

# CT/DCT & CT-RE/DCT-RE SERIES

## Angular Grippers | Features and Benefits | How To Order

### Features:

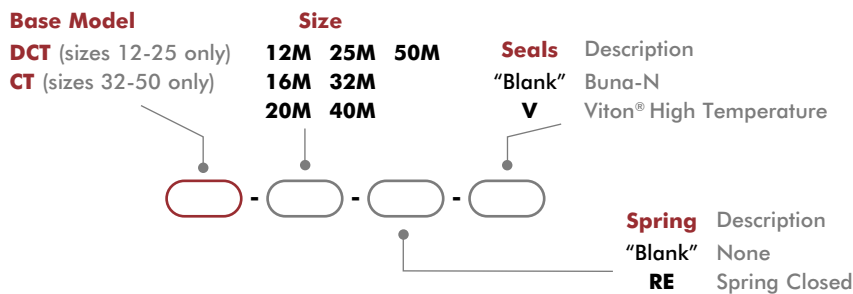
- 180° angular gripper jaw opening for direct feed systems
- Shielded design for working in dirty environments
- Spring assist option maintains grip in case of air pressure loss
- Adjustable 0 to 180° opening angle option.
- Side and bottom gripper mounting
- Multiple air ports, side and top air ports for easy installation

### Applications:

- In-line conveying applications
- OEM pick and place machines
- End-of-arm tooling



## How To Order



## Accessories

Sensor Accessories	Model Numbers	Part Number	Qty/Unit
NPN Magneto Resistive Sensor with M8 Quick Disconnect	All Models	OHSN-017	1-2
PNP Magneto Resistive Sensor with M8 Quick Disconnect	All Models	OHSP-017	1-2
Inductive Sensor Mounting Kit (mounts 2 sensors)	See Datasheet		1
4mm NPN Inductive Sensor with M8 Quick Disconnect*	16M, 20M	OISN-014	1-2
4mm PNP Inductive Sensor M8 with Quick Disconnect*	16M, 20M	OISP-014	1-2
M8 NPN Inductive Sensor with M8 Quick Disconnect*	25M, 32M	OISN-011	1-2
M8 PNP Inductive Sensor with M8 Quick Disconnect*	25M, 32M	OISP-011	1-2
M12 NPN Inductive Sensor with M12 Quick Disconnect*	40M, 50M	OISN-017	1-2
M12 PNP Inductive Sensor with M12 Quick Disconnect*	40M, 50M	OISP-017	1-2
M8 Quick Disconnect 2 Meter Cable Length*	All Models	CABL-010	1-2
M8 Quick Disconnect 5 Meter Cable Length*	All Models	CABL-013	1-2
M12 Quick Disconnect 2 Meter Cable Length*	All Models	CABL-014	1-2
M12 Quick Disconnect 5 Meter Cable Length*	All Models	CABL-018	1-2

Pneumatic Accessories	Model Numbers	Part Number	Qty/Unit
Adjustable Flow Control-M5 Elbow-6mm OD Push-in	12M, 16M, 20M, 25M, 32M	VLVF-008	1-2
Adjustable Flow Control-G1/8 Elbow-6mm OD Push-in	40M, 50M	VLVF-005	1-2

\*Sensor and cable sold separately.

# CT/DCT & CT-RE/DCT-RE SERIES

## Angular Grippers | Technical Specifications

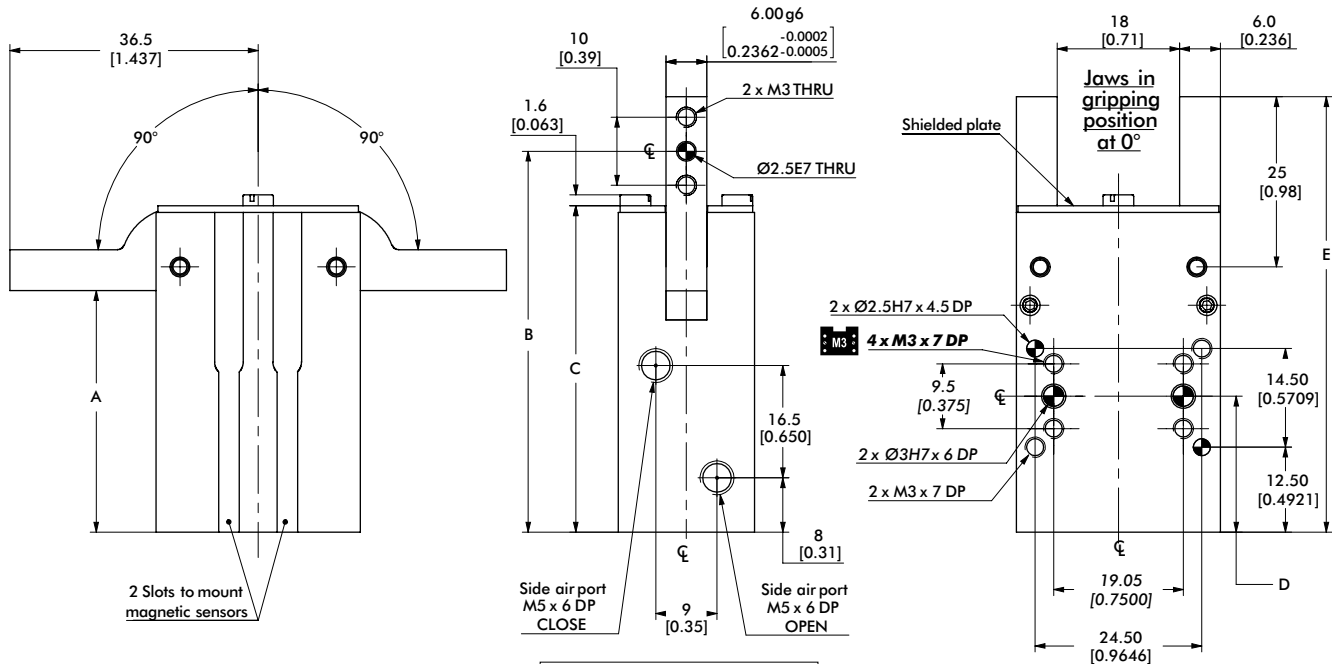
Specifications	Units	12M	12M-RE	16M	16M-RE	20M	20M-RE	25M	25M-RE
Total Rated Grip Force <b>F</b> @ 100 psi [7 bar]	N [lb]	32 [7.2]	40 [9]	70 [16]	87 [19]	112 [25]	141 [32]	157 [35]	199 [45]
Stroke (degrees per finger)		90° per finger (180° total)							
Weight	kg [lbs]	0.09 [0.20]	0.12 [0.26]	0.16 [0.35]	0.20 [0.44]	0.28 [0.62]	0.33 [0.73]	0.49 [1.08]	0.57 [1.26]
Pressure Range w/o Spring	bar [psia]	3-7 [40-100] <b>CT/DCT</b>							
Pressure Range w/ Spring	bar [psi]	4-7 [60-100] <b>CT-RE/DCT-RE</b>							
Ingress Protection Class (IP)		IP43							
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	1.92 [0.117]		4.12 [0.251]		7.92 [0.483]		14.9 [0.909]	
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]							
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]							
Actuation (open)	sec	0.06	0.08	0.13	0.15	0.16	0.20	0.21	0.25
Actuation (close)	sec	0.06	0.05	0.13	0.12	0.16	0.14	0.21	0.19
Accuracy	mm [in]	±0.07 [±0.0028]				±0.08 [±0.003]			
Repeatability	mm [in]	±0.05 [±0.002]							
Valve to Actuate Double Acting		4-way, 2-position <b>CT/DCT</b>							
Valve to Actuate Double Acting Spring Assist		4-way, 2-position <b>CT-RE/DCT-RE</b>							
Valve to Actuate Single Acting		3-way, 2-position <b>CT-RE/DCT-RE</b>							

Specifications	Units	32M	32M-RE	40M	40M-RE	50M	50M-RE	
Total Rated Grip Force <b>F</b> @ 100 psi [7 bar]	N [lb]	272 [61]	353 [79]	446 [100]	592 [133]	651 [146]	893 [201]	
Stroke (degrees per finger)		90° per finger (180° total)						
Weight	kg [lbs]	0.72 [1.59]	0.83 [1.83]	1.18 [2.60]	1.39 [3.06]	1.82 [4.01]	2.21 [4.87]	
Pressure Range w/o Spring	bar [psia]	3-7 [40-100] <b>CT/DCT</b>						
Pressure Range w/ Spring	bar [psi]	4-7 [60-100] <b>CT-RE/DCT-RE</b>						
Ingress Protection Class (IP)		IP43						
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	28.6 [1.745]		52 [3.173]		92 [5.614]		
Temperature Range (Buna-N seals)	°C [°F]	-35°~80° [-30°~180°]						
Temperature Range (Viton® seals)	°C [°F]	-30°~150° [-20°~300°]						
Actuation (open)	sec	0.29	0.35	0.41	0.47	0.46	0.54	
Actuation (close)	sec	0.29	0.26	0.41	0.38	0.46	0.42	
Accuracy	mm [in]	±0.08 [±0.003]			±0.09 [±0.0036]			
Repeatability	mm [in]	±0.05 [±0.002]						
Valve to Actuate Double Acting		4-way, 2-position <b>CT/DCT</b>						
Valve to Actuate Double Acting Spring Assist		4-way, 2-position <b>CT-RE/DCT-RE</b>						
Valve to Actuate Single Acting		3-way, 2-position <b>CT-RE/DCT-RE</b>						

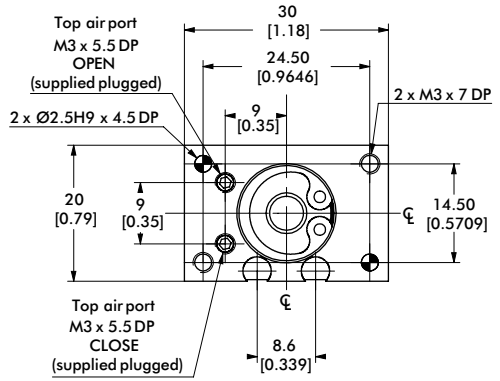
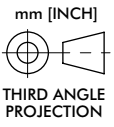
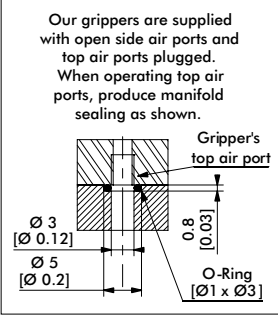
# DCT-12, -12-RE



## Angular Grippers | Dimensions and Technical Specifications



NOTE: Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.

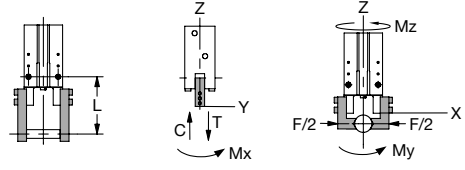
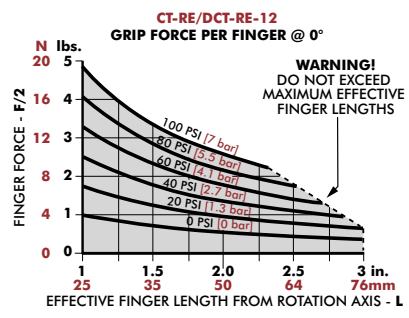
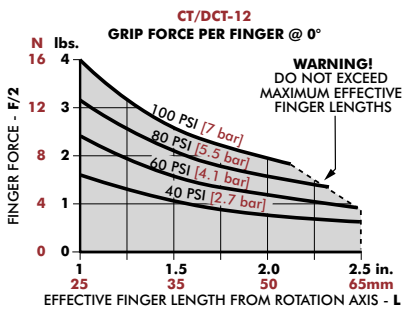


Model	A	B	C	D	E
DCT-12	35.5 [1.398]	56.00 [2.2047]	48 [1.89]	20.00 [0.7874]	64 [2.52]
DCT-12-RE	51.5 [2.028]	72.00 [2.8346]	64 [2.52]	35.00 [1.3780]	80 [3.15]

Dimensions in mm [in]

Mounting Accessories	Order #
Adjustment Stop Kit (1 shielded plate, 1 stop)	KP-DCT12-BR
Seal Repair Kits	Order #
Buna-N Seal Repair Kit	SLKT-159
Viton® Seal Repair Kit	SLKT-159V

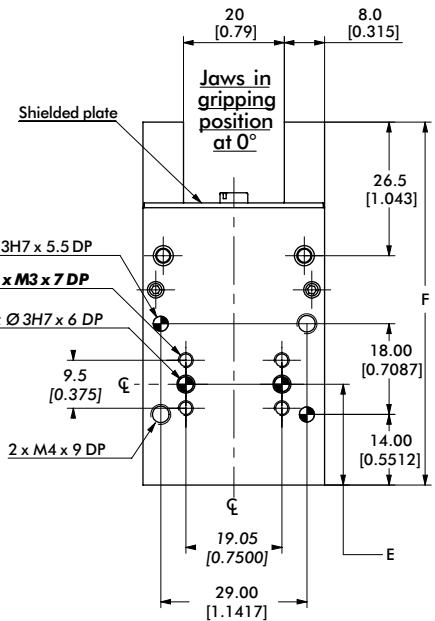
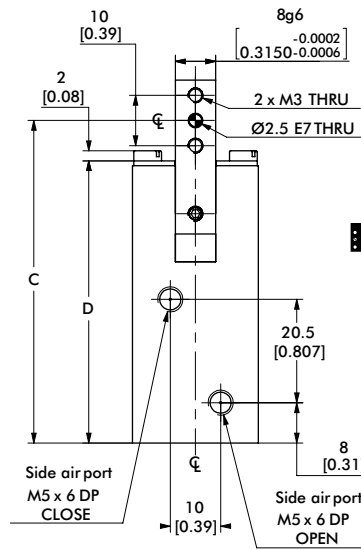
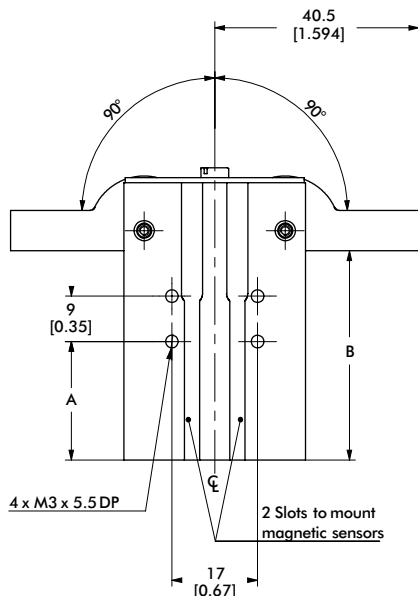
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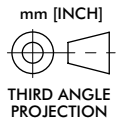
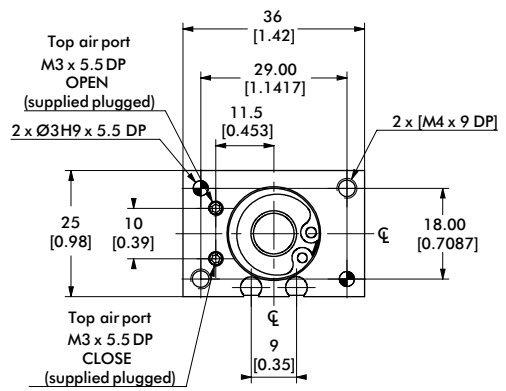
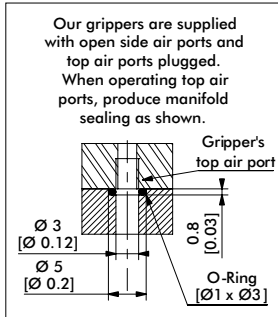
Static	
Maximum Tensile <b>T</b>	47 N [11 lbs]
Maximum Compressive <b>C</b>	47 N [11 lbs]
Maximum Moment <b>M<sub>x</sub></b>	1.1 Nm [10 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	1.1 Nm [10 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	1.1 Nm [10 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

## Angular Grippers | Dimensions and Technical Specifications



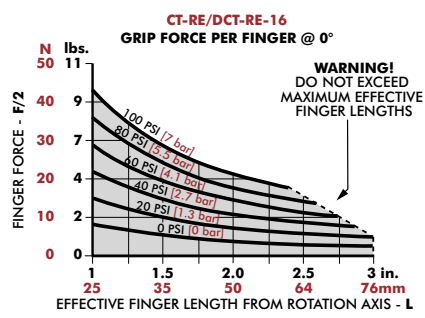
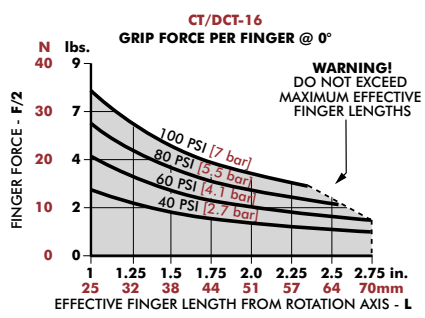
**NOTE:** Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.



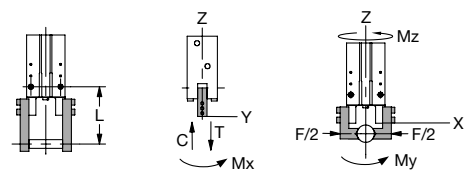
Mounting Accessories		Order #
Inductive Sensor Mounting Kit (mounts 2 sensors)		SDCT-16-20
Adjustment Stop Kit (1 shielded plate, 1 stop)		KP-DCT16-BR
Seal Repair Kits		Order #
Buna-N Seal Repair Kit		SLKT-160
Viton® Seal Repair Kit		SLKT-160V

Model	A	B	C	D	E	F
DCT-16	23.5 [0.925]	41.5 [1.634]	64.00 [2.5197]	56 [2.20]	20.00 [0.7874]	72 [2.83]
DCT-16-RE	38.5 [1.516]	56.5 [2.224]	79.00 [3.1102]	71 [2.80]	35.00 [1.3780]	87 [3.43]

Dimensions in mm [in]



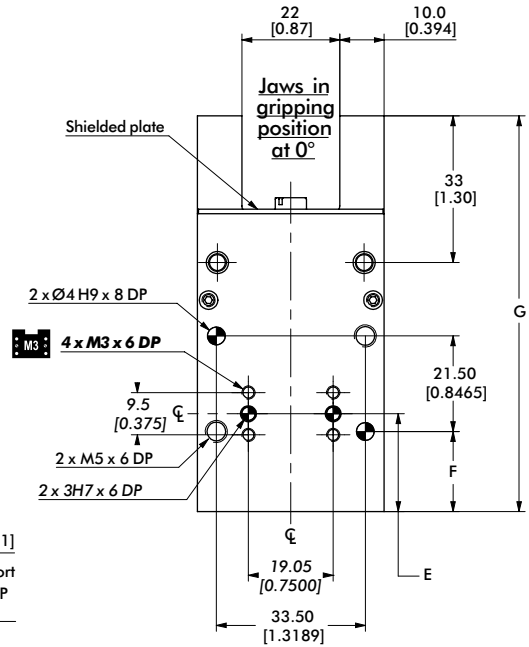
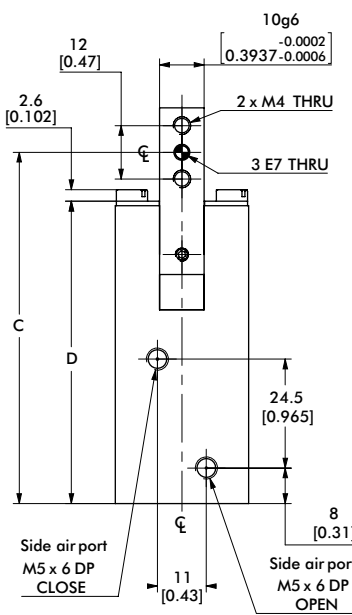
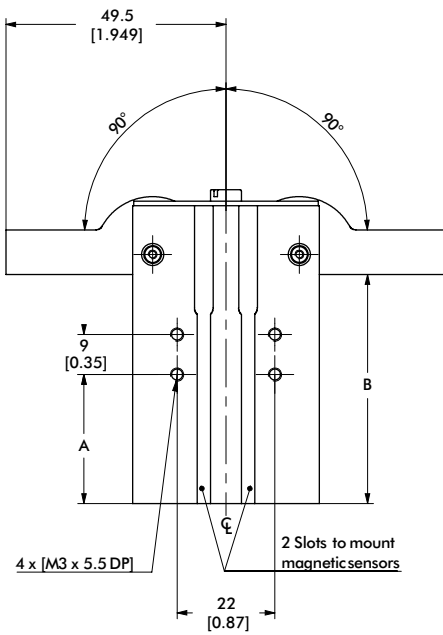
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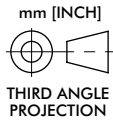
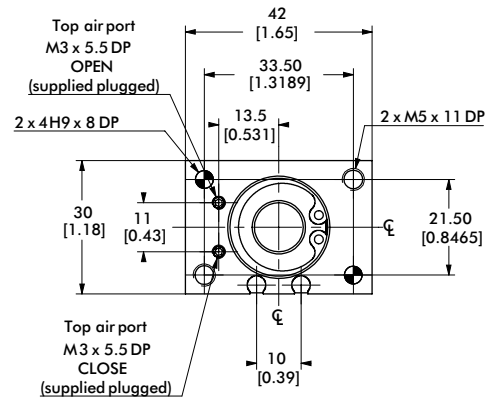
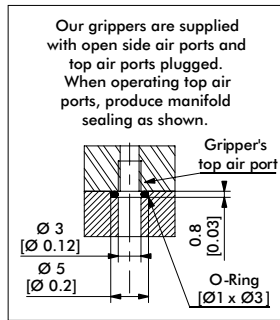
Static	
Maximum Tensile <b>T</b>	90 N [20 lbs]
Maximum Compressive <b>C</b>	90 N [20 lbs]
Maximum Moment <b>M<sub>x</sub></b>	2.9 Nm [26 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	2.9 Nm [26 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	2.9 Nm [26 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

## Angular Grippers | Dimensions and Technical Specifications



NOTE: Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.

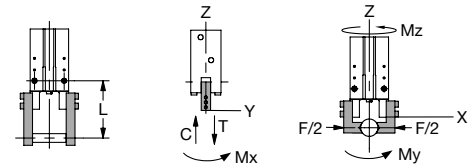
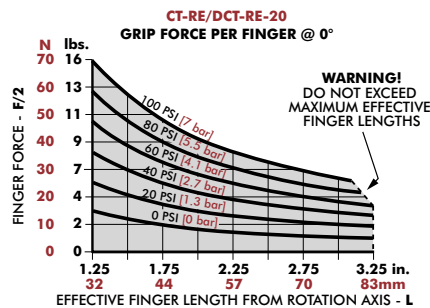
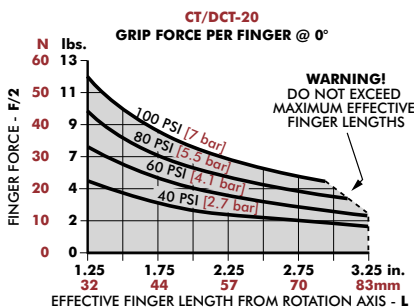


Model	A	B	C	D	E	F	G
<b>DCT-20</b>	29 [1.14]	51.5 [2.028]	79.00 [3.1102]	68 [2.68]	22.00 [0.8661]	18.00 [0.7087]	89 [3.50]
<b>DCG/CT-20-RE</b>	47 [1.85]	66.5 [2.618]	94.00 [3.7008]	83 [3.27]	39.00 [1.5354]	20.00 [0.7874]	104 [4.09]

Dimensions in mm [in]

Mounting Accessories	Order #
Inductive Sensor Mounting Kit (mounts 2 sensors)	SDCT-16-20
Adjustment Stop Kit (1 shielded plate, 1 stop)	KP-DCT20-BR
Seal Repair Kits	Order #
Buna-N Seal Repair Kit	SLKT-161
Viton® Seal Repair Kit	SLKT-161V

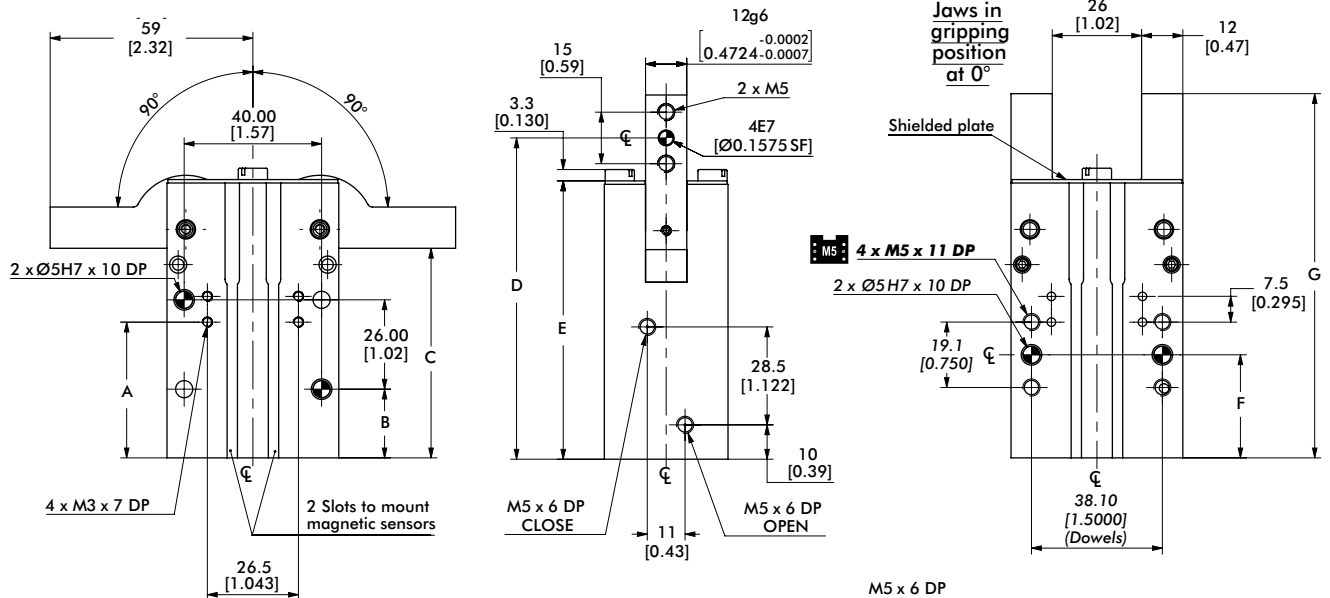
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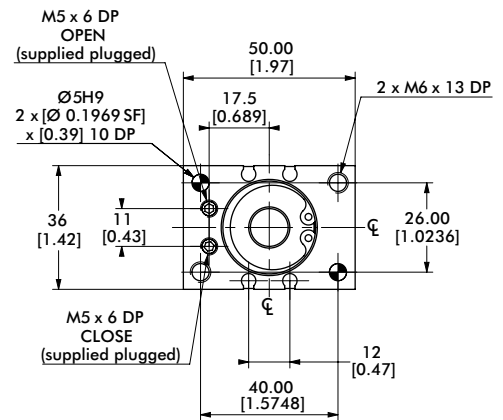
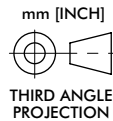
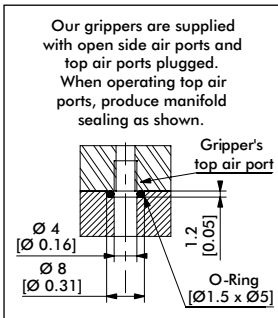
Static	
Maximum Tensile <b>T</b>	150 N [34 lbs]
Maximum Compressive <b>C</b>	150 N [34 lbs]
Maximum Moment <b>M<sub>x</sub></b>	6 Nm [53 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	6 Nm [53 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	6 Nm [53 in-lbs]

<sup>1</sup>Capacities are per set of jaws and are not simultaneous

## Angular Grippers | Dimensions and Technical Specifications



NOTE: Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.

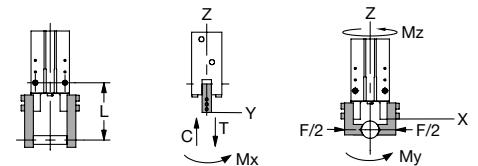
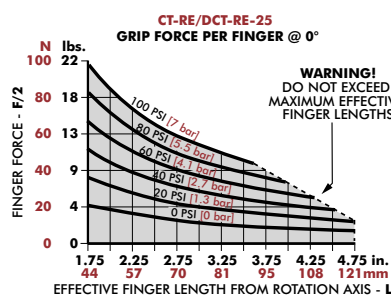
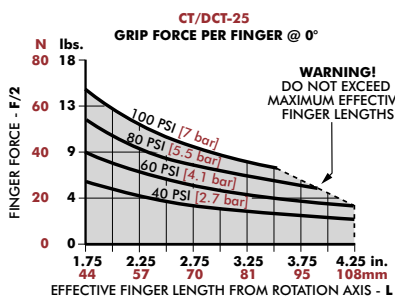


Model	A	B	C	D	E	F	G
DCT-25	39.5 [1.555]	20.00 [0.79]	61 [2.40]	93.50 [3.6811]	81 [3.19]	30.00 [1.1811]	106 [4.17]
DCT-25-RE	60.5 [2.382]	25.00 [0.98]	82 [3.23]	114.50 [4.5079]	102 [4.02]	51.00 [2.0079]	127 [5.00]

Dimensions in mm [in]

Mounting Accessories	Order #
Inductive Sensor Mounting Kit (mounts 2 sensors)	SDCT-25-32
Adjustment Stop Kit (1 shielded plate, 1 stop)	KP-DCT25-BR
Seal Repair Kits	Order #
Buna-N Seal Repair Kit	SLKT-162
Viton® Seal Repair Kit	SLKT-162V

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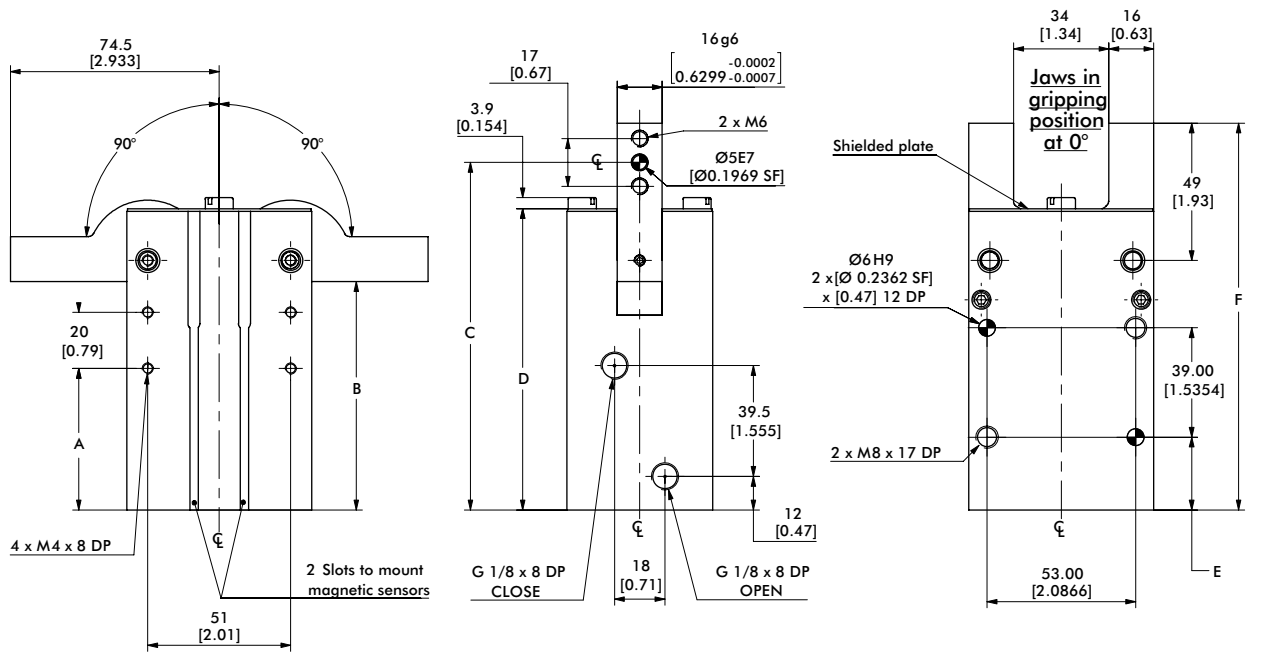


Static	
Maximum Tensile <b>T</b>	205 N [46 lbs]
Maximum Compressive <b>C</b>	205 N [46 lbs]
Maximum Moment <b>M<sub>x</sub></b>	10 Nm [89 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	10 Nm [89 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	10 Nm [89 in-lbs]

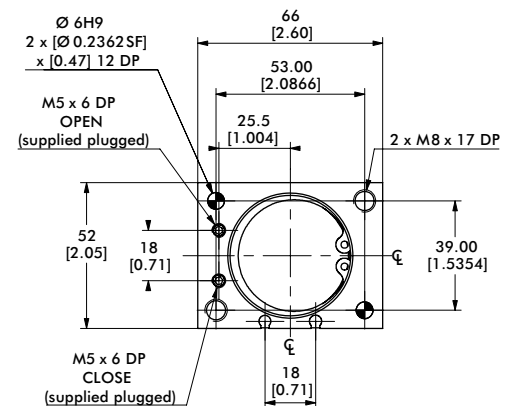
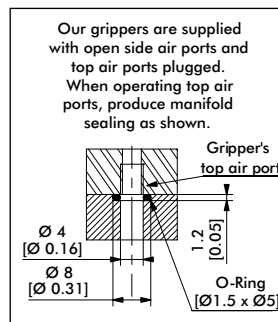
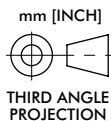
\*Capacities are per set of jaws and are not simultaneous



## Angular Grippers | Dimensions and Technical Specifications



NOTE: Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.



Model	A	B	C	D	E	F
CT-40	50.5 [1.988]	81.5 [3.209]	124.00 [4.8819]	107.5 [4.232]	26.00 [1.0236]	138 [5.43]
CT-40-RE	78 [3.07]	109 [4.29]	151.50 [5.9646]	135 [5.31]	32.00 [1.2598]	165.5 [6.516]

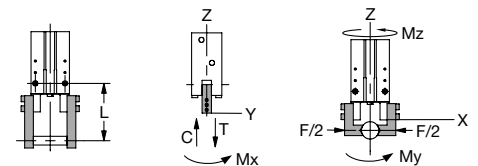
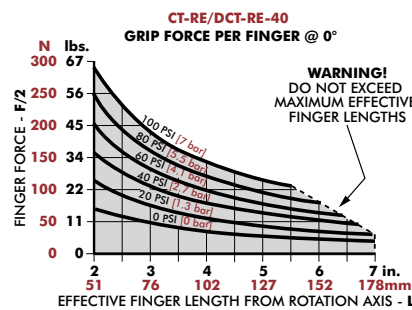
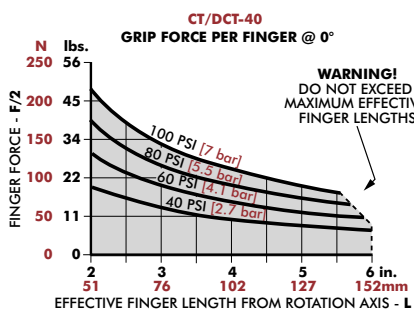
Dimensions in mm [in]

Mounting Accessories	Order #
Inductive Sensor Mounting Kit (mounts 2 sensors)	SDCT-40-63
Adjustment Stop Kit (1 shielded plate, 1 stop)	KP-CT40-BR

Seal Repair Kits	Order #
Buna-N Seal Repair Kit	SLKT-164
Viton® Seal Repair Kit	SLKT-164V

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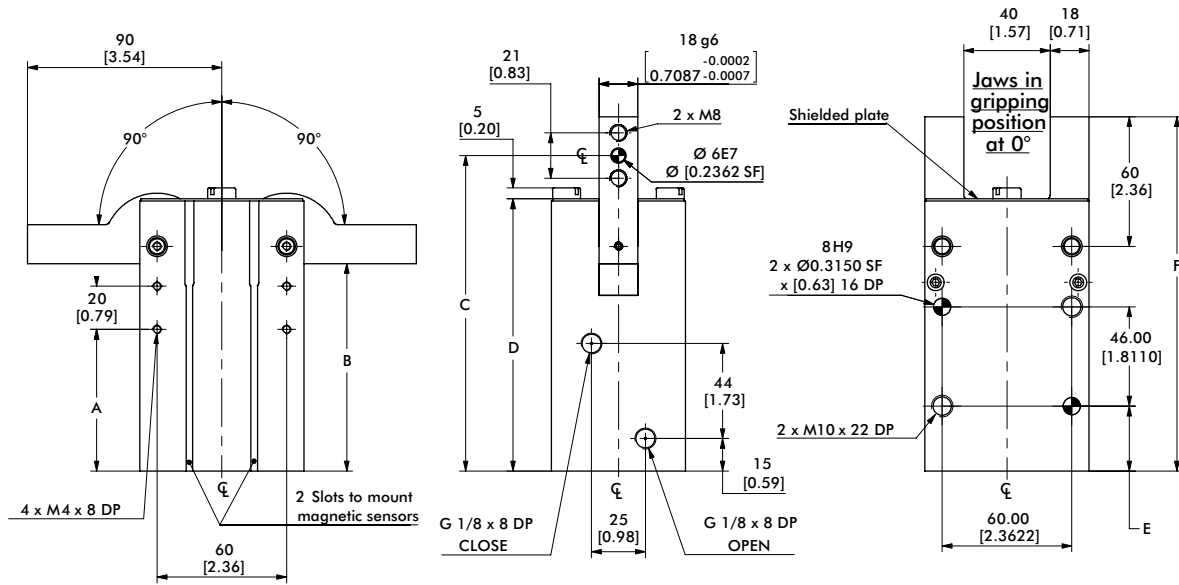
	Static
Maximum Tensile <b>T</b>	420 N [94 lbs]
Maximum Compressive <b>C</b>	420 N [94 lbs]
Maximum Moment <b>M<sub>x</sub></b>	22 Nm [195 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	22 Nm [195 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	22 Nm [195 in-lbs]

\*Capacities are per set of jaws and are not simultaneous

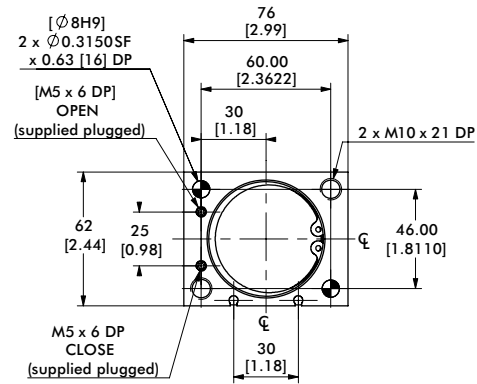
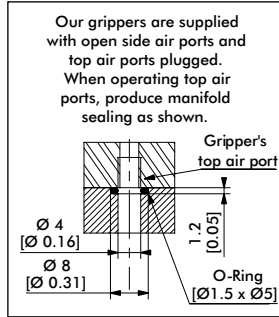
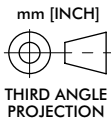


# CT-50/-50-RE

## Angular Grippers | Dimensions and Technical Specifications



NOTE: Jaws have to be designed for a 0° gripping position (parallel jaws). Jaws will close 1.5° past parallel. To limit shocks at the end of an opening or closing stroke, it is highly recommended to design jaws with minimal inertia (as light and short as possible). Flow Controls make it possible to reduce the rotation speed and are highly recommended.

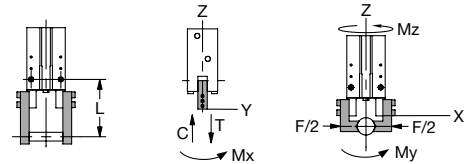
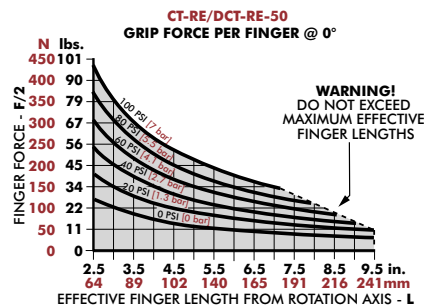
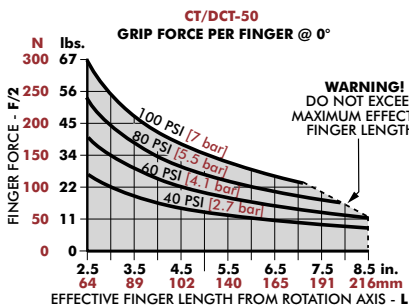


Model	A	B	C	D	E	F
CT-50	65.5 [2.579]	96 [3.78]	146.00 [5.7480]	126 [4.96]	30.00 [1.1811]	164 [6.46]
CT-50-RE	102.50 [4.035]	133 [5.24]	183.00 [7.2047]	163 [6.42]	40.00 [1.5748]	201 [7.91]

Dimensions in mm [in]

Mounting Accessories	Order #
Inductive Sensor Mounting Kit (mounts 2 sensors)	SDCT-40-63
Adjustment Stop Kit (1 shielded plate, 1 stop)	KP-CT50-BR
Seal Repair Kits	Order #
Buna-N Seal Repair Kit	SLKT-165
Viton® Seal Repair Kit	SLKT-165V

## Loading Information



Static	
Maximum Tensile <b>T</b>	490 N [110 lbs]
Maximum Compressive <b>C</b>	490 N [110 lbs]
Maximum Moment <b>M<sub>x</sub></b>	30 Nm [266 in-lbs]
Maximum Moment <b>M<sub>y</sub></b>	30 Nm [266 in-lbs]
Maximum Moment <b>M<sub>z</sub></b>	30 Nm [266 in-lbs]

<sup>i</sup>Capacities are per set of jaws and are not simultaneous

