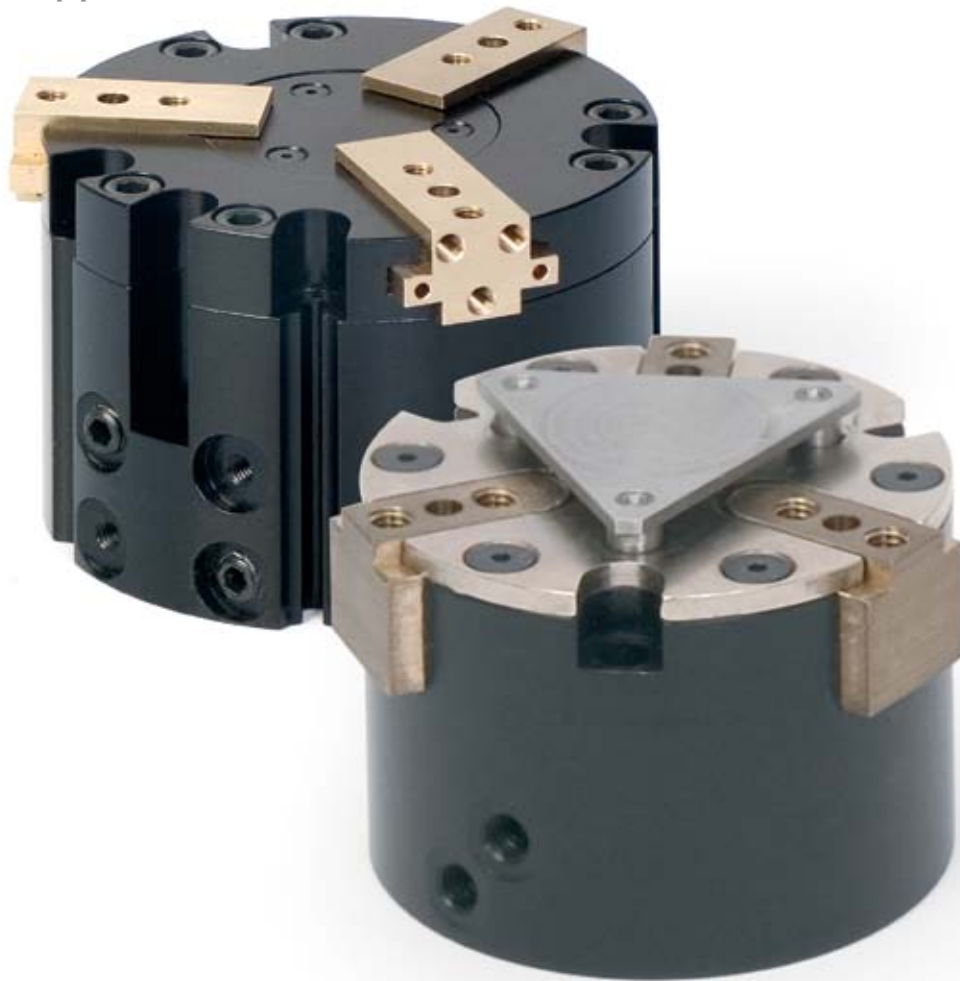


NUMATICS®

TJ Series

3 Jaw Gripper



www.numatics.com

TJ Series

TJ30 Series	3-5
Features and Benefits	3
Specifications	3
How to Order	3
TJ30 Dimensions and Performance Data	4
TJ200 Series	5-8
Features and Benefits	5
Specifications	5
How to Order	5
TJ200 Dimensions and Performance Data	6
TJ30 & TJ200 Series Switch Information	7-8

TJ30 Series 3 Jaw Gripper

TJ30 3 jaw gripper provides high grip force in a compact design. Stripper plate option provides 9 lbs. of linear spring force to facilitate part insertion when gripper jaws release part.

A. Jaws

Jaws are T-Slot bearing supported to prevent Jaw breakage and offer superior load bearing performance.

B. Flexible Mounting

Flexible mounting, thru hole for SHCS, tapped from opposite side.

C. Dowel Holes

Dowel holes for locating.

D. Body

Hardcoated aluminum body.

E. Sensing Tracks

Sensing tracks for Hall effect switches sensing.

F. Stripper Plate

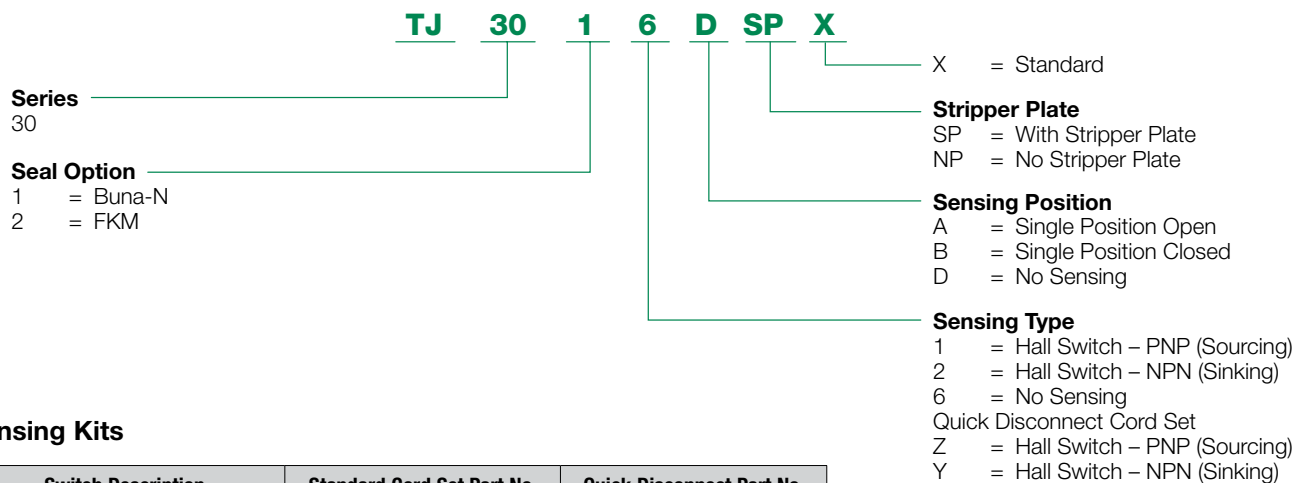
Optional Stripper Plate.



Specifications

Series	Grip Force Close 100 PSI	Stroke	Weight	Displacement	Maximum Operating Pressure
TJ30	36 lbs.	0.300	9 oz	0.35 cu. in.	120 psi

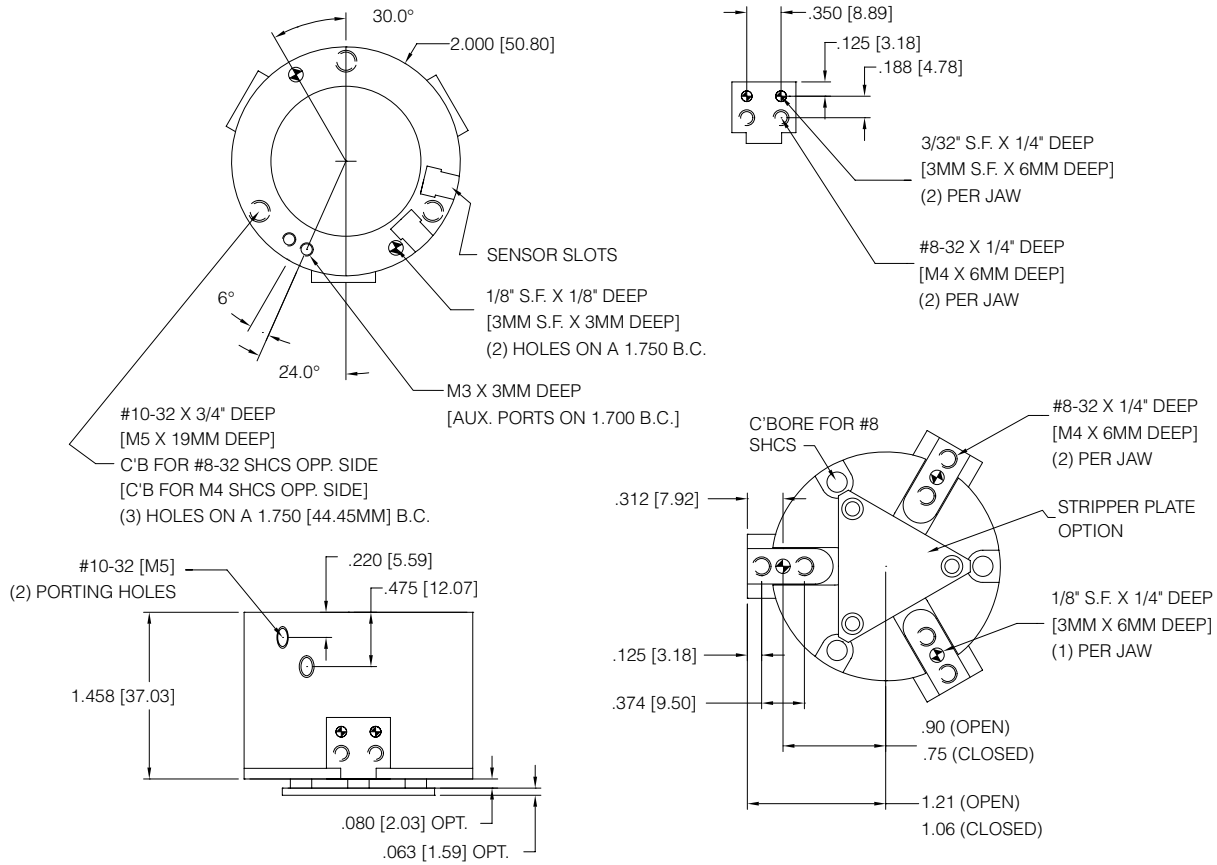
How To Order



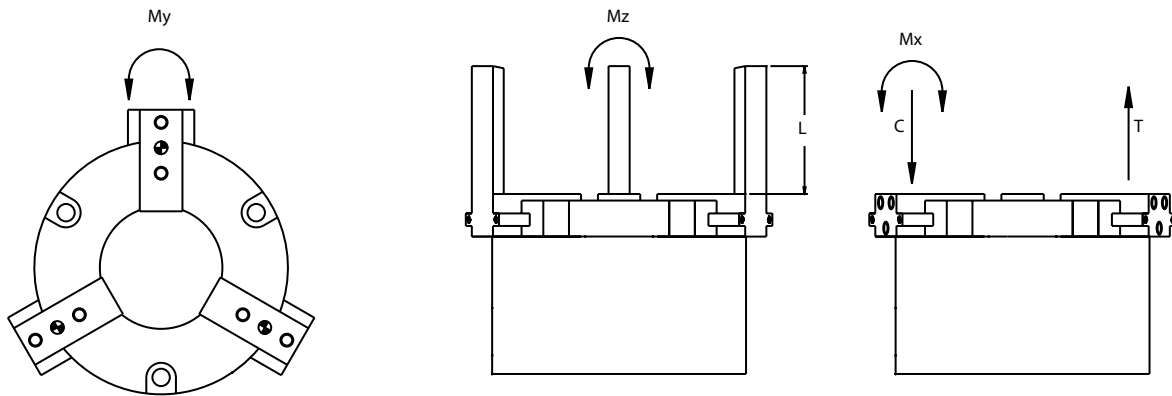
Sensing Kits

Switch Description	Standard Cord Set Part No.	Quick Disconnect Part No.
Hall Effect - PNP Sourcing	CS-20TP	CS-18P-QD
Hall Effect - NPN Sinking	CS-20TN	CS-20TN-QD
90° 5 Meter Cable	N/A	PXC90
Straight 5 Meter Cable	N/A	PXCST

Dimensions: Inches (mm)



Performance Data



Grip Force VS. Finger Length

L (Finger Length)	Close Force @ 80 PSI	
1 inch	24 lbs	10.8 Kgf
2 inches	21 lbs	9.5 Kgf

Maximum Load Ratings

TJ30	Static	Dynamic
C- Compression	300 lbs. (1332N)	100 lbs (444N)
T - Tension	300 lbs. (1332N)	100 lbs (444N)
Mx	250 in/lbs. (2.8 Nm)	75 in/lbs (8.5 Nm)
My	150 in/lbs. (17 Nm)	75 in/lbs (8.5 Nm)
Mz	250 in/lbs. (2.8 Nm)	75 in/lbs (8.5 Nm)

TJ200 Series 3 Jaw Gripper

Provides high grip force in a compact design. Shielded design makes the TJ ideal for machine loading and unloading. Compact design to grip force ratio are ideal for confined work areas.

A. Jaws

Jaws are T-Slot bearing supported to prevent Jaw breakage and offer superior load bearing performance.

B. Flexible Mounting

Flexible mounting, thru hole for SHCS, tapped from opposite side.

C. Dowel Holes

Dowel holes for locating.

D. Body

Hardcoated aluminum body.

E. Sensing

Sensing tracks for Hall effect switches sensing.



Specifications

Series	Grip Force Close 100 PSI	Stroke	Weight	Maximum Operating Pressure
TJ200	250 lbs	0.330	2.3 oz	120 psi

How To Order

TJ 200 1 6 D X

Series
200

Seal Option
1 = Buna-N
2 = FKM

Sensing Position
A = Single Position Open
B = Single Position Closed
C = Two Position Sensing
D = No sensing

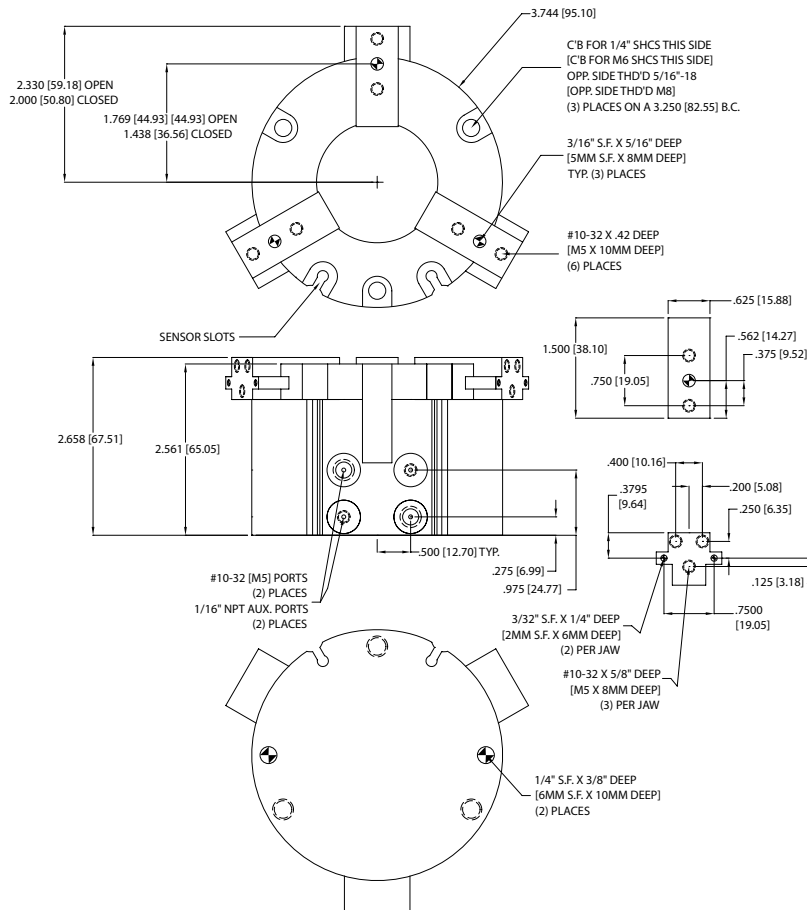
Sensing Type
CS Series Switch
1 = Hall Switch – PNP (Sourcing)
2 = Hall Switch – NPN (Sinking)
6 = No Sensing
Quick Disconnect Cord Set
Z = Hall Switch – PNP (Sourcing)
Y = Hall Switch – NPN (Sinking)

X = Standard

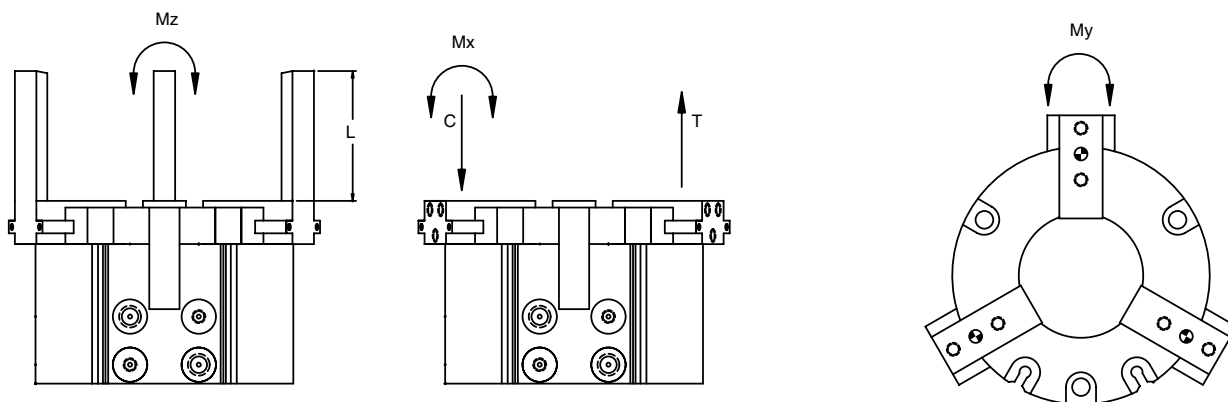
When ordering additional switches:

Switch Description	Standard Cord Set Part No.	Quick Disconnect Part No.
Hall Effect - PNP Sourcing	CS-20TP	CS-18P-QD
Hall Effect - NPN Sinking	CS-20TN	CS-20TN-QD

Dimensions: Inches (mm)



Performance Data



Grip Force VS. Finger Length

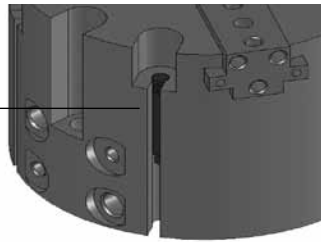
L (Finger Length)	Close Force @ 80 PSI	
1 inch	175 lbs.	79 Kgf.
2 inches	160 lbs.	72 Kgf.
3 inches	140 lbs.	63 Kgf.

Maximum Load Ratings

TJ200	Static	Dynamic
C- Compression	1250 lbs. (5560N)	400 lbs. (1780N)
T - Tension	1250 lbs. (5560N)	400 lbs. (1780N)
Mx	1000 in./lbs. (113 Nm)	400 in./lbs. (113 Nm)
My	900 in./lbs. (113 Nm)	300 in./lbs. (101 Nm)
Mz	1000 in./lbs. (113 Nm)	400 in./lbs. (113 Nm)

TJ200 Series Gripper

Direct Mount
No Bracket Required

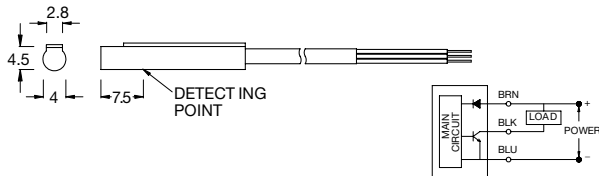


Sensor Description	Standard Cord Set	Quick Disconnect
Hall PNP	CS-20TP	CS-20TP-QD
Hall NPN	CS-20TN	CS-20TN-QD

See page 17 for sensor specifications

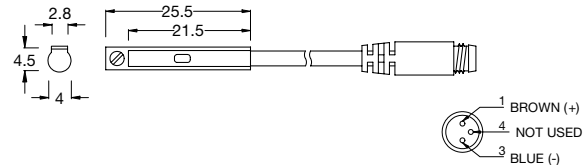
Switch Information

Electro Switch (NPN NO) Flying Lead - CS-20TN



Sensor Type	Solid State Output
Switching Logic	Normally Open
Output	NPN Current Sourcing
Operating Voltage	5-30 VDC
Switching Current	50mA max.
Power Rating*	1.5 Watts
Voltage Drop	0.5 V @ 25 mA max.
Current Consumption	12 mA @ 24 VDC max.
Leakage Current	0.01 mA max.
LED Indicator	Red
Cable	-
Operating Frequency	1000 Hz
Magnetic Requirement	40 Gauss parallel
Temperature Range	14 to 158°F (-10 to 70°C)
Shock / Vibration	50G/9G
Enclosure Classification	IEC 529 IP67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression
Set Screw Max. Torque	1.77 in-lbs (0.2 N-m)

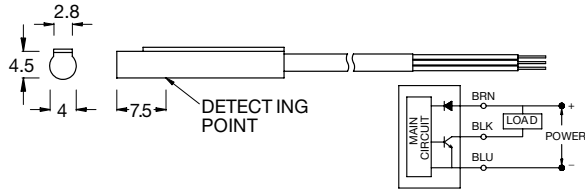
Electro Switch (NPN NO) 8 mm Connector - CS-20TN-QD



Sensor Type	Solid State Output
Switching Logic	Normally Open
Output	NPN Current Sourcing
Operating Voltage	5-30 VDC
Switching Current	50mA max.
Power Rating*	1.5 Watts
Voltage Drop	0.5 V @ 25 mA max.
Current Consumption	12 mA @ 24 VDC max.
Leakage Current	0.01 mA max.
LED Indicator	Red
Cable	-
Operating Frequency	1000 Hz
Magnetic Requirement	40 Gauss parallel
Temperature Range	14 to 158°F (-10 to 70°C)
Shock / Vibration	50G/9G
Enclosure Classification	IEC 529 IP67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression
Set Screw Max. Torque	1.77 in-lbs (0.2 N-m)

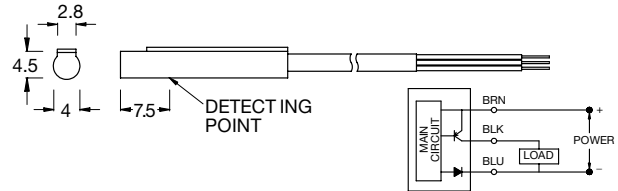
Switch Information

**Electro Switch (NPN NO)
Flying Lead - CS-20TN**



Sensor Type	Solid State Output
Switching Logic	Normally Open
Output	NPN Current Sourcing
Operating Voltage	5-30 VDC
Switching Current	50mA max.
Power Rating*	1.5 Watts
Voltage Drop	0.5 V @ 25 mA max.
Current Consumption	12 mA @ 24 VDC max.
Leakage Current	0.01 mA max.
LED Indicator	Red
Cable	-
Operating Frequency	1000 Hz
Magnetic Requirement	40 Gauss parallel
Temperature Range	14 to 158°F (-10 to 70°C)
Shock / Vibration	50G/9G
Enclosure Classification	IEC 529 IP67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression
Set Screw Max. Torque	1.77 in-lbs (0.2 N-m)

**Electro Switch (PNP NO)
Flying Lead - CS-20TP**



Sensor Type	Solid State Output
Switching Logic	Normally Open
Output	PNP Current Sourcing
Operating Voltage	5-30 VDC
Switching Current	50mA max.
Power Rating*	1.5 Watts
Voltage Drop	1.5 V @ 25 mA max.
Current Consumption	12 mA @ 24 VDC max.
Leakage Current	0.01 mA max.
LED Indicator	Green
Cable	Abrasion resistant polyurethane (PUR) jacket, PVC insulation
Operating Frequency	1000 Hz
Magnetic Requirement	40 Gauss parallel
Temperature Range	14 to 158°F (-10 to 70°C)
Shock / Vibration	50G/9G
Enclosure Classification	IEC 529 IP67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression
Set Screw Max. Torque	1.77 in-lbs (0.2 N-m)

*Switches are not designed for wet environments. Please see your distributor for additional information.



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