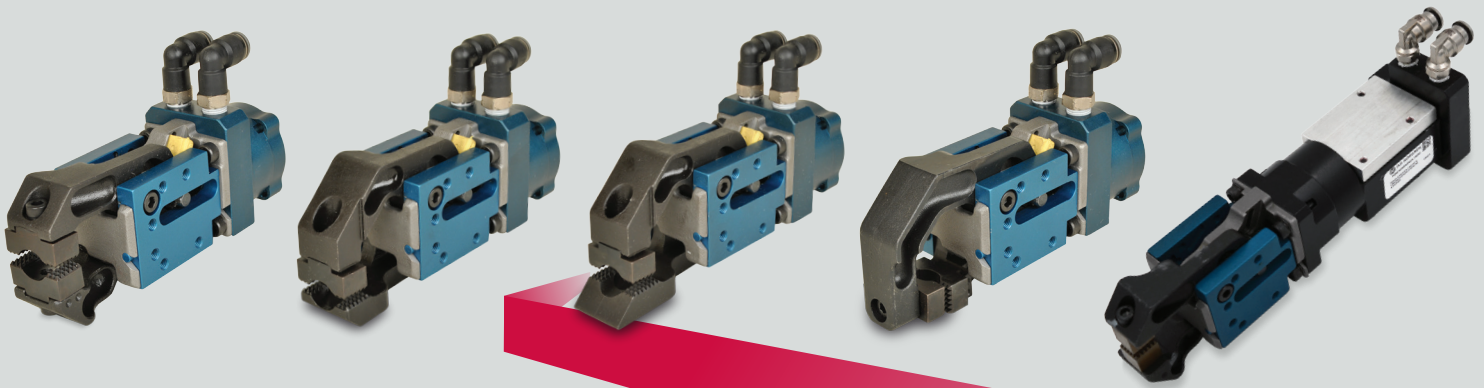




1.800.272.4511  
Insidesales@imi-precision.com  
[norgren.com/automationsolutions](http://norgren.com/automationsolutions)



## PGS10 and Hot Metal Grippers



**Best gripping force,  
fastest actuation time,  
compact size**

Engineering  
GREAT Solutions

**IMI**  
Precision Engineering



# Engineering GREAT solutions

*We deliver GREAT solutions for our customers tackling the world's most demanding engineering challenges.*

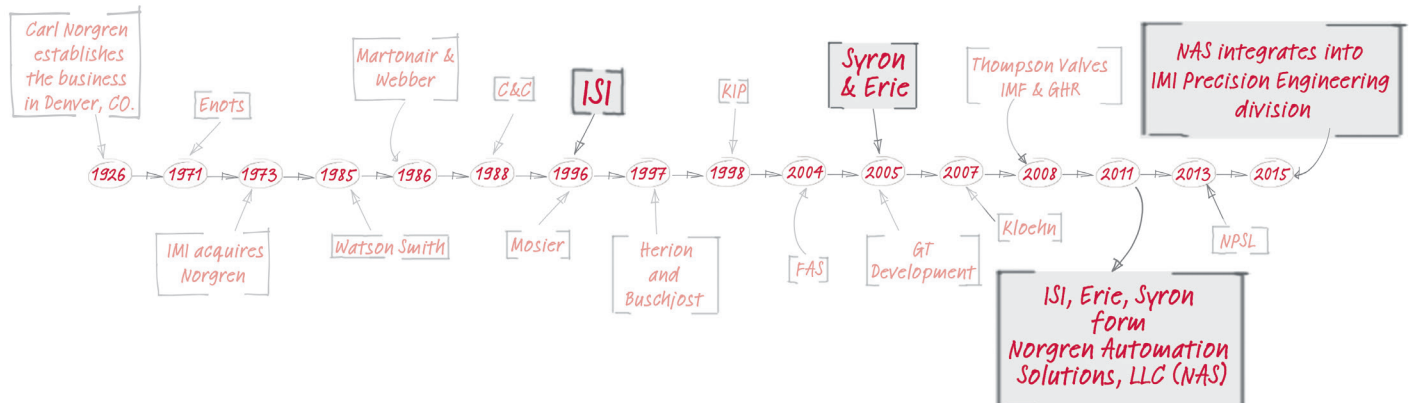


**IMI Precision Engineering** is a world leader in motion and fluid control technologies. Wherever precision, speed and engineering reliability are essential, we deliver exceptional solutions which improve the productivity and efficiency of our customers' equipment.

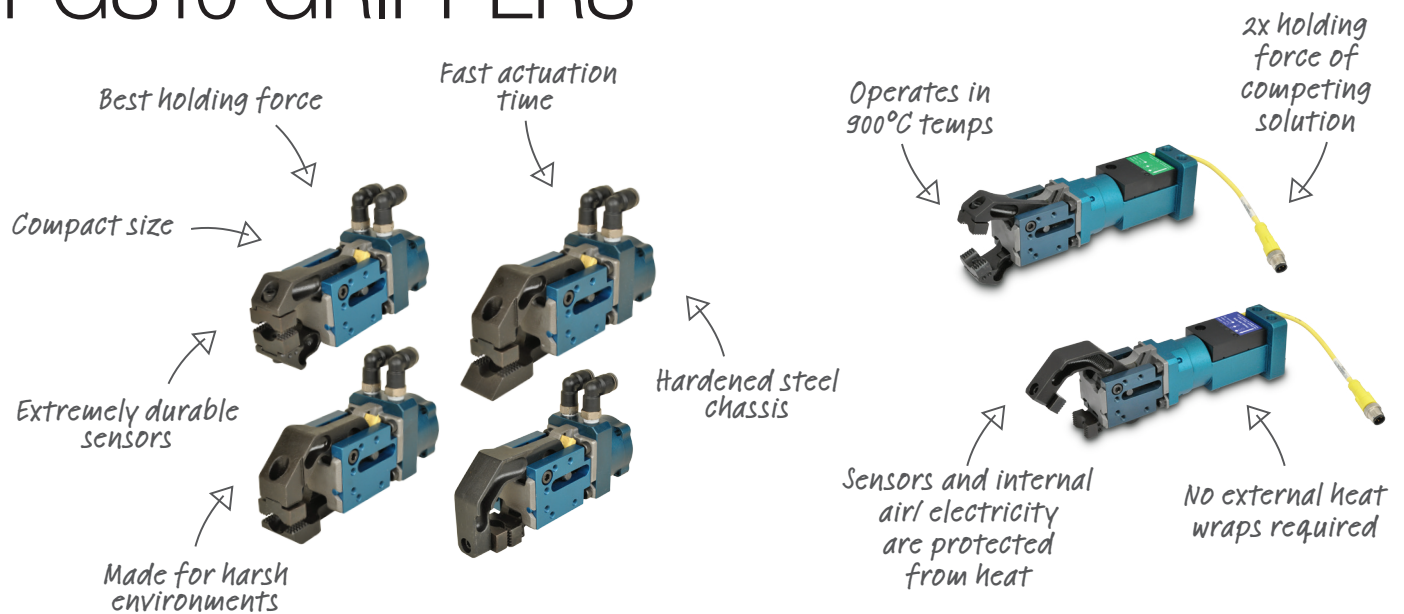
Part of IMI plc, (listed on the London Stock Exchange since 1966), IMI Precision Engineering has \$1,214m in sales generated from a sales and service network in 75 countries, as well as manufacturing capabilities in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil. We support this with our global centers of technical excellence and facilities for CFD design and R&D testing. We employ a dedicated team of field engineers, sector specialists and key account managers – all committed to providing excellent service to our customers.

As a business, we aim to UNDERSTAND our customers' challenges. We then CONNECT our products, people and expertise in order to DELIVER exceptional service and solutions. Together these actions IMPROVE the performance of our customers' machinery.

We call this Engineering Great. We deliver it to customers through a world-class portfolio of high performance products, and strong partnerships for problem-solving utilizing our global network of support.



# PGS10 GRIPPERS



- > Size for size, the PGS10 gripper is the best in class with grip forces up to 450 lbs at 80 psi
- > Fast actuation times, 0.05 seconds to close and 0.09 seconds to open, beats any other clamp/ gripper in the market
- > Hardened steel chassis design protects the gripper from clashing blanks, increasing uptime and tooling life
- > Sensors are constructed with a steel face for increased durability, and integrated into the pad to keep the over-all size compact
- > Part present or double blank detection sensors are easy and quick to calibrate
- > Reconfiguration or repair is very simple by removing a single bolt
- > When required, reconfiguration or repair is very easy to with the simple removal of a single bolt using a 4 mm hex wrench
- > Hot metal version of the PGS gripper has been specially designed to operate in temperatures up to 900°C, with sensors and internal air/ electrical protected against the heat

# Contents

## PGS10 and Hot Metal Grippers

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[insidesales@imi-precision.com](mailto:insidesales@imi-precision.com)

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1

**PGS10 REGULAR GRIPPER**  
PAGE PGS10-05



2

**PGS10 CHISEL GRIPPER**  
PAGE PGS10-12



3

**PGS10 FLANGE GRIPPER**  
PAGE PGS10-20



4

**PGS10 SHOVEL GRIPPER**  
PAGE PGS10-27



5

**PGS10 HOT METAL GRIPPER**  
PAGE PGS10-35



6

**PGS10 ACCESSORIES**  
PAGE PGS10-47



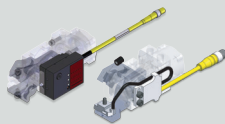
7

**PGS10 REPAIR KIT**  
PAGE PGS10-59



8

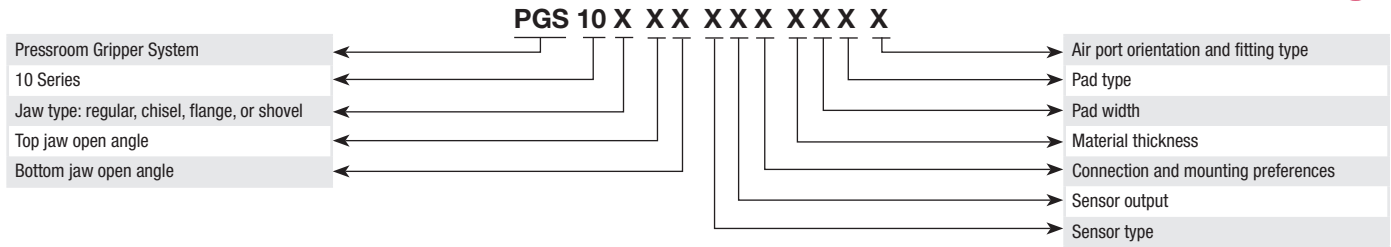
**PGS10 SENSORS**  
PAGE PGS10-69







Part number scheme



Technical data

**Body**

Hard coat aluminum

**Jaw pads**

Hardened steel

**Working pressure**

60 psi min - 100 psi max  
(413 kPa min - 689 kPa min)

**Lubrication**

Permanent for non-lube air

**Grip force**

\*Up to 450 lb @ 80 psi  
(200 kg @ 551 kPa)

**Cycles**

MCBF 5 million

**Actuation times**

0.05±0.01 sec close /  
<0.09 sec open

**Weight**

\*\*1.6 lbs (0.73 kg)

**Air ports**

1/8" NPS or 1/8 Rc

**Front face**

Hardened steel

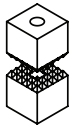
\* Double sided force measurement  
\*\* Weight is with air fittings and 1.0" wide pads

**General notes**

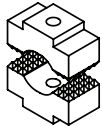
- In-pad sensor cannot be used with:
- > 0.5" (12.7 mm) wide pads
- > Rubber pads
- > 15° or 45° angle pads
- Indirect sensors cannot be used with:
- > Rubber pads
- > Double point pads

**Jaw pads**

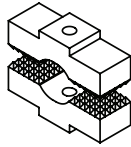
Flat pads for general purpose gripping.



**XS0**



**XMX**

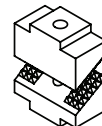


**XD0**

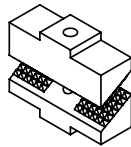
Angle pads for more challenging panels.



**XSX**

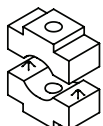


**XMX**

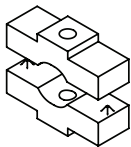


**XDX**

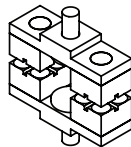
Special purpose pads



**XMD**



**XDD**



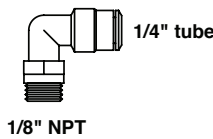
**RDR**

Double point pads won't load up on galvanized panels

Rubber pads won't leave scratches on panels.

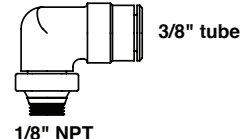
**Air fittings**

Air fittings can be ordered preassembled to the gripper.



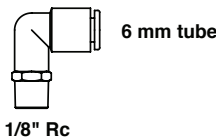
1/4" tube

1/8" NPT



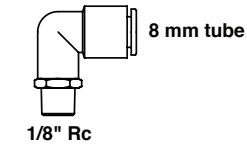
3/8" tube

1/8" NPT



6 mm tube

1/8" Rc



8 mm tube

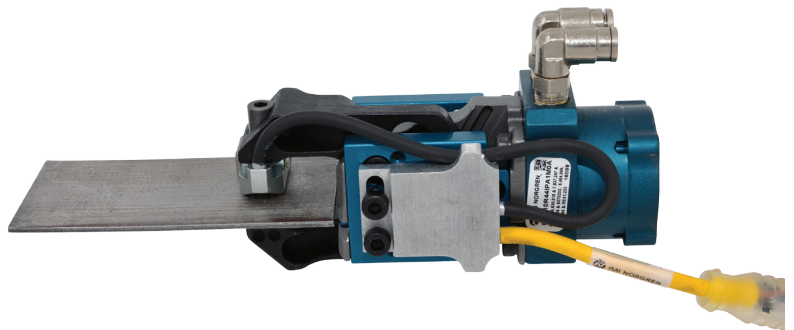
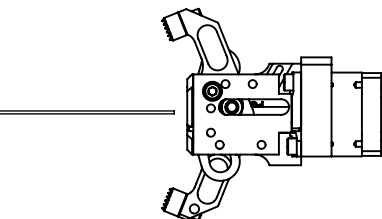
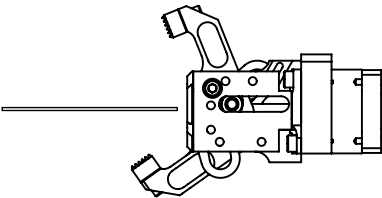
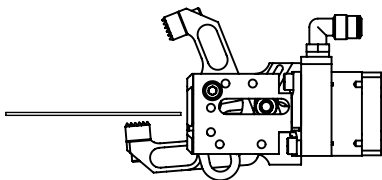
1/8" Rc

# PGS REGULAR JAW GRIPPER

- > General purpose gripper for transfer finger or end of arm tooling (EOAT) use
- > Wide angle jaw opening accommodates blanks with inconsistent pick up location

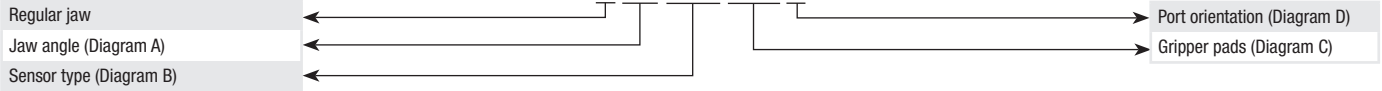


Diagram below illustrates blank placement between regular jaws, which are ideal for gripping blanks with an inconsistent pick up location:





PGS10R XX XXX XXX X



Technical data

**Throat depth**  
0.75" (19.1 mm)

**Flange height**  
0.49" (12.5 mm)

**Front face**  
Hardened steel

**Jaw pads**  
Hardened steel

**Body**  
Hardcoat aluminum

**Lubrication**  
Permanent for non-lube air

**Working pressure**  
60 psi min. - 100 psi max.  
(413 kPa min. - 689 kPa max)

**Grip force**  
\*Up to 450 lb @ 80 psi  
(200 kg @ 551 kPa)

**Cycles**  
MCBF 5 million

**Actuation time**  
0.05±0.01 sec close /  
<0.09 sec open

**Weight**  
\*\*1.6 lbs. (0.73 kg)

**Air ports**  
1/8" NPS or 1/8 Rc

\* Double sided force measurement  
\*\* Weight is with air fittings and 1.0" wide pads

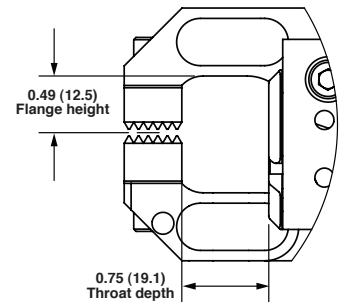
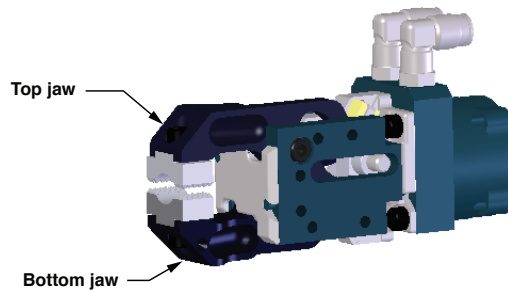


Diagram A: Jaw angle

PGS10R XX XXX XXX X

Jaw type	Top jaw angle	Bottom jaw angle	Code
Regular	22	0	20
	22	11	21
	22	22	22
	45	0	40
	45	22	42
	45	45	44
	70	0	70
	70	35	73
	70	70	77

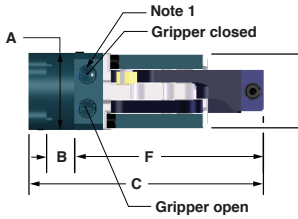


Dimensions in inches (mm) are for reference only

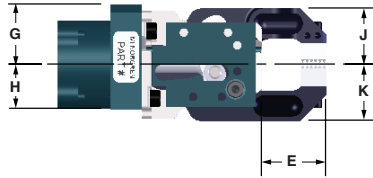
Diagram A: Jaw angle continued



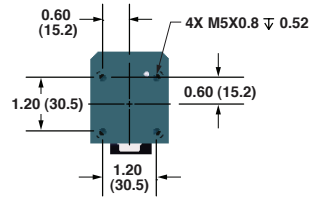
Top view



Side view



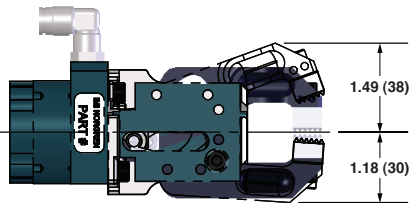
Back view



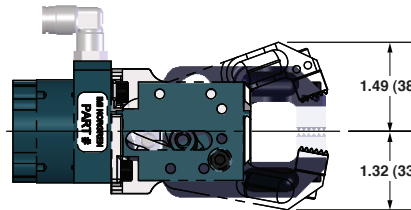
DIM	Inches	mm
A	1.73	43.8
B	0.63	15.9
C	5.24	133.1
D	1.65	41.9
E	1.25	31.8
F	4.22	107.2
G	1.18	29.8
H	0.86	21.9
J	1.11	28.1
K	1.11	28.1

Note 1: 1/8" NPS or 1/8 Rc

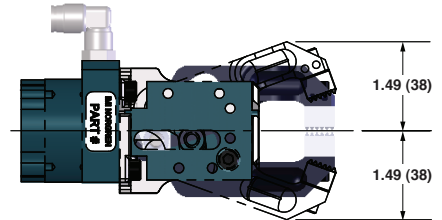
22° X 0°



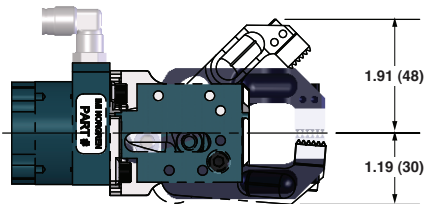
22° X 11°



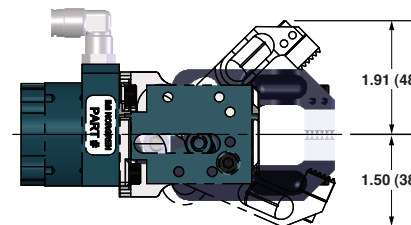
22° X 22°



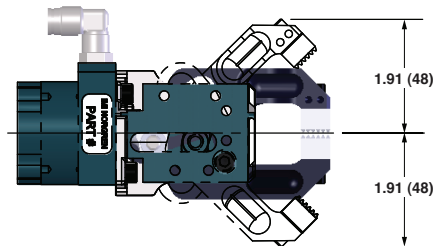
45° X 0°



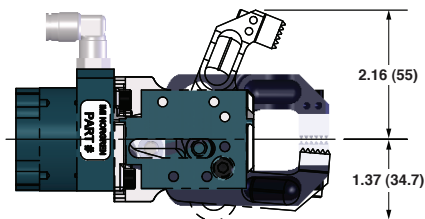
45° X 22°



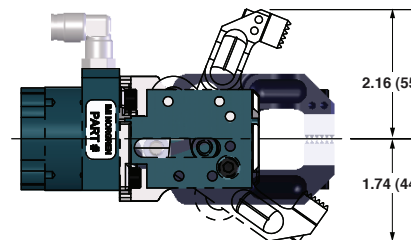
45° X 45°



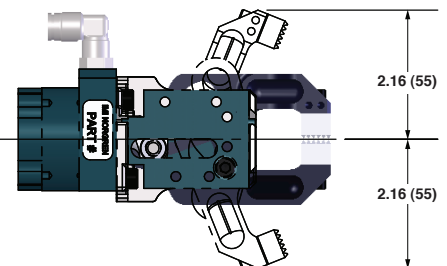
70° X 0°



70° X 35°



70° X 70°



Dimensions in inches (mm) are for reference only





**Diagram B: Sensor type**  
In-pad sensors

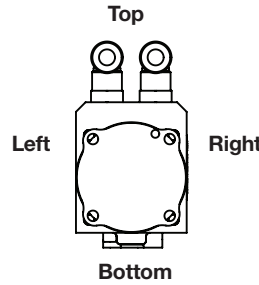
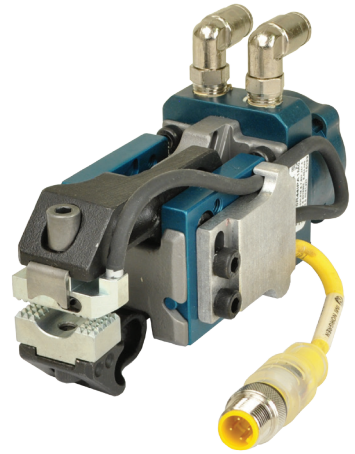
**Notes:**

- In-pad sensors are only available with 1.0" wide regular pads and angled pads
- In-pad sensors are available for 0.5-3.5 mm and 2.01-5.0 mm thickness

- In-pad sensing can only be used in the following combinations for angle pads (30° ONLY) Code #3, TOP LEFT or BOTTOM LEFT; code #4, TOP RIGHT or BOTTOM RIGHT
- No sensor code **NUL**

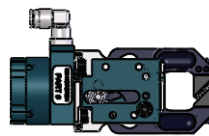
**PGS10R XX X X X XXX X**

Type	Code	Output	Code	Pad	Connector	Pad mount	Housing	Code	
In-pad	I	NPN	N	Reg (0°)	Micro	Top	Right	A	
						Left	B		
						Bottom	Right	C	
					Left	D			
					Pico (Internal wire)	Top	Right	E	
						Left	F		
				Bottom		Right	G		
				Left	H				
				30°	Micro	Top	Right	J	
						Left	K		
						Bottom	Right	L	
					Left	M			
					Pico (Internal wire)	Top	Right	N	
						Left	P		
				Bottom		Right	Q		
				Left	R				
				Double point	Micro	Top	Right	S	
						Left	T		
						Bottom	Right	U	
					Left	V			
					Pico (Internal wire)	Top	Right	W	
						Left	Y		
				Bottom		Right	Z		
				Left	2				
Smooth (0°)	Micro	Top	Right	I					
		Left	9						
		Bottom	Right	3					
	Left	4							
	Smooth (30°)	Micro	Top	Right	5				
			Left	6					
Bottom			Right	7					
Left		8							
In-pad		I	PNP	P	Reg (0°)	Micro	Top	Right	A
							Left	B	
	Bottom						Right	C	
	Left					D			
	Pico (Internal wire)					Top	Right	E	
						Left	F		
					Bottom	Right	G		
	Left				H				
	30°				Micro	Top	Right	J	
						Left	K		
						Bottom	Right	L	
					Left	M			
					Pico (Internal wire)	Top	Right	N	
						Left	P		
	Bottom					Right	Q		
	Left				R				
	Double point				Micro	Top	Right	S	
						Left	T		
						Bottom	Right	U	
					Left	V			
					Pico (Internal wire)	Top	Right	W	
						Left	Y		
	Bottom					Right	Z		
	Left				2				
Smooth (0°)	Micro	Top	Right	I					
		Left	9						
		Bottom	Right	3					
	Left	4							
	Smooth (30°)	Micro	Top	Right	5				
			Left	6					
Bottom			Right	7					
Left		8							
In-pad		I	2 Wire	2	Reg (0°)	Micro	Top	Right	A
							Left	B	
	Bottom						Right	C	
	Left					D			
	Pico (Internal wire)					Top	Right	E	
						Left	F		
					Bottom	Right	G		
	Left				H				
	30°				Micro	Top	Right	J	
						Left	K		
						Bottom	Right	L	
					Left	M			
					Pico (Internal wire)	Top	Right	N	
						Left	P		
	Bottom					Right	Q		
	Left				R				
	Double point				Micro	Top	Right	S	
						Left	T		
						Bottom	Right	U	
					Left	V			
					Pico (Internal wire)	Top	Right	W	
						Left	Y		
	Bottom					Right	Z		
	Left				2				
Smooth (0°)	Micro	Top	Right	I					
		Left	9						
		Bottom	Right	3					
	Left	4							
	Smooth (30°)	Micro	Top	Right	5				
			Left	6					
Bottom			Right	7					
Left		8							
Type		Code	Output	Code	Pad	Connector	Pad mount	PCB mount	Code
In-pad		I	2 Wire	T	Reg (0°)	Micro (4 pin 1 key)	Top	Right	A
	Left							B	
	Right							C	
	Left							D	



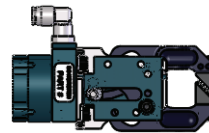
Angle pad orientation for 30° in-pad sensors

**PGS10R XX XXX XXX X**



Codes K, M, P, R for the 30° in-pad are only compatible with 30° pad type code 3

Sensor pad angle	Sensor connector code	Pad type code
30° in-pad sensors	K M P R	3



Codes J, L, N, Q for the 30° in-pad are only compatible with 30° pad type code 4

Sensor pad angle	Sensor connector code	Pad type code
30° in-pad sensors	J L N Q	4

For more detailed information on the sensors, please refer to the Sensor section.

**Diagram B: Sensor type continued**

Indirect sensors

- Notes:
1. Gaging accessories cannot be used on the same side as an indirect sensor
  2. Double point and rubber pads can not be used with an indirect sensor
  3. No sensor code: **NUL**

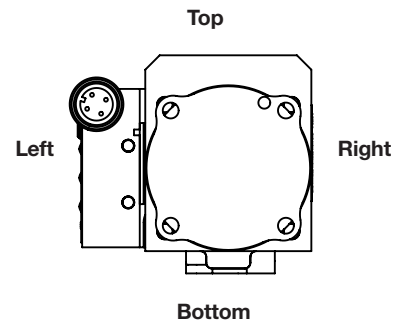
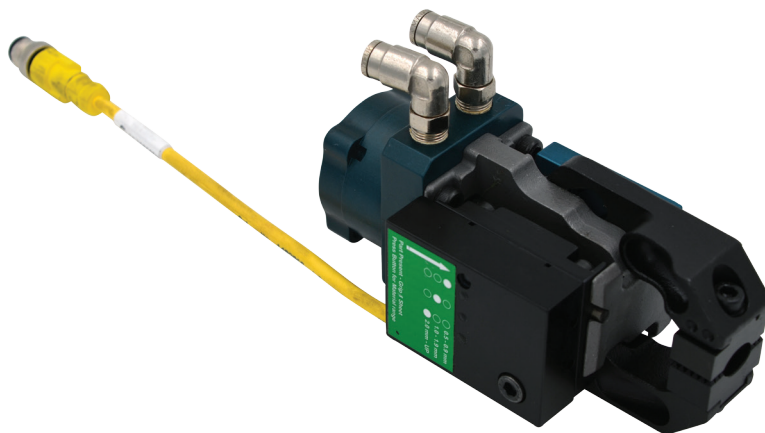


**PGS10R XX X X X XXX X**

Type	Code	Output	Code	Connector	Mount side	Code
Indirect double blank	D	NPN	N	Micro	Right	R
					Left	L
				Pico 4 Pin (Internal wire)	Right	E
		Left	W			
		PNP	P	Micro	Right	R
					Left	L
Pico 4 Pin (Internal wire)	Right			E		
	Left	W				
Indirect part present	H	NPN	N	Micro	Right	R
					Left	L
				Pico 3 Pin (Internal wire)	Right	E
		Left	W			
		PNP	P	Micro	Right	R
					Left	L
Pico 3 Pin (Internal wire)	Right			E		
	Left	W				

No sensor code - **NUL**

For more detailed information on the sensors, please refer to the Sensor section.





**Diagram C: Gripper pads**

- Notes:**
1. Double point pads only available in 1.0" & 1.5" widths
  2. Double point and rubber pads cannot be used with an indirect sensor
  3. Rubber pads thickness range 0.5-2.5 mm
  4. No pad code – NUL

PGS10R XX X X X XXX X

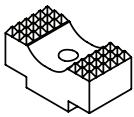
Material thickness & pad color		Code
Material thickness	Pad color	
0.50 - 2.0 mm	2 Black	1
2.01 - 3.5 mm	2 Silver	3
3.51 - 5.0 mm	1 Silver & 1 Gold	4

Pad width		Code
0.5" / 12.7 mm		
1.0" / 25.4 mm		M
1.50" / 38.1 mm		D

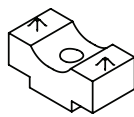
Pad type	Code	Note
Regular (0°)	0	
15° Angle	1 or 2	Choose code based on angle pad orientation shown in lower left hand side of this page
30° Angle	3 or 4	
45° Angle	5 or 6	
Double point	D	Cannot be used with "S" pad width code
Smooth	S	Cannot be used with "D" pad width code
Convex	C	

Material thickness & pad color		Code	Pad width	Code	Pad type	Code
Material thickness	Pad color					
0.50 - 2.5 mm	2 Rubber	R	1.5" - 3.8 mm	D	Rubber	R

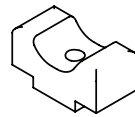
**Regular pads**



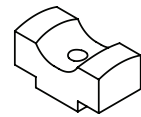
**Double point pads**



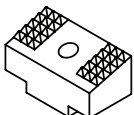
**Smooth pads**



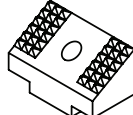
**Convex pads**



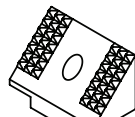
**Angled pads**



15°

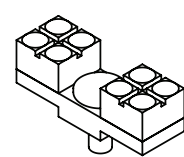


30°



45°

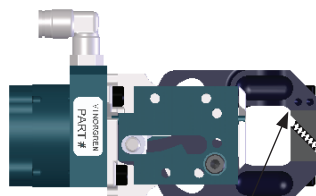
**Rubber pads**



**Angled pad orientation**



Code 1, 3 or 5



Code 2, 4 or 6

**No pads (NUL)**



Grip range with no pads

1.020" - 1.080"  
(25.9 - 27.4)

Dimensions in inches (mm) are for reference only

Diagram D: Port orientation



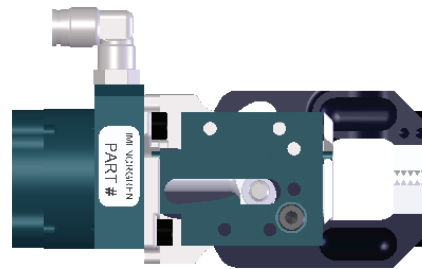
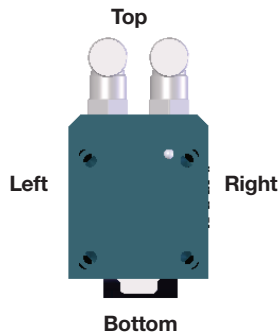
PGS10R XX XXX XXX X

Air port orientation*	Fitting	Code
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fitting	E
	1/8" NPS threads	F
Right	1/4" tube	G
	3/8" tube	H
	6 mm tube	J
	8 mm tube	K
	No fitting	L
	1/8" NPS threads	M
Bottom	1/4" tube	N
	3/8" tube	P
	6 mm tube	Q
	8 mm tube	R
	No fitting	S
	1/8" NPS threads	T
Left	1/4" tube	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fitting	Z
	1/8" NPS threads	2

\*See "Back view" drawing for orientation reference

Back view

Side view



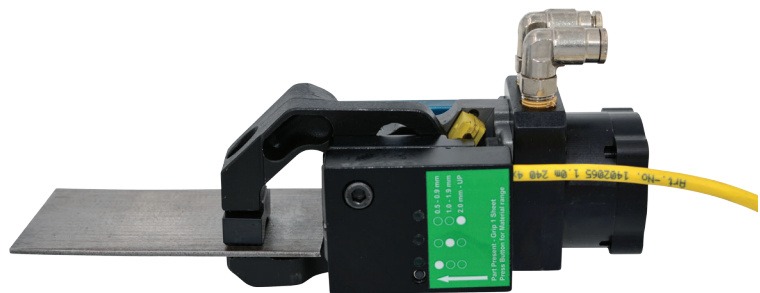
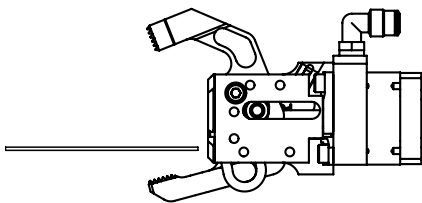
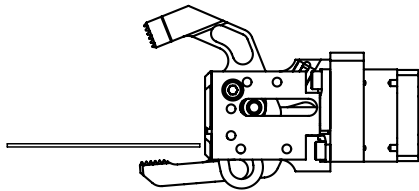


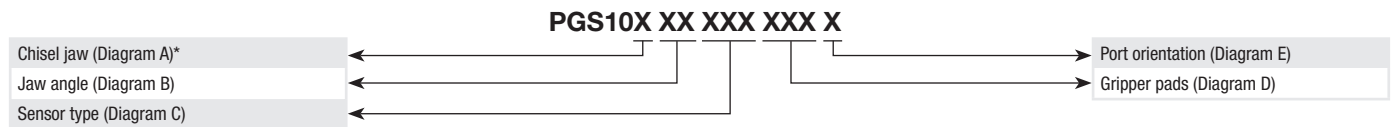
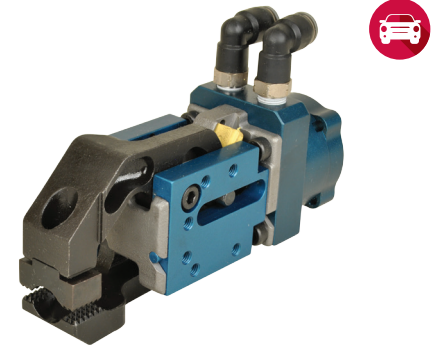
# PGS CHISEL JAW GRIPPER

- > Low profile chisel jaws can be used in 90% of applications since it can fit in dies with low or tight clearances
- > 14° lower chisel jaw provides more tolerance for the motion or shake of the sheet metal during transfer
- > Chisel jaw gripper must clamp to a flat surface



Diagram below illustrates blank placement between chisel jaws to meet low clearance requirements:





\*Chisel jaw type based on material thickness

**Technical Data**

**Throat depth**  
0.75" (19.1 mm)

**Flange height**  
1.44" (36.7 mm)

**Front face**  
Hardened steel

**Jaw pads**  
Hardened steel

**Body**  
Hardcoat aluminum

**Lubrication**  
Permanent for non-lube air

**Working pressure**  
60 psi min. - 100 psi max.  
(413 kPa min - 689 kPa max)

**Grip force**  
\*Up to 450 lb @ 80 psi  
(200 kg @ 551 kPa)

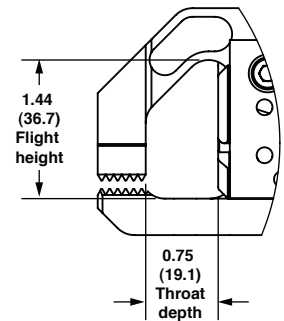
**Cycles**  
MCBF 5 million

**Actuation time**  
0.05±0.01 sec close /  
<0.09 sec open

**Weight**  
\*\*1.6 lbs. (0.73 kg)

**Air ports**  
1/8" NPS or 1/8 Rc

\* Double sided force measurement  
\*\*Weight is with air fittings and 1.0" wide pads and without sensors



**Diagram A**

Gripper jaw type & material thickness

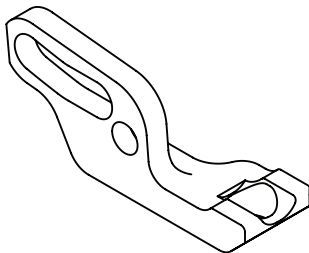
**Chisel jaw WITHOUT teeth**

Material thickness	Chisel jaw style	Code
0.50 mm-9.50 mm	1.0" wide without teeth	<b>A</b>
	0.5" wide without teeth	<b>B</b>

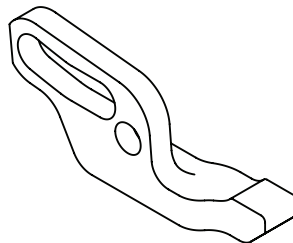
**Chisel jaw WITH teeth**

Material thickness	Code
0.50-3.50 mm	<b>C</b>
3.51-6.5 mm	<b>D</b>
6.51-9.5 mm	<b>E</b>

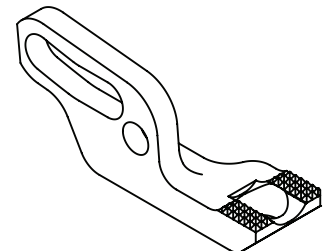
Material thickness	Code
0.50-2.0 mm	<b>1</b>
2.01-3.50 mm	<b>2</b>
3.51-5.0 mm	<b>4</b>
5.01-6.5 mm	<b>6</b>
6.51-8.0 mm	<b>7</b>
8.01-9.5 mm	<b>9</b>



**(A)** Style jaws  
1.0" Wide without teeth



**(B)** Style jaws  
0.5" Wide without teeth



**(C, D, E)** Style jaws  
1.0" Wide with teeth

Dimensions in inches (mm) are for reference only



### Diagram B: Jaw angle

**Note:** Only upper jaw is removable

PGS10X XX XXX X X X X

Jaw type	Top jaw angle	Bottom jaw angle	Code
Chisel	22	0	20
	22	14	21
	45	0	40
	45	14	41
	70	0	70
	70	14	71

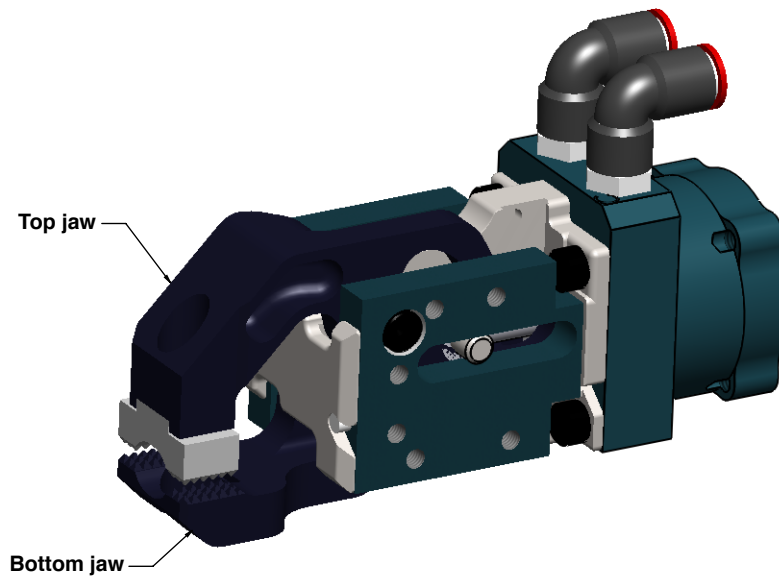


Diagram B: Jaw angle continued

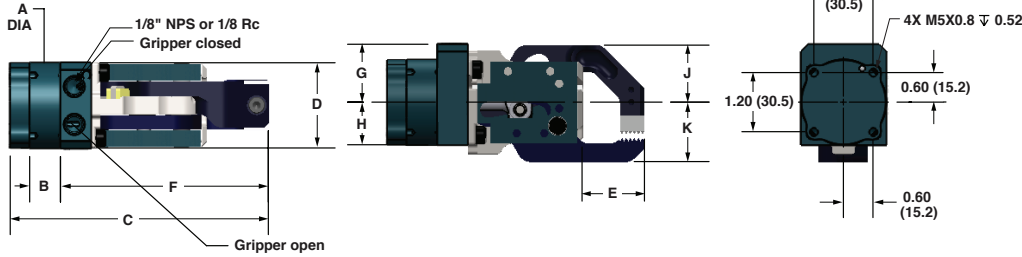


DIM	Inches	mm
A	1.73	43.9
B	0.63	16.0
C	5.24	133.1
D	1.73	43.9
E	1.25	31.8
F	4.23	107.4
G	1.18	29.8
H	0.86	21.9
J	1.18	30.0
K	1.21	30.7

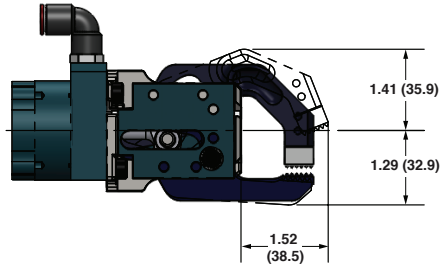
Top view

Side view

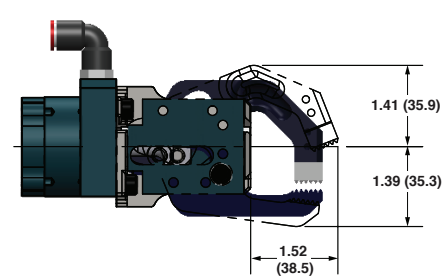
Back view



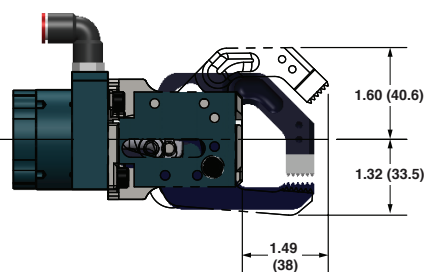
22° X 0°



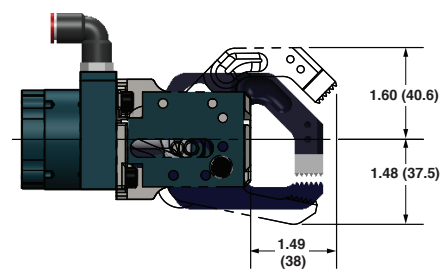
22° X 14°



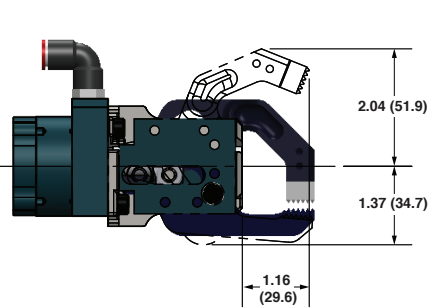
45° X 0°



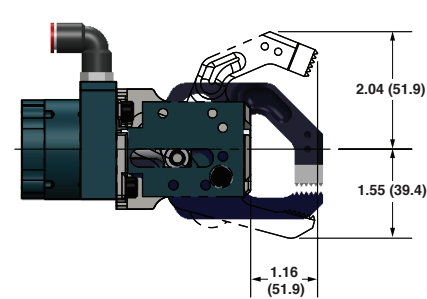
45° X 14°



70° X 0°



70° X 14°



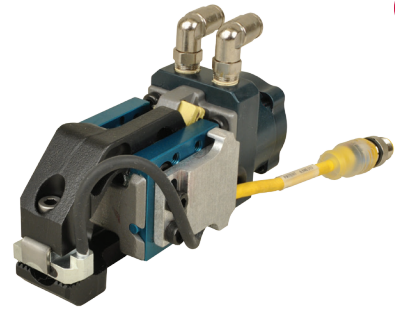
Dimensions in inches (mm) are for reference only



**Diagram C: Sensor type**

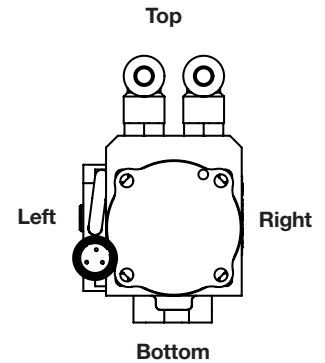
In-pad sensor

- Notes:**
1. In-pad sensors are only available with 1.0" wide regular pads
  2. In-pad sensors can not be mounted on the bottom chisel jaw
  3. In-pad sensor uses an operating material thickness range of 0.5-9.5 mm
  4. In-pad sensor does not function with 0.50" wide lower chisel jaw
  5. No sensor code - **NUL**



**PGS10X XX X X X XXX X**

Type	Code	Output	Code	Pad	Connector	Pad mount	PCB mount	Code
In-pad	I	NPN	N	Reg (0°)	Micro	Top	Right	A
					Pico (Internal wire)		Left	B
							Right	E
				Double point	Micro	Top	Right	S
					Pico (Internal wire)		Left	T
							Right	W
				Smooth (0°)	Micro	Top	Right	I
							Left	9
				In-pad	I	PNP	P	Reg (0°)
Pico (Internal wire)	Left	B						
	Right	E						
Double point	Micro	Top	Right					S
	Pico (Internal wire)		Left					T
			Right					W
Smooth (0°)	Micro	Top	Right					I
			Left					9
In-pad	I	2 Wire	2					Reg (0°)
				Pico (Internal wire)	Left	B		
					Right	E		
				Double point	Micro	Top	Right	S
					Pico (Internal wire)		Left	T
							Right	W
				Smooth (0°)	Micro	Top	Right	I
							Left	9
				In-pad	I	2 Wire	T	Reg (0°)
Bottom	Left	B						
	Right	C						
	Left	D						



For more detailed information on the sensors, please refer to the Sensor section.

**Diagram C: Sensor type continued**

Indirect sensor

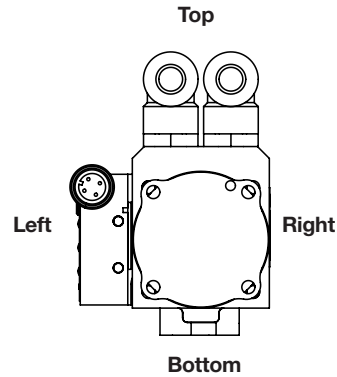


- Notes:**
1. Gaging accessories cannot be used on the same side as an indirect sensor
  2. No sensor code - **NUL**

**PGS10X XX X X X XXX X**

Type	Code	Output	Code	Connector	Mount side	Code
Indirect double blank	D	NPN	N	Micro	Right	R
					Left	L
				Pico 4 Pin (Internal wire)	Right	E
		Left	W			
		PNP	P	Micro	Right	R
					Left	L
Pico 4 Pin (Internal wire)	Right			E		
Left	W					
Indirect part present	H	NPN	N	Micro	Right	R
					Left	L
				Pico 3 Pin (Internal wire)	Right	E
		Left	W			
		PNP	P	Micro	Right	R
					Left	L
Pico 3 Pin (Internal wire)	Right			E		
Left	W					
No sensor code - <b>NUL</b>						

For more detailed information on sensors, please refer to Sensor section.





**Diagram D: Gripper pads**

- Notes:**
1. This chart should not be used with in-pad sensors
  2. Double point pad only available in 1.0" & 1.5" widths
  3. No angle pads can be used with chisel jaw
  4. No pad code - **NUL**

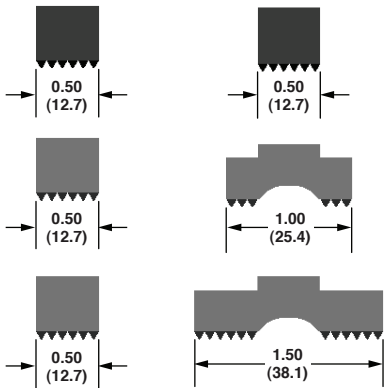
PGS 10X XX XXX XXX X

Material thickness	Pad color	Code
0.50-2.0 mm	1 Black + Shim (0.03-0.75 mm)	1
2.01-3.5 mm	1 Silver (no shim)	3
3.51-5.0 mm	1 Black + Shim (0.03-0.75 mm)	4
5.01-6.5 mm	1 Silver (no shim)	6
6.51-8.0 mm	1 Black + Shim (0.03-0.75 mm)	7
8.01-9.5 mm	1 Silver (no shim)	9

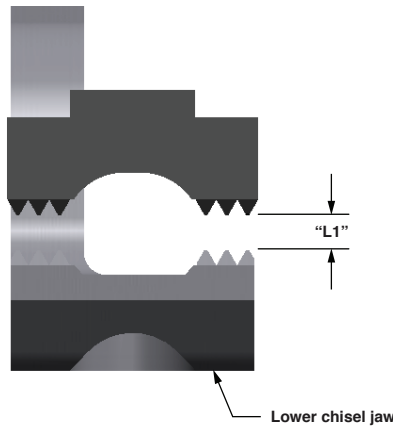
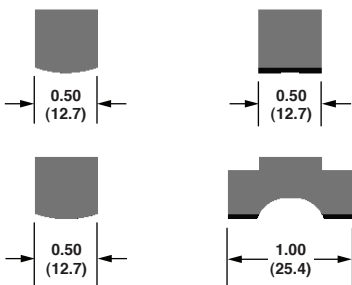
Pad width	Code
0.5" / 12.7 mm	S
1.0" / 25.4 mm	M
1.5" / 38.1 mm	D

Pad type	Code	Note
Regular (0°)	0	
Double Point	D	Cannot be used with "S" pad width
Smooth	S	Cannot be used with "D" pad width
Convex	C	

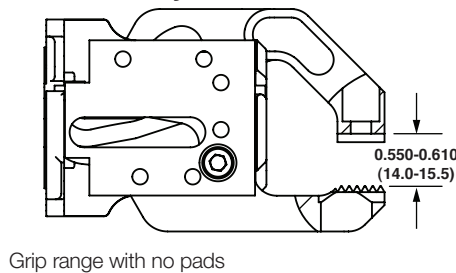
**Regular pads**



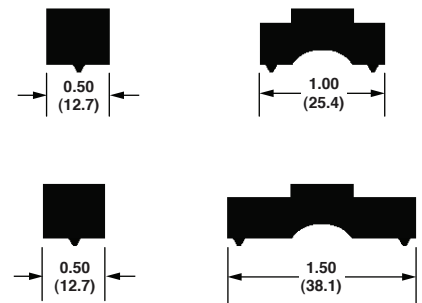
**Convex pads**



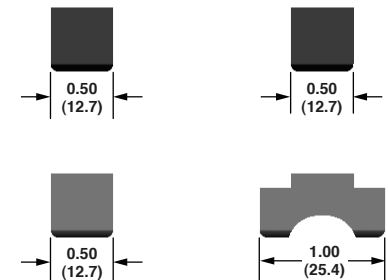
**No pads (NUL)  
Lower chisel jaw**



**Double point pads**



**Smooth pads**



Dimensions in inches (mm) are for reference only

Diagram E: Port orientation



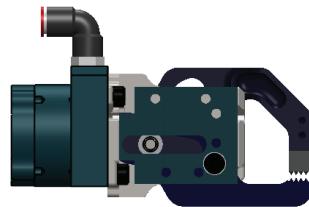
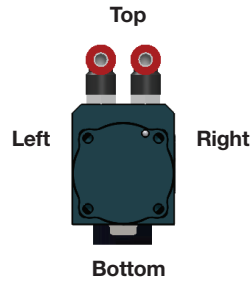
PGS10X XX XXX XXX X

Air port orientation*	Fitting	Code
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fitting 1/8" NPS threads	E
	No fitting 1/8" Rc threads	F
Right	1/4" tube	G
	3/8" tube	H
	6 mm tube	J
	8 mm tube	K
	No fitting 1/8" NPS threads	L
	No fitting 1/8" Rc threads	M
Bottom	1/4" tube	N
	3/8" tube	P
	6 mm tube	Q
	8 mm tube	R
	No fitting 1/8" NPS threads	S
	No fitting 1/8" Rc	T
Left	1/4" tube	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fitting 1/8" NPS threads	Z
	No fitting 1/8" Rc threads	2

\*See "Back view" drawing for orientation reference

Back view

Side view





# PGS FLANGE JAW GRIPPER

- > Gripper is mounted 90° to the gantry tooling
- > Flange jaw allows gripper to reach around the formed flange edge of the blank
- > Great choice for dies with no lift and/ or panels that have a flange or projecting edge that can be used for gripping

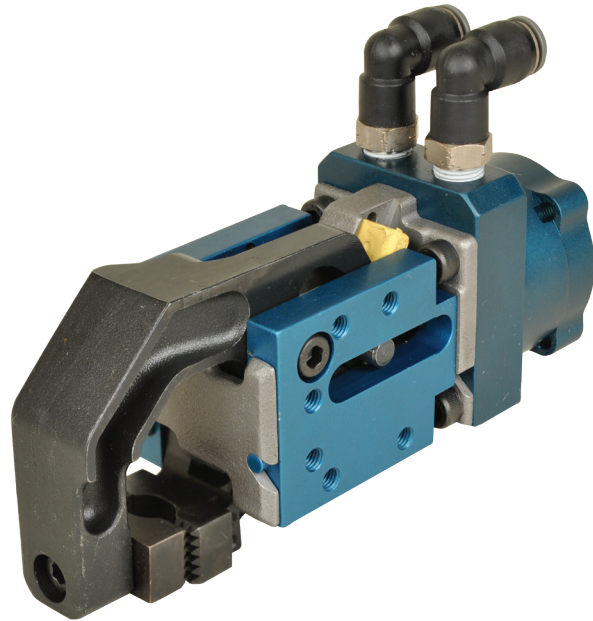
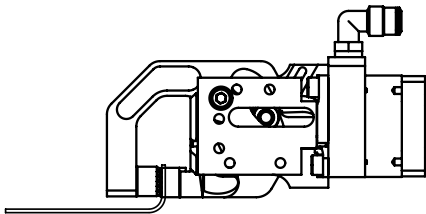
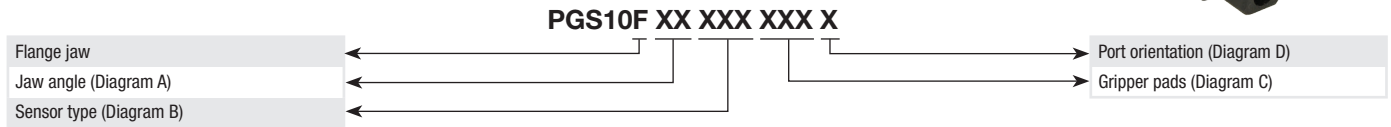


Diagram below shows a flange gripper mounted 90° to a gantry tooling:





**Technical data**

**Throat depth**

0.92" (23.4 mm)

**Flange height**

1.21" (30.6 mm)

**Front face**

Hardened steel

**Jaw pads**

Hardened steel

**Body**

Hardcoat aluminum

**Lubrication**

Permanent for non-lube air

**Working pressure**

60 psi min. - 100 psi max.  
(413 kPa min. - 689 kPa max)

**Grip force**

\*Up to 450 lb @ 80 psi  
(200 kg @ 551 kPa)

**Cycles**

MCBF 5 million

**Actuation time**

0.05 ± 0.01 sec close /  
<0.09 sec open

**Weight**

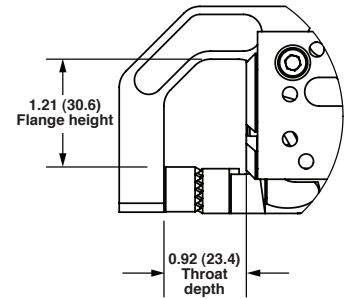
\*\*1.61 lbs. (0.73 kg)

**Air ports**

1/8" NPS or 1/8 Rc

\* Double sided force measurement

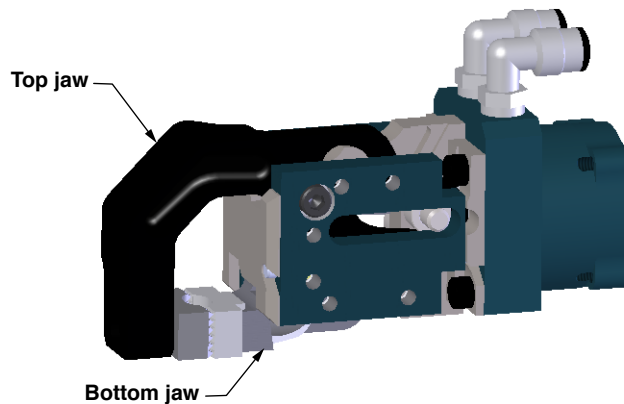
\*\* Weight is with air fittings and 1.0" wide pads



**Diagram A: Jaw angle**

**PGS10F XX XXX XXX X**

Jaw type	Top jaw angle	Bottom jaw angle	Code
Flange	22	0	20
	45	0	40
	70	0	70

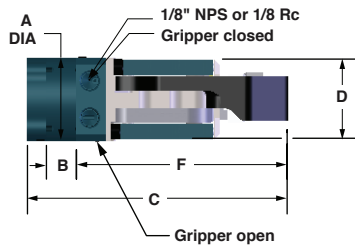


Dimensions in inches (mm) are for reference only

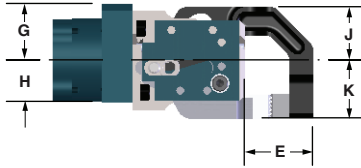
Diagram A: Jaw angle continued



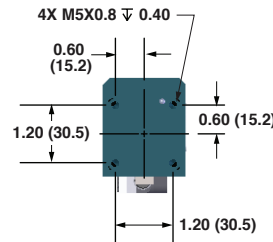
Top view



Side view

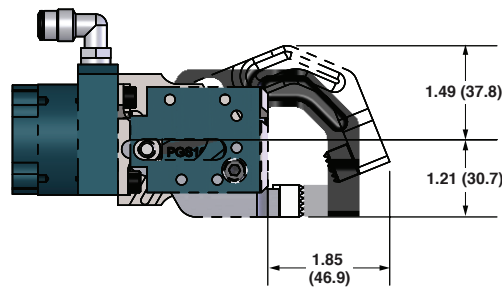


Back view

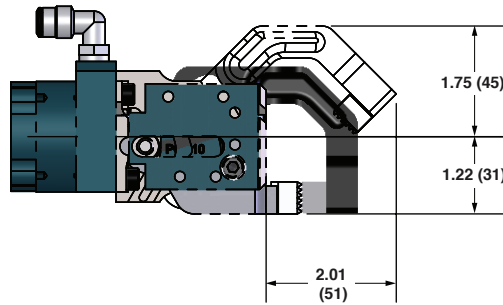


DIM	Inches	mm
A	1.73	43.8
B	0.63	15.9
C	5.40	137.2
D	1.65	41.9
E	1.41	35.8
F	4.38	111.2
G	1.18	29.8
H	0.86	21.9
J	1.18	29.9
K	1.21	30.7

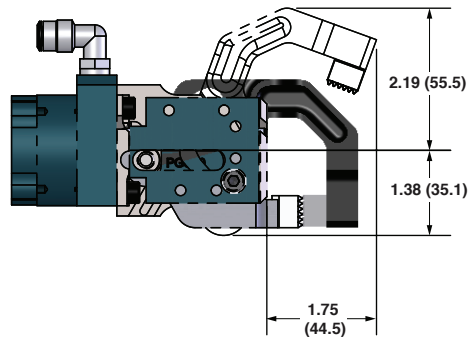
22° X 0°



45° X 0°



70° X 0°



Dimensions in inches (mm) are for reference only

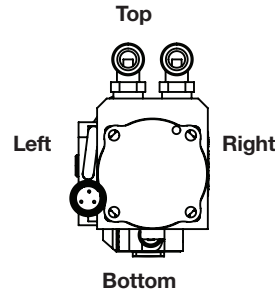
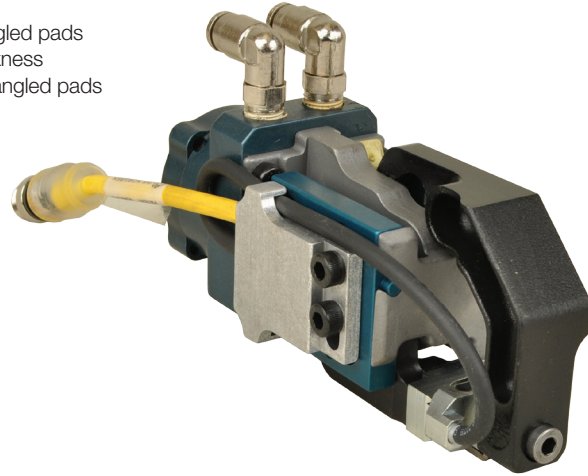
**Diagram B: Sensor type**

In-pad sensors

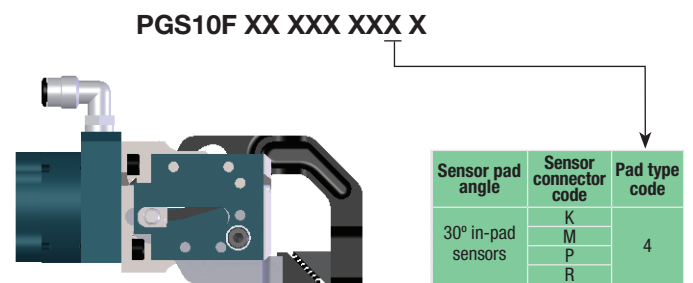
- Notes:**
1. In-pad sensors are only available with 1.0" wide regular and 30° angled pads
  2. In-pad sensors are available for 0.5-3.5 mm and 2.01-5.0 mm thickness
  3. In-pad sensors can only be used in the following combinations for angled pads (30° only) CODE: #4, TOP LEFT or BOTTOM LEFT
  4. No sensor option **NUL**

**PGS10F XX X X X XXX X**

Type	Code	Output	Code	Pad	Connector	Pad mount	PCB mount	Code					
In-pad	I	NPN	N	Reg (0°)	Micro	Top	Right	A					
						Left	B						
						Bottom	C						
					Pico (Internal wire)	Top	Right	D					
						Left	E						
						Bottom	Right	F					
				30°	Micro	Top	Left	K					
						Bottom	Left	M					
						Bottom	Left	R					
					Pico (Internal wire)	Top	Left	P					
						Bottom	Left	R					
						Bottom	Left	R					
				Double point	Micro	Top	Left	T					
						Bottom	Left	V					
						Bottom	Left	V					
					Pico (Internal wire)	Top	Right	W					
						Left	Y						
						Bottom	Right	Z					
				Smooth (0°)	Micro	Top	Right	1					
						Left	9						
						Bottom	Right	3					
					Micro	Top	Left	6					
						Bottom	Left	8					
						Bottom	Left	8					
In-pad	I	PNP	P	Reg (0°)	Micro	Top	Right	A					
						Left	B						
						Bottom	Right	C					
					Pico (Internal wire)	Top	Left	D					
						Bottom	Right	E					
						Bottom	Left	F					
				30°	Micro	Top	Left	K					
						Bottom	Left	M					
						Bottom	Left	R					
					Pico (Internal wire)	Top	Left	P					
						Bottom	Left	R					
						Bottom	Left	R					
				Double point	Micro	Top	Left	T					
						Bottom	Left	V					
						Bottom	Left	V					
					Pico (Internal wire)	Top	Right	W					
						Left	Y						
						Bottom	Right	Z					
				Smooth (0°)	Micro	Top	Right	1					
						Left	9						
						Bottom	Right	3					
					Micro	Top	Left	6					
						Bottom	Left	8					
						Bottom	Left	8					
In-pad	I	2 Wire	2	Reg (0°)	Micro	Top	Right	A					
						Left	B						
						Bottom	Right	C					
					Pico (Internal wire)	Top	Left	D					
						Bottom	Right	E					
						Bottom	Left	F					
				30°	Micro	Top	Left	K					
						Bottom	Left	M					
						Bottom	Left	R					
					Pico (Internal wire)	Top	Left	P					
						Bottom	Left	R					
						Bottom	Left	R					
				Smooth (0°)	Micro	Top	Right	1					
						Left	9						
						Bottom	Right	3					
					Micro	Top	Left	6					
						Bottom	Left	8					
						Bottom	Left	8					
				Smooth (30°)	Micro	Top	Left	6					
						Bottom	Left	8					
						Bottom	Left	8					
					In-pad	I	2 Wire	T	Reg (0°)	Micro (4 Pin 1 Key)	Top	Right	A
											Left	B	
											Bottom	Right	C
Bottom	Left	D											
Bottom	Left	D											
Bottom	Left	D											



Angle pad orientation for 30° in-pad sensors



Codes K, M, P, R for the 30° in-pad are only compatible with 30° pad type code 4

For more detailed information on sensors, please refer to Sensor section.



**Diagram B: Sensor type continued**

Indirect sensors

- Notes:**
1. Gaging accessories cannot be used on the same side as an indirect sensors
  2. Double point and rubber pads cannot be used on indirect sensors
  3. No pad code - **NUL**

PGS10F XX X X X XXX X

Type	Code	Output	Code	Connector	Mount side	Code
Indirect part present	H	NPN	N	Micro	Right	R
					Left	L
				Pico 3 Pin (Internal wire)	Right	E
			Left	W		
		PNP	P	Micro	Right	R
					Left	L
Pico 3 Pin (Internal wire)	Right			E		
	Left	W				

No sensor code - **NUL**

For more detailed information on sensors, please refer to Sensor section.

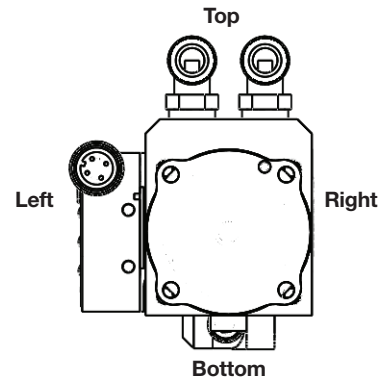
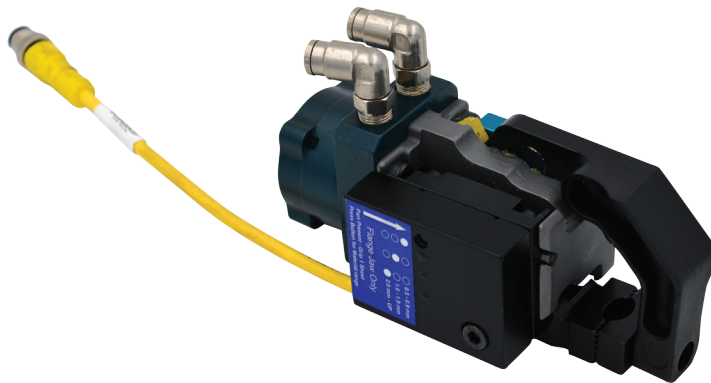
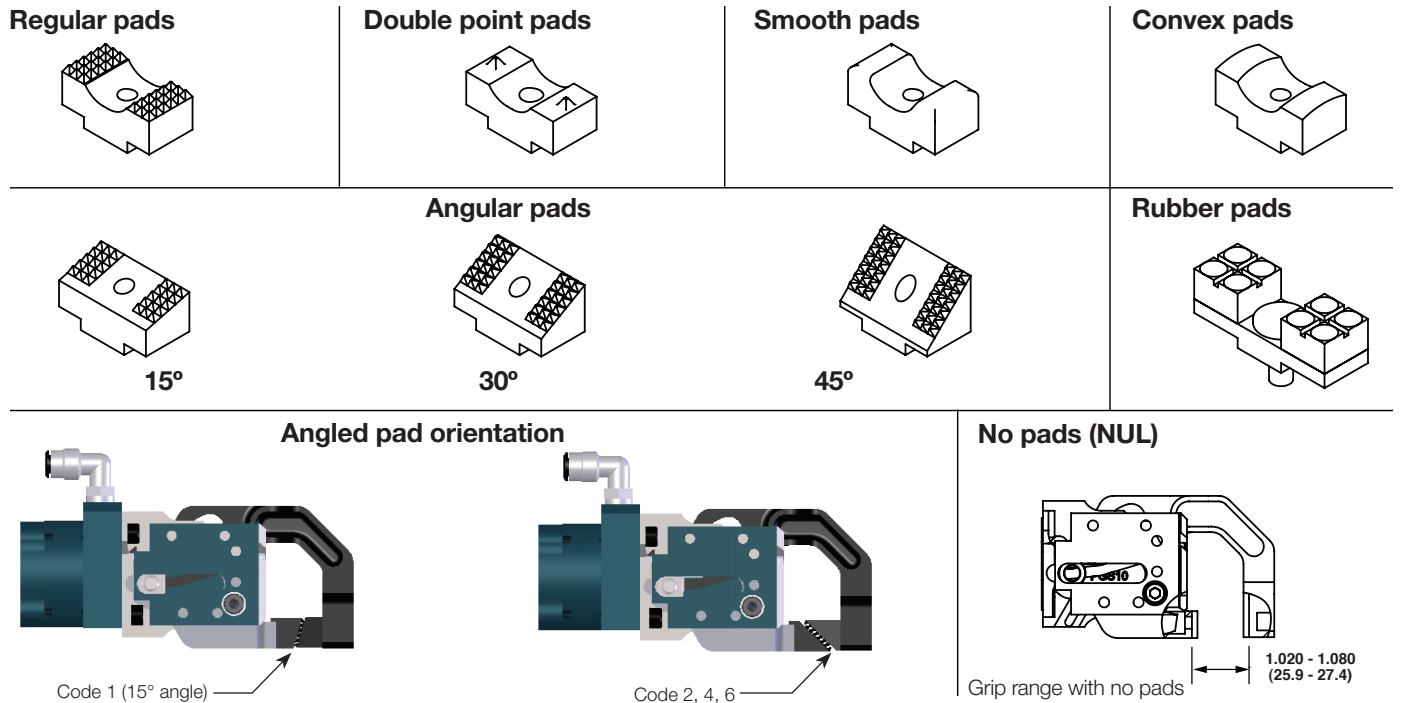
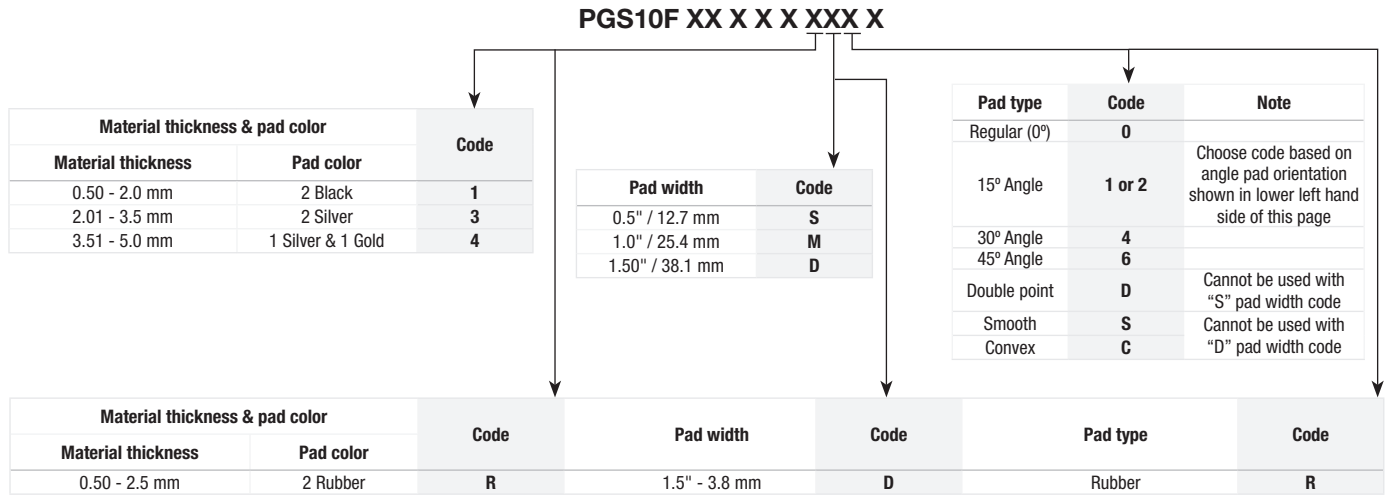


Diagram C: Gripper pads



- Notes:
1. 30° & 45° angle pads only available in code 4 & 6 orientations
  2. Double point pads only available in 1.0" & 1.5" widths
  3. Double point and rubber pads cannot be used on indirect sensors
  4. Rubber pads thickness range 0.5-2.5 mm
  5. No pad code - **NUL**



Dimensions in inches (mm) are for reference only



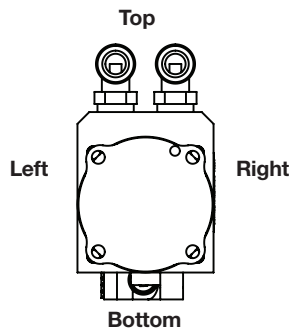
Diagram D: Port orientation

PGS10F XX XXX XXX X

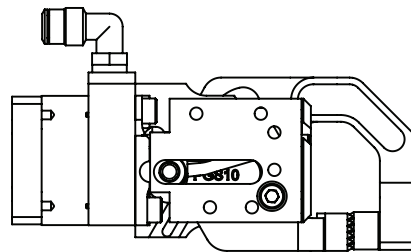
Air port orientation*	Tube size	Code
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fitting 1/8" NPS threads	E
	No fitting 1/8" Rc threads	F
Right	1/4" tube	G
	3/8" tube	H
	6 mm tube	J
	8 mm tube	K
	No fitting 1/8" NPS threads	L
	No fitting 1/8" Rc threads	M
Bottom	1/4" tube	N
	3/8" tube	P
	6 mm tube	Q
	8 mm tube	R
	No fitting 1/8" NPS threads	S
	No fitting 1/8" Rc threads	T
Left	1/4" tube	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fitting 1/8" NPS threads	Z
	No fitting 1/8" Rc threads	2

\*See "Back view" drawing for orientation reference

Back view



Side view





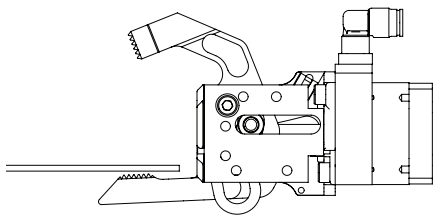
# PGS SHOVEL JAW GRIPPER

- > Low profile shovel jaw is used for dies with low clearance
- > Lower jaw provides a “scoop” to absorb motion/ shake of panels during transfer



PGS10 SHOVEL GRIPPER

Diagram below illustrates blank placement using a shovel jaw gripper:





PGS10X XX XXX XXX X

Shovel jaw based on material thickness (Diagram A)  
Jaw angle (Diagram B)  
Sensor type (Diagram C)

Port orientation (Diagram E)  
Gripper pads (Diagram D)

Technical data

**Throat depth**  
0.75" (19.1 mm)

**Flange height**  
1.45" (36.8 mm)

**Front face**  
Hardened steel

**Jaw pads**  
Hardened steel

**Body**  
Hardcoat aluminum

**Lubrication**  
Permanent for non-lube air

**Working pressure**  
60 psi min. - 100 psi max.  
(413 kPa min. - 689 kPa max)

**Grip force**  
\*Up to 450 lb @ 80 psi  
(200 kg @ 551 kPa)

**Cycles**  
MCBF 5 million

**Actuation time**  
0.05 ± 0.01 sec close /  
<0.09 sec open

**Weight**  
\*\*1.67 lbs. (0.76 kg)

**Air ports**  
1/8" NPS or 1/8 Rc

\* Double sided force measurement  
\*\* Weight is with air fittings and 1.0" wide pads

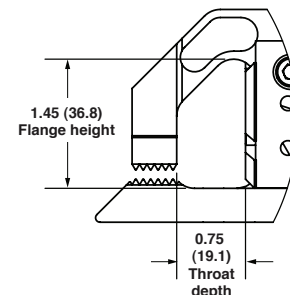


Diagram A

Gripper jaw type & material thickness

PGS10X XX XXX XXX X

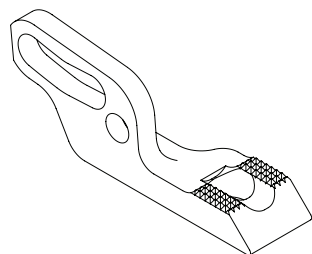
Shovel jaw WITH teeth

Material thickness	Shovel jaw style	Code
0.5-3.5 mm	With teeth	S
3.51-6.5 mm	With teeth	T
6.51-9.5 mm	With teeth	U

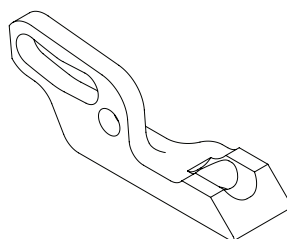
Shovel jaw WITHOUT teeth

Material thickness	Shovel jaw style	Code
0.5-3.5 mm	Without teeth	V
3.51-6.5 mm	Without teeth	W
6.51-9.5 mm	Without teeth	Y

Material thickness	Code
6.51-8.0 mm	7
8.01-9.5 mm	9



(S, T, U) Style jaws  
Shovel jaw with teeth



(V, W, Y) Style jaws  
Shovel jaw without teeth

Dimensions in inches (mm) are for reference only

Diagram B: Jaw angle



PGS10 SHOVEL GRIPPER

PGS10X XX XXX XXX X

Jaw type	Top jaw angle	Bottom jaw angle	Code
Shovel	22	0	20
	45	0	40
	70	0	70

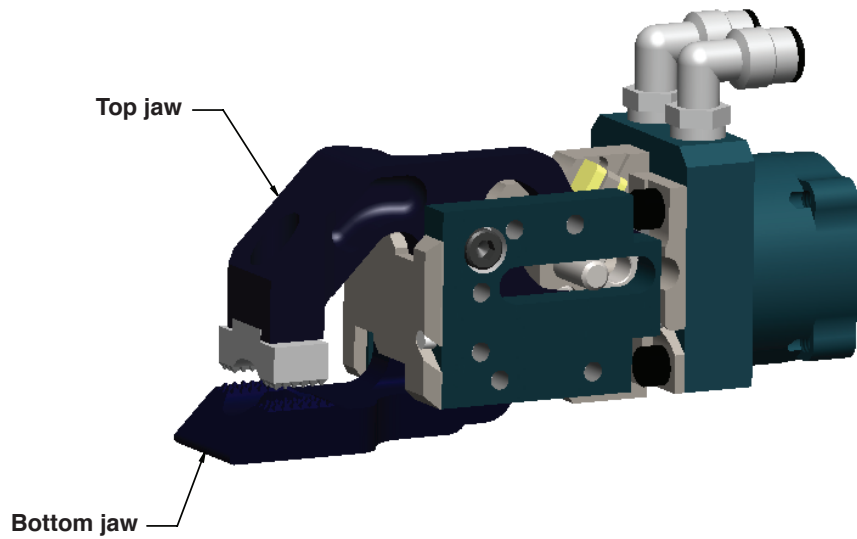
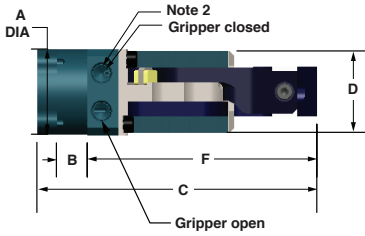


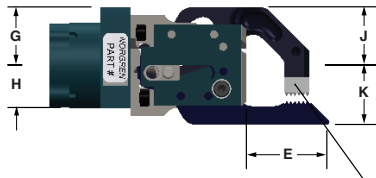


Diagram B: Jaw angle continued

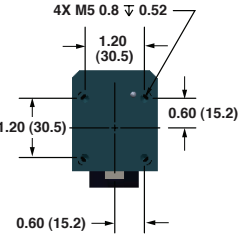
Top view



Side view



Back view

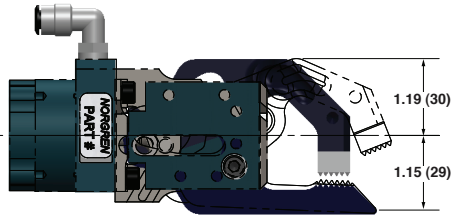


DIM	Inches	mm
A	1.73	43.8
B	0.63	15.9
C	5.65	143.5
D	1.65	41.9
E	1.66	42.2
F	4.63	117.6
G	1.18	29.8
H	0.86	21.9
J	1.18	28.1
K	1.11	28.1

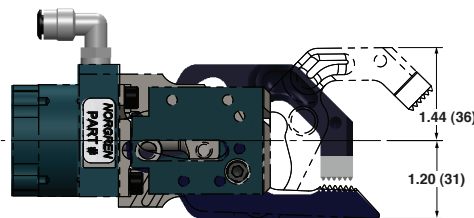
**Note 1**  
See pages 4 for various gripper pads

**Note 2**  
1/8 NPS or 1/8 Rc

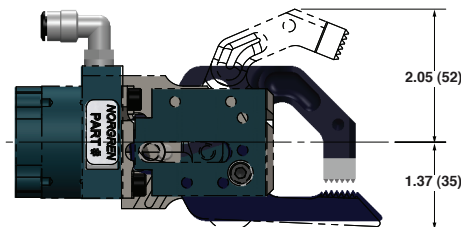
22° X 0°



45° X 0°



70° X 0°



Dimensions in inches (mm) are for reference only

**Diagram B: Sensor type**

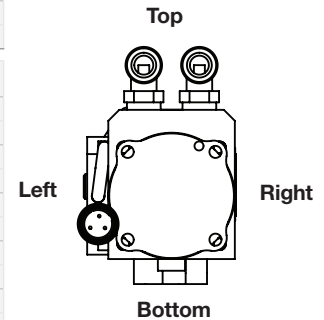
In-pad sensor



- NOTES:**
1. In-pad sensor are only available with 1.0" wide regular pads
  2. In-pad sensor cannot be mounted on the bottom shovel jaw
  3. In-pad sensor uses an operating material thickness range of 0.5-9.5 mm
  4. No sensor code - **NUL**

PGS10X XX X X X XXX X

Type	Code	Output	Code	Pad	Connector	Pad mount	PCB mount	Code
In-pad	I	NPN	N	Reg (0°)	Micro	Top	Right	A
					Pico (Internal wire)		Left	B
							Right	E
				Double point	Micro	Top	Right	S
					Pico (Internal wire)		Left	T
							Right	W
				Smooth (0°)	Micro	Top	Right	I
							Left	9
In-pad	I	PNP	P	Reg (0°)	Micro	Top	Right	A
					Pico (Internal wire)	Top	Left	B
						Right	E	
				Double point	Micro	Top	Right	S
					Pico (Internal wire)		Left	T
							Right	W
				Smooth (0°)	Micro	Top	Right	I
							Left	Y
							Right	9
In-pad	I	2 Wire	2	Reg (0°)	Micro	Top	Right	A
					Pico (Internal wire)		Left	B
							Right	E
				Double point	Micro	Top	Right	S
					Pico (Internal wire)		Left	T
							Right	W
				Smooth (0°)	Micro	Top	Right	I
							Left	Y
							Right	9
In-pad	I	2 Wire	T	Reg (0°)	Micro (4 Pin 1 Key)	Top	Right	A
						Bottom	Left	B
							Right	C
							Left	D



For more detailed information on sensors, please refer to Sensor section.





**Diagram B: Sensor type continued**

Indirect sensor

- NOTES:**
1. Gaging accessories cannot be used on the same side as an indirect sensor
  2. No sensor code - **NUL**

**PGS10X XX X X X XXX X**

Type	Code	Output	Code	Connector	Mount side	Code
Indirect double blank	D	NPN	N	Micro	Right	R
				Pico 4 Pin (Internal wire)	Left	L
				Pico 4 Pin (Internal wire)	Right	E
		PNP	P	Micro	Left	W
				Pico 4 Pin (Internal wire)	Right	R
				Pico 4 Pin (Internal wire)	Left	L
Indirect part present	H	NPN	N	Micro	Right	R
				Pico 3 Pin (Internal wire)	Left	L
				Pico 3 Pin (Internal wire)	Right	E
		PNP	P	Micro	Left	W
				Pico 3 Pin (Internal wire)	Right	R
				Pico 3 Pin (Internal wire)	Left	L

No sensor code - **NUL**

For more detailed information on sensors, please refer to Sensor section.

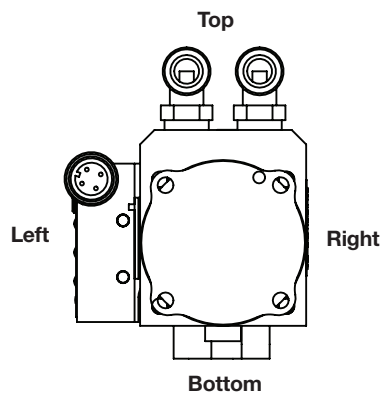


Diagram C: Gripper pads



- Notes:
1. Double point pad only available in 1.0" & 1.5" widths
  2. Angled pads cannot be used with shovel jaws
  3. In-pad sensors are only available with 1.0" wide regular pads
  4. Smooth pads can only be used with shovel jaw without teeth.
  5. No pad code - **NUL**.

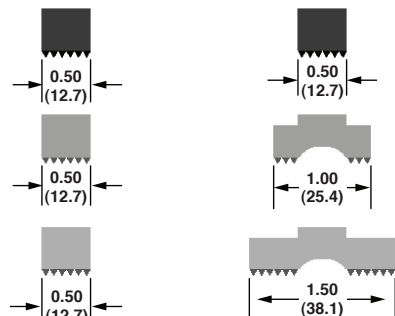
PGS 10X XX XXX XXX X

Material thickness	Pad color	Code
0.50-2.0 mm	1 Black + Shim (0.03-0.75mm)	1
2.01-3.50 mm	1 Silver (no shim)	3
3.51-5.0 mm	1 Black + Shim (0.03-0.75mm)	4
5.01-6.5 mm	1 Silver (no shim)	6
6.51-8.0 mm	1 Black + Shim (0.03-0.75mm)	7
8.01-9.5 mm	1 Silver (no shim)	9

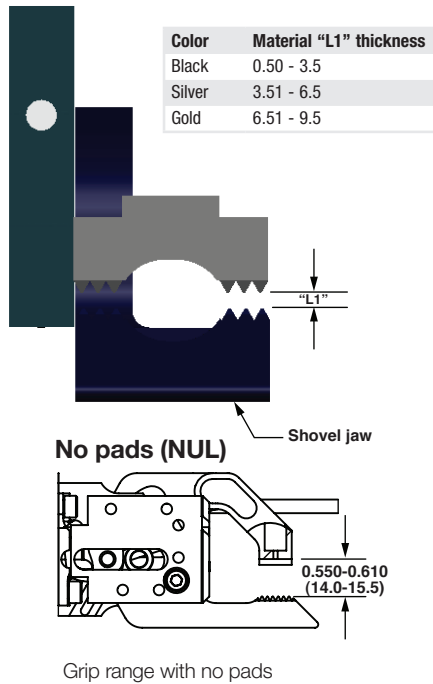
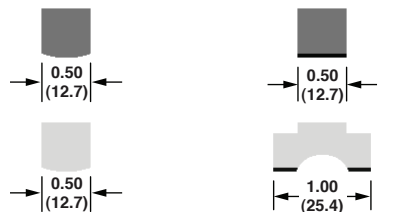
Pad width	Code
0.5" / 12.7 mm	S
1.0" / 25.4 mm	M
1.50" / 38.1 mm	D

Pad type	Code	Note
Regular (0°)	0	
Double Point	D	Cannot be used with "S" pad width
Smooth	S	Cannot be used with "D" pad width
Convex	C	

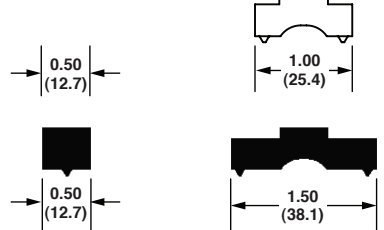
Regular pads



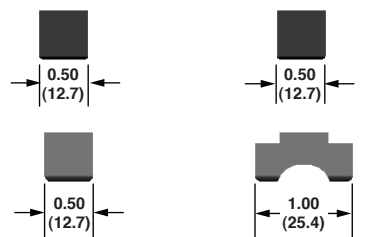
Convex pads



Double point pads



Smooth pads



Dimensions in inches (mm) are for reference only





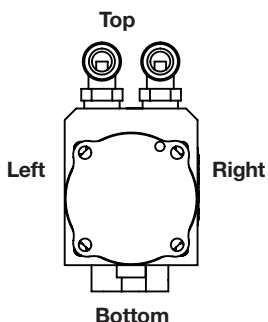
Diagram D: Port orientation

PGS10X XX XXX XXX X

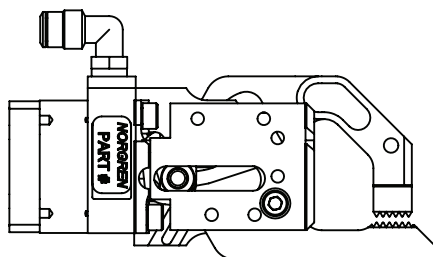
Air port orientation*	Tube size	Code
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fittings 1/8" NPS threads	E
	No fittings 1/8" Rc threads	F
Right	1/4" tube	G
	3/8" tube	H
	6 mm tube	J
	8 mm tube	K
	No fittings 1/8" NPS threads	L
	No fittings 1/8" Rc threads	M
Bottom	1/4" tube	N
	3/8" tube	P
	6 mm tube	Q
	8 mm tube	R
	No fittings 1/8" NPS threads	S
	No fittings 1/8" Rc threads	T
Left	1/4" tube elbow - 1/8 NPT	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fittings 1/8" NPS threads	Z
	No fittings 1/8" Rc threads	2

\*See "Back view" drawing for orientation reference

Back view



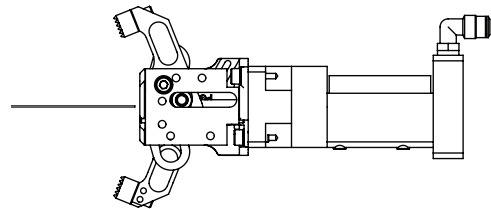
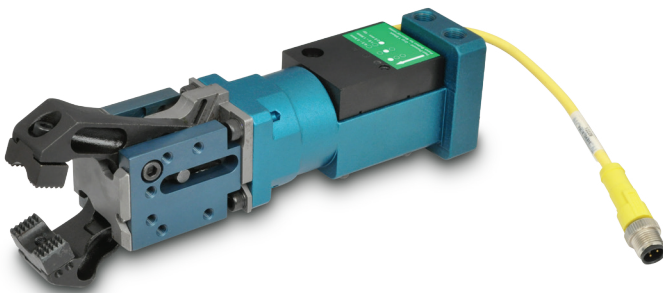
Side view



# PGS HOT METAL GRIPPER

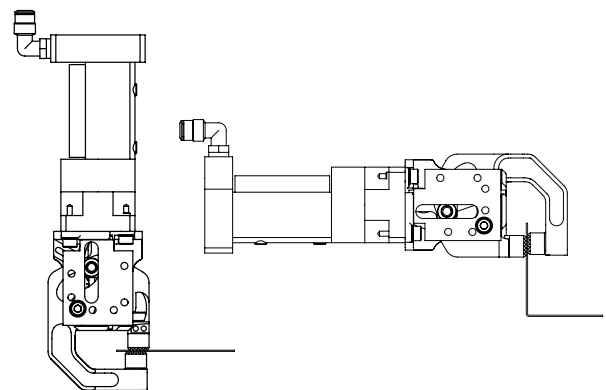
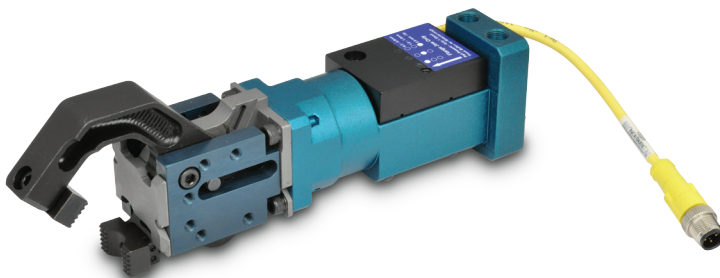
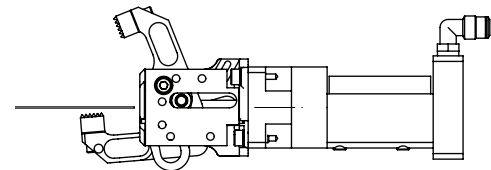


- > Specially designed gripper and gripper components to withstand temperatures up to 900°C
- > Sensors with either part presence or double blank detection capabilities have been repositioned to protect against damaging heat source
- > May be paired with a high temperature tooling system to protect plumbing and electrical wiring from the heat, without the need for any external heat wraps



## Regular jaw

- > General purpose gripper to use for press room transfer fingers or end of arm tooling (EOAT)
- > Wide angle jaw opening can accommodate blanks with inconsistent pick up location

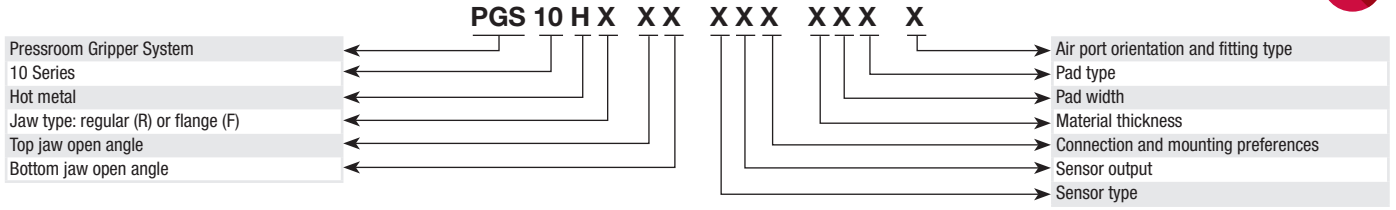


## Flange jaw

- > Gripper is mounted 90° to the gantry tooling
- > Flange jaw allows gripper to reach around the formed flange edge of the blank



Part number scheme



Typical data

Body

Hard coat aluminum

Jaw pads

Hardened steel

Working pressure

60 psi min - 100 psi max  
(413 kPa min - 689 kPa Min)

Lubrication

Permanent for non-lube air

Grip force

Up to 450 lb (200 kg)

Cycles

MCBF 5 million

Actuation times

0.05 close/ 0.07-0.09 open

Weight

2.38 lbs (1.07 kg)

Air ports

1/8" NPS or 1/8 Rc

Front face

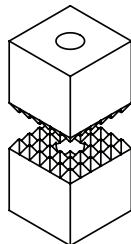
Hardened steel

Max temp.

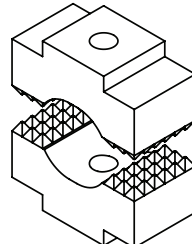
900°C @ 2 spm

Jaw pads

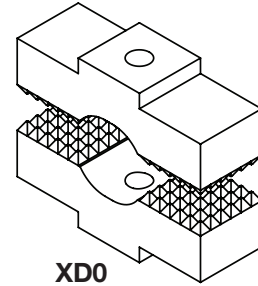
Flat pads for general purpose gripping.



XS0



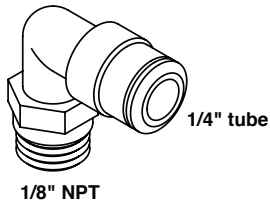
XM0



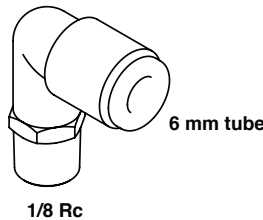
XD0

Air fittings

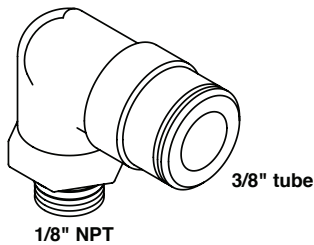
Air fittings can be ordered preassembled to the gripper.



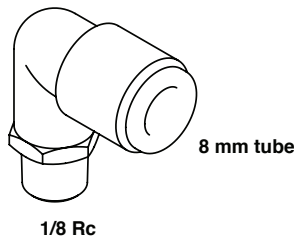
1/8" NPT



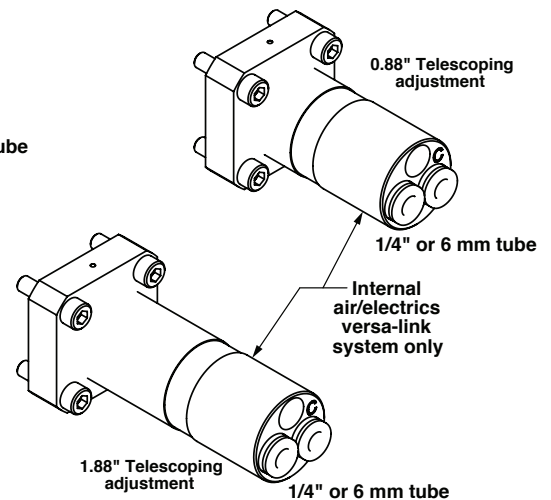
1/8 Rc



3/8" NPT



1/8 Rc



0.88" Telescoping adjustment

1/4" or 6 mm tube

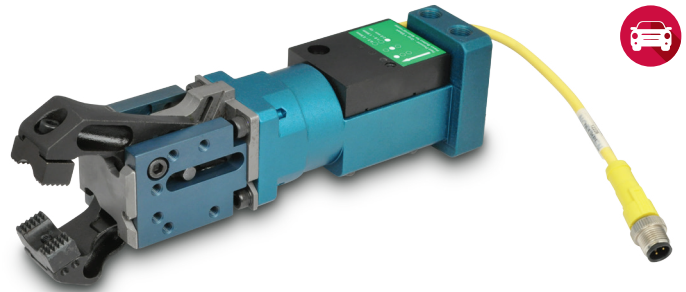
Internal air/electrics versa-link system only

1.88" Telescoping adjustment

1/4" or 6 mm tube

Dimensions in inches (mm) are for reference only

PGS10 Regular Jaw Hot Metal Grippers



PGS10 HOT METAL GRIPPER

PGS10HR XX XXX XXX X

- Hot metal regular jaw
- Jaw angle (Diagram A)
- Sensor type (Diagram B)

- Port orientation (Diagram D)
- Gripper pads (Diagram C)

Technical data

**Throat depth**  
0.75" (19.1 mm)  
**Flange height**  
0.51" (12.9 mm)  
**Front face**  
Hardened steel  
**Jaw pads**  
Hardened steel  
**Body**  
Hardcoat aluminum

**Lubrication**  
Permanent for non-lube air  
**Working pressure**  
\*Up to 450 lbs @ 80 psi  
(200 kgf @ 551 kPa)  
**Grip force**  
\*Up to 450 lbs @ 80 psi  
(200 kgf @ 551 kPa)  
**Cycles**  
MCBF 5 million

**Actuation time**  
0.05 ± 0.01 sec close /  
0.08 ± 0.01 sec open  
**Weight**  
\*\*2.34 lbs (1.06 kg)  
**Air Ports**  
1/8" NPS or 1/8 Rc  
**Max. temp**  
900° C @ 2 spm

\* Double sided force measurement  
\*\* Weight is without air fittings and pads

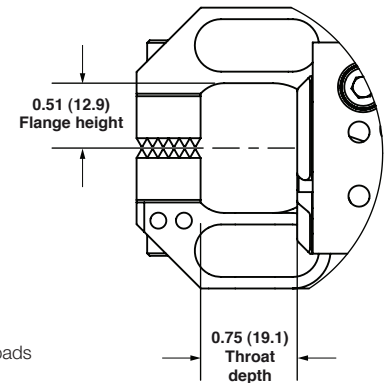
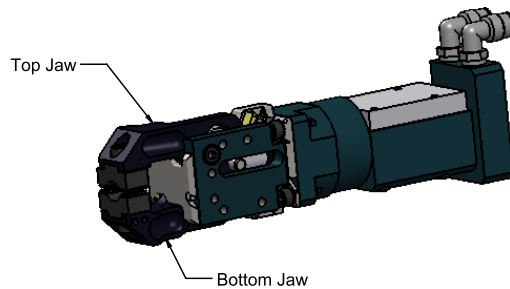


Diagram A: Jaw angle

PGS10HR XX XXX XXX X

Jaw type	Top jaw angle	Bottom jaw angle	Code
Hot Metal Regular	70	0	70
	70	70	77
	22	22	22
	45	45	44
	22	0	20
	45	0	40
	22	11	21
	45	22	42
	70	35	73

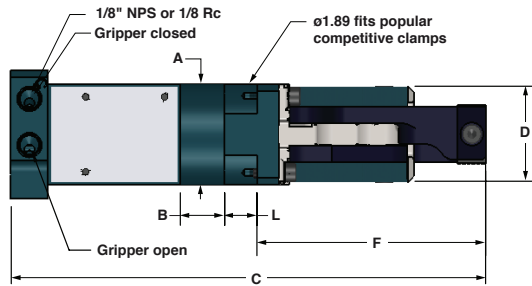


Dimensions in inches (mm) are for reference only



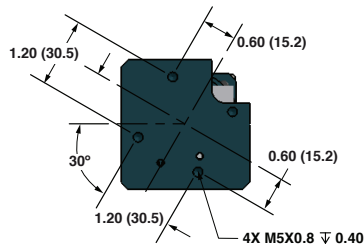
Diagram A: Jaw angle continued

Top view

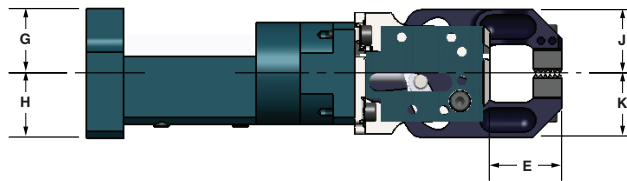


DIM	Inches	mm
A	1.75	44.5
B	0.77	19.6
C	8.23	209.2
D	1.65	41.9
E	1.25	31.8
F	3.97	100.8
G	1.12	28.3
H	1.12	28.3
J	1.1	27.9
K	1.1	27.9
L	0.56	14.2

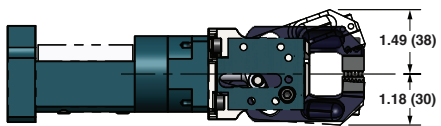
Back view



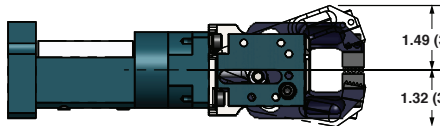
Side view



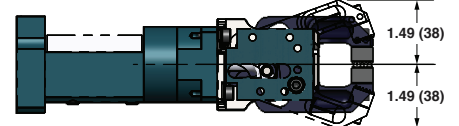
22° X 0°



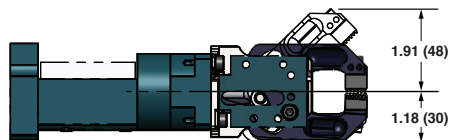
22° X 11°



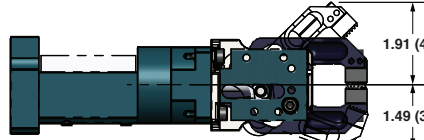
22° X 22°



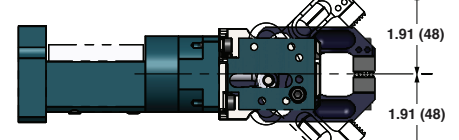
45° X 0°



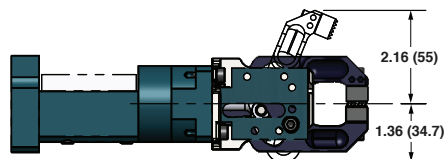
45° X 22°



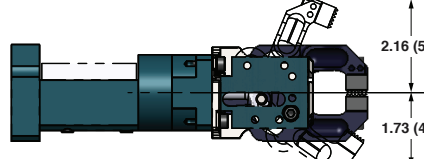
45° X 45°



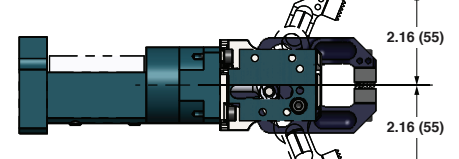
70° X 0°



70° X 35°



70° X 70°



Dimensions in inches (mm) are for reference only

**Diagram B: Sensor type**

Indirect sensors



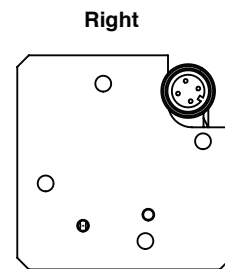
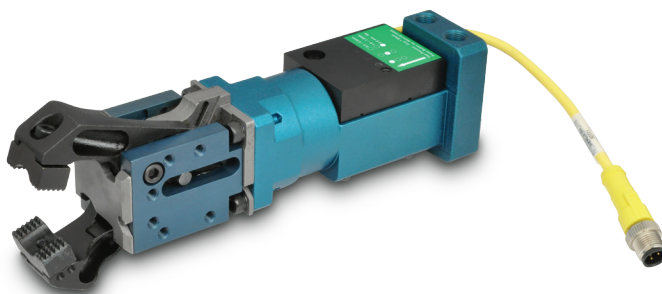
Notes: 1. No sensor code - **NUL**

**PGS10HR XX X X X XXX X**

Type	Code	Output	Code	Connector	Mount side	Code
Indirect double blank	<b>D</b>	NPN	<b>N</b>	Micro	Right	R
				Pico 4 Pin	Right	E
		PNP	<b>P</b>	Micro	Right	R
				Pico 4 Pin	Right	E
Indirect part present	<b>H</b>	NPN	<b>N</b>	Micro	Right	R
				Pico 3 Pin	Right	E
		PNP	<b>P</b>	Micro	Right	R
				Pico 3 Pin	Right	E
Indirect open/close	<b>C</b>	NPN	<b>N</b>	Micro	Right	R
		PNP	<b>P</b>	Micro	Right	R

For more detailed information on sensors, please refer to Sensor section.

Note: Only Pico 4 pin connectors work with Internal Hot Metal Internal Versa System.





**Diagram C: Gripper pads**

Notes: 1. No pad code - NUL

**Material thickness pad color**

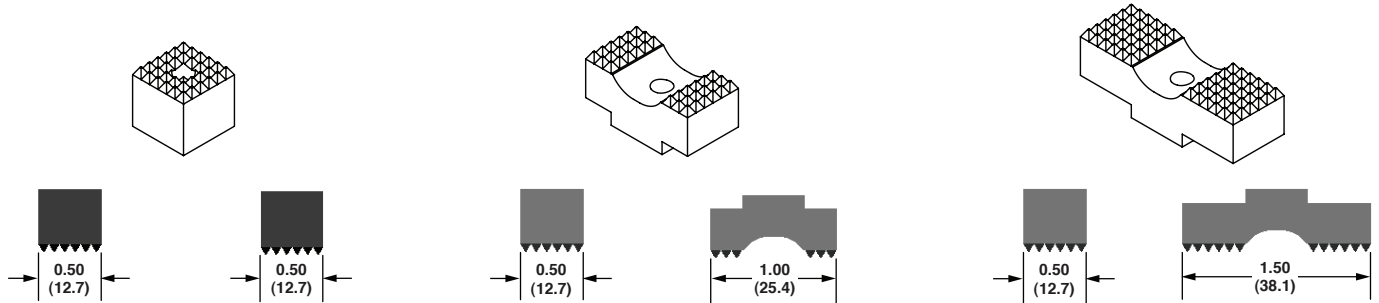
PGS10HR XX XXX X X X X

Material thickness	Pad color	Part code
0.50 - 2.0 mm	2 Black	1
2.01 - 3.5 mm	2 Silver	3
3.51 - 5.0 mm	1 Silver & 1 Gold	4

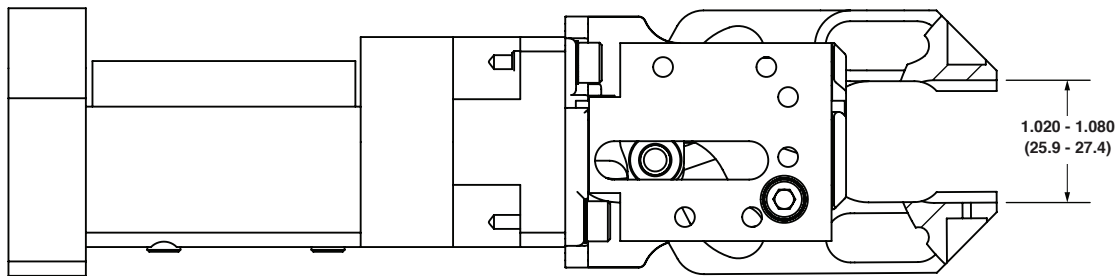
Pad width	Code
0.50 (12.7 mm)	S
1.00 (25.4 mm)	M
1.50 (38.1 mm)	D

Pad type	Code
Regular (0°)	0

**Regular pads**



**No pads (NUL)**



Grip range with no pads

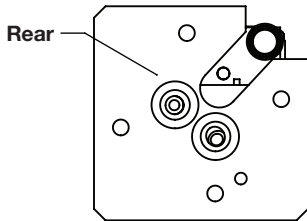
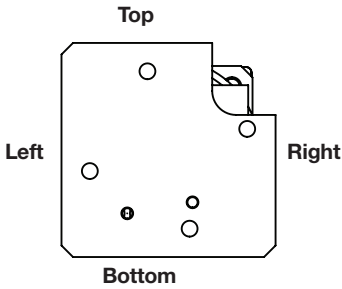
Dimensions in inches (mm) are for reference only



Diagram D: Port orientation



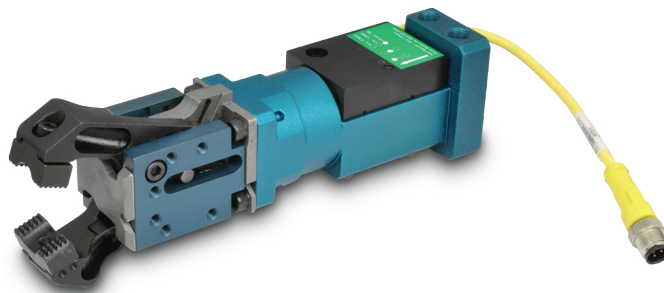
PGS10HR XX XXX XXX X



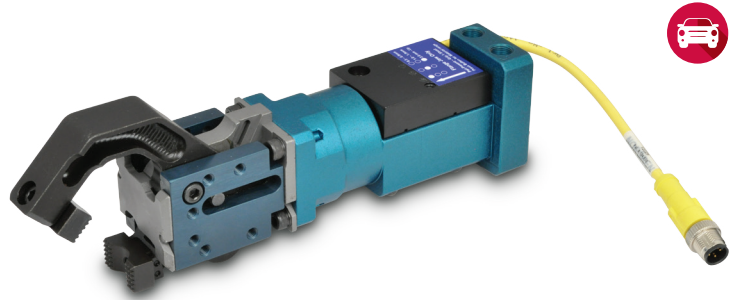
**PGS10TELXXPX**  
Telescope included

(For hot metal  
internal versa  
system only)

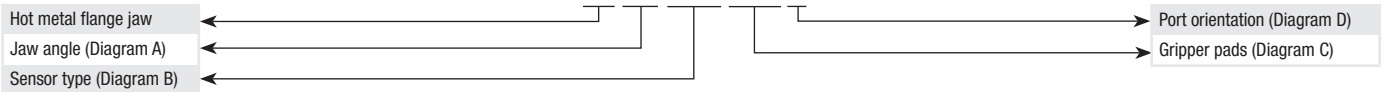
Air part orientation	Tube size	Code
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fittings 1/8" NPS threads	E
	No fittings 1/8 Rc	F
Right	1/4" tube	G
	3/8" tube	H
	6mm tube	J
	8mm tube	K
	No fittings 1/8" NPS threads	L
	No fittings 1/8 Rc	M
Bottom	1/4" tube	N
	3/8" tube	P
	6mm tube	Q
	8mm tube	R
	No fittings 1/8" NPS threads	S
	No fittings 1/8 Rc	T
Left	1/4" tube	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fittings 1/8" NPS threads	Z
	No fittings 1/8 Rc	2
Rear	No fittings PGS10TELXXPX not included	7
	1/4" tube w/ 67 mm telescope	8
	1/4" tube w/ 88 mm telescope	9
	6 mm tube w/ 67 mm telescope	8M
	6 mm tube w/ 88 mm telescope	9M



PGS10 Flange Jaw Hot Metal Grippers



PGS10HF XX XXX XXX X



Technical data

**Throat depth**  
0.91" (23.1 mm)  
**Flange height**  
1.20" (30.4 mm)  
**Jaw pads**  
Hardened Steel  
**Body**  
Hardcoat Aluminum  
**Lubrication**  
Permanent for non-lube air

**Working pressure**  
60 psi min. - 100 psi max  
(413 kPa min. - 689 kPa max)  
**Grip force**  
\*Up to 450 lbs @ 80psi  
(200 kgf @ 551kPa)  
**Cycles**  
MCBF 5 million  
**Actuation time**  
0.05 ± 0.01 sec close /  
0.08 ± 0.01 sec open

**Weight**  
\*\*2.38 lbs (1.08 kg)  
**Air port**  
1/8" NPS or 1/8 Rc  
**Max. temp**  
900° C @ 2 spm  
  
\* Double sided force measurement  
\*\* Weight is with air fittings and 1.0" wide pads

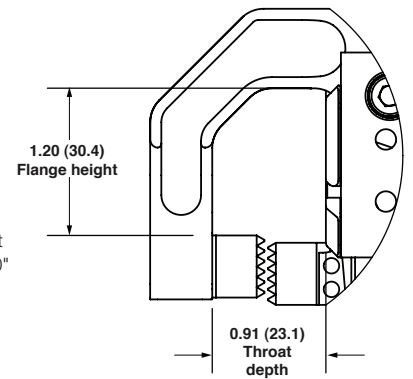
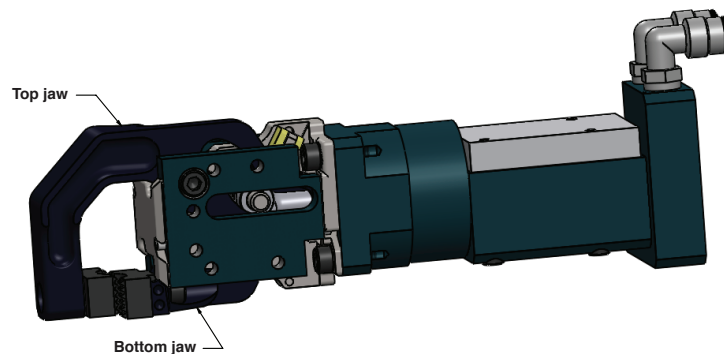


Diagram A: Jaw angle

PGS10HF XX XXX XXX X

Jaw type	Top jaw angle	Bottom jaw angle	Code
Hot Metal Flange	22	0	20
	45	0	40
	70	0	70



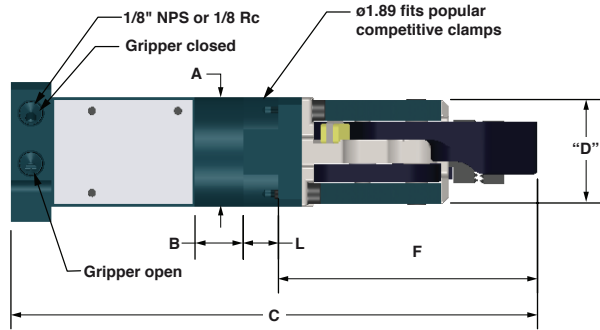
Dimensions in inches (mm) are for reference only

Diagram A: Jaw angle continued



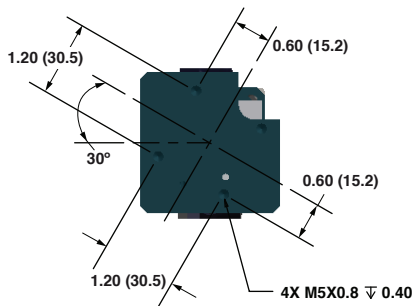
PGS10 HOT METAL GRIPPER

Top view

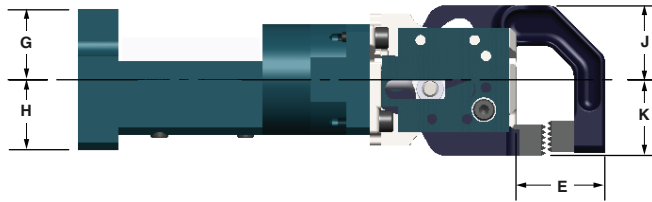


DIM	Inches	mm
A	1.75	44.5
B	0.77	19.6
C	8.39	213.2
D	1.65	41.9
E	1.41	35.8
F	4.13	104.9
G	1.12	28.3
H	1.12	28.3
J	1.18	29.9
K	1.21	30.7
L	0.56	14.2

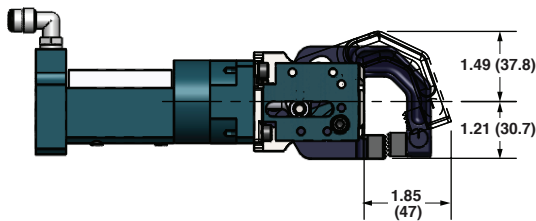
Back view



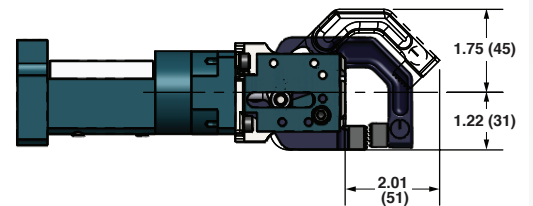
Side view



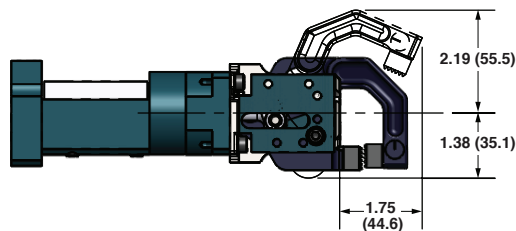
22° X 0°



45° X 0°



70° X 0°



Dimensions in inches (mm) are for reference only


**Diagram B: Sensor type**

Indirect sensors

- Notes:**
1. No sensor code - **NUL**
  2. Only Pico 4 pin connectors work with Internal Hot Metal Internal Versa System

**PGS10HF XX X X X XXX X**

Type	Code	Output	Code	Connector	Mount side	Code
Indirect part present	H	NPN	N	Micro	Right	R
				Pico 3 Pin	Right	E
		PNP	P	Micro	Right	R
				Pico 3 Pin	Right	E
Indirect open/close	C	NPN	N	Micro	Right	R
		PNP	P	Micro	Right	R

For more detailed information on sensors, please refer to Sensor section.

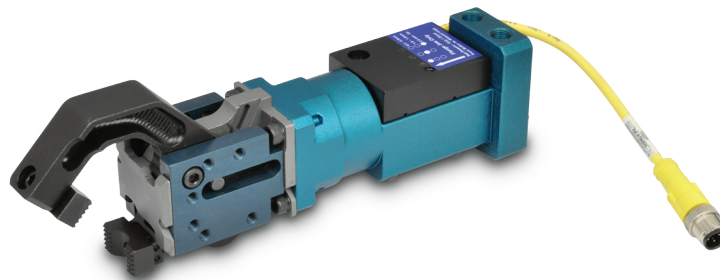


Diagram C: Gripper pads



Notes: 1. No pad code - NUL

PGS10HF XX XXX X X X X

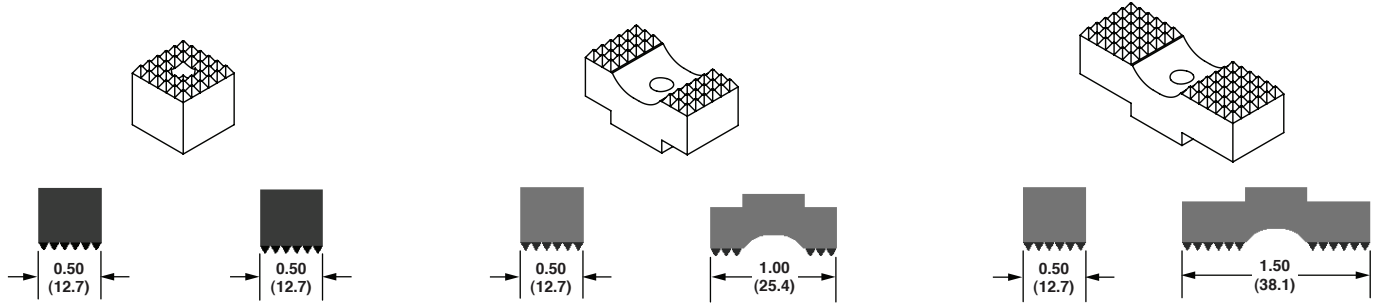
Material thickness pad color

Material thickness	Pad color	Part code
0.50 - 2.0 mm	2 Black	1
2.01 - 3.5 mm	2 Silver	3
3.51 - 5.0 mm	1 Silver & 1 Gold	4

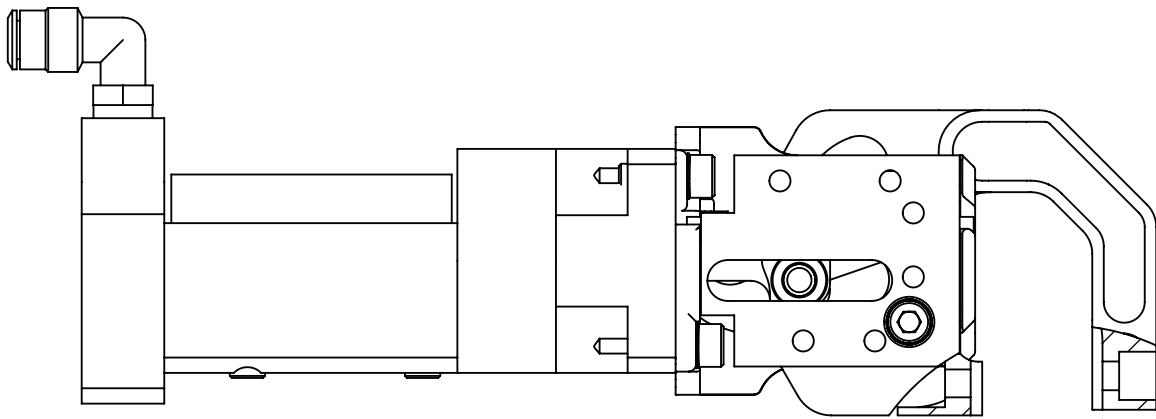
Pad width	Code
0.50 (12.7 mm)	S
1.00 (25.4 mm)	M
1.50 (38.1 mm)	D

Pad type	Code
Regular (0°)	0

Regular pads



No pads (NUL)



Grip range with no pads

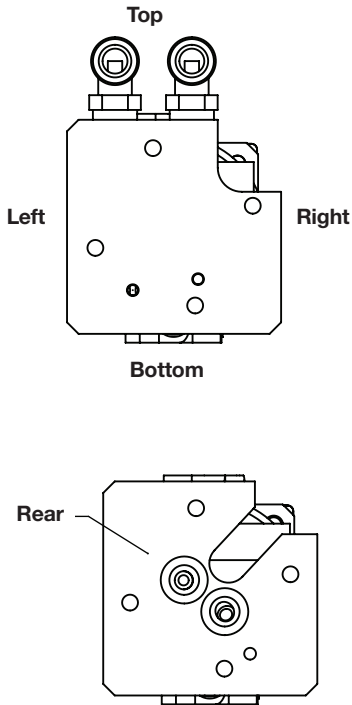
1.020 - 1.080  
(25.9 - 27.4)

Dimensions in inches (mm) are for reference only

Diagram D: Port orientation



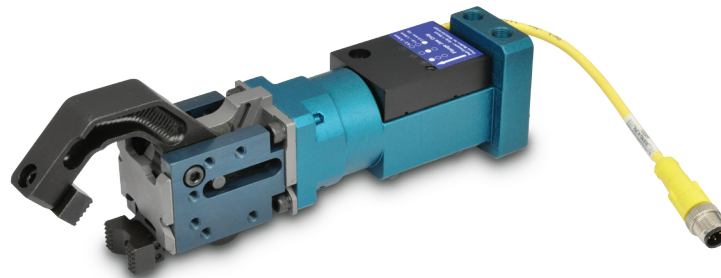
PGS10HF XX XXX XXX X



Air part orientation	Tube size	CODE
Top	1/4" tube	A
	3/8" tube	B
	6 mm tube	C
	8 mm tube	D
	No fittings 1/8" NPS threads	E
	No fittings 1/8 Rc	F
Right	1/4" tube	G
	3/8" tube	H
	6mm tube	J
	8mm tube	K
	No fittings 1/8" NPS threads	L
	No fittings 1/8 Rc	M
Bottom	1/4" tube	N
	3/8" tube	P
	6mm tube	Q
	8mm tube	R
	No fittings 1/8" NPS threads	S
	No fittings 1/8 Rc	T
Left	1/4" tube	U
	3/8" tube	V
	6 mm tube	W
	8 mm tube	Y
	No fittings 1/8" NPS threads	Z
	No fittings 1/8 Rc	2
Rear	No fittings PGS10TELXXPX not included	7
	1/4" tube w/ 67 mm telescope	8
	1/4" tube w/ 88 mm telescope	9
	6 mm tube w/ 67 mm telescope	8M
	6 mm tube w/ 88 mm telescope	9M

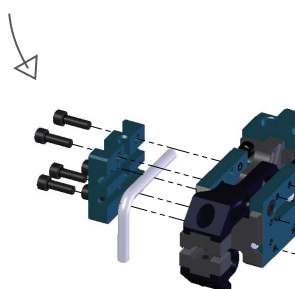
**PGS10TELXXPX**  
Telescope included

(For hot metal  
internal versa  
system only)

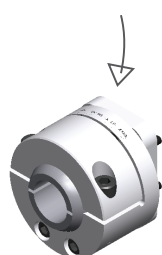


# PGS10 ACCESSORIES

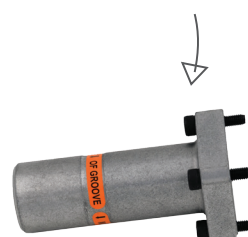
Part gaging kit



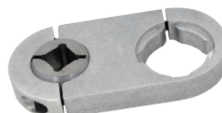
Spherical mount



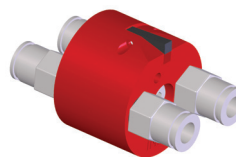
Internal wire adapter



Telescope and stud mounts



Bolt clamp



Gripper valve

This section contains all the accessories for the PGS10 non-hot metal and hot metal grippers including:

- > Part gaging kit
- > Internal wiring mount adapters
- > Telescope and stud mounts
- > Rotational clamp
- > Gripper valve

The rest of the PGS gripper parts for repair or reconfiguration can be found in the “Repair kit” section.

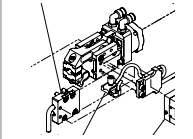


# Fast Find Guide



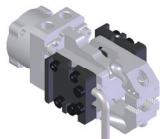
## PGS10 ACCESSORIES

Overview



PGS10-49

Part gaging



PGS10-51

Spherical mount



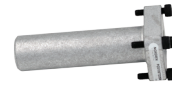
PGS10-53

Internal air/electrics adapter



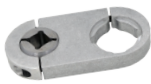
PGS10-54

Telescope and stud mount



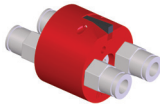
PGS10-56

Branch clamp



PGS10-57

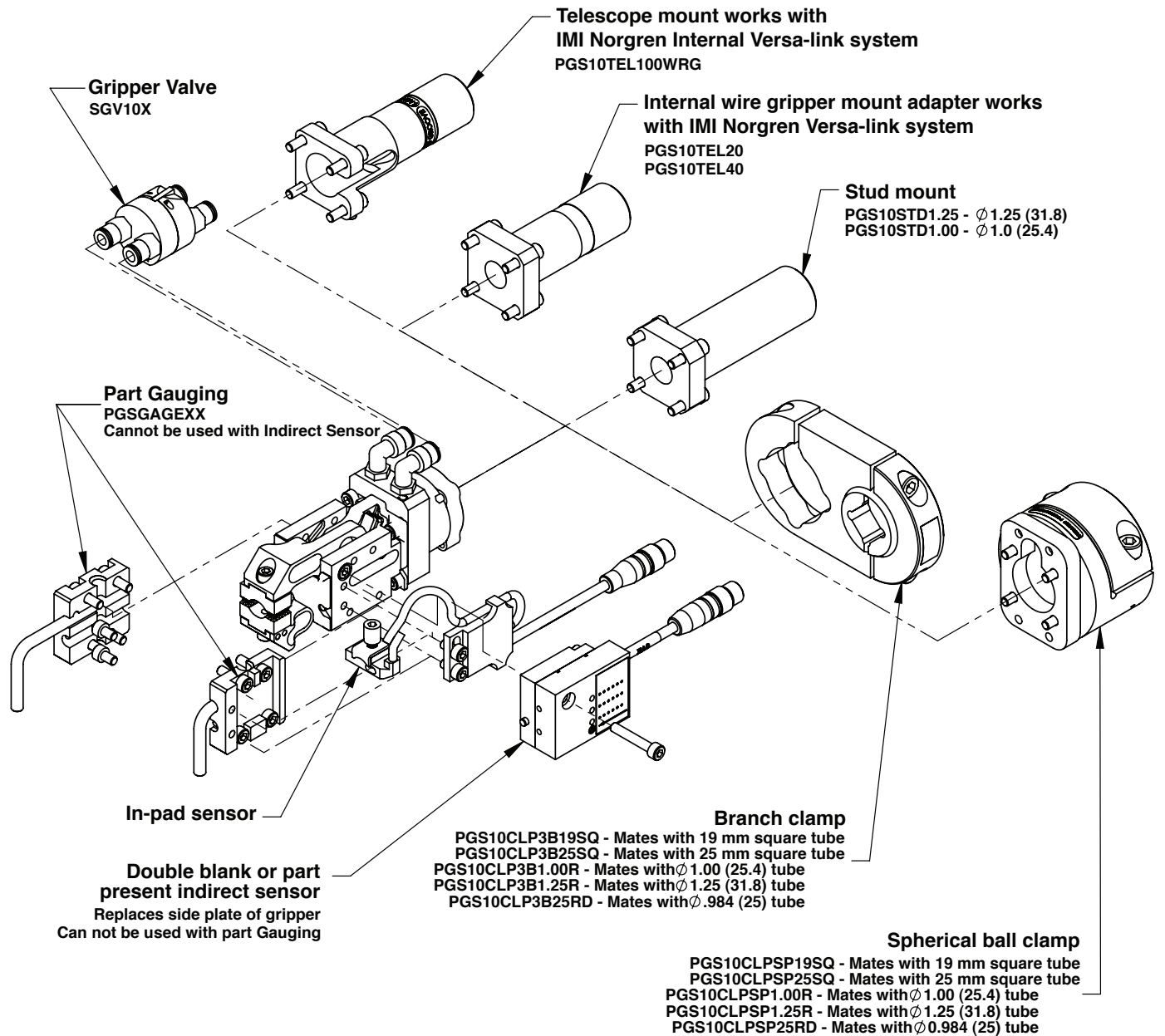
Gripper valve



PGS10-58

**PGS10 Accessories:**

These accessories apply to all non-hot metal version of the PGS10

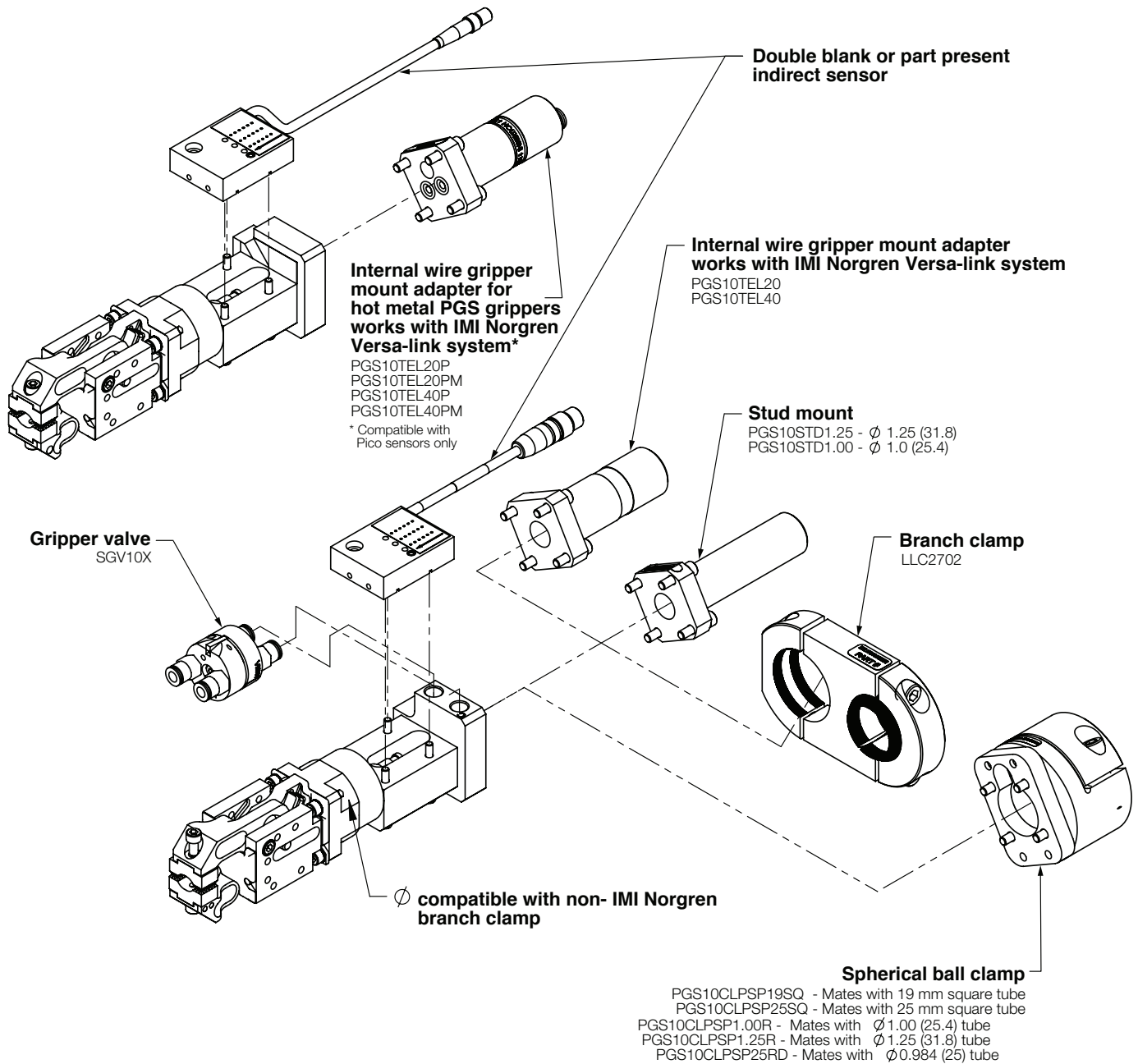


Dimensions in inches (mm) are for reference only



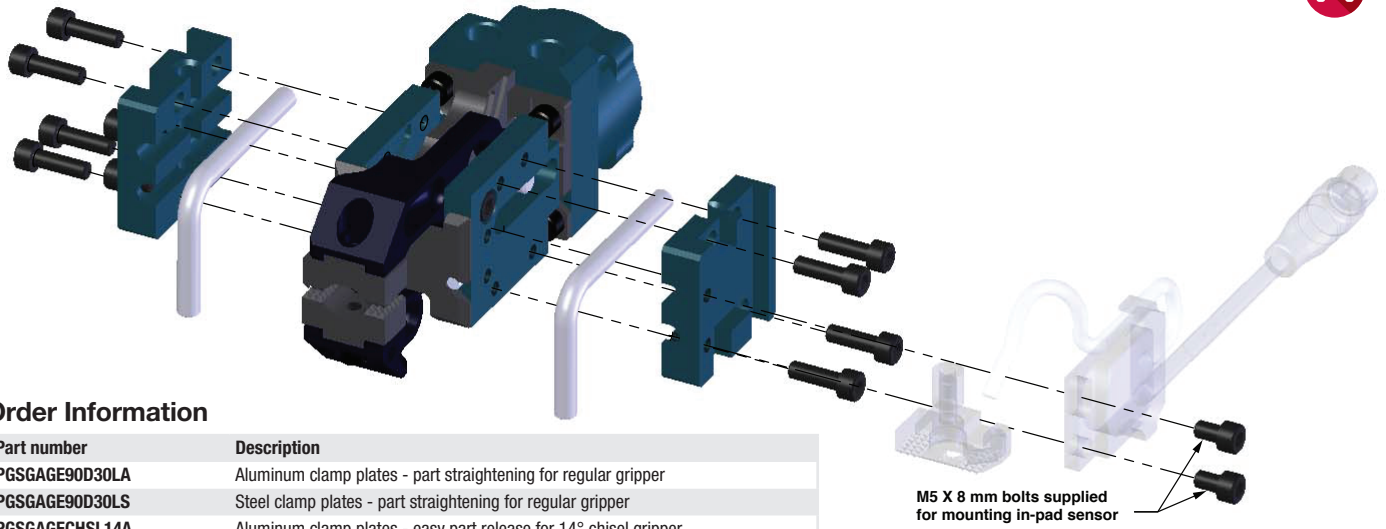
### PGS10 Hot Metal Gripper Accessories:

These accessories apply to the PGS10 hot metal grippers: regular (PGS10HR) and flange (PGS10HF) hot metal jaw gripper



Dimensions in inches (mm) are for reference only

Part Gaging for PGS10 Series



Order Information

Part number	Description
PGSGAGE90D30LA	Aluminum clamp plates - part straightening for regular gripper
PGSGAGE90D30LS	Steel clamp plates - part straightening for regular gripper
PGSGAGECHSL14A	Aluminum clamp plates - easy part release for 14° chisel gripper
PGSGAGECHSL14S	Steel clamp plates - easy part release for 14° chisel gripper
PGSGAGEFLGU45A	Aluminum clamp plates - easy part release for 45° flange gripper
PGSGAGEFLGU45S	Steel clamp plates - easy part release for 45° flange gripper
PGSGAGEFLGU70A	Aluminum clamp plates - easy part release for 70° flange gripper
PGSGAGEFLGU70S	Steel clamp plates - easy part release for 70° flange gripper

Items needed for assembly

Adhesive	Tool	Torque
Removable thread checker (e.g. Loctite™ 242)	4 mm hex key	72 in-lb (8.1 Nm)

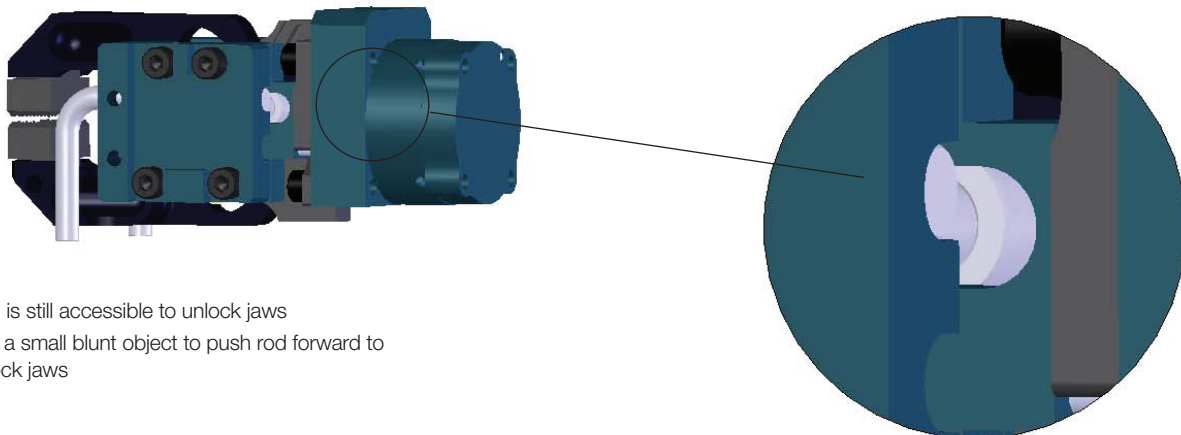
Part gaging kit contents

Qty.	Description
2	Clamps plates
2	Rods
8	SHCS (M5 X 12)
2	SHCS (M5 X 8)*

\*Bolts to mount in-pad sensor in place

Assembly instructions

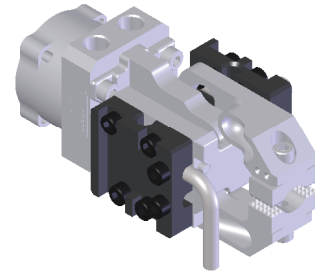
- Apply removable thread checker (e.g. Loctite™ 242) to bolts
- Loosely assemble clamp plates
- Place gage rod in desired position
- Tighten bolts evenly to 72 in-lb (8.1 Nm)
- Ensure that gaging plates are parallel to gripper side plate when fully torqued



- > Rod is still accessible to unlock jaws
- > Use a small blunt object to push rod forward to unlock jaws

## Part Gaging For PGS10 Series Grippers PGSGAGEXX

- > Used with PGS series grippers for easy part removal
- > Rods can be moved in several different positions
- > Rods can be custom made per customer specifications to stabilize parts during transfer
- > Can be used to position parts

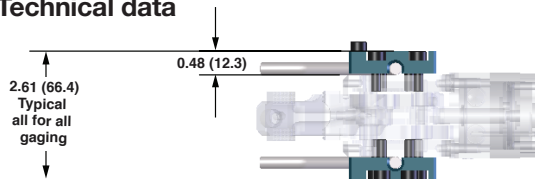


### Order Information

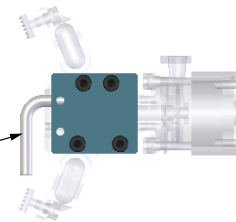
Part number	Gripper	Clamp plate material	Weight lb (kg)
PGSGAGE90D30LS	Regular	Steel	0.650 (.29)
PGSGAGE90D30LA	Regular	Aluminum	0.300 (.14)
PGSGAGECHSL14S	Chisel	Steel	0.670 (.30)
PGSGAGECHSL14A	Chisel	Aluminum	0.320 (.14)
PGSGAGEFLGU45S	Flange	Steel	0.680 (.31)
PGSGAGEFLGU45A	Flange	Aluminum	0.330 (.15)
PGSGAGEFLGU70S	Flange	Steel	0.680 (.31)
PGSGAGEFLGU70A	Flange	Aluminum	0.330 (.15)

Note: Gaging can be used with in-pad sensors.  
Gaging can NOT be used with indirect sensors.

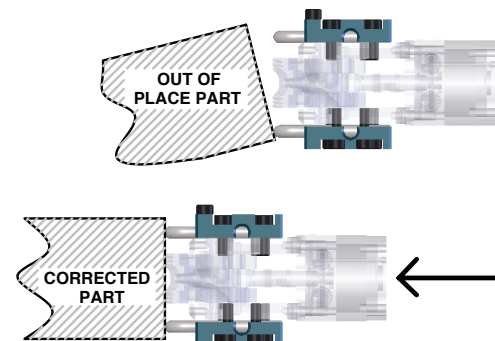
### Technical data



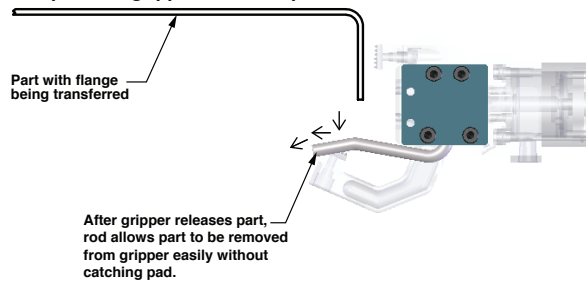
Allows parts to be straightened before gripper closes



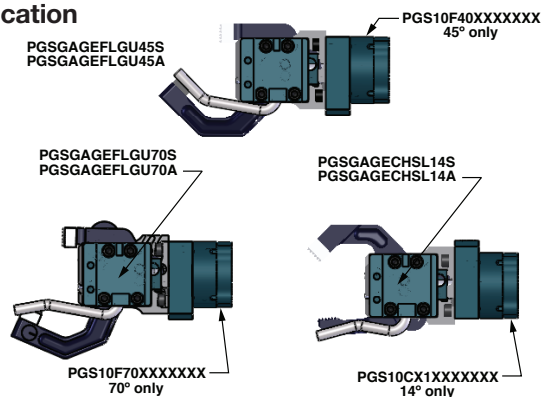
Can be used to correct part orientation as gripper moves in



Can be used to prevent parts from hanging up on the gripper when the part is released



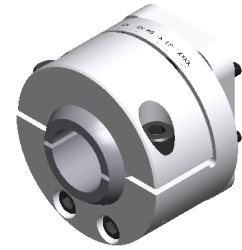
### Application



Dimensions in inches (mm) are for reference only

**Spherical Mount  
PGS10CLPSPXXXX**

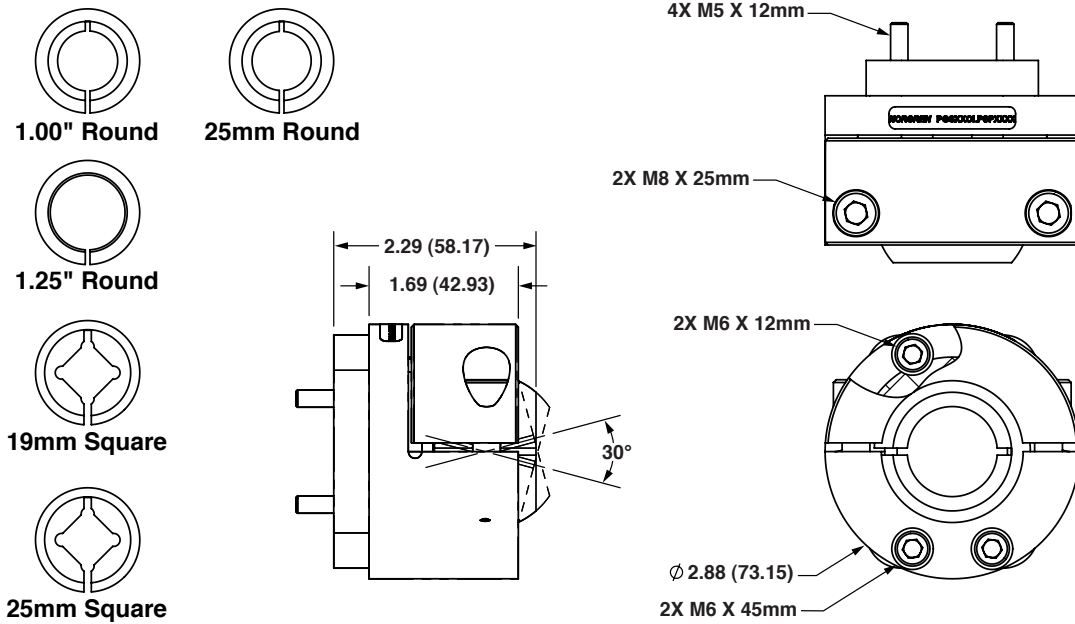
- > PGS10CLPSPXXXX accomodates 1.00" round, 1.25" round, 25 mm round, 19 mm square & 25 mm square tubes
- > Spherical ball clamp allows 360° rotation and 30° of angular adjustment



**Order information**

Part number	Weight
PGS10CLPSP1.00R	1.35 lbs (0.61 kg)
PGS10CLPSP1.25R	1.21 lbs (0.55 kg)
PGS10CLPSP25RD	1.35 lbs (0.61 kg)
PGS10CLPSP19SQ	1.37 lbs (0.62 kg)
PGS10CLPSP25SQ	1.26 lbs (0.57 kg)

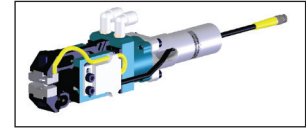
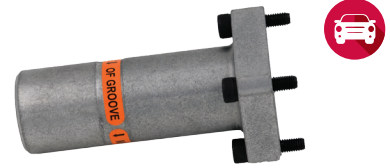
**Technical data**



Dimensions in inches (mm) are for reference only

### Internal Wire Gripper Mount Adapter PGS10TEL100WRG

- > Provides telescoping adjustment of gripper position
- > Provides entry point for Pico style sensor cable into finger
- > Telescoping O.D. sized for insertion into standard IMI Norgren Versa 1.25" O.D. finger link or tubing

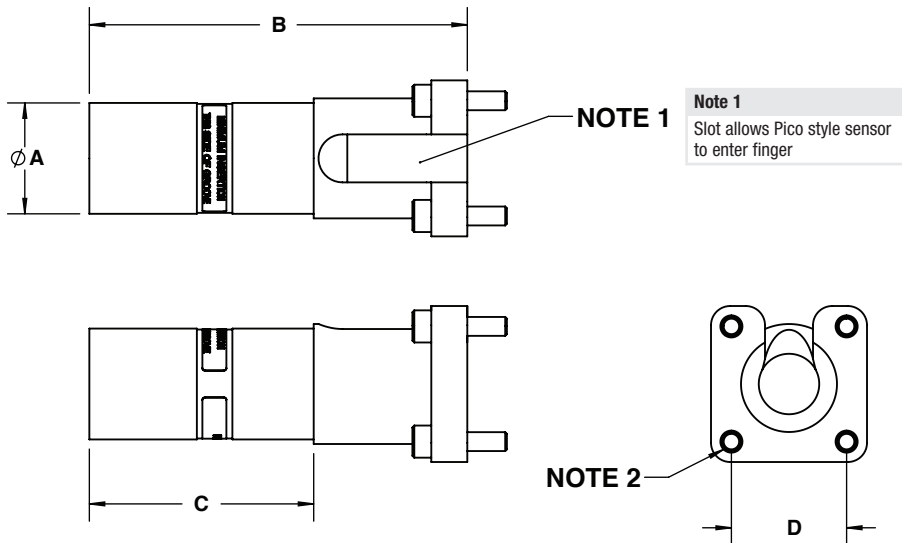


#### Order information

Part number	Weight
PGS10TEL100WRG	0.322 lbs / 146 g

#### Technical data

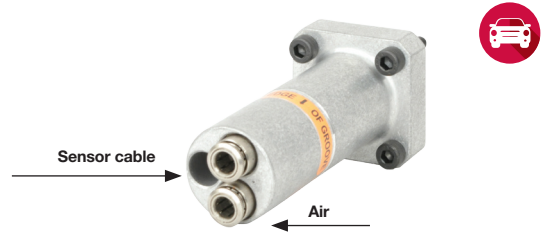
DIM	PGS10TEL100WRG	
	mm	Inches
øA	29.4	1.16
B	100.0	3.94
C	59.4	2.34
D	30.5	1.20



Dimensions in inches (mm) are for reference only

### Internal Wire Gripper Mount Adapter for Hot Metal PGS Grippers PGS10TELXXPX

- > Specifically designed to be used with slotted IMI Norgren Versa Links (SVL34BSLXXXX) to provide telescoping adjustment
- > Two O-rings provided to attach to PGS10HXXXXXXXXX8X or PGS10HXXXXXXXXX9X Hot Metal Gripper
- > Can only be used with the hot metal PGS grippers (PGS10H)
- > Compatible only with the PICO sensor cable

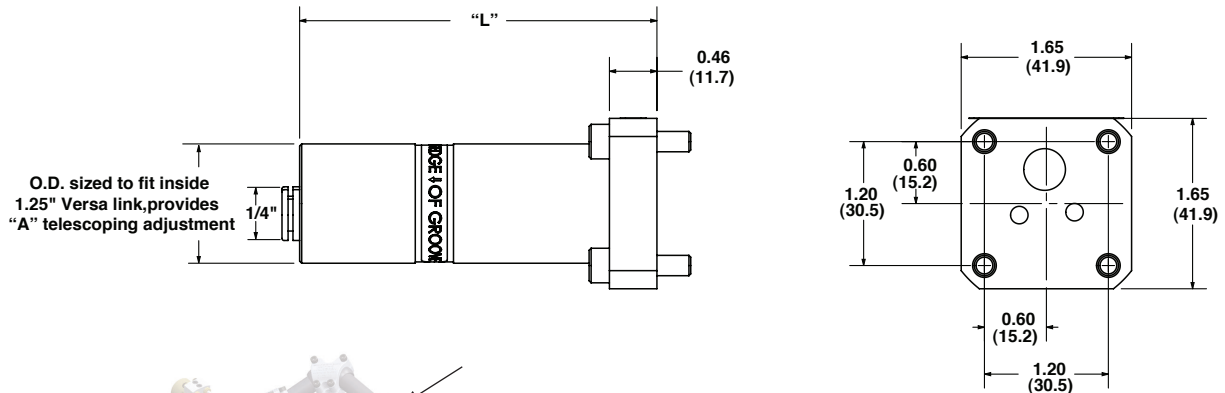


PGS10 ACCESSORIES

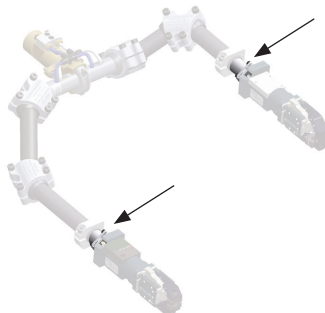
### Order information

Part number	"A"	"L"	Weight	Fitting connection
PGS10TEL20P	ø sized to fit Versa Link 0.88" telescoping adjustment	2.63" (67 mm)	0.310 lbs /140 g	1/4"
PGS10TEL20PM				6 mm
PGS10TEL40P	ø sized to fit Versa Link 1.88" telescoping adjustment	3.46" (88 mm)	0.310 lbs /140 g	1/4"
PGS10TEL40PM				6 mm

### Technical data



### Application

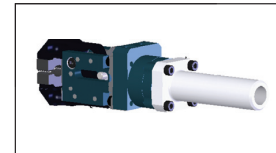


Dimensions in inches (mm) are for reference only

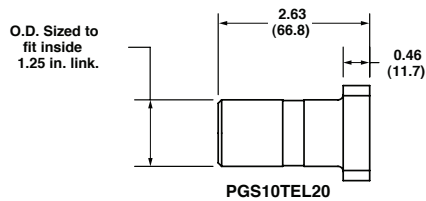


## Telescope & Stud Mounts For PGS10 Series Grippers PGS10STDXX, PGS10TELX

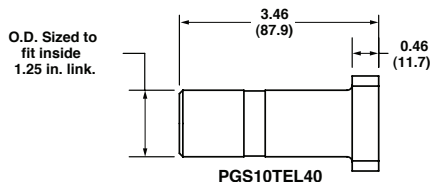
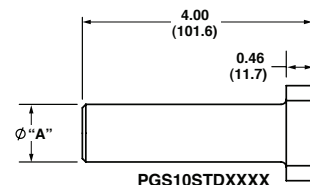
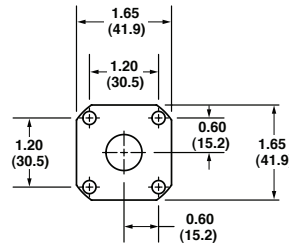
- > PGS10STDXXXX provide mounting stud compatible with various diameter tooling components
- > PGS10TEL20 and PGS10TEL40 are internal wire gripper mount adapters compatible with the slotted IMI Norgren Versa-links (SVL30BSLXXXX) to provide telescoping adjustment



### Technical data



Provides 0.85" telescope adjustment optimized for 50 mm Versa Link.



Provides 1.88" telescope adjustment optimized for 75 mm Versa Link.

#### PGS10STDXXXX

Ø "A"	Inch	mm
0.984	25	
1.00	25.4	
1.08	27.4	
1.181	30	

### PGS10STDXXXX

Substitute	Feature	Weight
1.00	Ø1.0" X 4" Long	0.400 lbs / 180 g
1.08	Ø1.08" X 4" Long	0.400 lbs / 180 g
1.25	Ø1.25" X 4" Long	0.410 lbs / 185 g
25MM	Ø25 mm X 4" Long	0.250 lbs / 115 g
30MM	Ø30 mm X 4" Long	0.260 lbs / 120 g

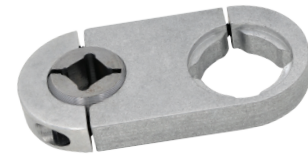
### PGS10TELXX

Substitute	Feature	Weight
20	Ø sized to fit Versa Link 0.85" Telescoping Adjustment	0.251 lbs / 117 g
40	Ø sized to fit Versa Link 1.88" Telescoping Adjustment	0.310 lbs / 140 g

Dimensions in inches (mm) are for reference only

**3 Bolt Clamp for PGS10 Series Grippers**  
**PGS10CLX3BXXXX**

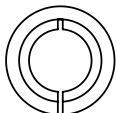
- > PGS10CLX3BXXXX provides 360° rotation of gripper independent of ball
- > PGS10CLX3BXXXX accommodates 1.00" round, 1.25" round, 19 mm square, 25 mm square tubes and 25 mm round
- > Spherical ball clamp allows 360° rotation and 30° angular adjustment



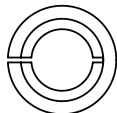
**Order Information**

Part number	Description	Weight
PGS10CLP3B1.00R	57.2 mm center to center for 1.00 tube	0.93 lbs / 422 g
PGS10CLP3B1.25R	57.2 mm center to center for 1.25 tube	0.78 lbs / 352 g
PGS10CLP3B19SQ	57.2 mm center to center for 19 mm tube	0.94 lbs / 428 g
PGS10CLP3B25SQ	57.2 mm center to center for 25 mm tube	0.84 lbs / 378 g
PGS10CLP3B25RD	57.2 mm center to center for 25 mm tube	1.03 lbs / 468 g
PGS10CLT3B1.00R	79.5 mm center to center for 1.00 tube	1.21 lbs / 549 g
PGS10CLT3B1.25R	79.5 mm center to center for 1.25 tube	1.07 lbs / 485 g
PGS10CLT3B19SQ	79.5 mm center to center for 19 mm tube	1.23 lbs / 560 g
PGS10CLT3B25SQ	79.5 mm center to center for 25 mm tube	1.13 lbs / 511 g
PGS10CLT3B25RD	79.5 mm center to center for 25 mm tube	1.21 lbs / 552 g

**Technical data**

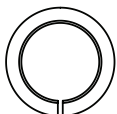


1.00" Round

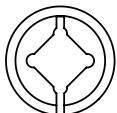


25 mm Round

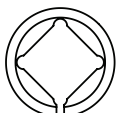
Part Family	"A"	"B"
PGS10CLP3BXXXX	2.25 (57.2)	2.26 (57.4)
PGS10CLT3BXXXX	3.13 (79.5)	3.14 (79.8)



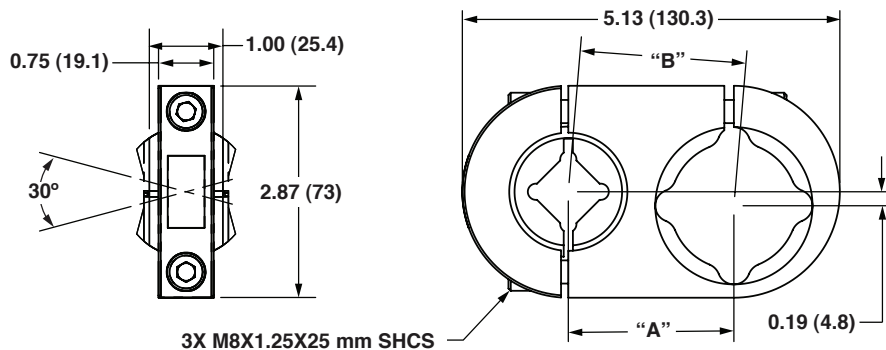
1.25" Round



19 mm Square



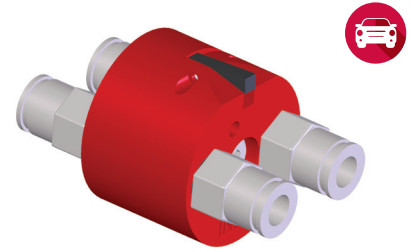
25 mm Square



Dimensions in inches (mm) are for reference only

## PGS Gripper Valve SGV100, SGV102, SGV103

- > Redirects air from the gripper "closed" air port to the gripper "open" air port
- > "Vents" or shuts air off to a single gripper without turning air off the entire system
- > Mounts in-line with grippers or rail receivers
- > Easily release incorrectly gripped panels
- > Formerly known as Syron Gripper Valve



### Order information

#### SGV10X

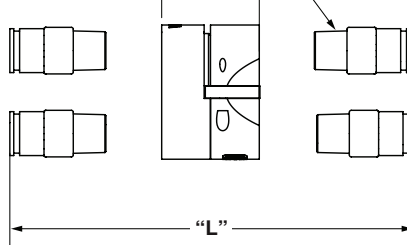
Air fitting	Code
None	0
1/4" push type	2
3/8" push type	3

### Technical data

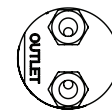
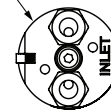
Part number	Air fitting	"L"	Weight
SVG100	None		
SVG102	1/4" push type	2.21 (56.1 mm)	1.32 grams
SVG103	3/8" push type	2.76 (70.1 mm)	

Note: Air port threads are 1/8" NPT type

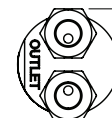
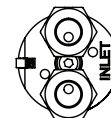
1.00" assembled (25.4)



ø 1.38 type (35.1)



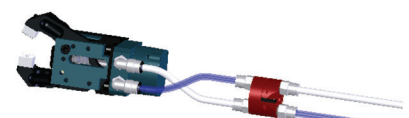
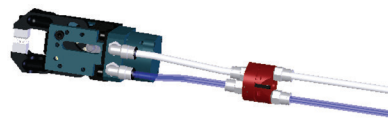
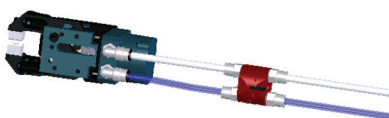
Shown with fitting for 1/4" hose



1.52 (38.6) max with 3/8" fitting

Shown with fitting for 3/8" hose

### Application

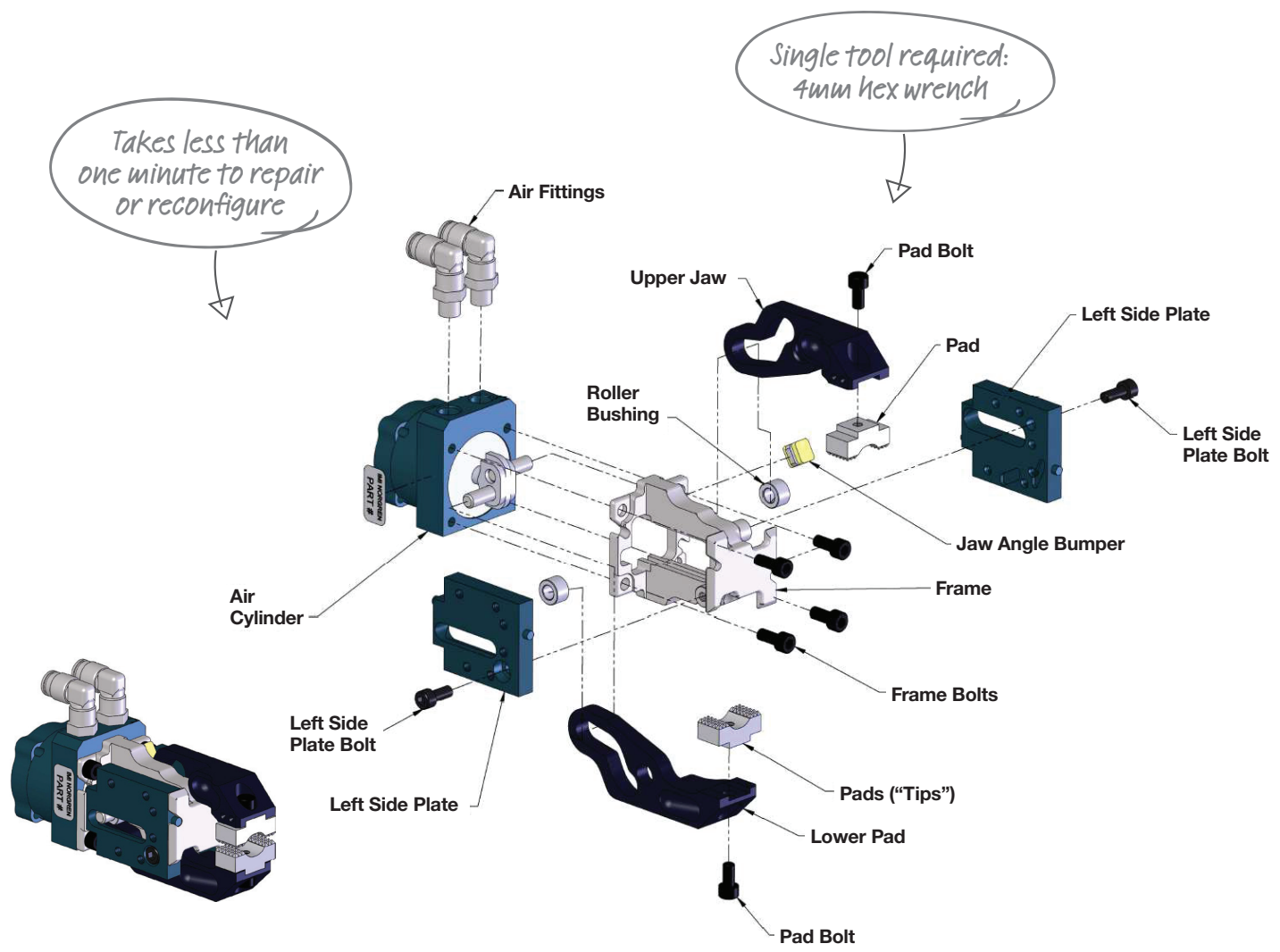


Dimensions in inches (mm) are for reference only

# REPAIR KITS

Takes less than one minute to repair or reconfigure

Single tool required: 4mm hex wrench



Fast Find **Guide**

PGS10 REPAIR KIT

**PGS10 REPAIR KITS****Repair Kits Overview**

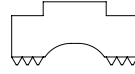
PGS10-61

**Sensors, Cylinder and Fittings**

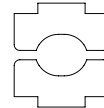
PGS10-62

**Chassis and Jaw Kits**

PGS10-63

**Chisel and Shovel Jaw Pads**

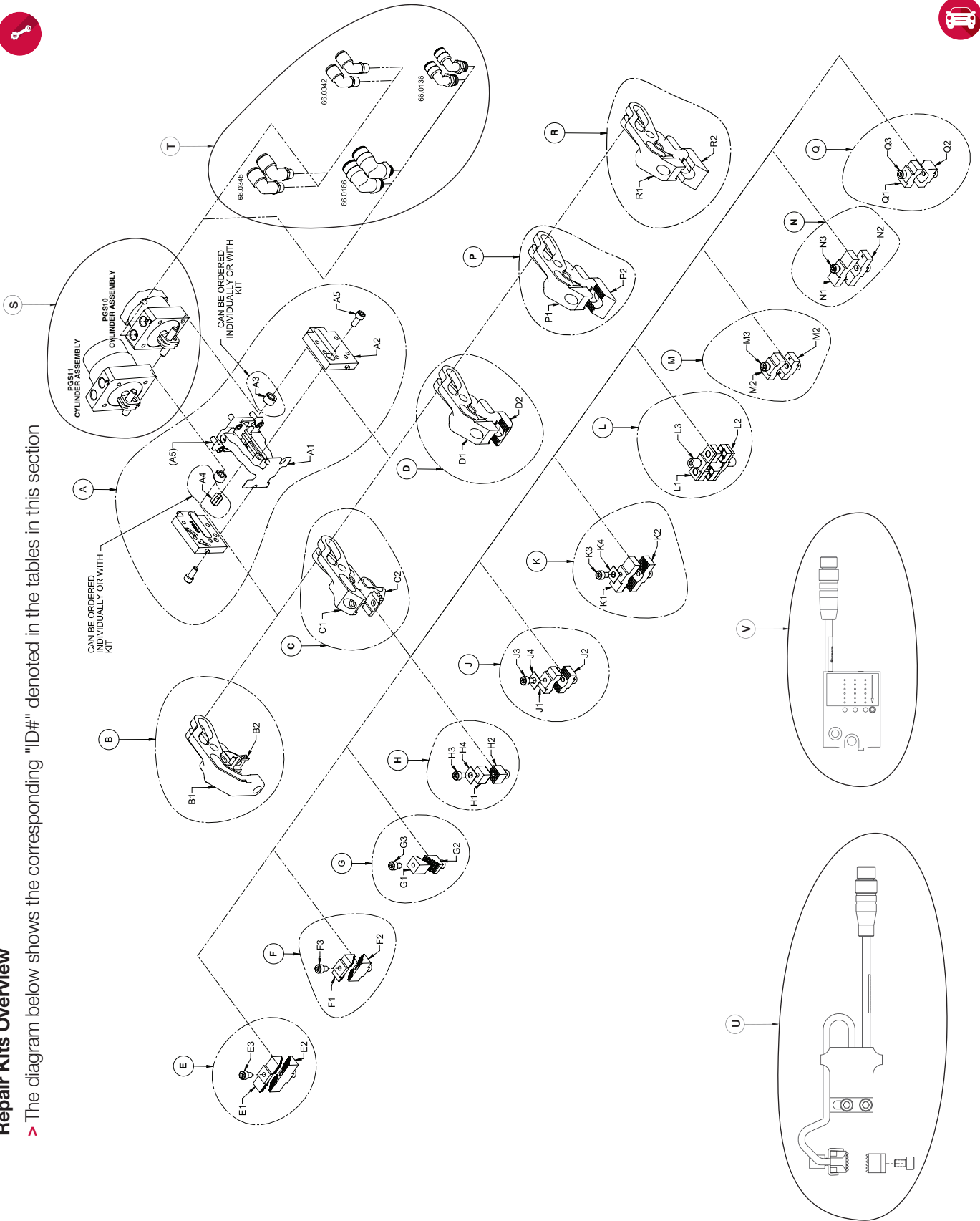
PGS10-61

**Regular and Flange Jaw Pads**

PGS10-62

**Repair Kits Overview**

> The diagram below shows the corresponding "ID#" denoted in the tables in this section

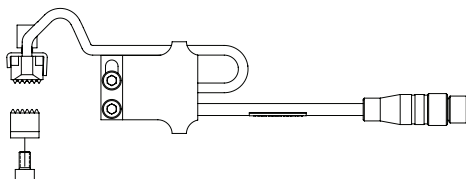


## Sensors, Air Cylinders and Air Fittings Kits



## In-pad sensor kit

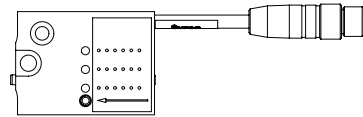
ID#	Part #	Output	Connector	Material thickness	Pad type
Ⓚ	SGS40034KS	2 Wire	Micro 4 pin 1 key	0.5-3.5 mm	Regular
	SGS40034KG	2 Wire	Micro 4 pin 1 key	2.01-5.0 mm	Regular
	SGS40021KS	2 Wire	Micro 3 pin 2 key	0.5-3.5 mm	Single point
	SGS40021KG	2 Wire	Micro 3 pin 2 key	2.01-5.0 mm	Single point
	SGS40020KS	2 Wire	Micro 3 pin 2 key	0.5-3.5 mm	Regular
	SGS40020KG	2 Wire	Micro 3 pin 2 Key	2.01-5.0 mm	Regular
	SGS40020PKS	2 Wire	Pico (Internal wire)	0.5-3.5 mm	Regular
	SGS40020PKG	2 Wire	Pico (Internal wire)	2.01-5.0 mm	Regular
	SGS40020KS-30	2 Wire	Micro 3 pin 2 Key	0.5-3.5 mm	30°
	SGS40020-S-KS	2 Wire	Micro 3 pin 2 Key	0.5-3.5 mm	Smooth (0°)
	SGS40020-S-KG	2 Wire	Micro 3 pin 2 Key	2.01-5.0 mm	Smooth (0°)
	SGS40020-30-S-KS	2 Wire	Micro 3 pin 2 Key	0.5-3.5 mm	Smooth (30°)
	SGS40020-30-S-KG	2 Wire	Micro 3 pin 2 Key	2.01-5.0 mm	Smooth (30°)
	SGS40034KS	2 Wire	Micro 4 pin 1 key	2.01-3.50 mm	Regular
	SGS40034KC	2 Wire	Micro 4 pin 1 key	0.5-2.00 mm	Regular
	SGS40034KG	2 Wire	Micro 4 pin 1 key	3.51-5.0 mm	Regular
	SGS40034KO	2 Wire	Micro 4 pin 1 key	5.01-6.50 mm	Regular
	SGS40015KS	PNP	Micro 4 pin 1 key	0.5-3.5 mm	Regular
	SGS40015KG	PNP	Micro 4 pin 1 key	2.01-5.0 mm	Regular
	SGS40015PKS	PNP	Pico (Internal wire)	0.5-3.5 mm	Regular
	SGS40015PKG	PNP	Pico (Internal wire)	2.01-5.0 mm	Regular
	SGS40015KS-30	PNP	Micro 4 pin 1 key	0.5-3.5 mm	30°
	SGS40015KG-30	PNP	Micro 4 pin 1 key	2.01-5.0 mm	30°
	SGS40015PKS-30	PNP	Pico (Internal wire)	0.5-3.5 mm	30°
	SGS40015PKG-30	PNP	Pico (Internal wire)	2.01-5.0 mm	30°
	SGS40015-DPKS	PNP	Micro 4 pin 1 key	0.5-3.5 mm	Double point
	SGS40015-DPKG	PNP	Micro 4 pin 1 key	2.01-5.0 mm	Double point
	SGS40015P-DPKS	PNP	Pico (Internal wire)	0.5-3.5 mm	Double point
	SGS40015P-DPKG	PNP	Pico (Internal wire)	2.01-5.0 mm	Double point
	SGS40015-S-KS	PNP	Micro 4 pin 1 key	0.5-3.5 mm	Smooth (0°)
	SGS40015-S-KG	PNP	Micro 4 pin 1 key	2.01-5.0 mm	Smooth (0°)
	SGS40015-30-S-KS	PNP	Micro 4 pin 1 key	0.5-3.5 mm	Smooth (30°)
	SGS40015-30-S-KG	PNP	Micro 4 pin 1 key	2.01-5.0 mm	Smooth (30°)
	SGS40014KS	NPN	Micro 4 pin 1 key	0.5-3.5 mm	Regular
	SGS40014KG	NPN	Micro 4 Pin 1 key	2.01-5.0 mm	Regular
	SGS40014PKS	NPN	Pico (Internal wire)	0.5-3.5 mm	Regular
	SGS40014PKG	NPN	Pico (Internal wire)	2.01-5.0 mm	Regular
	SGS40014KS-30	NPN	Micro 4 pin 1 key	0.5-3.5 mm	30°
	SGS40014KG-30	NPN	Micro 4 pin 1 key	2.01-5.0 mm	30°
	SGS40014PKS-30	NPN	Pico (Internal wire)	0.5-3.5 mm	30°
	SGS40014PKG-30	NPN	Pico (Internal wire)	2.01-5.0 mm	30°
	SGS40014-S-KS	NPN	Micro 4 pin 1 key	0.5-3.5 mm	Smooth (0°)
	SGS40014-S-KG	NPN	Micro 4 pin 1 key	2.01-5.0 mm	Smooth (0°)
	SGS40014-30-S-KS	NPN	Micro 4 pin 1 key	0.5-3.5 mm	Smooth (30°)
	SGS40014-30-S-KG	NPN	Micro 4 pin 1 key	2.01-5.0 mm	Smooth (30°)



## Indirect sensor kit

ID#	Part #	Output	Connector	Sensor type
Ⓥ	SGS40040-K	NPN	Micro	Double blank
	SGS40040P4-K	NPN	Pico 4 pin (Internal wire)	Double blank
	SGS40041-K	PNP	Micro	Double blank
	SGS40041P4-K	PNP	Pico 4 pin (Internal wire)	Double blank
	SGG40042-K	NPN	Micro	Part present
	SGS40042P-K	NPN	Pico 3 pin (Internal wire)	Part present
	SGS40042F-K	NPN	Micro	Part present
	SGS40042FP-K	NPN	Pico 3 pin (Internal wire)	Part present
	SGS40043-K	PNP	Micro	Part present
	SGS40043P-K	PNP	Pico 3 pin (Internal wire)	Part present
	SGS40043F-K	PNP	Micro	Part present
	SGS40043FP-K	PNP	Micro	Part present
	SGS40034KC	2 Wire	Micro	Part present

Flange jaw



## Cylinders

ID#	Gripper	Part #	Description	Color
Ⓢ	PGS10	10144	1/8" NPS air ports	Blue
		10144-01	1/8 Rc air ports	Black

## Air Fittings

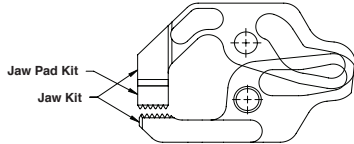
ID#	Part #	Description	Thread	Cylinder
Ⓣ	101470818	8 mm tube	1/8 Rc	10144-01
	101470618	6 mm tube		
	124470618	3/8" tube	1/8" NPS	10144
	124470418	1/4" tube		

Chassis kit and Jaw Kits for Regular, Flange, Shovel and Chisel Grippers



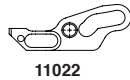
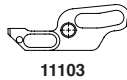
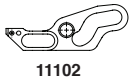
Chassis kit

ID#	Description	Part #	QTY
A	Front end kit	PGS10FRNTENDKIT	1
A1	Frame	10148	1
A2	Side plate	10930	2
A3	Bushing (roller)	62.0253	2
A4	Jaw bumper	10104	1
A5	M5 X 12 mm SHCS	64.043	6



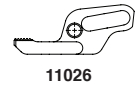
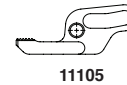
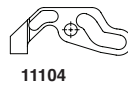
Regular jaw kit

ID#	Description	Part #	Qty	Material thickness	Jaw open angle
C	Symmetrical regular jaw kit (0.5-5.0)	PGS10RSYMJAWKIT	1	0.5-5.0mm	70 X 70
C1	Upper regular jaw	11102	1		45 X 45
C2	Lower regular jaw	11102	1		22 X 22
C	0° Regular jaw kit (0.5-5.0)	PGS10R0DJAWKIT	1		70 X 0
C1	Upper regular jaw	11102	1		45 X 0
C2	0° Lower regular jaw	11103	1		22 X 0
C	50% Regular jaw kit (0.5-5.0)	PGS10R50JAWKIT	1	70 X 35	
C1	50% Upper regular jaw	11102	1	45 X 22	
C2	Lower regular jaw	11022	1	22 X 11	



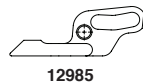
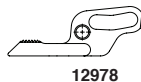
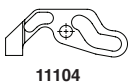
Chisel with teeth C, D & E jaw kits

ID#	Description	Part #	Qty	Material thickness	Jaw open angle	
D	0° Chisel jaw kit (0.5-3.5)	PGS10C0DJAWKIT	1	0.5-3.5 mm	70 X 0	
D1	Upper chisel jaw	11104	1			45 X 0
D2	0° Lower chisel jaw	C Style 11105	1			22 X 0
D	0° Chisel jaw kit (3.51-6.5)	PGS10D0DJAWKIT	1	3.51-6.5 mm	70 X 0	
D1	Upper chisel jaw	11104	1			45 X 0
D2	0° Lower chisel jaw	D Style 11105-01	1			22 X 0
D	0° Chisel jaw kit (6.51-9.5)	PGS10E0DJAWKIT	1	6.51-9.5 mm	70 X 0	
D1	Upper chisel jaw	11104	1			45 X 0
D2	14° Lower chisel jaw	E Style 11105-02	1			22 X 0
D	14° Chisel jaw kit (0.5-3.5)	PGS10C14DJAWKIT	1	0.5-3.5 mm	70 X 14	
D1	Upper chisel jaw	11104	1			45 X 14
D2	14° Lower chisel jaw	C Style 11106	1			22 X 14
D	14° Chisel jaw kit (3.51-6.5)	PGS10D14DJAWKIT	1	3.51-6.5 mm	70 X 14	
D1	Upper chisel jaw	11104	1			45 X 14
D2	0° Lower chisel jaw	D Style 11106-01	1			22 X 14
D	14° Chisel jaw kit (6.51-9.5)	PGS10E14DJAWKIT	1	6.51-9.5 mm	70 X 14	
D1	Upper chisel jaw	11104	1			45 X 14
D2	14° Lower chisel jaw	E Style 11106-02	1			22 X 14



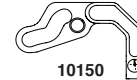
Shovel with teeth S, T, & U jaw kits  
Shovel without teeth V, W, & Y jaw kits

ID#	Description	Part #	Qty	Material thickness	Jaw open angle	
P	0° Shovel jaw kit (0.5-3.5)	PGS10S0DJAWKIT	1	0.5-3.5 mm	70 X 0	
P1	Upper shovel/chisel jaw	11104	1			45 X 0
P2	0° Lower shovel jaw	S Style 12978	1			22 X 0
P	0° Shovel jaw kit (3.51-6.5)	PGS10T0DJAWKIT	1	3.51-6.5 mm	70 X 0	
P1	Upper shovel/chisel jaw	11104	1			45 X 0
P2	0° Lower shovel jaw	T Style 12978-01	1			22 X 0
P	0° Shovel jaw kit (6.51-9.5)	PGS10U0DJAWKIT	1	6.51-9.5 mm	70 X 0	
P1	Upper shovel/chisel jaw	11104	1			45 X 0
P2	0° Lower shovel jaw	U Style 12978-02	1			22 X 0
R	0° Shovel jaw kit (0.5-3.5)	PGS10V0DJAWKIT	1	0.5-3.5 mm	70 X 0	
R1	Upper shovel/chisel jaw	11104	1			45 X 0
R2	0° Lower shovel jaw	V Style 12985	1			22 X 0
R	0° Shovel jaw kit (3.51-6.5)	PGS10W0DJAWKIT	1	3.51-6.5 mm	70 X 0	
R1	Upper shovel/chisel jaw	11104	1			45 X 0
R2	0° Lower shovel jaw	W Style 12985-01	1			22 X 0
R	0° Shovel jaw kit (6.51-9.5)	PGS10Y0DJAWKIT	1	6.51-9.5 mm	70 X 0	
R1	Upper shovel/chisel jaw	11104	1			45 X 0
R2	0° Lower shovel jaw	Y Style 12985-02	1			22 X 0



Flange jaw kit

ID#	Description	Part #	Qty	Material thickness	Jaw open angle	
B	Flange jaw kit (0.5-5.0)	PGS10FJAWKIT	1	0.5-5.0 mm	70 X 0	
B1	Upper flange jaw	10150	1			45 X 0
B2	Lower flange jaw	10151	1			22 X 0



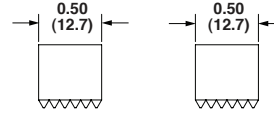


## Chisel and Shovel Jaw Pad Kits



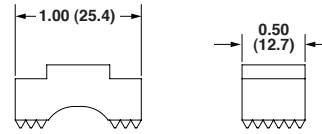
### Chisel or Shovel jaw pads 0.5" (12.7 mm) wide

ID#	Part #	Description	Qty.
Ⓜ	<b>LKR1068SS1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	H1 05602	Single pad regular	1
	H3 64.0427	5MX10 mm SHCS	1
	H4 05086	Pad shim	1
Ⓜ	<b>LKR1068SS2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	H1 05602-01	Single pad regular	1
	H3 64.0617	5MX8 mm SHCS	1



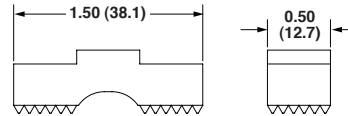
### Chisel or Shovel jaw pads 1.0" (25.4 mm) wide

ID#	Part #	Description	Qty.
Ⓜ	<b>LKR1068MS1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	J1 05862	Mid pad regular	1
	J3 64.0427	5MX10 mm SHCS	1
	J4 05806	Pad shim	1
Ⓜ	<b>LKR1068MS2</b>	<b>Material thickness 3.51-5.0 mm</b>	
	J1 05860-01	Mid pad regular	1
	J3 64.0617	5MX8 mm SHCS	1



### Chisel or Shovel jaw pads 1.5" (38.1 mm) wide

ID#	Part #	Description	Qty.
Ⓜ	<b>LKR1068DS1</b>	<b>Material thickness 2.01-3.5 mm</b>	
	G1 05603	Double pad regular	1
	G3 64.0427	5MX10 mm SHCS	1
	05806	Pad shim	1
Ⓜ	<b>LKR1068DS2</b>	<b>Material thickness 3.51-5.0 mm</b>	
	G1 05603-01	Double pad regular	1
	G3 64.0427	5MX10 mm SHCS	1



- NOTES:**
1. Chisel and shovel jaw grippers only has an upper jaw pad.
  2. Angled pads cannot be used with chisel or shovel jaw grippers.

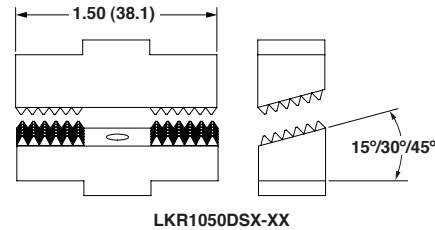
Dimensions in inches (mm) are for reference only

Regular or Flange Jaw Pad Kits



Angled double pads 1.5" (38.1 mm) wide

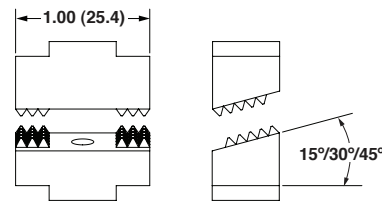
ID#	Part #	Description	Qty.
(E)	<b>LKR1050DS1-15</b>	<b>Material thickness 0.5-2.0 mm</b>	
	E1 06898-15	Double pad 15° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS2-15</b>	<b>Material thickness 2.01-3.50 mm</b>	
	E1 06898-01-15	Double pad 15° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS3-15</b>	<b>Material thickness 3.51-5.0 mm</b>	
	E1 06898-01-15	Double pad 15° angle	1
	E2 06898-02-15	Double pad 15° angle	1
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS1-30</b>	<b>Material thickness 0.5-2.0 mm</b>	
	E1 06898-30	Double pad 30° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS2-30</b>	<b>Material thickness 2.01-3.5 mm</b>	
	E1 06898-01-30	Double pad 30° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS3-30</b>	<b>Material thickness 3.51-5.0 mm</b>	
	E1 06898-01-30	Double pad 30° angle	1
	E2 06898-02-30	Double pad 30° angle	1
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS1-45</b>	<b>Material thickness 0.5-2.0 mm</b>	
	E1 06898-45	Double pad 45° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS2-45</b>	<b>Material thickness 2.01-3.5 mm</b>	
	E1 06898-01-45	Double pad 45° angle	2
	E3 64.0617	5MX8 mm SHCS	2
(E)	<b>LKR1050DS3-15</b>	<b>Material thickness 3.51-5.0 mm</b>	
	E1 06898-01-45	Double pad 45° angle	1
	E2 06898-02-45	Double pad 45° angle	1
	E3 64.0617	5MX8 mm SHCS	2



LKR1050DSX-XX

Angled mid pads 1.0" (25.4 mm) wide

ID#	Part #	Description	Qty.
(F)	<b>LKR1050MS1-15</b>	<b>Material thickness 0.5-2.0 mm</b>	
	F1 06897-15	Mid pad 15° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS2-15</b>	<b>Material thickness 2.01-3.5 mm</b>	
	F1 06897-01-15	Mid pad 15° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS3-15</b>	<b>Material thickness 3.51-5.0 mm</b>	
	F1 06897-01-15	Mid pad 15° angle	1
	F2 06897-02-15	Mid pad 15° angle	1
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS1-30</b>	<b>Material thickness 0.5-2.0 mm</b>	
	F1 06897-30	Mid pad 30° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS2-30</b>	<b>Material thickness 2.01-3.5 mm</b>	
	F1 06897-01-30	Mid pad 30° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS3-30</b>	<b>Material thickness 3.51-5.0 mm</b>	
	F1 06897-01-30	Mid pad 30° angle	1
	F2 06897-02-30	Mid pad 30° angle	1
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS1-45</b>	<b>Material thickness 0.5-2.0 mm</b>	
	F1 06897-45	Mid pad 45° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS2-45</b>	<b>Material thickness 2.01-3.5 mm</b>	
	F1 06897-01-45	Mid pad 45° angle	2
	F3 64.0617	5MX8 mm SHCS	2
(F)	<b>LKR1050MS3-15</b>	<b>Material thickness 3.51-5.0 mm</b>	
	F1 06897-01-45	Mid pad 45° angle	1
	F2 06897-02-45	Mid pad 45° angle	1
	F3 64.0617	5MX8 mm SHCS	2



LKR1050MSX-XX

NOTE: 1. Angled pads cannot be used with chisel or shovel jaw grippers.

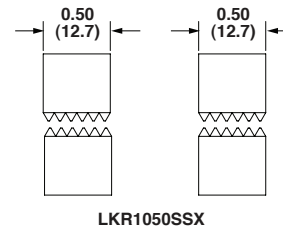
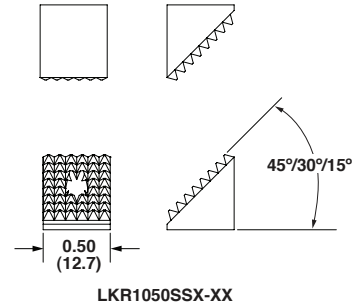
Dimensions in inches (mm) are for reference only

## Regular or Flange Jaw Pad Kits

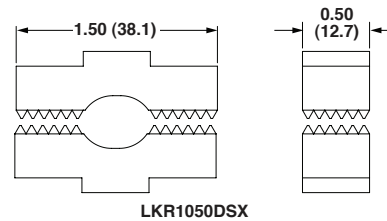
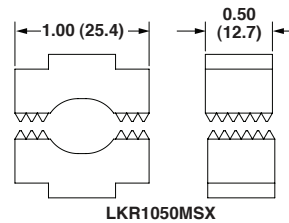


## Angled single pads 0.5" (12.7 mm) wide

ID#	Part #	Description	Qty.
Ⓒ	<b>LKR1050SS1-15</b>	<b>Material thickness 0.5-2.0 mm</b>	
	G1 06896-15	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS2-15</b>	<b>Material thickness 2.01-3.5 mm</b>	
	G1 06896-01-15	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS3-15</b>	<b>Material thickness 3.51-5.0 mm</b>	
	G1 06896-01-15	Single pad 15° angle	1
	G2 06896-02-15	Single pad 15° angle	1
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS1-30</b>	<b>Material thickness 0.5-2.0 mm</b>	
	G1 06896-30	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS2-30</b>	<b>Material thickness 2.01-3.5 mm</b>	
	G1 06896-01-30	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS3-30</b>	<b>Material thickness 3.51-5.0 mm</b>	
	G1 06896-01-30	Single pad 15° angle	1
	G2 06896-02-30	Single pad 15° angle	1
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS1-45</b>	<b>Material thickness 0.5-2.0 mm</b>	
	G1 06896-45	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS2-45</b>	<b>Material thickness 2.01-3.5 mm</b>	
	G1 06896-01-45	Single pad 15° angle	2
	G3 64.0617	5MX8 mm SHCS	2
Ⓒ	<b>LKR1050SS3-45</b>	<b>Material thickness 3.51-5.0 mm</b>	
	G1 06896-01-45	Single pad 15° angle	1
	G2 06896-02-45	Single pad 15° angle	1
	G3 64.0617	5MX8 mm SHCS	2



ID#	Part #	Description	Qty.
Ⓗ	<b>LKR1050SS1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	H1 05062	Single pad angle	2
	H3 64.0617	5MX8 mm SHCS	2
Ⓗ	<b>LKR1050SS2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	H1 05062-01	Single pad angle	2
	H3 64.0617	5MX8 mm SHCS	2
Ⓗ	<b>LKR1050SS3</b>	<b>Material thickness 3.51-5.0 mm</b>	
	H1 05062-01	Single pad angle	1
	H2 05062-02	Single pad angle	1
	H3 64.0617	5MX8 mm SHCS	2
Ⓙ	<b>LKR1050MS1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	J1 05862	Mid pad angle	2
	J3 64.0617	5MX8 mm SHCS	2
Ⓙ	<b>LKR1050MS2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	J1 05862-01	Mid pad angle	2
	J3 64.0617	5MX8 mm SHCS	2
Ⓙ	<b>LKR1050MS3</b>	<b>Material thickness 3.51-5.0 mm</b>	
	J1 05862-01	Mid pad angle	1
	J2 05862-02	Mid pad angle	1
	J3 64.0617	5MX8 mm SHCS	2
Ⓚ	<b>LKR1050DS1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	K1 05603	Double pad angle	2
	K3 64.0617	5MX8 mm SHCS	2
Ⓚ	<b>LKR1050DS2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	K1 05603-01	Double pad angle	2
	K3 64.0617	5MX8 mm SHCS	2
Ⓚ	<b>LKR1050DS3</b>	<b>Material thickness 3.51-5.0 mm</b>	
	K1 05603-01	Double pad angle	1
	K2 05603-02	Double pad angle	1
	K3 64.0617	5MX8 mm SHCS	2



NOTES: 1. Angled pads cannot be used with chisel or shovel jaw grippers.

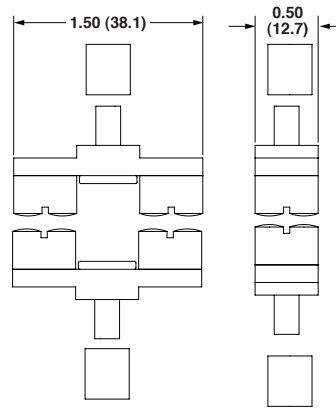
Dimensions in inches (mm) are for reference only

Regular and Flange Jaw Pad Kits



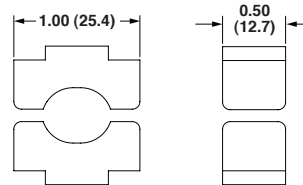
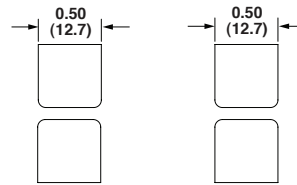
Rubber pads 1.5" (38.1 mm) wide

ID#	Part #	Description	Qty.
Ⓚ	LKR1050DR0	Material thickness 0.5-2.0 mm	
	L1 06120	Double pad nitrile	2
	L3 07750	Allen nut M5	2



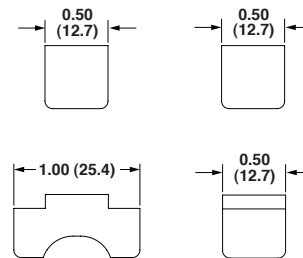
Smooth pads 0.5" (12.7 mm) & 1.0" (25.4 mm) widths

ID#	Part #	Description	Qty.
Ⓚ	LKR10501SS	Material thickness 0.5-2.0 mm	
	Q1 12562	Single pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	LKR10503SS	Material thickness 2.01-3.5 mm	
	Q1 13562-01	Single pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	LKR10504SS	Material thickness 3.51-5.0 mm	
	Q1 13562-01	Single pad smooth	1
	Q2 12562-02	Single pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	LKR10501MS	Material thickness 0.5-2.0 mm	
	Q1 12679	Mid pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	LKR10503MS	Material thickness 2.01-3.5 mm	
	Q1 12679-01	Mid pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	LKR10504MS	Material thickness 3.51-5.0 mm	
	Q1 12679-01	Mid pad smooth	1
	Q2 12679-02	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2



Smooth pads 0.5" (12.7 mm) & 1.0" (25.4 mm) widths

ID#	Part #	Description	Qty.
Ⓚ	LKR10681MS	Material thickness 0.5-2.0 mm, 3.51-5.0 mm, 6.51-8.0 mm	
	Q1 12679	Mid pad smooth	1
	Q2 64.0427	5MX10 mm SHCS	1
	05806	Shim	1
Ⓚ	LKR10682MS	Material thickness 2.01-3.5 mm, 5.01-6.5 mm, 8.01-9.5 mm	
	Q1 12679-01	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	1

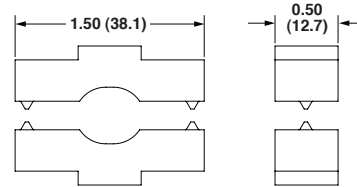
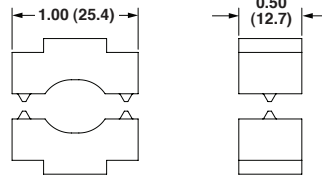


Dimensions in inches (mm) are for reference only

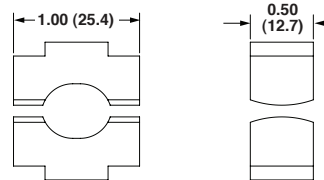
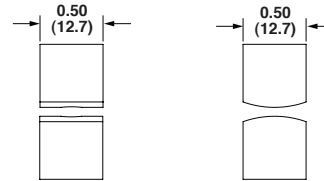
## Regular and Flange Jaw Pad Kits

Double point pads 1.0" (25.4 mm)  
& 1.5" (38.1 mm) widths

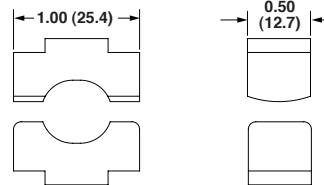
ID#	Part #	Description	Qty.
Ⓜ	<b>LKR1050MP1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	M1 07928	Mid pad double point	2
	M3 64.0427	5MX10 mm SHCS	2
Ⓜ	<b>LKR1050MP2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	M1 07928-01	Mid pad double point	2
	M3 64.0427	5MX10 mm SHCS	2
Ⓜ	<b>LKR1050MP3</b>	<b>Material thickness 3.51-5.0 mm</b>	
	M1 07928-01	Mid pad double point	1
	M2 07928-02	Mid pad double point	1
	M3 64.0427	5MX10 mm SHCS	2
Ⓝ	<b>LKR1050DP1</b>	<b>Material thickness 0.5-2.0 mm</b>	
	N1 07929	Double pad double point	2
	N3 64.0427	5MX10 mm SHCS	2
Ⓝ	<b>LKR1050DP2</b>	<b>Material thickness 2.01-3.5 mm</b>	
	N1 07929-01	Double pad double point	2
	N3 64.0427	5MX10 mm SHCS	2
Ⓝ	<b>LKR1050DP3</b>	<b>Material thickness 3.51-5.0 mm</b>	
	N1 07929-01	Double pad double point	1
	N2 07929-02	Double pad double point	1
	M3 64.0427	5MX10 mm SHCS	2

Convex pads 0.5" (12.7 mm)  
& 1.0" (25.4 mm) widths

ID#	Part #	Description	Qty.
Ⓚ	<b>LKR10501SC</b>	<b>Material thickness 0.5-2.0 mm</b>	
	Q1 13556	Single pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10503SC</b>	<b>Material thickness 2.01-3.5 mm</b>	
	Q1 13556-01	Single pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10504SC</b>	<b>Material thickness 3.51-5.0 mm</b>	
	Q1 13556-01	Single pad smooth	1
	Q2 13556-02	Single pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10501MC</b>	<b>Material thickness 0.5-2.0 mm</b>	
	Q1 13541	Mid pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10503MC</b>	<b>Material thickness 2.01-3.5 mm</b>	
	Q1 13541-01	Mid pad smooth	2
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10504MC</b>	<b>Material thickness 3.51-5.0 mm</b>	
	Q1 13541-01	Mid pad smooth	1
	Q2 13541-02	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2

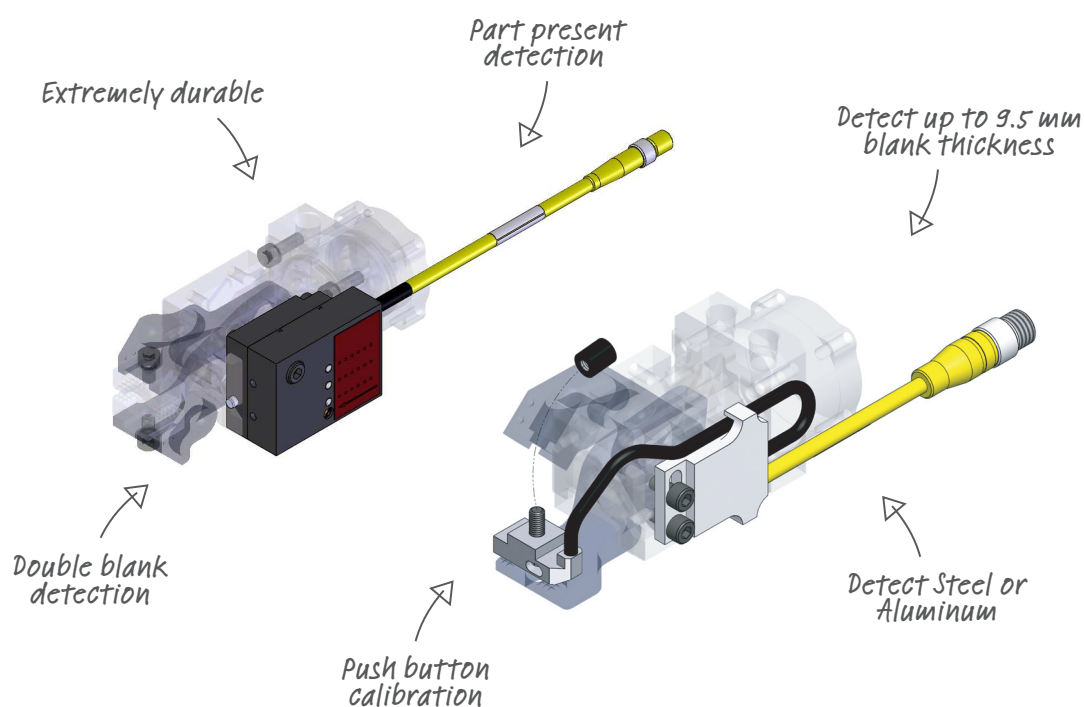
Convex- Smooth pads 0.5" (12.7 mm)  
& 1.0" (25.4 mm) widths

ID#	Part #	Description	Qty.
Ⓚ	<b>LKR10501MC-MS</b>	<b>Material thickness 0.5-2.0 mm</b>	
	Q1 13541	Mid pad convex	1
	Q2 12679	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10503SS</b>	<b>Material thickness 2.01-3.5 mm</b>	
	Q1 13541-01	Mid pad convex	1
	Q2 12679-01	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2
Ⓚ	<b>LKR10504SS</b>	<b>Material thickness 3.51-5.0 mm</b>	
	Q1 13541-01	Mid pad convex	1
	Q2 12679-02	Mid pad smooth	1
	Q3 64.0427	5MX10 mm SHCS	2



Dimensions in inches (mm) are for reference only

# PGS10 SENSORS



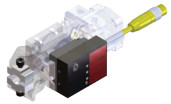
- > Extremely durable, designed specifically for the PGS Gripper line in press room conditions
- > Indirect sensors can be used for either part present and/or double blank sensing
- > Quick and easy push button calibration
- > In-pad sensors detect Steel or Aluminum
- > Wide material thickness range, with part present or double blank detection capacity up to 9.5 mm blank thickness

# Fast Find Guide



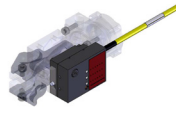
## INDIRECT DOUBLE BLANK AND PART PRESENT SENSORS

**MICRO 4 Pin/  
1 Key M12**  
NPN/PNP Output



PGS10-71

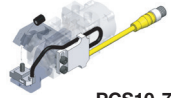
**PICO 3 Pin/ M8**  
NPN/PNP Output



PGS10-72

## IN-PAD PART PRESENT SENSOR, MICRO 4 PIN/ 1 KEY M12

**0° Standard Pad,  
NPN/PNP Output**  
MICRO 4 Pin/1 Key M12



PGS10-73

**30° Standard Pad,  
NPN/PNP Output**  
MICRO 4 Pin/1 Key M12



PGS10-74

**0° Dual Point Pad,  
NPN/PNP Output**  
MICRO 4 Pin/1 Key M12



PGS10-75

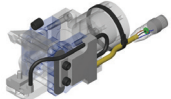
**0° Standard Pad,  
Two Wire Output**  
MICRO 4 Pin/1 Key M12



PGS10-76

## IN-PAD PART PRESENT SENSOR, MICRO 3 PIN/ 2 KEY 1/2-20

**0° Standard Pad,  
Two Wire Output**  
MICRO 3 Pin/2 Key 1/2-20



PGS10-77

**30° Standard Pad,  
Two Wire Output**  
MICRO 3 Pin/2 Key 1/2-20



PGS10-78

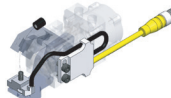
**0° Dual Point Pad,  
Two wire output**  
MICRO 3 Pin/2 Key 1/2-20



PGS10-79

## IN-PAD PART PRESENT SENSOR, PICO 3 PIN/ M8

**0° Standard Pad,  
NPN/PNP Output**  
PICO 3 Pin/M8



PGS10-80

**30° Standard Pad,  
NPN/PNP Output**  
PICO 3 Pin/M8



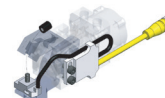
PGS10-81

**0° Dual Point Pad,  
NPN/PNP Output**  
PICO 3 Pin/ M8



PGS10-82

**0° Standard Pad,  
Two Wire Output**  
PICO 3 Pin/M8

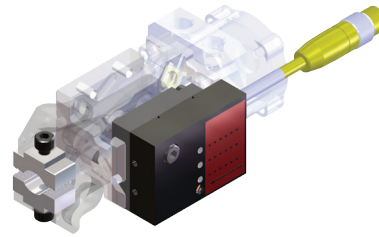


PGS10-83

**Indirect sensor**

**Part Present / Double Blank sensor with MICRO connector**

- > Easy calibration
- > Abrasion and impact resistant
- > Impervious to contamination from coolants and oils
- > LED's for visual feedback
- > Interface directly to programmable controllers



**Technical data**

**Power/sensor connector:**  
4-Pin 12 mm (micro type) molded connector

**Supply voltage range:**  
10 VDC to 30 VDC

**Maximum continuous load current:**  
100mA

**Operating temperature range:**  
0°C to +60°C

**Response time:**  
50ms max.

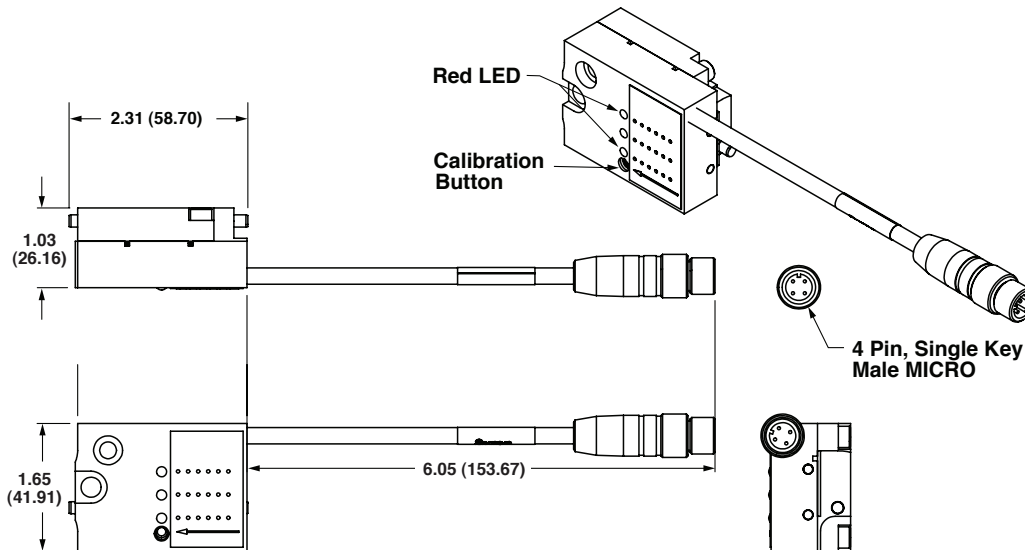
**Part present indicator lights:**  
Red

**Double blank indicator lights:**  
Red - Blinking

**Short circuit protection:**  
Yes

**Overload protection:**  
Yes

**Weight:**  
0.31 lbs (140 g)



**Order information:**

Part number	Sensor type	Switch type
SGS40040-K	Double blank	NPN (Current sinking)
SGS40041-K	Double blank	PNP (Current sourcing)
SGS40042-K	Part present	NPN (Current sinking)
SGS40043-K	Part present	PNP (Current sourcing)
SGS40042F-K	Part present flange	NPN (Current sinking)
SGS40043F-K	Part present flange	PNP (Current sourcing)

**Accessories**

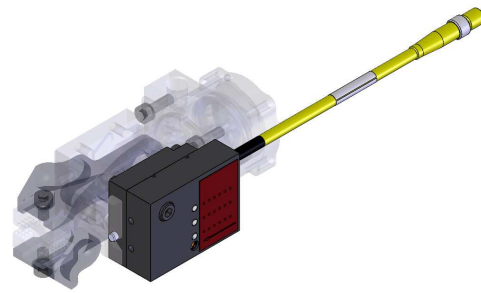
SCE12062                                    SCF12060  
 2 Meter (6 feet) extension cable      2 Meter (6 feet) power cable  
 Also compatible with standard 4 pin connector on IMI Norgren receiver adapters

Dimensions in inches (mm) are for reference only



**Indirect sensor****Part Present / Double Blank sensor with PICO connector**

- > Easy calibration
- > Abrasion and impact resistant
- > Impervious to contamination from coolants and oil
- > LED's for visual feedback
- > Interface directly to programmable controllers
- > Compatible with IMI Norgren internal electrics system

**Technical data**

**Power/sensor connector:**  
4-Pin 8 mm (Pico type) molded connector

**Supply voltage range:**  
10 VDC to 30 VDC

**Maximum continuous load current:**  
100mA

**Operating temperature range:**  
0°C to +60°C

**Response time:**  
50ms max.

**Part present indicator lights:**  
Red

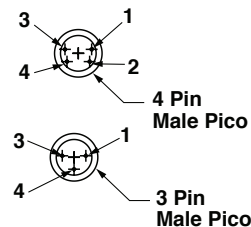
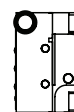
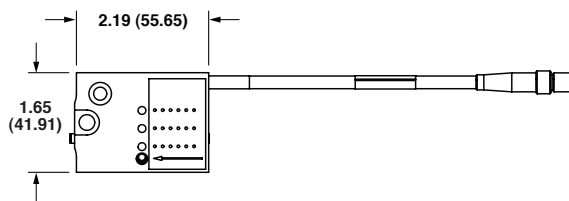
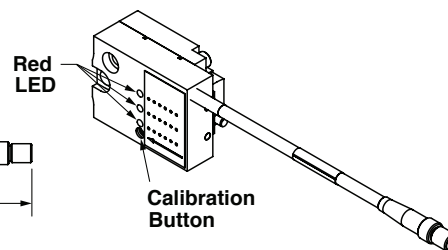
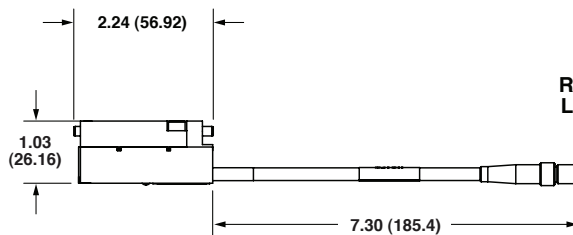
**Double blank indicator lights:**  
Red-Blinking

**Short circuit protection:**  
Yes

**Overload protection:**  
Current limits at 325mA typ.

**Reverse polarity protection:**  
Up to 36 VDC

**Weight:**  
0.31 lbs (140 g)

**Order information:**

Part number	# of Pins	Sensor Type	Switch Type
SGS40040FP4	4 pins	Double Blank Flange	NPN (Current Sinking)
SGS40041FP4	4 pins	Double Blank Flange	PNP (Current Sourcing)
SGS40040P4-K	4 pins	Double Blank	NPN (Current Sinking)
SGS40041P4-K	4 pins	Double Blank	PNP (Current Sourcing)
SGS40042P-K	3 pins	Part Present	NPN (Current Sinking)
SGS40043P-K	3 pins	Part Present	PNP (Current Sourcing)
SGS40042FP-K	3 pins	Part Present Flange	NPN (Current Sinking)
SGS40043FP-K	3 pins	Part Present Flange	PNP (Current Sourcing)

**Accessories**

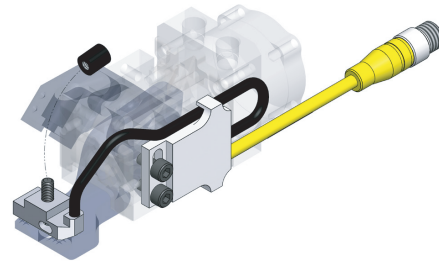
3 Pin Extension Cables	4 Pin Extension Cables
SCE13011PL0200 (200 mm)	SCE13032PL0200 (200 mm)
SCE13011PL0400 (400 mm)	SCE13032PL0400 (400 mm)
SCE13011PL0600 (600 mm)	SCE13032PL0600 (600 mm)

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 4 Pin/1 Key M12**

**0° Standard Pad, NPN/PNP Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > LED for part present status of sensor
- > Interface directly to PLC
- > Impervious to coolants and oils



**Technical data**

**Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25ms turn-on time, 60ms turn-off time

**Target material:**

Steel and aluminum

**Indicator light:**

RED: On when target is detected;  
360° visibility

**Short circuit protection:**

Automatically resets when short is removed

**Overload protection:**

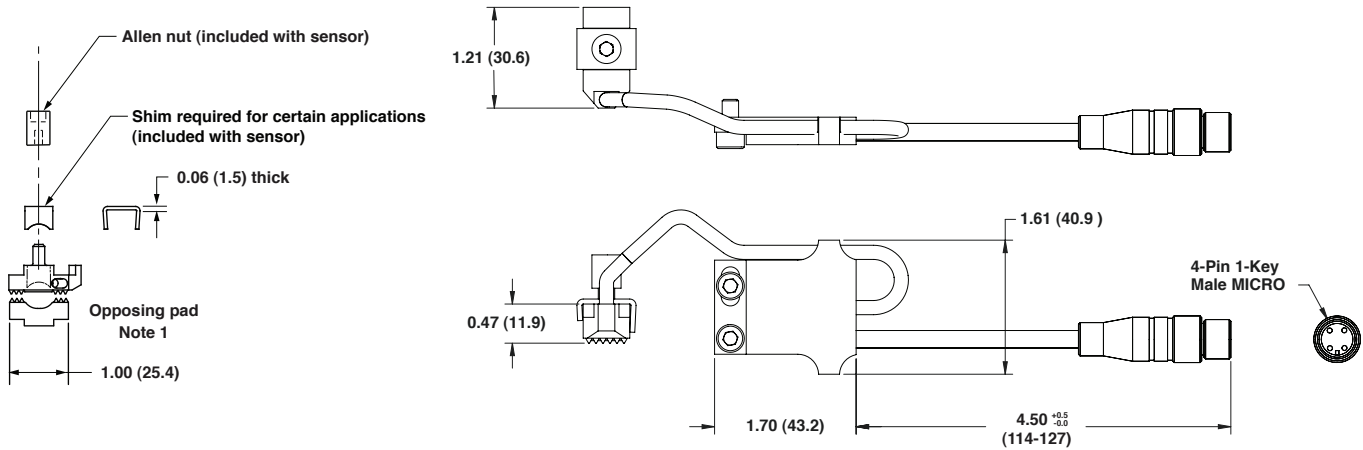
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)



**Order Information**

Part number (note 1)	Description	Sensor type	Material thickness (note 2)
SGS40014	Sensor	NPN	Various
SGS40014KS	Sensor with opposing pad (Kit)	NPN	0.50-3.50 mm
SGS40014KG	Sensor with opposing pad (Kit)	NPN	2.01-5.00 mm
SGS40015	Sensor	PNP	Various
SGS40015KS	Sensor with opposing pad (Kit)	PNP	0.50-3.50 mm
SGS40015KG	Sensor with opposing pad (Kit)	PNP	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.  
 Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

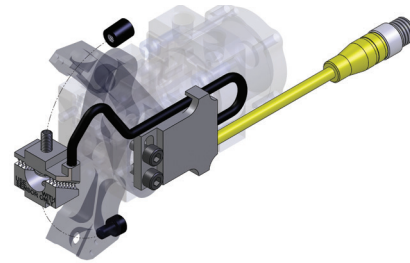
- 07750 - allen nut
- 07769 - shim

Dimensions in inches (mm) are for reference only

## In-pad Part Present sensor, MICRO 4 Pin/1 Key M12

### 30° Standard Pad, NPN/PNP Output

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils



### Technical data

**Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load**
**current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

 25 ms turn-on time, 60 ms  
turn-off time

**Target material:**

Steel and aluminum

**Short circuit protection:**

 Automatically resets when short is  
removed

**Overload protection:**

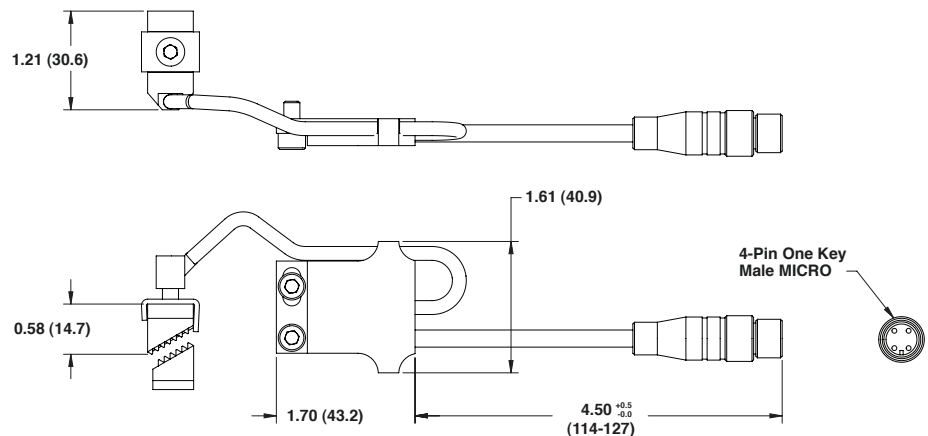
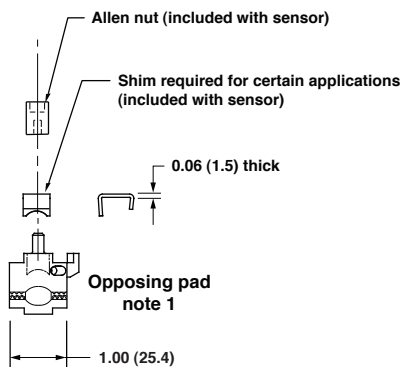
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)



### Order Information

Part number (note 1)	Description	NPN/PNP	Material thickness (note 2)
SGS40014-30	Sensor	NPN	Various
SGS40014KS-30	Sensor with opposing pad (Kit)	NPN	0.50-3.50 mm
SGS40014KG-30	Sensor with opposing pad (Kit)	NPN	2.01-5.00 mm
SGS40015-30	Sensor	PNP	Various
SGS40015KS-30	Sensor with opposing pad (Kit)	PNP	0.50-3.50 mm
SGS40015KG-30	Sensor with opposing pad (Kit)	PNP	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

07750 - allen nut

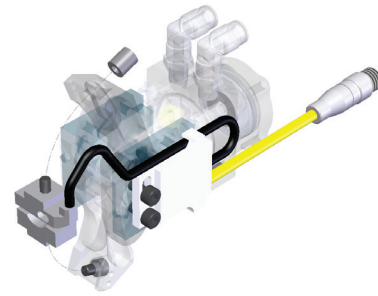
07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 4 Pin/1 Key M12**

**0° Dual Point Pad, NPN/PNP Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Ideal for coated panels
- > LED for part present status of sensor
- > Interface directly to PLC
- > Impervious to coolants and oils
- > May be used with regular jaw grippers, PGS10R and PGS11R



**Technical data**

**Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25 ms turn-on time, 60 ms turn-off time

**Target material:**

Steel and Aluminum

**Indicator light:**

RED: On when target is detected:  
360° visibility

**Short circuit protection:**

Automatically resets when short is removed

**Overload protection:**

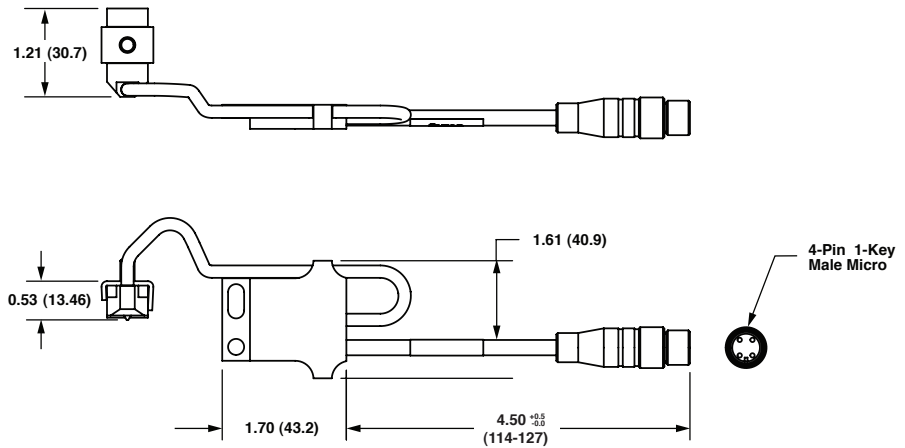
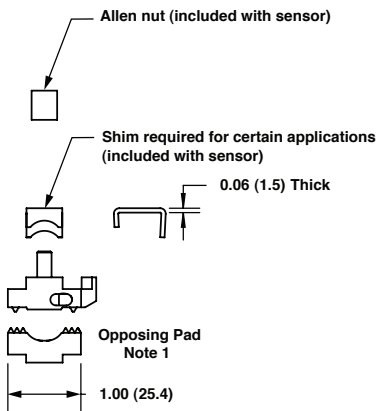
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)



**Order Information**

Part number (note 1)	Description	NPN/PNP	Material thickness (Note 2)
SGS40014-DP	Sensor	NPN	Various
SGS40014-DPKS	Sensor with opposing pad (silver)	NPN	0.50-3.50 mm
SGS40014-DPKG	Sensor with opposing pad (gold)	NPN	2.01-5.00 mm
SGS40015-DP	Sensor	PNP	Various
SGS40015-DPKS	Sensor with opposing pad (silver)	PNP	0.50-3.50 mm
SGS40015-DPKG	Sensor with opposing pad (gold)	PNP	2.01-5.00 mm

Note 1 - Order sensor part number shown above if sensor is being used with a chisel or flange jaw gripper or is a replacement sensor for a regular jaw gripper already fitted with an in-pad sensor. For new installation in regular jaw gripper, add KS or KG at the end of the part number for a kit containing the opposing pad.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to insure full jaw movement and cam lock action of gripper actuator.

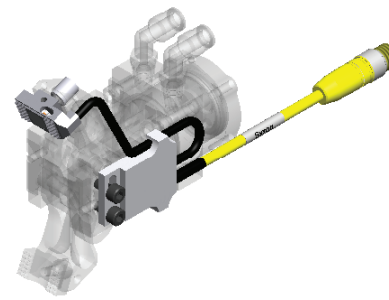
**Spare parts**

- 07750 - allen nut
- 07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 4 Pin/1 Key M12****0° Standard Pad, Two Wire Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils

**Technical data****Power/sensor connector:**

3-pin 8 mm (pico type) male connector

**Supply voltage range:**

24 VDC

**Maximum off-state leakage current:**

1.3mA @ 24 VDC

**Maximum continuous load current:**

40mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25ms turn-on time, 60ms turn-off time

**Target material:**

Steel and aluminum

**Indicator light:**

RED: On when target is detected;  
360° visibility

**Short circuit protection:**

Yes: Automatically resets when short is removed

**Overload protection:**

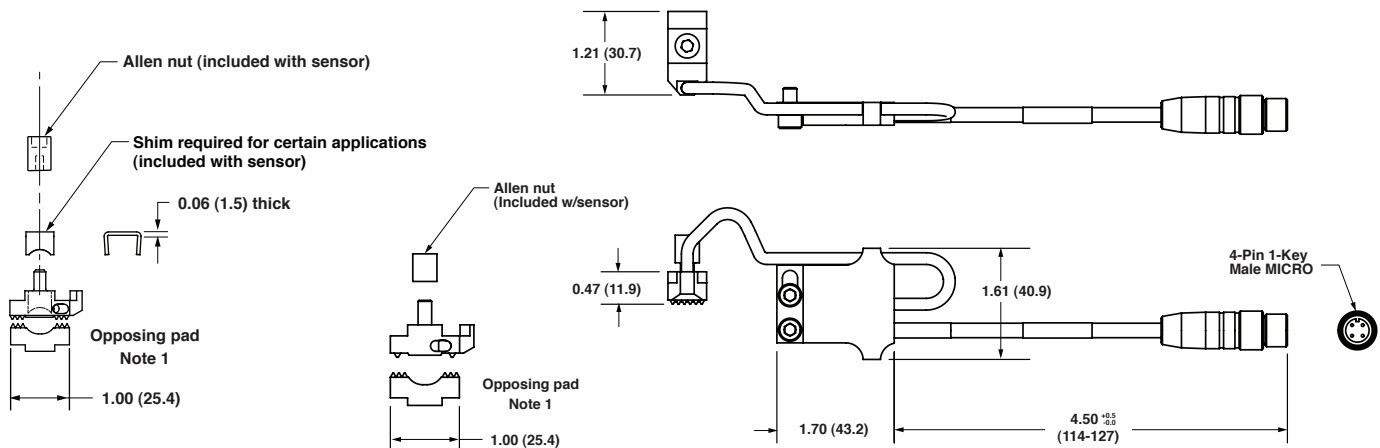
Yes

**On-state voltage drop:**

8.5 V

**Weight:**

0.15 lbs (68 g)

**Order information**

Part number (note 1)	Description	Material thickness (note 2)
SGS40034	Sensor	Various
SGS40034KC	Sensor with opposing pad (copper)	0.40 - 2.00 mm
SGS40034KS	Sensor with opposing pad (silver)	2.01 - 3.50 mm
SGS40034KG	Sensor with opposing pad (gold)	3.51 - 5.00 mm
SGS40034KO	Sensor with opposing pad (olive)	5.01 - 6.50 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

07750 - allen nut

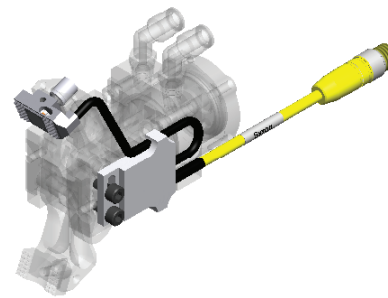
07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 3 Pin/2 Key 1/2-20**

**0° Standard Pad, Two Wire Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils



**Technical data**

**Power/sensor connector:**  
3-pin 1/2-20unf (micro type), two key male connector

**Supply voltage range:**  
24 V AC/DC to 140 V AC/DC

**Maximum off-state leakage current:**  
1.3mA @ 120V

**Maximum continuous load current:**  
40mA

**Operating temperature range:**  
0°C (min) to 60°C (max)

**Sensing range:**  
1.2mm above gripper pad

**Response time:**  
25ms turn-on time, 25ms turn-off time.

**Target material:**  
Steel and aluminum

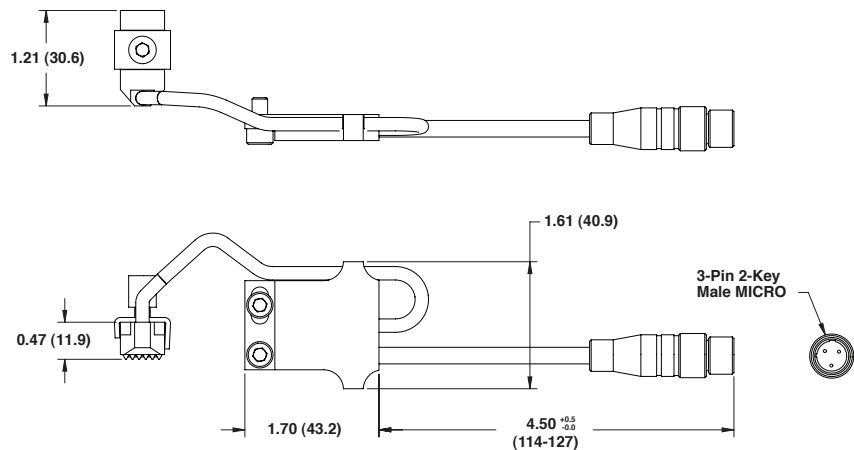
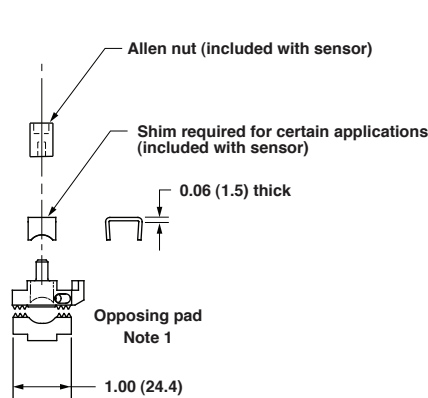
**Indicator light:**  
RED: On when target is detected;  
360° visibility

**Short circuit protection:**  
Yes: Automatically resets when short is removed

**Overload protection:**  
Yes

**On-state voltage drop:**  
8.5 V

**Weight:**  
0.15 lbs (68 g)



**Order information**

Part number (note 1)	Description	Material thickness (note 2)
SGS40020	Sensor	Various
SGS40020KS	Sensor with opposing pad	0.50-3.50 mm
SGS40020KG	Sensor with opposing pad	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

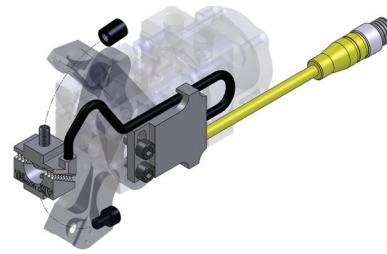
**Spare parts**

07750 - allen nut
07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 3 Pin/2 Key 1/2-20****30° Standard Pad, Two Wire Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > LED for on/off status of sensor
- > Interface directly to PLC
- > Impervious to coolants and oils

**Technical data**

**Power/sensor connector:**  
3-pin 1/2-20unf (micro type), two key male connector

**Supply voltage range:**  
24 V AC/DC to 140 V AC/DC

**Maximum off-state leakage current:**  
1.3mA @ 120V

**Maximum continuous load current:**  
40mA

**Operating temperature range:**  
0°C (min) to 60°C (max)

**Sensing range:**  
1.2 mm above gripper pad

**Response time:**  
25ms turn-on time, 25ms turn-off time

**Target material:**  
Steel and aluminum

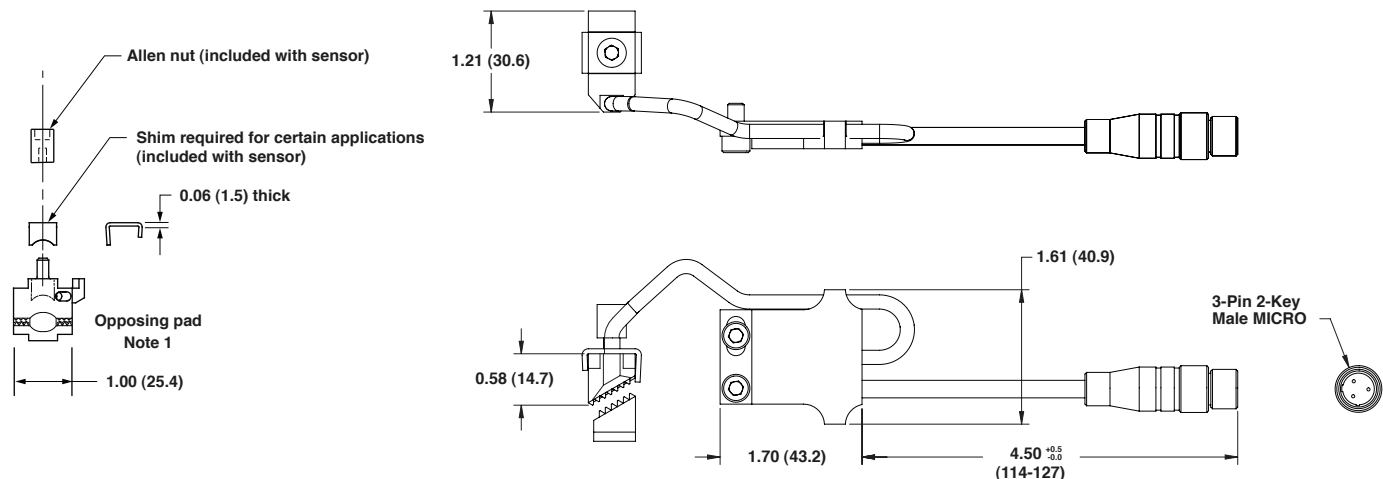
**Indicator light:**  
RED: On when target is detected;  
360° visibility

**Short circuit protection:**  
Yes: Automatically resets when short is removed

**Overload protection:**  
Yes

**On-state voltage drop:**  
8.5 V

**Weight:**  
0.15 lbs (70 g)

**Order information**

Part number (note 1)	Description	Material thickness (note 2)
SGS40020-30	Sensor	Various
SGS40020KS-30	Sensor with opposing pad	0.50-3.50 mm
SGS40020KG-30	Sensor with opposing pad	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

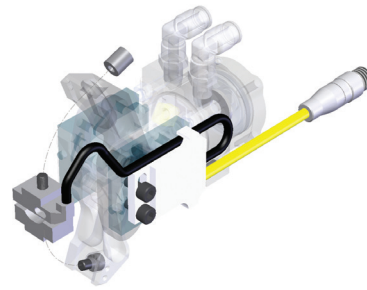
07750 - allen nut  
07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, MICRO 3 Pin/2 Key 1/2-20**

**0° Dual Point Pad, Two wire output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > For use with coated panels
- > LED for on/off status of sensor
- > Interface directly to PLC
- > Impervious to coolants and oils
- > May be used with regular jaw grippers, PGS10R and PGS11R



**Technical data**

**Power/sensor connector:**

3-pin 1/2-20unf (micro type), two key male connector

**Supply voltage range:**

24 V AC/DC to 140 V AC/DC

**Maximum off-state leakage current:**

1.3mA @ 120 V

**Maximum continuous load current:**

40mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25ms turn-on time, 25ms turn-off time.

**Target material:**

Steel and aluminum

**Indicator light:**

RED: On when target is detected; 360° visibility

**Short circuit protection:**

Yes: Automatically resets when short is removed

**Overload protection:**

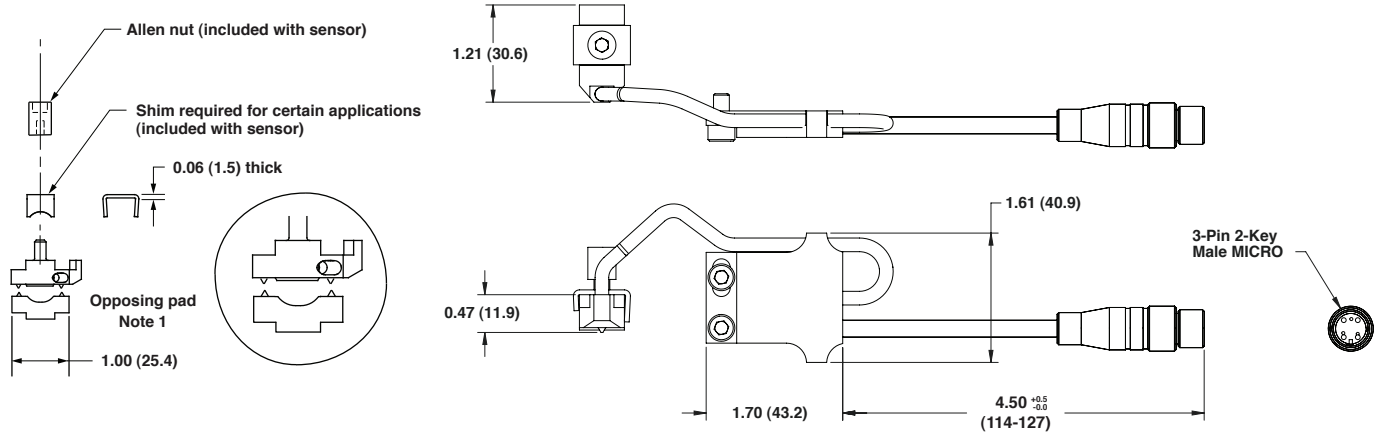
Yes

**On-state voltage drop:**

8.5 V

**Weight:**

0.15 lbs (70 g)



**Order information**

Part number (note 1)	Description	Material thickness (note 2)
SGS40021	Sensor	Various
SGS40021KS	Sensor with opposing pad (Kit)	0.50-3.50 mm
SGS40021KG	Sensor with opposing pad (Kit)	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

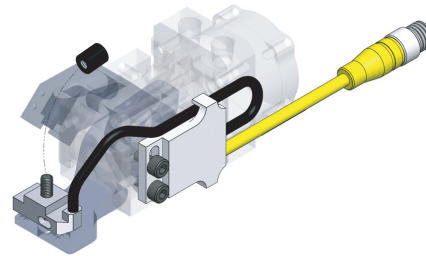
07750 - allen nut
07769 - shim

Dimensions in inches (mm) are for reference only



**In-pad Part Present sensor, PICO 3 Pin/M8****0° Standard Pad, NPN/PNP Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils

**Technical data****Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load****current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**25 ms turn-on time, 60 ms  
turn-off time**Target material:**

Steel and aluminum

**Short circuit protection:**Automatically resets when short is  
removed**Overload protection:**

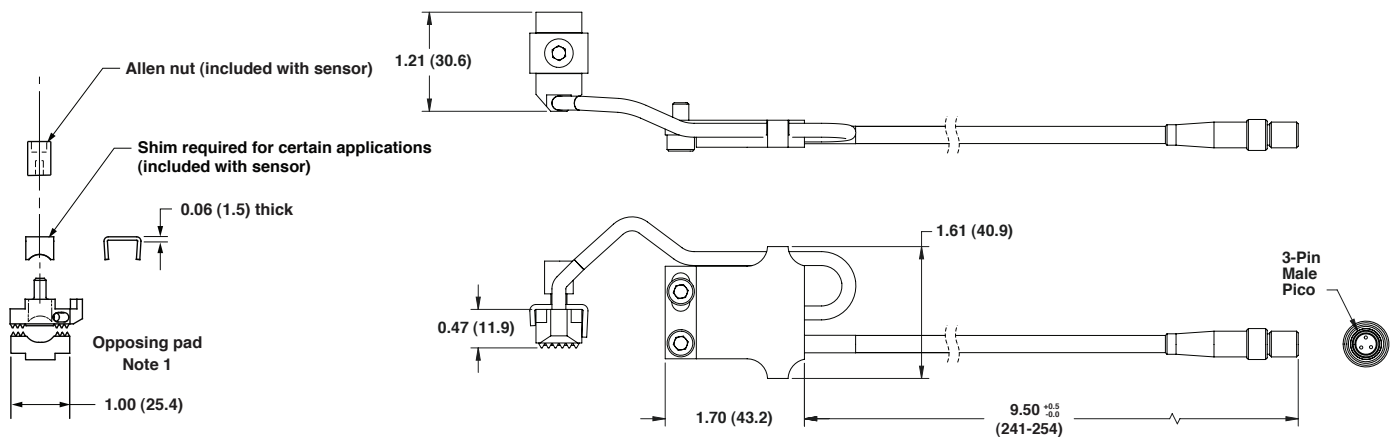
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)

**Order Information**

Part number (note 1)	Description	NPN/PNP	Material thickness (note 2)
SGS40014P	Sensor	NPN	Various
SGS40014PKS	Sensor with opposing pad (Kit)	NPN	0.50-3.50 mm
SGS40014PKG	Sensor with opposing pad (Kit)	NPN	2.01-5.00 mm
SGS40015P	Sensor	PNP	Various
SGS40015PKS	Sensor with opposing pad (Kit)	PNP	0.50-3.50 mm
SGS40015PKG	Sensor with opposing pad (Kit)	PNP	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

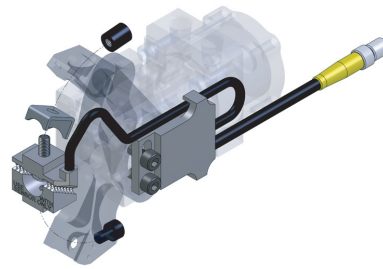
07750 - allen nut

07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, PICO 3 Pin/M8**  
**30° Standard Pad, NPN/PNP Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils



PGS10 SENSORS

**Technical data**

**Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25 ms turn-on time, 60 ms turn-off time

**Target material:**

Steel and aluminum

**Short circuit protection:**

Automatically resets when short is removed

**Overload protection:**

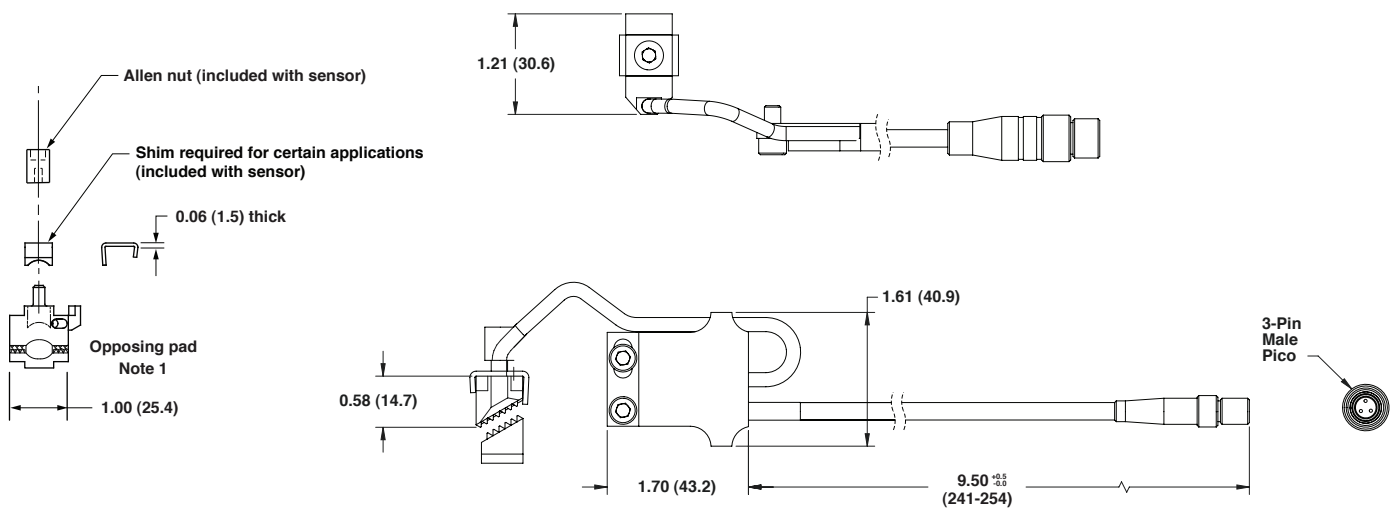
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)



**Order Information**

Part number (note 1)	Description	NPN/PNP	Material thickness (Note 2)
SGS40014P-30	Sensor	NPN	Various
SGS40014PKS-30	Sensor with opposing pad	NPN	0.50-3.50 mm
SGS40014PKG-30	Sensor with opposing pad	NPN	2.01-5.00 mm
SGS40015P-30	Sensor	PNP	Various
SGS40015PKS-30	Sensor with opposing pad	PNP	0.50-3.50 mm
SGS40015PKG-30	Sensor with opposing pad	PNP	2.01-5.00 mm

Note 1 - Order sensor part number shown above if the sensor is a replacement sensor for a regular jaw gripper already fitted with an angled in-pad sensor. For new installation in regular jaw gripper, add KS or KG at the end of the part number for a kit containing the opposing pad. Angle of opposing pad must match angle of sensor.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to insure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

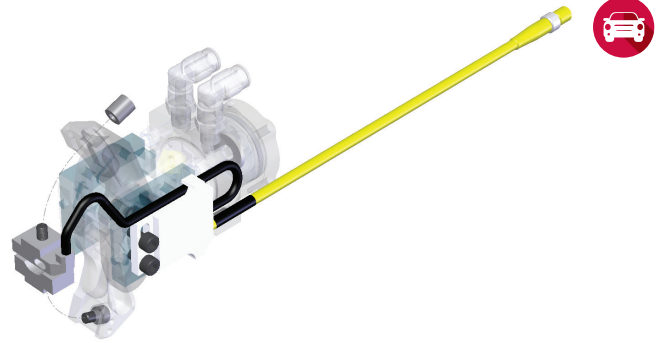
07750 - allen nut

07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, PICO 3 Pin/M8****0° Dual Point Pad, NPN/PNP Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > For use with coated panels
- > LED for on/off status of sensor
- > Interface directly to PLC
- > Impervious to coolants and oils
- > May be used with regular jaw grippers, PGS10R and PGS11R

**Technical data****Supply voltage range:**

10 VDC (min) to 30 VDC (max)

**Maximum continuous load****current:**

200 mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25 ms turn-on time, 60 ms turn-off time

**Target material:**

Steel and aluminum

**Short circuit protection:**

Automatically resets when short is removed

**Overload protection:**

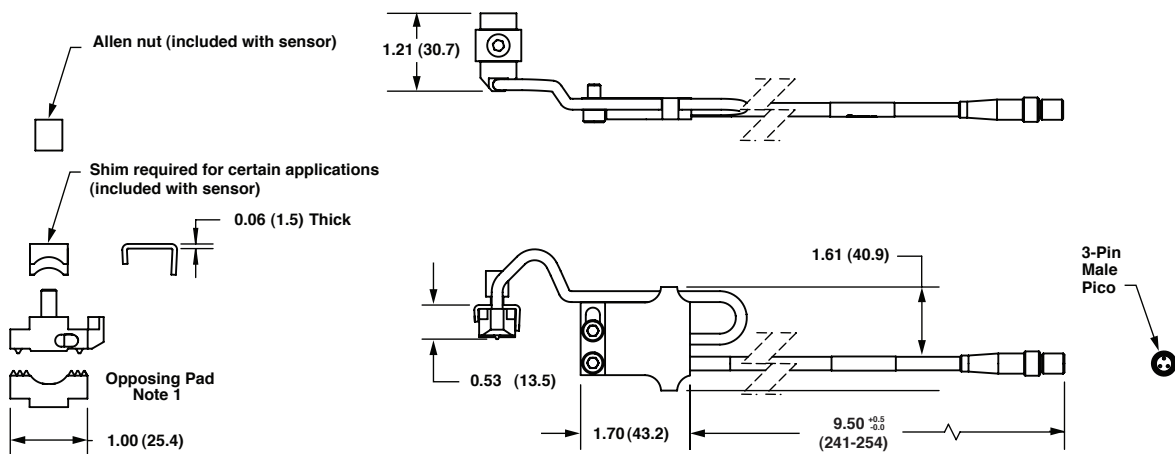
Current limits at 325 mA typ.

**Reverse polarity protection:**

Up to 36 volts DC

**Weight:**

0.15 lbs (68 g)

**Order information**

Part number (note 1)	Description	NPN/PNP	Material thickness (Note 2)
SGS40014-DP	Sensor	NPN	Various
SGS40014-DPKS	Sensor with opposing pad (silver)	NPN	0.50-3.50 mm
SGS40014-DPKG	Sensor with opposing pad (gold)	NPN	2.01-5.00 mm
SGS40015-DP	Sensor	PNP	Various
SGS40015-DPKS	Sensor with opposing pad (silver)	PNP	0.50-3.50 mm
SGS40015-DPKG	Sensor with opposing pad (gold)	PNP	2.01-5.00 mm

Note 1 - Order sensor part number shown above if sensor is being used with a chisel or flange jaw gripper or is a replacement sensor for a regular jaw gripper already fitted with an in-pad sensor. For new installation in regular jaw gripper, add KS or KG at the end of the part number for a kit containing the opposing pad.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to insure full jaw movement and cam lock action of gripper actuator.

**Spare parts**

07750 - allen nut

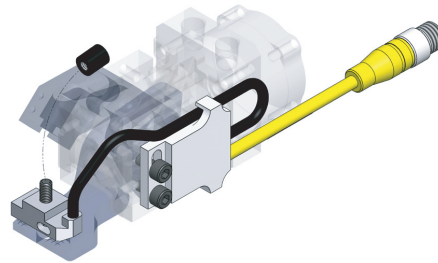
07769 - shim

Dimensions in inches (mm) are for reference only

**In-pad Part Present sensor, PICO 3 Pin/M8**

**0° Standard Pad, Two Wire Output**

- > Abrasion and impact resistant
- > Eliminates sensor position adjustments
- > Interface directly to PLC
- > Impervious to coolants and oils



PGS10 SENSORS

**Technical data**

**Power/sensor connector:**

3-pin 8 mm (pico type) male connector

**Supply voltage range:**

24 VDC

**Maximum off-state leakage current:**

1.3mA @ 24 VDC

**Maximum continuous load current:**

40mA

**Operating temperature range:**

0°C (min) to 60°C (max)

**Sensing range:**

1.2 mm above gripper pad

**Response time:**

25ms turn-on time, 60ms turn-off time

**Target material:**

Steel and aluminum

**Indicator light:**

RED: On when target is detected; 360° visibility

**Short circuit protection:**

Yes: Automatically resets when short is removed

**Overload protection:**

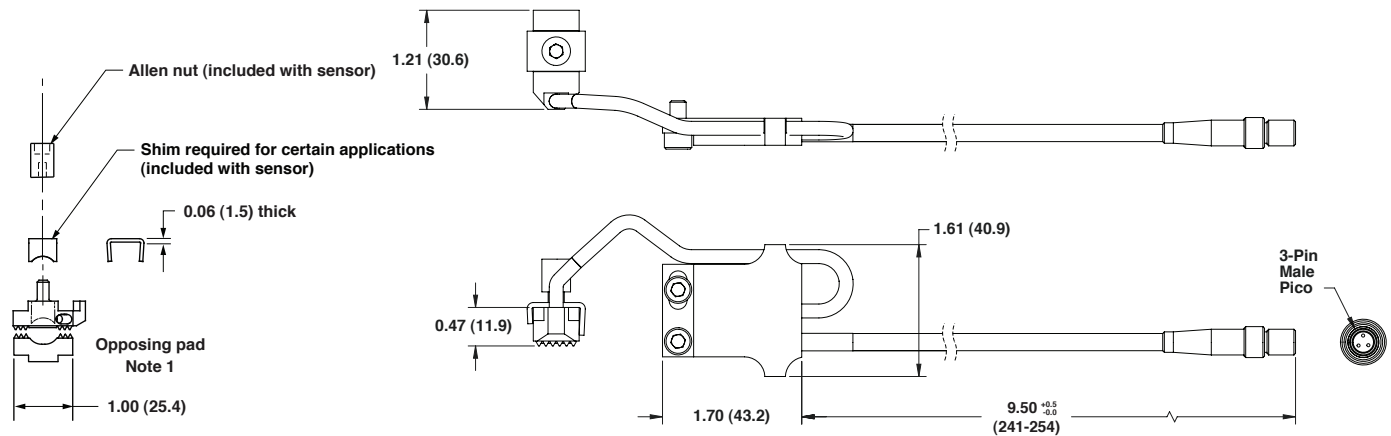
Yes

**On-state voltage drop:**

8.5 V

**Weight:**

0.15 lbs (68 g)



**Order information**

Part number (note 1)	Description	Material thickness (note 2)
SGS40020P	Sensor	Various
SGS40020PKS	Sensor with opposing pad (Kit)	0.50-3.50 mm
SGS40020PKG	Sensor with opposing pad (Kit)	2.01-5.00 mm

Note 1 - The standard sensor part number (without a KS or KG suffix) can be used with a chisel jaw or flange jaw gripper, or with a regular jaw gripper already fitted with an in-pad sensor. For new installation of an in-pad sensor on a regular jaw gripper, select the part numbers with a KS or KG suffix to include the opposing pad in your kit.

Note 2 - Sensor must be ordered based on thickness of the material being handled. Pad thickness changes to ensure full jaw movement and cam lock action of gripper actuator.

Spare parts
07750 - allen nut
07769 - shim

Dimensions in inches (mm) are for reference only

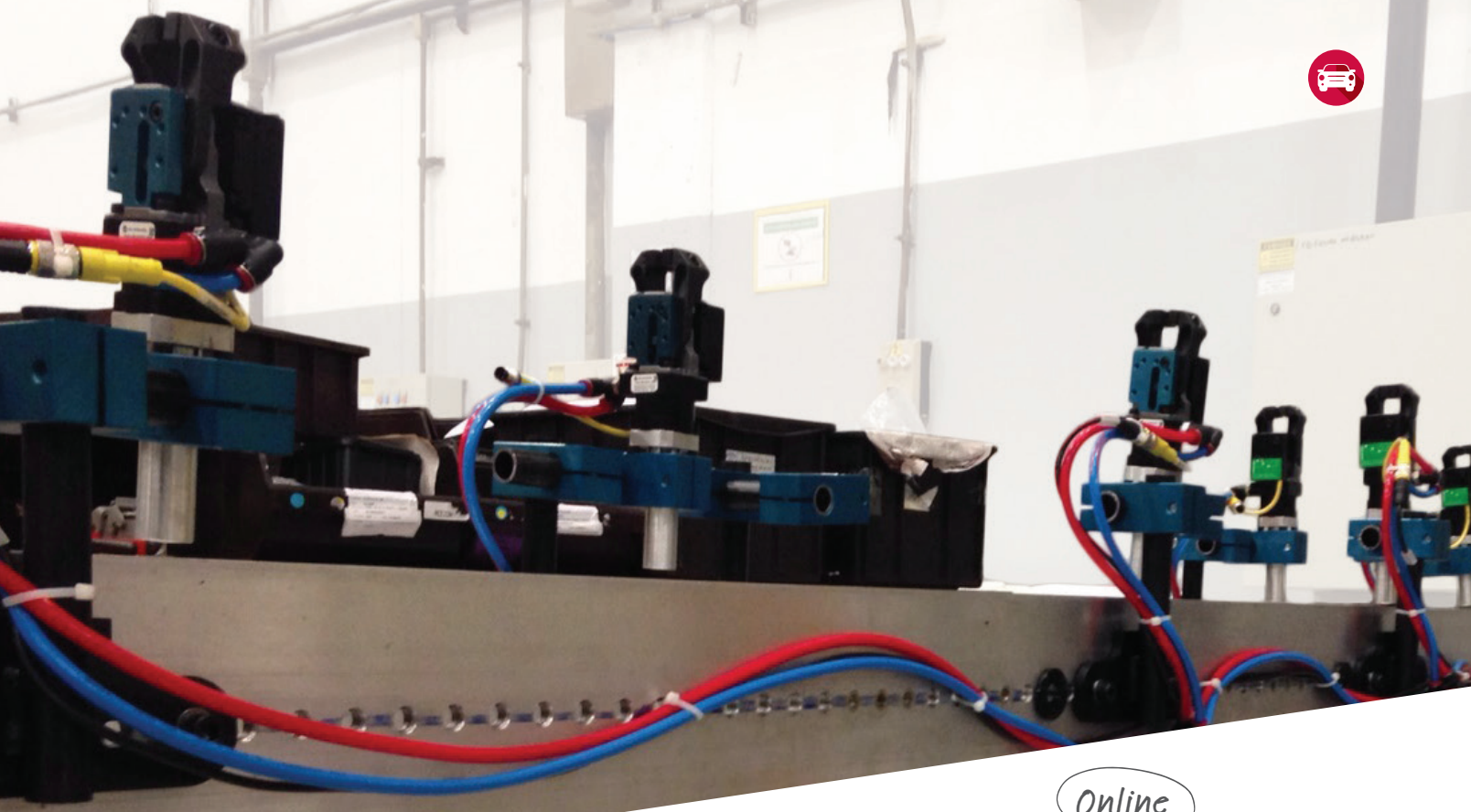




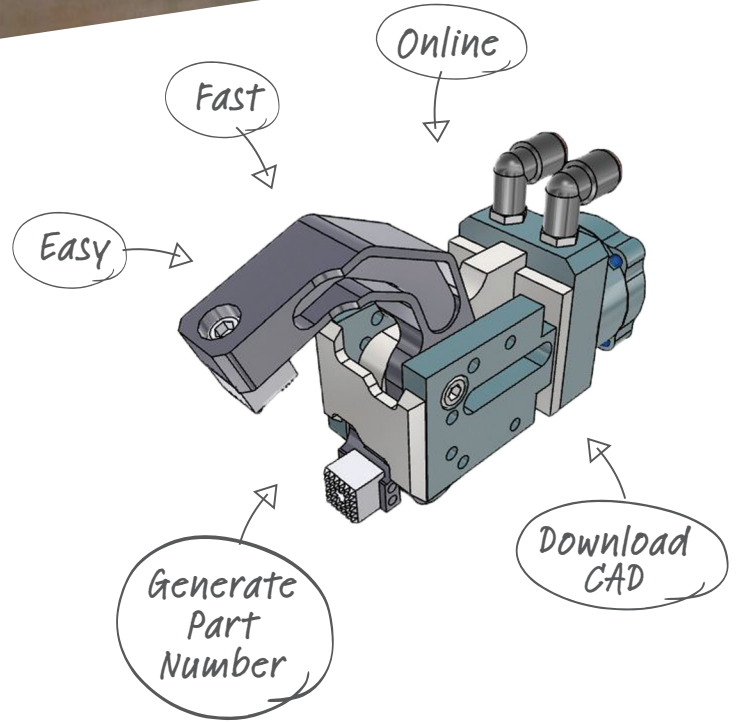








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Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure modes.

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# PGS10 and Hot Metal Grippers



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**PGS10 CHISEL GRIPPER**  
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**PGS10 FLANGE GRIPPER**  
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**PGS10 SHOVEL GRIPPER**  
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**PGS10 HOT METAL GRIPPER**  
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**PGS10 ACCESSORIES**  
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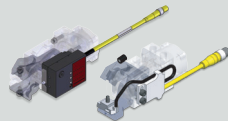
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**PGS10 REPAIR KIT**  
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