

## P5GA - Angular double acting, square jaw carriers

The P5GA is a compact angular gripper with a closed angle of  $-10^\circ$  and an open angle of  $+30^\circ$ . With double acting mechanism the gripper is suitable for internal or external gripping applications. For flexible installation mounting is available on three sides and the anodised body has recessed sensor grooves.

- Bore sizes Ø12, 16, 20, 25 and 32mm
- Double acting
- Anodised corrosion protection
- Magnetic piston as standard
- Optional sensors



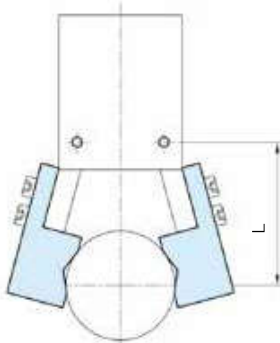
### Technical Information

Acting type	Double acting					
Bore (mm)	12	16	20	25	32	
Port size	M3 x 0.5		M5 x 0.8			
Medium	Air					
Operating pressure range	1.5 - 7 bar					
Temperature range	-5 to +60°C (no freezing)					
Max frequency	180 Cycles/min					
Lubrication	Cylinder	Not required				
Lever	Grease					
Max. arm length mm (L)	30	40	60	70	85	
Theoretical holding force kgf-cm						
	Closed side	0.4xP	0.9xP	1.7xP	3.4xP	6.1xP
	Opened side	0.5xP	1.2xP	2.3xP	4.4xP	8.1xP
Clamp / Release angle	-10 to +30°					
Clamping force (F)	$F = M / L \times 0.85$					
Weight (g)	53	103	193	327	525	
L : Arm length (mm), M : Theoretical moment (kgf-cm)						
F : Clamping force (kgf), P : Operating pressure (kgf/cm <sup>2</sup> )						
For more information see <a href="http://www.parker.com/euro_pneumatic">www.parker.com/euro_pneumatic</a>						

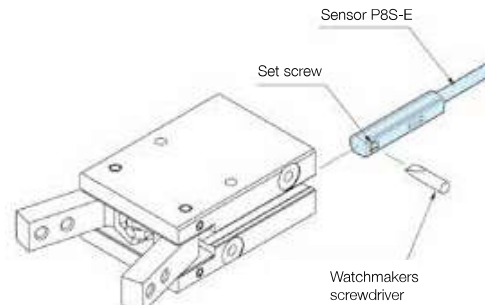
### P5GA - Angular Grippers

Bore mm	Order code
12	<b>P5GA-012MSG030B</b>
16	<b>P5GA-016MSG030B</b>
20	<b>P5GA-020MSG030B</b>
25	<b>P5GA-025MSG030B</b>
32	<b>P5GA-032MSG030B</b>

### Length of gripping point



### Installation of sensor



### Sensors - Series P8S-E

#### Magnetic Sensor



#### M8 - Snap in

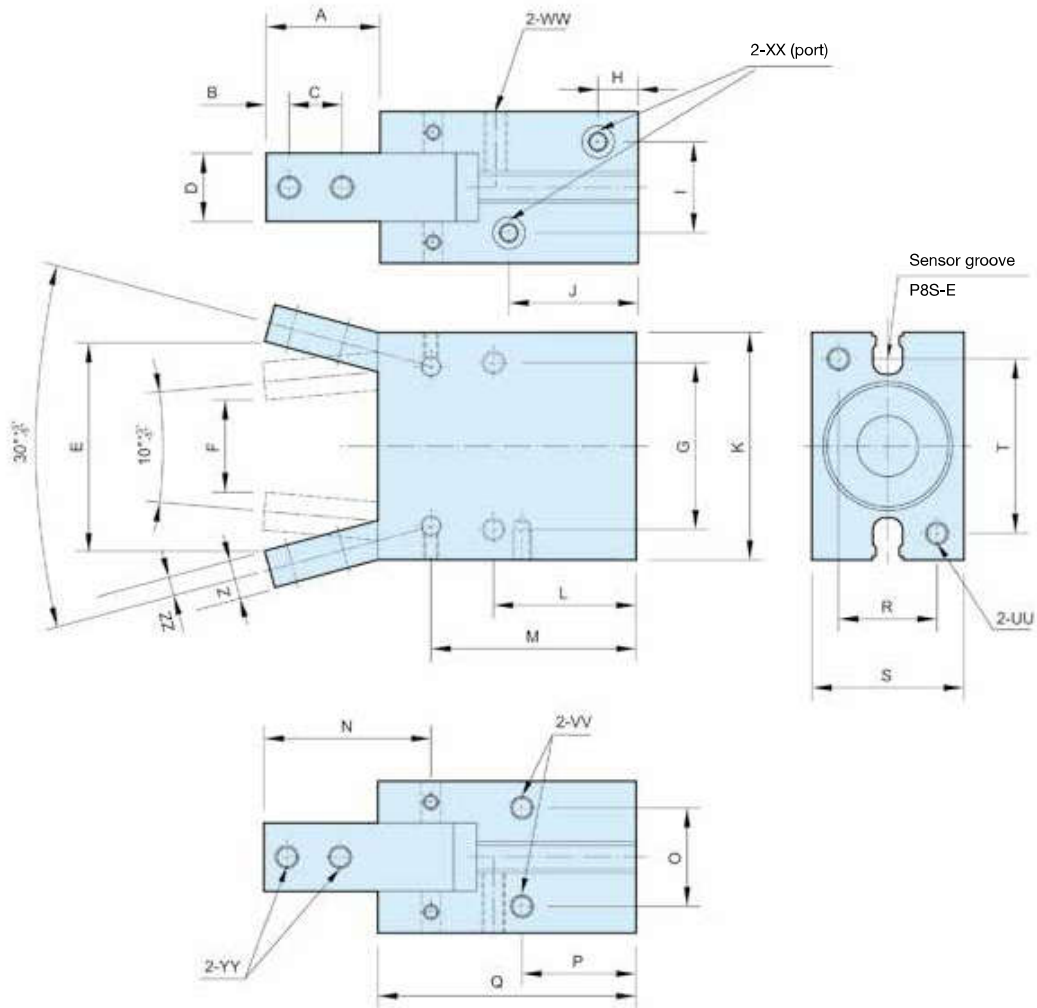


#### Flying lead



	0.165 m PUR cable with M8 connector	2 m PUR cable
PNP	<b>P8S-EPSUS</b>	<b>P8S-EPFXS</b>
NPN	<b>P8S-ENSUS</b>	<b>P8S-ENFXS</b>
Reed	<b>P8S-ERSUS</b>	<b>P8S-ERFXS</b>

**Dimensions (mm)**



Bore mm	A	B	C	D 0/-0.03	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
12	15,4	3	6	7	26,3	9	20	7,5	10,2	23,5	28	20	32,9	21,5	10,2	16	39	10	16	22
16	17,5	3	8	9	31,1	14	24	7,5	12	22	34	22,5	35	25	14	18	42,5	14	22	26
20	22	4	10	12	40,1	18	30	8	13	25	45	25	39,5	32,5	16	19	50	16	26	35
25	26	5	12	14	47,9	21	36	8,5	18	28	52	28,5	45,5	38,5	20	21,5	58	20	32	40
32	30	6	14	18	55,1	24	44	10,5	24	34	60	37,5	54	44	26	30	68	26	40	46

Bore mm	UU	VV	WW	XX	YY	Z	ZZ
12	M3 x 5 depth	M3 x 5 depth	M3 x 5 depth	M3 x 5 depth	M3	5	2,5
16	M4 x 7 depth	M4 x 7 depth	M4 x 7 depth	M5 x 5 depth	M3	6	3
20	M5 x 8 depth	M5 x 8 depth	M5 x 8 depth	M5 x 5 depth	M4	7	3,5
25	M6 x 10 depth	M6 x 10 depth	M6 x 10 depth	M5 x 5 depth	M5	9	4
32	M6 x 10 depth	M6 x 10 depth	M6 x 10 depth	M5 x 5 depth	M6	10	5

## P5GB - Parallel double acting, square jaw carriers

Available with a comprehensive range of bore sizes Ø12 - 32 mm the P5GB double acting parallel gripper is an accurate workpiece holding device. The anodised aluminium body has flexible installation mountings on three sides and recessed sensor grooves.

- Bore sizes Ø12, 16, 20, 25 and 32mm
- Double acting
- Anodised corrosion protection
- Magnetic piston as standard
- Optional sensors



### Technical Information

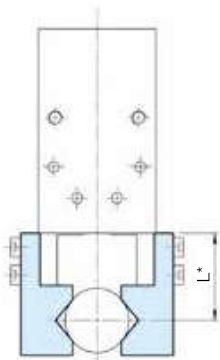
Acting type	Double acting					
Bore (mm)	12	16	20	25	32	
Port size	M3 x 0.5		M5 x 0.8			
Medium	Air					
Operating pressure range	1.5 - 7 bar					
Temperature range	-5 to +60°C (no freezing)					
Max frequency	180 Cycles/min					
Lubrication	Cylinder	Not required				
Lever	Grease					
Max. arm length mm (L)	30	40	60	70	85	
Theoretical holding force kgf-cm	Closed side	0.8	2.4	4.7	7.5	10
	Opened side	0.5	1.8	3.5	6.0	8.5
Lever open / closed stroke	6	8	12	14	16	
Weight (g)	66	144	255	419	719	

For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

### P5GB - Parallel Grippers

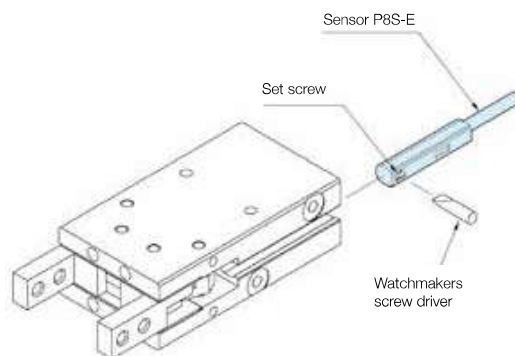
Bore mm	Order code
12	<b>P5GB-012MSG006B</b>
16	<b>P5GB-016MSG008B</b>
20	<b>P5GB-020MSG012B</b>
25	<b>P5GB-025MSG014B</b>
32	<b>P5GB-032MSG016B</b>

### Length of gripping point



\* L = gripping joint length 30mm, pressure 5kgf/cm<sup>2</sup>

### Installation of sensor



### Sensors - Series P8S-E

#### Magnetic Sensor



PNP

NPN

Reed

#### M8 - Snap in



0,165 m PUR cable with M8 connector

**P8S-EPSUS**

**P8S-ENSUS**

**P8S-ERSUS**

#### Flying lead



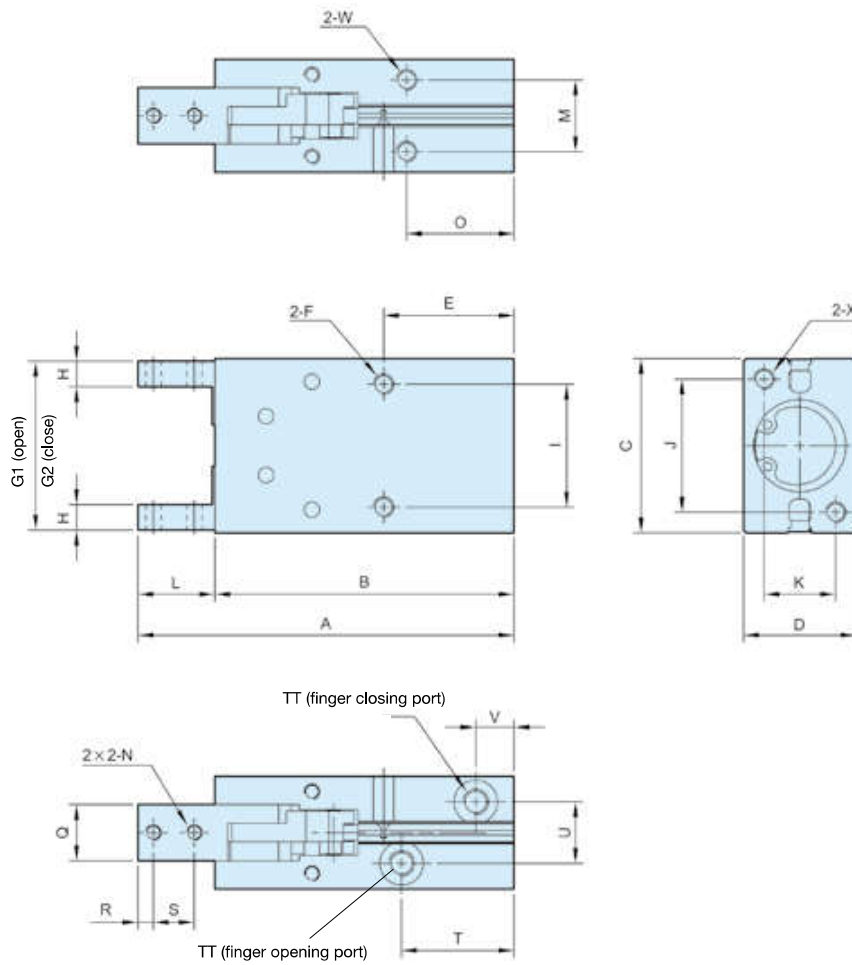
2 m PUR cable

**P8S-EPFXS**

**P8S-ENFXS**

**P8S-ERFXS**

**Dimensions (mm)**



Bore mm	A	B	C	D	E	F	G1	G2	H	I	J	K	L	M	N	O	Q 0/-0.03	R
12	63,5	50,5	28	16	20	M3 x 0.5 x 5 depth	27	21	4	18	17	10	13	10	M3 x 0.5	16	7	3
16	73,5	58,5	34	22	25,5	M4 x 0.7 x 11 depth	33	25	5	24	26	14	15	14	M3 x 0.5	21	11	3
20	88,5	69,5	45	26	25	M5 x 0.8 x 8 depth	44	32	6	30	35	16	19	16	M4 x 0.7	19	12	4
25	102,5	78,5	52	32	28	M6 x 1.0 x 10 depth	51	37	8	36	40	20	24	20	M5 x 0.8	22	14	5
32	120,5	90,5	60	40	34	M6 x 1.0 x 10 depth	59	43	10	44	46	24	30	26	M6 x 1.0	26	20	7

Bore mm	S	T	TT	U	V	W	X
12	6	23	M5 x 0,8 x 5 depth	10,2	7,5	M3 x 0.5 x 5 depth	M3 x 0.5 x 5 depth
16	8	22	M5 x 0,8 x 5 depth	12	7,5	M4 x 0.7 x 7 depth	M4 x 0.7 x 7 depth
20	10	26	M5 x 0,8 x 5 depth	13	8	M5 x 0.8 x 8 depth	M5 x 0.8 x 8 depth
25	12	29	M5 x 0,8 x 5 depth	18	8,5	M6 x 1.0 x 10 depth	M6 x 1.0 x 10 depth
32	15	35	M5 x 0,8 x 5 depth	24	10,5	M6 x 1.0 x 10 depth	M6 x 1.0 x 10 depth

## P5GD - Parallel precision guided double acting, square jaw carriers

The P5GD is a parallel double acting gripper with integral linear guides that provide rigidity and high precision for the stainless steel jaw carriers. The anodised aluminium body has mounting points on four sides and integral sensors grooves.



- Bore sizes Ø10, 16, 20 and 25mm
- Double acting
- Stainless steel jaw carriers
- Anodised corrosion protection
- Magnetic piston as standard
- Optional sensors

### Technical Information

Acting type	Double acting			
Bore (mm)	10	16	20	25
Port size	M3 x 0.5		M5 x 0.8	
Medium	Air			
Operating pressure range	2 to 7 bar		1 to 7 bar	
Temperature range	-10 to +60°C (no freezing)			
Repeatability	± 0.01 mm			
Max operating frequency	180 Cycles/min			
Lubrication	Not required			
Weight (g)	55	125	250	460

### P5GD - Parallel Grippers

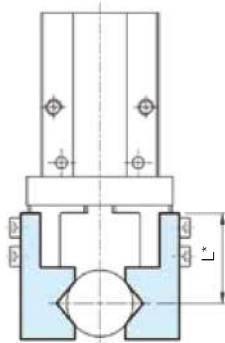
Bore mm	Order code
10	<b>P5GD-010MSG004B</b>
16	<b>P5GD-016MSG006B</b>
20	<b>P5GD-020MSG010B</b>
25	<b>P5GD-025MSG014B</b>

Bore	Gripping force <sup>(1)</sup>		Opening closing stroke (both sides) (mm)
	External	Internal	
10	9.8 (1)	17 (1.7)	4
16	30 (3.1)	40 (4.1)	6
20	42 (4.3)	66 (6.7)	10
25	65 (6.6)	104 (10.6)	14

<sup>(1)</sup> Values based on pressure of 0.5 MPa (5.1 kgf/cm<sup>2</sup>)

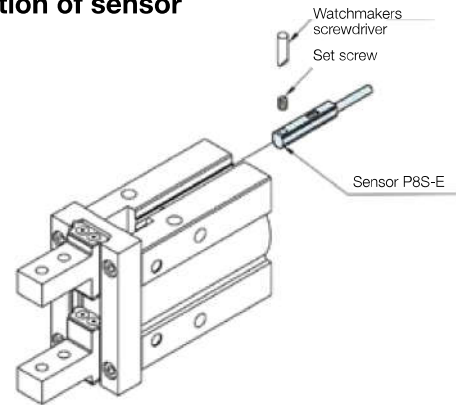
For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

### Length of gripping point



\* L = Gripping point L = 20mm at center of stroke

### Installation of sensor



### Sensors - Series P8S-E

#### Magnetic Sensor



PNP  
 NPN  
 Reed

#### M8 - Snap in



0.165 m PUR cable with M8 connector

**P8S-EPSUS**  
**P8S-ENSUS**  
**P8S-ERSUS**

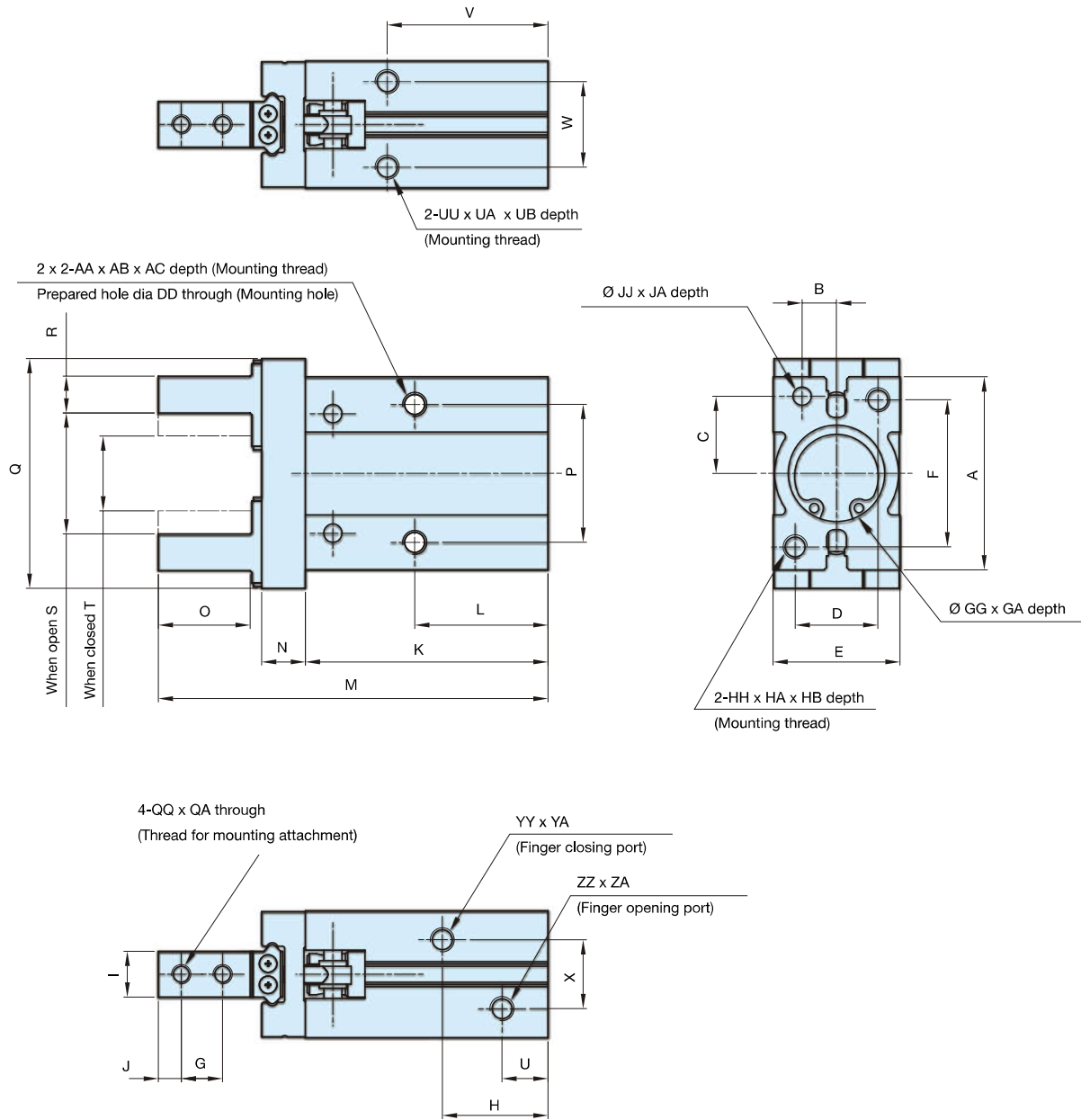
#### Flying lead



2 m PUR cable

**P8S-EPFXS**  
**P8S-ENFXS**  
**P8S-ERFXS**

Dimensions (mm)



Bore mm	A	AA	AB	AC	B	C	D	DD	E	F	G	GG	GA	H	HH	HA	HB	I	J	JJ	JA	K	L	M
10	23	M3	0,5	5,5	5,2 <sub>-0,025</sub>	7,6 <sub>+0,02</sub> -0,02	12	2,6	16,4 <sub>-0,05</sub> -0,05	18	5,7	11H9 <sub>-0,043</sub>	2	19	M3	0,5	6	5 <sub>0</sub> -0,05	3	2H9 <sub>+0,025</sub>	3	37,8	23	57
16	30,6	M4	0,7	8	6,5 <sub>-0,25</sub>	11 <sub>+0,02</sub> -0,02	15	3,4	23,6 <sub>-0,05</sub> -0,05	22	7	17H9 <sub>-0,043</sub>	2	19	M4	0,7	8	8 <sub>0</sub> -0,05	4	3H9 <sub>+0,025</sub>	3	42,5	24,5	67,3
20	42	M5	0,8	10	7,5 <sub>+0,030</sub>	16,8 <sub>+0,02</sub> -0,02	18	3,4	27,6 <sub>-0,05</sub> -0,05	32	9	21H9 <sub>+0,052</sub>	3	23	M5	0,8	10	10 <sub>0</sub> -0,05	5	4H9 <sub>+0,030</sub>	4	52,8	29	84,8
25	52	M6	1	12	10 <sub>+0,02</sub> -0,02	21,8 <sub>+0,02</sub> -0,02	22	5,1	33,6 <sub>-0,05</sub> -0,05	40	12	21H9 <sub>+0,052</sub>	3,5	23,5	M6	1	12	12 <sub>0</sub> -0,05	6	4H9 <sub>+0,02</sub>	4	63,6	30	102,7
Bore mm	N	O	P	Q	QQ	QA	R	S	T	U	UU	UA	UB	V	W	X	YY	YA	ZZ	ZA				
10	6	12	16	29	M2,5	0,45	4 <sub>0</sub> -0,1	15,2 <sub>0</sub> +2,2	11,2 <sub>0</sub> -0,7	9	M3	0,5	6	27	11,4	10	M3	0,5	M3	0,5				
16	7,5	15	24	38	M3	0,5	5 <sub>0</sub> -0,1	20,9 <sub>-0,2</sub> +2,2	14,9 <sub>0</sub> -0,7	8,5	M4	0,7	4,5	30	16	13	M5	0,8	M5	0,8				
20	9,5	20	30	50	M4	0,7	8 <sub>0</sub> -0,1	26,3 <sub>-0,2</sub> +2,2	16,3 <sub>0</sub> -0,7	10	M5	0,8	8	35	18,6	15	M5	0,8	M5	0,8				
25	11	25	36	63	M5	0,8	10 <sub>0</sub> -0,1	33,3 <sub>-0,2</sub> +2,2	19,3 <sub>0</sub> -0,8	9,7	M6	1	10	36,5	22	20	M5	0,8	M5	0,8				

**P5GL - 180° Angular double acting, cam style, square jaw carriers**

The P5GL is a 180° angular gripper of compact size and lightweight construction. With double acting movement high gripping forces are achieved via internal cams. The anodised body has mounting points on four sides and sensors can be fitted in any of the four integral grooves.



- Bore sizes Ø10, 16, 20 and 25mm
- Double acting
- Anodised corrosion protection
- Magnetic piston as standard
- Optional sensors

**P5GL - 180° Angular Grippers - Cam Style**

Bore mm	Order code
10	<b>P5GL-010MSG180B</b>
16	<b>P5GL-016MSG180B</b>
20	<b>P5GL-020MSG180B</b>
25	<b>P5GL-025MSG180B</b>

**Technical Information**

Acting type	Double acting			
Bore (mm)	10	16	20	25
Medium	Air			
Operating pressure range	1 to 6 bar			
Temperature range	-10 to +60°C (no freezing)			
Repeatability	± 0.2 mm			
Max operating frequency	60 Cycles/min			
Lubrication	Not required			
Effective force (Nm) at (5kgf/cm <sup>2</sup> )	0.16	0.54	1.10	2.28
Operating angle (both sides)	Opened side	180° - 182°		
	Closed side	-3°		
Weight (g)	80	150	320	600

For more information see [www.parker.com/euro\\_pneumatic](http://www.parker.com/euro_pneumatic)

**Sensors - Series P8S-H**

**Magnetic Sensor**



Reed NO

**M8 - Snap in**



0.165 m PUR cable with M8 connector

**P8S-HRSUS**

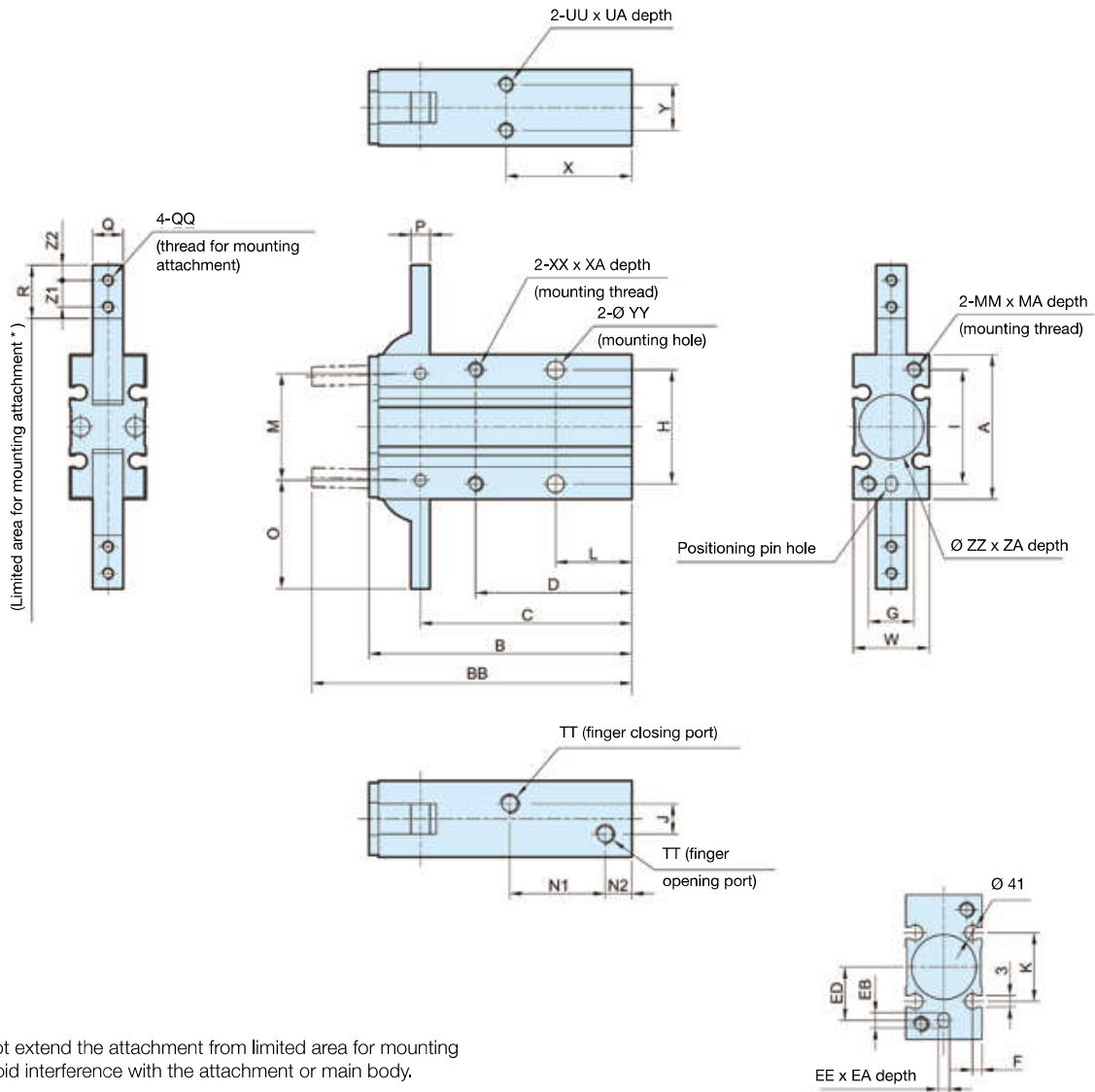
**Flying lead**



1 m PUR cable

**P8S-HRFS**

**Dimensions (mm)**



\* Do not extend the attachment from limited area for mounting to avoid interference with the attachment or main body.

Bore mm	A	B	BB	C	D	EE	EA	EB	ED	F	G	H	I	J	K	L	M	MA	MM	N1	N2	O	P	Q
12	30	58	71	47,5	35	3H9 <sup>+0,025</sup> <sub>-0</sub>	3	4	9	2	9	24	24	3	13	18	22	6	M3 x 0,5	23	7	23,5	4	6 <sup>+0,005</sup> <sub>-0,025</sub>
16	38	69	84	55,5	41	3H9 <sup>+0,025</sup> <sub>-0</sub>	3	4	15	2,5	12	30	30	8	18	20	28	8	M4 x 0,7	25	7	28,5	5	8 <sup>+0,005</sup> <sub>-0,025</sub>
20	48	86	106	69	50	4H9 <sup>+0,030</sup> <sub>-0</sub>	4	5	19	3	16	36	38	12	20	25	36	10	M5 x 0,8	32	8	37	8	10 <sup>+0,005</sup> <sub>-0,025</sub>
25	58	107	131	86	60	4H9 <sup>+0,030</sup> <sub>-0</sub>	4	5	23	3	18	42	46	14	24	30	45	12	M6 x 1	42	8	45	10	12 <sup>+0,005</sup> <sub>-0,025</sub>

Bore mm	QH	QQ	R	TT	UA	UU	W	X	XA	XX	Y	YY	ZA	ZZ	Z1	Z2
12	3,4	M3 x 0,5	12	M5 x 0,8 x 5 depth	4	M3 x 0,5	15	30	6	M3 x 0,5	9	3,4	1,5	11H9 <sup>+0,043</sup> <sub>-0</sub>	6	3
16	3,4	M3 x 0,5	14	M5 x 0,8 x 5 depth	5	M4 x 0,7	20	33	8	M4 x 0,7	12	4,5	1,5	17H9 <sup>+0,043</sup> <sub>-0</sub>	7	4
20	4,5	M4 x 0,7	18	M5 x 0,8 x 5 depth	8	M5 x 0,8	26	42	10	M5 x 0,8	14	5,5	1,5	21H9 <sup>+0,052</sup> <sub>-0</sub>	9	5
25	5,5	M5 x 0,8	22,5	M5 x 0,8 x 5 depth	10	M6 x 1	30	50	12	M6 x 1	16	6,6	1,5	26H9 <sup>+0,052</sup> <sub>-0</sub>	12	6