{0/-0,5}$	3,5 $^{0/-0,4}$
HPPR-32-...	ZBV-10-7	5,3	7	5,3	7	1,4 $^{0/-0,4}$	3,4 $^{0/-0,3}$	1,4 $^{0/-0,4}$	3,4 $^{0/-0,3}$
HPPR-40-...	ZBV-12-9	6,4	9	6,4	9	1,9 $^{0/-0,5}$	4,5 $^{0/-0,4}$	1,9 $^{0/-0,5}$	4,5 $^{0/-0,4}$
HPPR-50-...	ZBV-14-12	10,3	12	10,3	12	2,4 $^{0/-0,5}$	5 $^{0/-0,4}$	2,4 $^{0/-0,5}$	5 $^{0/-0,4}$
HPPR-63-...	ZBV-14-12	10,3	12	10,3	12	2,4 $^{0/-0,5}$	5 $^{0/-0,4}$	2,4 $^{0/-0,5}$	5 $^{0/-0,4}$

Dimensions

Dimensions – Parallel gripper HPPR with centring sleeve ZBH (on the underside of the gripper)

Download CAD data www.festo.com



		D12 ø	D15 ø h7	H5 0/–0,3	H16 0/–0,2
HPPR-12-...	ZBH-5	3,2	5	1,1	2,4
HPPR-16-...	ZBH-5	3,2	5	1,1	2,4
HPPR-20-...	ZBH-5	3,2	5	1,1	2,4
HPPR-25-...	ZBH-7	5,3	7	1,4	3
HPPR-32-...	ZBH-7	5,3	7	1,4	3
HPPR-40-...	ZBH-9	6,4	9	1,9	4
HPPR-50-...	ZBH-12	$10{,}3^{+0{,}1/0}$	12	2,4	5
HPPR-63-...	ZBH-12	$10{,}3^{+0{,}1/0}$	12	2,4	5

Ordering data

double-acting, without compression spring



Size	Complete stroke	Gripper property	Part no.	Type
12	2 mm	High gripping force	8209483	HPPR-F-12-2-A-F1A
	4 mm	Standard	8209480	HPPR-12-4-A-F1A
16	3 mm	High gripping force	8222549	HPPR-F-16-3-A-F1A
	6 mm	Standard	8222546	HPPR-16-6-A-F1A
20	4 mm	High gripping force	8222558	HPPR-F-20-4-A-F1A
	8 mm	Standard	8222555	HPPR-20-8-A-F1A
25	6 mm	High gripping force	8207047	HPPR-F-25-6-A-F1A
	12 mm	Standard	8207044	HPPR-25-12-A-F1A
32	8 mm	High gripping force	8222567	HPPR-F-32-8-A-F1A
	16 mm	Standard	8222564	HPPR-32-16-A-F1A
40	10 mm	High gripping force	8222519	HPPR-F-40-10-A-F1A
	20 mm	Standard	8222516	HPPR-40-20-A-F1A
50	12 mm	High gripping force	8222529	HPPR-F-50-12-A-F1A
	24 mm	Standard	8222526	HPPR-50-24-A-F1A
63	16 mm	High gripping force	8222538	HPPR-F-63-16-A-F1A
	32 mm	Standard	8222535	HPPR-63-32-A-F1A

single-acting or with gripping force retention, opening



Size	Complete stroke	Gripper property	Part no.	Type
12	4 mm	Standard	8209482	HPPR-12-4-A-NO-F1A
16	3 mm	High gripping force	8222551	HPPR-F-16-3-A-NO-F1A
	6 mm	Standard	8222548	HPPR-16-6-A-NO-F1A
20	4 mm	High gripping force	8222560	HPPR-F-20-4-A-NO-F1A
	8 mm	Standard	8222557	HPPR-20-8-A-NO-F1A
25	6 mm	High gripping force	8207049	HPPR-F-25-6-A-NO-F1A
	12 mm	Standard	8207046	HPPR-25-12-A-NO-F1A
32	8 mm	High gripping force	8222569	HPPR-F-32-8-A-NO-F1A
	16 mm	Standard	8222566	HPPR-32-16-A-NO-F1A
40	10 mm	High gripping force	8222521	HPPR-F-40-10-A-NO-F1A
	20 mm	Standard	8222518	HPPR-40-20-A-NO-F1A
50	12 mm	High gripping force	8222531	HPPR-F-50-12-A-NO-F1A
	24 mm	Standard	8222528	HPPR-50-24-A-NO-F1A
63	16 mm	High gripping force	8222540	HPPR-F-63-16-A-NO-F1A
	32 mm	Standard	8222537	HPPR-63-32-A-NO-F1A

Ordering data

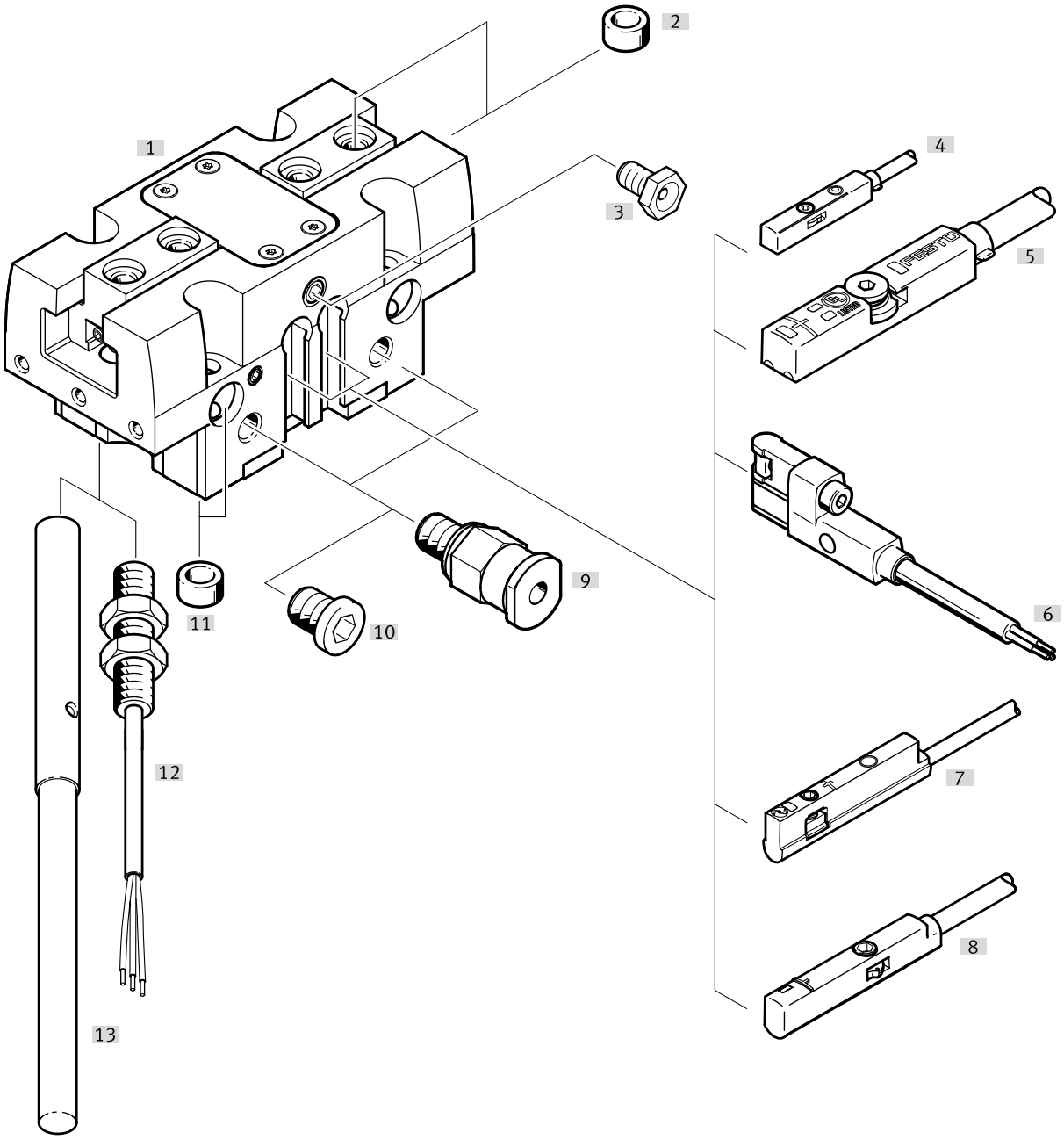
single-acting or with closing gripping force backup



Size	Complete stroke	Gripper property	Part no.	Type
12	2 mm	High gripping force	**8209484**	**HPPR-F-12-2-A-NC-F1A**
	4 mm	Standard	**8209481**	**HPPR-12-4-A-NC-F1A**
16	3 mm	High gripping force	**8222550**	**HPPR-F-16-3-A-NC-F1A**
	6 mm	Standard	**8222547**	**HPPR-16-6-A-NC-F1A**
20	4 mm	High gripping force	**8222559**	**HPPR-F-20-4-A-NC-F1A**
	8 mm	Standard	**8222556**	**HPPR-20-8-A-NC-F1A**
25	6 mm	High gripping force	**8207048**	**HPPR-F-25-6-A-NC-F1A**
	12 mm	Standard	**8207045**	**HPPR-25-12-A-NC-F1A**
32	8 mm	High gripping force	**8222568**	**HPPR-F-32-8-A-NC-F1A**
	16 mm	Standard	**8222565**	**HPPR-32-16-A-NC-F1A**
40	10 mm	High gripping force	**8222520**	**HPPR-F-40-10-A-NC-F1A**
	20 mm	Standard	**8222517**	**HPPR-40-20-A-NC-F1A**
50	12 mm	High gripping force	**8222530**	**HPPR-F-50-12-A-NC-F1A**
	24 mm	Standard	**8222527**	**HPPR-50-24-A-NC-F1A**
63	16 mm	High gripping force	**8222539**	**HPPR-F-63-16-A-NC-F1A**
	32 mm	Standard	**8222536**	**HPPR-63-32-A-NC-F1A**

Peripherals overview

Parallel gripper HPPR



Accessories			→ Page/Internet
	Type/order code	Description	
[1]	Parallel gripper HPPR	Double-acting drive, sturdy	hppr
[2]	Centring sleeve ZBH	• For centring the gripper jaw blanks/gripper fingers on the gripper jaws • For centring the gripper during mounting	50
[3]	Lubrication nipple	For relubrication	hppr
[4]	Proximity switch SDBT-MSX	• For T-slot • For sensing the piston position in the end positions • Auto teach-in and programmable	51
[5]	Position transmitter SDAS-MHS	• For T-slot • For sensing the piston position at any point	53
[5]	Position transmitter SMAT-8M	• For T-slot • For sensing the piston position at any point	53
[6]	Proximity switch SMT-8G	• For T-slot • For sensing the piston position in the end positions	51

Peripherals overview

Accessories			→ Page/Internet
	Type/order code	Description	
[6]	Proximity switch SMT-10G	• For round slot • For sensing the piston position in the end positions	50
[7]	Position transmitter SDAC-MHS	• For round slot • For sensing the piston position at any point	53
[8]	Proximity switch SMT-8M	• For T-slot • For sensing the piston position in the end positions	51
[8]	Proximity switch SMT-10M	• For round slot • For sensing the piston position in the end positions	50
[9]	Push-in fitting QS	For connecting tubing with standard O.D	qs
[10]	Blanking plug B	For sealing the compressed air ports when using the bottom compressed air ports	b
[11]	Centring sleeve ZBH	For centring the gripper during mounting	50
[12]	Proximity switch SIEN	For sensing the piston position in the end positions	52
[13]	Proximity switch SIEH	For sensing the piston position in the end positions	51

Accessories

Centering sleeve ZBH-5



Description	Sleeve material	Pack size	Product weight	Part no.	Type
for sizes 12, 16, 20	high-alloy stainless steel	10	0.2 g	**8210493**	**ZBH-5**

Centering sleeve ZBH-7



Description	Sleeve material	Pack size	Product weight	Part no.	Type
for sizes 25, 32	high-alloy stainless steel	10	0.4 g	**8210495**	**ZBH-7**

Centering sleeve ZBH-9



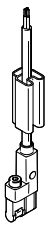
Description	Sleeve material	Pack size	Product weight	Part no.	Type
for size 32, 40, 50	high-alloy stainless steel	10	0.9 g	**8210498**	**ZBH-9**

Centering sleeve ZBH-12



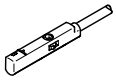
Description	Sleeve material	Pack size	Product weight	Part no.	Type
for sizes 50, 63	high-alloy stainless steel	10	1.1 g	**8210496**	**ZBH-12**

Proximity switch SMT-10G for round slot, magneto-resistive – for sizes 12 ... 63 Link smt



Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
Clamped in T slot, Can be inserted in slot lengthwise	3-wire NPN N/O contact	Open end	2.5 m	**8065030**	**SMT-10G-NS-24V-E-2,5Q-OE**
		Plug M8, A-coded	0.3 m	**8065029**	**SMT-10G-NS-24V-E-0,3Q-M8D**
	3-wire PNP N/O contact	Open end	2.5 m	**547862**	**SMT-10G-PS-24V-E-2,5Q-OE**
		Plug M8, A-coded	0.3 m	**547863**	**SMT-10G-PS-24V-E-0,3Q-M8D**

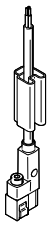
Proximity switch SMT-10M for round slot, magneto-resistive – for sizes 50 ... 63 Link smt



Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
Screwed on, Can be inserted in slot from above	3-wire PNP N/O contact	Open end	2.5 m	**551374**	**SMT-10M-PS-24V-E-2,5-Q-OE**
				551373	**SMT-10M-PS-24V-E-2,5-L-OE**
		Plug M8, A-coded	0.3 m	**551375**	**SMT-10M-PS-24V-E-0,3-L-M8D**
				551376	**SMT-10M-PS-24V-E-0,3-Q-M8D**

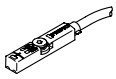
Accessories

Proximity switch SMT-8G for T-slot, magneto-resistive – for sizes 25 ... 63 Link smt



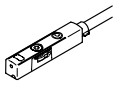
Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
Clamped in T slot, Can be inserted in slot lengthwise	3-wire NPN N/O contact	Open end	2.5 m	8065028	SMT-8G-NS-24V-E-2,5Q-OE
		Plug M8, A-coded	0.3 m	8065027	SMT-8G-NS-24V-E-0,3Q-M8D
	3-wire PNP N/O contact	Open end	2.5 m	547859	SMT-8G-PS-24V-E-2,5Q-OE
		Plug M8, A-coded	0.3 m	547860	SMT-8G-PS-24V-E-0,3Q-M8D

Proximity switch SMT-8M for T-slot, magneto-resistive – for sizes 50 ... 63 Link smt



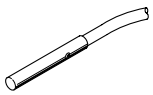
Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
Screwed on, Can be inserted in slot from above	3-wire NPN N/O contact	Open end	2.5 m	574338	SMT-8M-A-NS-24V-E-2,5-OE
		Plug M8, A-coded	0.3 m	574339	SMT-8M-A-NS-24V-E-0,3-M8D
	3-wire PNP N/C contact	Open end	7.5 m	574340	SMT-8M-A-PO-24V-E-7,5-OE
	3-wire PNP N/O contact		2.5 m	574335	SMT-8M-A-PS-24V-E-2,5-OE
		Plug M8, A-coded	0.3 m	574334	SMT-8M-A-PS-24V-E-0,3-M8D
		Plug M12, A-coded		574337	SMT-8M-A-PS-24V-E-0,3-M12

Proximity switch SDBT-MSX for T-slot, magnetic reed – for sizes 25 ... 63 Link sdbt



Switching output	Switching element function	Electrical connection	Cable length	Part no.	Type
PNP/NPN switchable	N/O-N/C contact, switchable	Open end	2.5 m	8059121	SDBT-MSX-1L-PU-E-2.5-N-LE
				8059124	SDBT-MSX-1L-NU-E-2.5-N-LE
		Plug M8, A-coded	0.3 m	8059123	SDBT-MSX-1L-NU-E-0.3-N-M8
				8059120	SDBT-MSX-1L-PU-E-0.3-N-M8

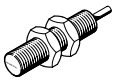
Proximity switch SIEH – 3 mm (round design), inductive – for sizes 25 ... 40 Link sieh



Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
Clamped	PNP	Open end	2.5 m	538264	SIEH-3B-PS-K-L
		Plug M8, A-coded	0.15 m	538263	SIEH-3B-PS-S-L

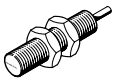
Accessories

Proximity switch SIEN, with cable, inductive – for sizes 50 ... 63 Link sien



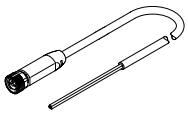
Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
With locknut	PNP	Open end	2.5 m	**150386**	**SIEN-M8B-PS-K-L**

Proximity switch SIEN, without cable inductive – for sizes 50 ... 63 Link sien



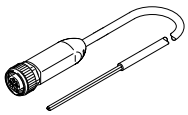
Type of mounting	Switching output	Electrical connection	Part no.	Type
With locknut	PNP	Plug M8, A-coded	**150387**	**SIEN-M8B-PS-S-L**

Connecting cables NEBA, straight, M8 connection



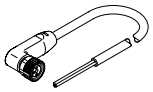
Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M8x1 A-coded as per EN 61076-2-104	Open end	3	2.5 m	**8078223**	**NEBA-M8G3-U-2.5-N-LE3**
			5 m	**8078224**	**NEBA-M8G3-U-5-N-LE3**

Connecting cables NEBA, straight, M12 connection



Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M12x1 A-coded as per EN 61076-2-101	Open end	3	2.5 m	**8078236**	**NEBA-M12G5-U-2.5-N-LE3**
			5 m	**8078237**	**NEBA-M12G5-U-5-N-LE3**

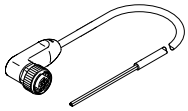
Connecting cables NEBA, angled, M8 connection



Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M8x1 A-coded as per EN 61076-2-104	Open end	3	5 m	**8078231**	**NEBA-M8W3-U-5-N-LE3**

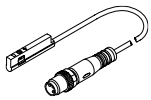
Accessories

Connecting cables NEBA, angled, M12 connection



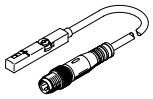
Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M12x1 A-coded as per EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3
			5 m	8078246	NEBA-M12W5-U-5-N-LE3

Position transmitter SDAC for round slot, plug M8, A-coded – for sizes 12 ... 63 Link sdac



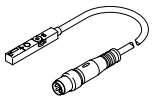
Description	Sensing range	Electrical connection 1, number of pins/wires	Cable length	Part no.	Type
Operating modes: two adjustable switching outputs; IO-Link®	35 mm	4	0.3 m	8128404	SDAC-MHS-M30-1L-PNLK-PN-E-0.3-M8
			2.5 m	8128405	SDAC-MHS-M30-1L-PNLK-PN-E-2.5-LE

Position transmitter SMAT-8M for T-slot, M8 plug, A-coded – for sizes 25 ... 63 Link smat



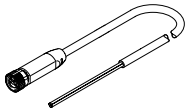
Sensing range	Analog output	Electrical connection 1, number of pins/wires	Cable length	Part no.	Type
52 mm	0 - 10 V	4	0.3 m	553744	SMAT-8M-U-E-0,3-M8D

Position transmitter SDAS for T-slot, plug M8, A-coded – for sizes 25 ... 63 Link sdas



Description	Sensing range	Electrical connection 1, number of pins/wires	Cable length	Part no.	Type
Operating modes: two adjustable switching outputs; IO-Link®	52 mm	4	0.3 m	8063974	SDAS-MHS-M40-1L-PNLK-PN-E-0.3-M8
			2.5 m	8063975	SDAS-MHS-M40-1L-PNLK-PN-E-2.5-LE

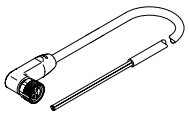
Connecting cables NEBA, straight



Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M8x1 A-coded as per EN 61076-2-104	Open end	4	2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
			5 m	8078228	NEBA-M8G4-U-5-N-LE4

Accessories

Connecting cables NEBA, angled



Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
M8x1 A-coded as per EN 61076-2-104	Open end	4	2.5 m	**8078233**	**NEBA-M8W4-U-2.5-N-LE4**
			5 m	**8078234**	**NEBA-M8W4-U-5-N-LE4**