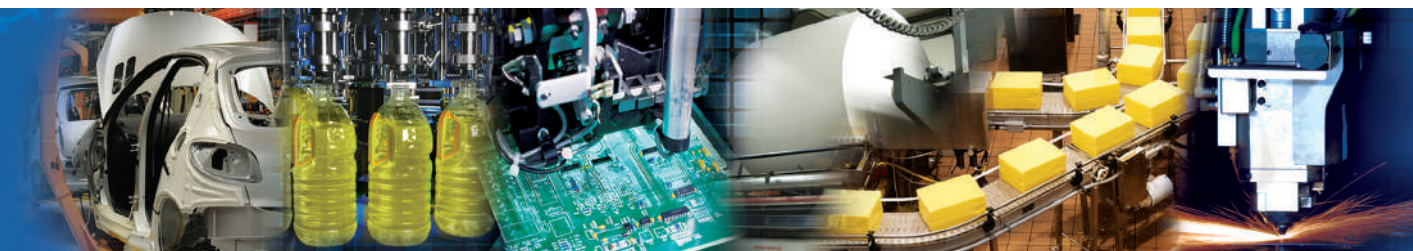
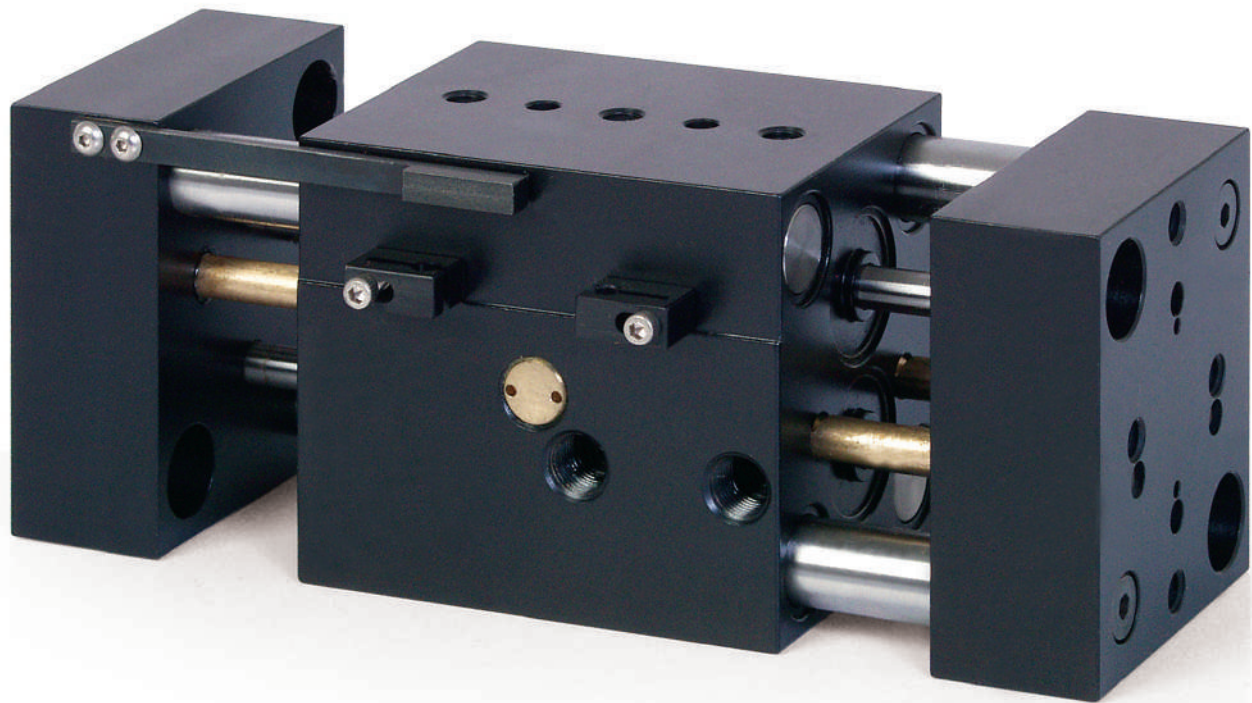


# numatics®

## WBG Series

Wide Body Grippers



[www.numatics.com](http://www.numatics.com)

## WBG Series Parallel Grippers

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### Gripper Summary of Operation

WBG-Series utilizes four independent pistons to power the jaws open and closed. Jaws utilize a rack and pinion for synchronization which are independent from force rods and support rods. Non-Synchronous operation is available.

#### A. Body

High Strength, Anodized aluminum.  
Ultra high gripping force to weight ratio.

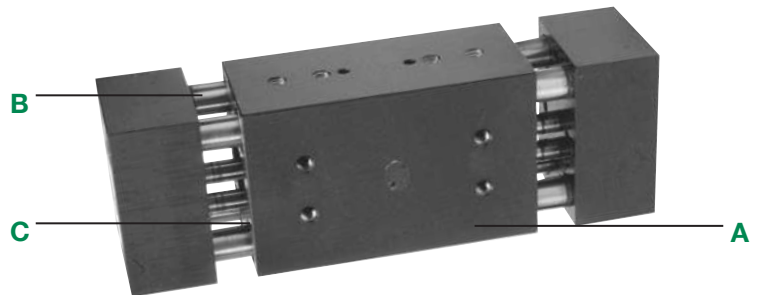
#### B. Support rods

Hardened steel support shafts are guided through the full width of the body. Wiper seals assist in keeping rods free of debris.

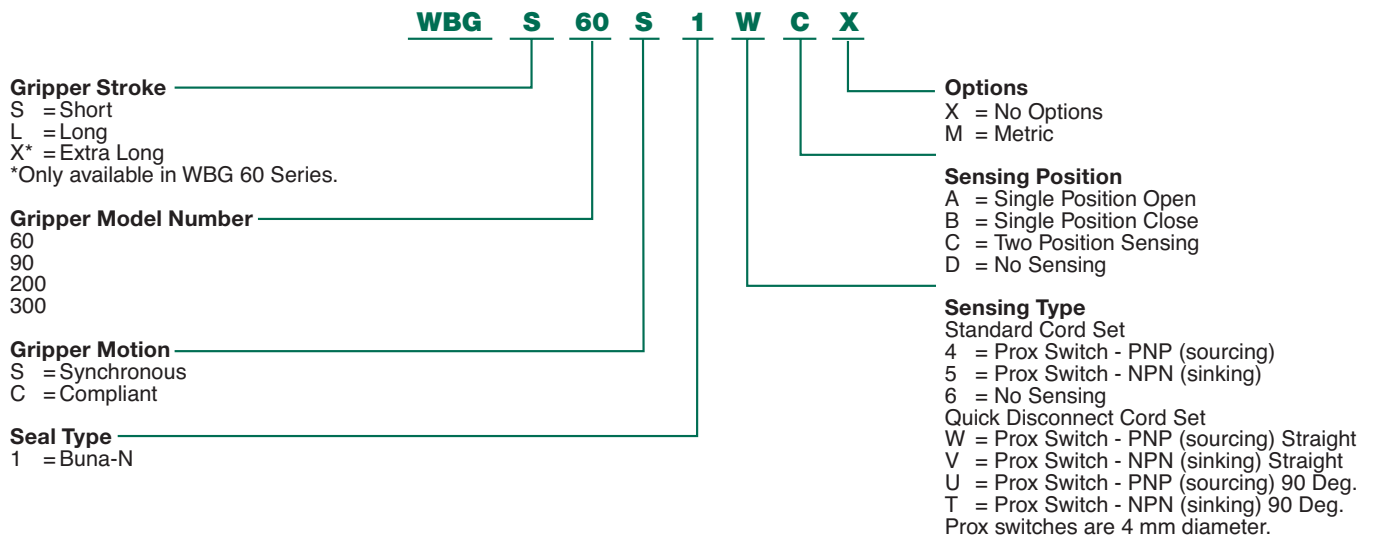
#### C. Seals

Piston seals are quad ring type for long service life.

- Pre-lubricated with our specially formulated oil based compound for extensive maintenance free performance.
- Proximity switches are available to monitor open and closed position of the jaws.



### How to Order

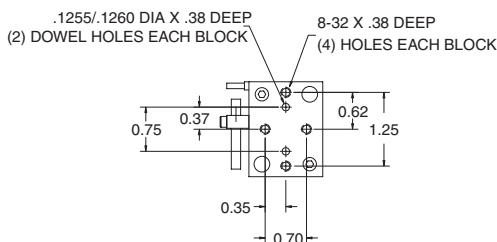
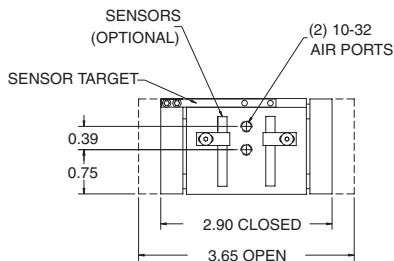
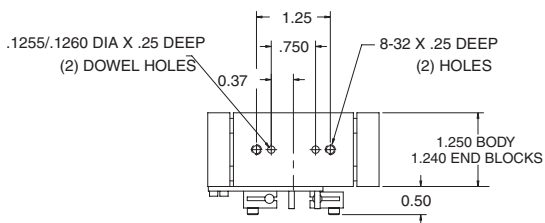
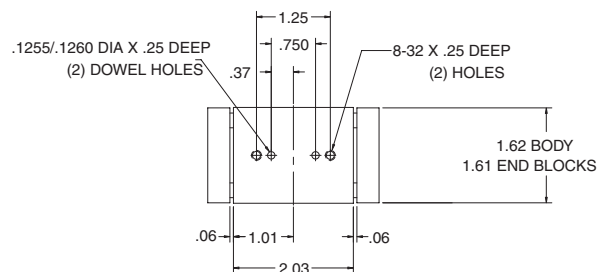


#### When ordering additional switches:

Switch Description	Standard Part No.	Quick Disconnect Part No.
Prox Switch - PNP (Sourcing)	PROX-4FL2-P	PROX-4QDS-P
Prox Switch - NPN (Sinking)	PROX-4FL2-N	Not Available
Quick disconnect cable straight	—	PXCST
Quick disconnect cable 90 deg.	—	PXC90

**Dimensions: Inches**

**WBG 60 Series**



**Specifications**

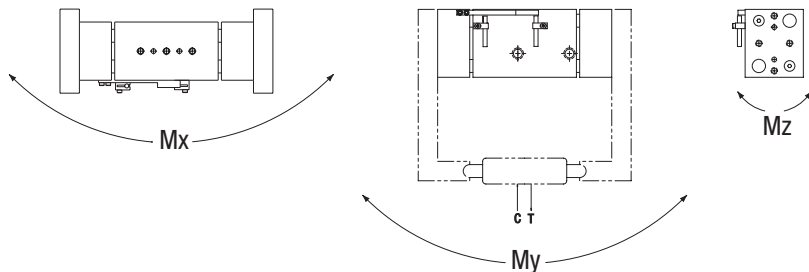
Load Capacity	WBG60
Grip Force @ 100 PSI	60 lbs
Stroke	0.75
Repeatability	+/- .001
Operating Temp.	
Buna-N	-20° to 180°F
Max. Actuation Speed	0.3 sec
Displacement	0.29 cu. in.
Maximum Pressure	120 PSI
Unit Weight	11 oz

**Static Condition**

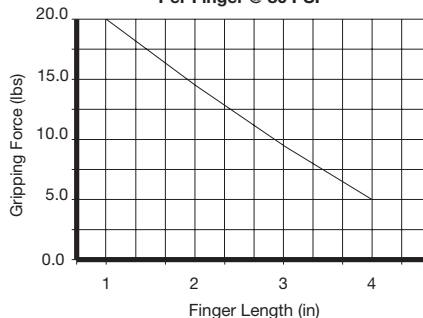
Load Capacity	WBG60
C-compression	50 lbs.
T-tension	50 lbs.
Mx	100 in.-lbs.
My	150 in.-lbs.
Mz	100 in.-lbs.

**Dynamic Condition**

Load Capacity	WBG60
C-compression	10 lbs.
T-tension	10 lbs.
Mx	20 in.-lbs.
My	30 in.-lbs.
Mz	20 in.-lbs.

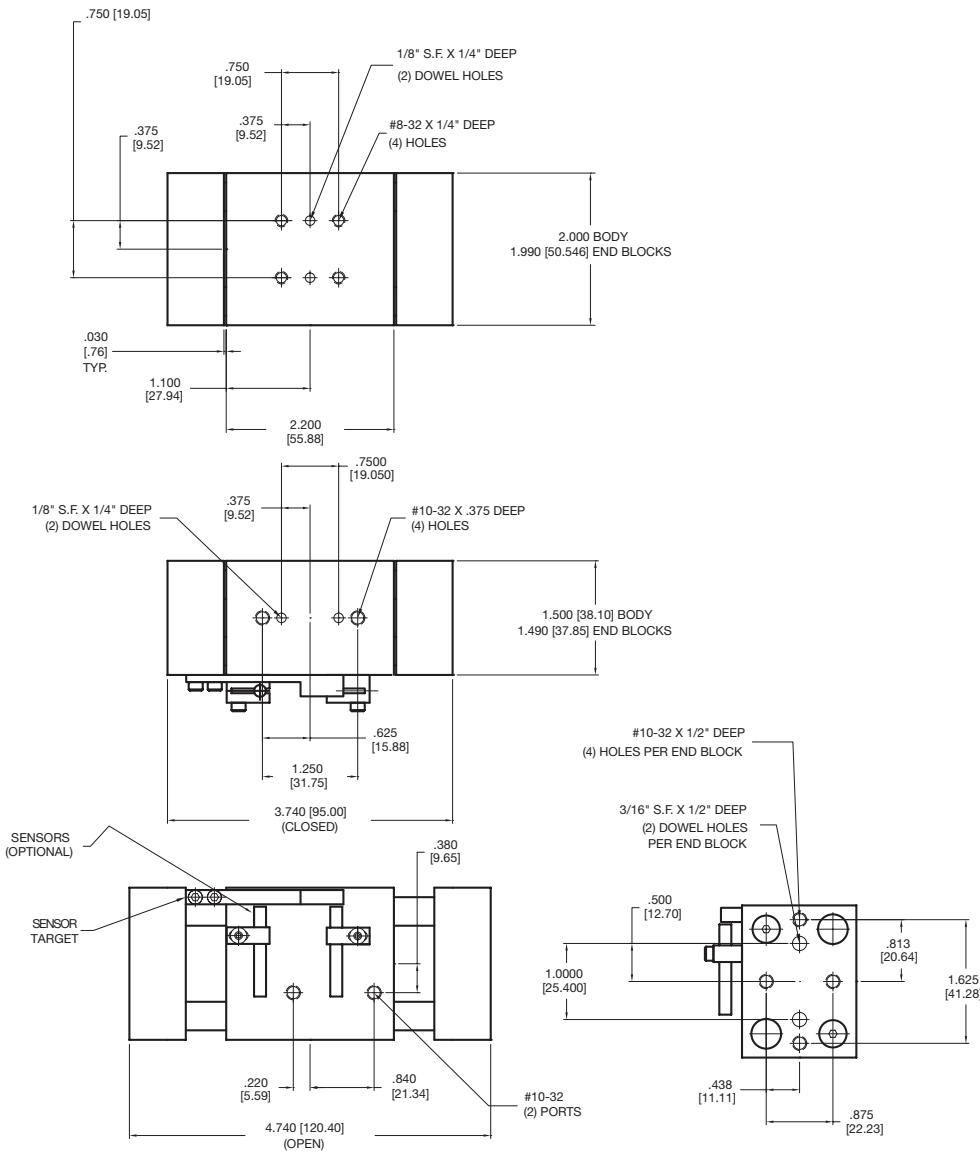


**WBG-60  
Gripping Force Chart  
Per Finger @ 80 PSI**



## Dimensions: Inches (mm)

### WBG 90 Series



### Specifications

Load Capacity	WBG90
Grip Force @ 80 PSI	36 lbs
Stroke	1 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	1.3 lbs

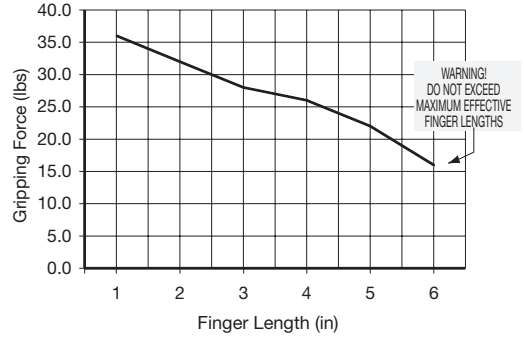
### Static Condition

Load Capacity	WBG90
C-compression	100 lbs.
T-tension	100 lbs.
Mx	175 in.-lbs.
My	250 in.-lbs.
Mz	175 in.-lbs.

### Dynamic Condition

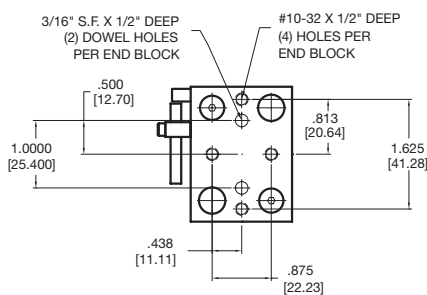
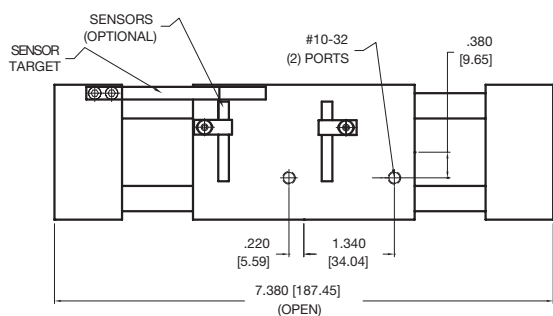
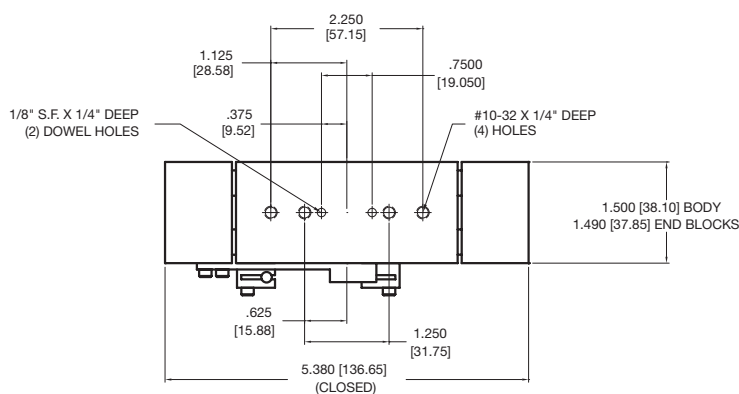
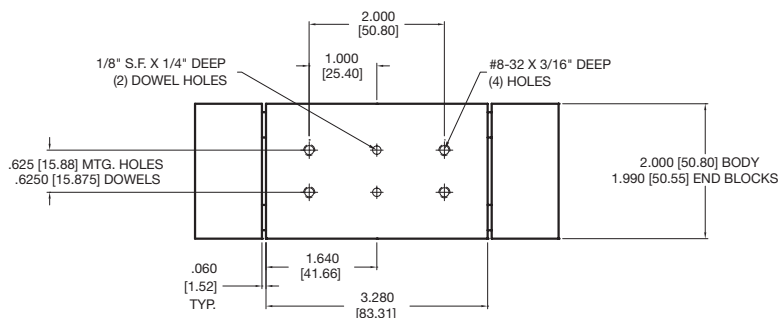
Load Capacity	WBG90
C-compression	20 lbs.
T-tension	20 lbs.
Mx	35 in.-lbs.
My	50 in.-lbs.
Mz	35 in.-lbs.

WBG-90



**Dimensions: Inches (mm)**

**WBGL 90 Series**



**Specifications**

Load Capacity	WBGL90
Grip Force @ 80 PSI	36 lbs
Stroke	2 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	2 lbs

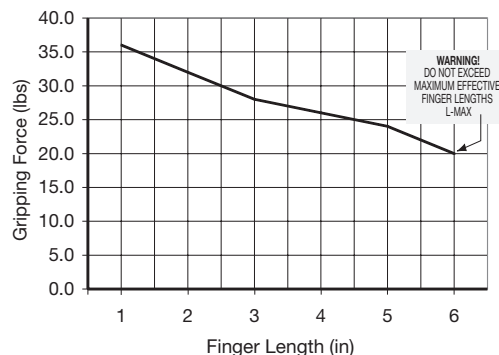
**Static Condition**

Load Capacity	WBGL90
C-compression	100 lbs.
T-tension	100 lbs.
Mx	175 in.-lbs.
My	250 in.-lbs.
Mz	175 in.-lbs.

**Dynamic Condition**

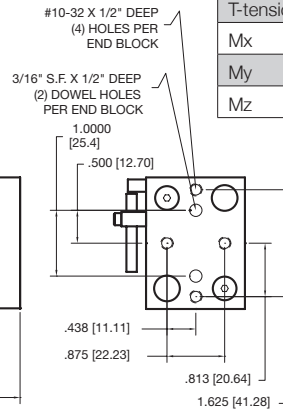
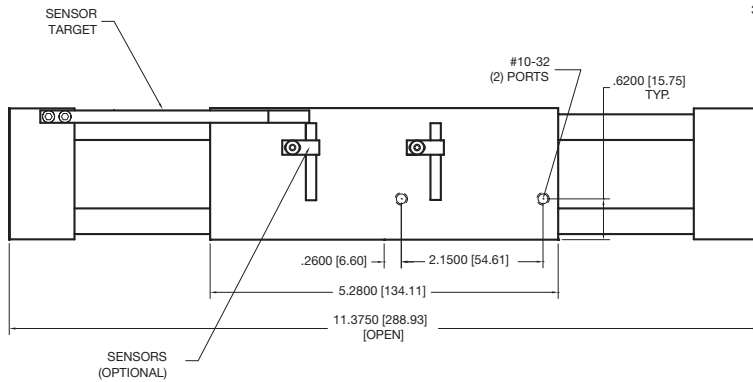
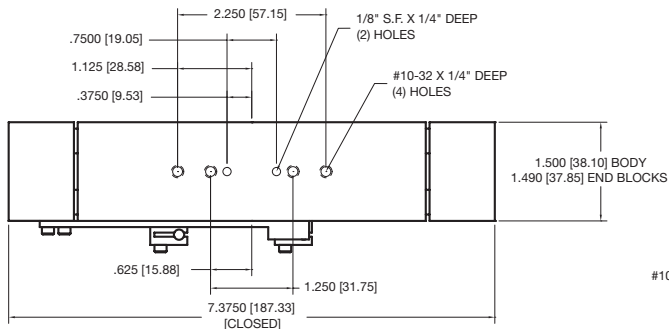
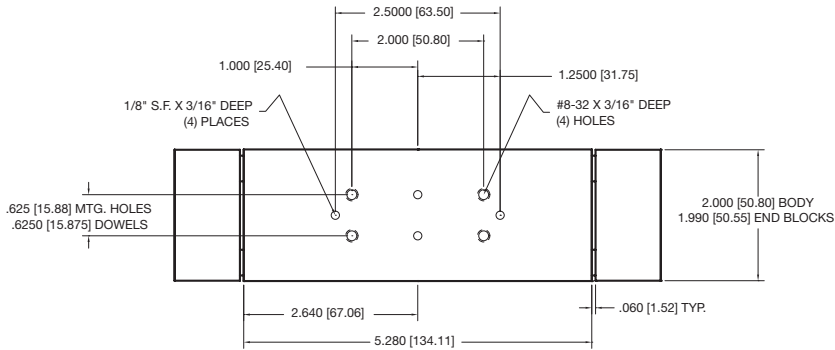
Load Capacity	WBGL90
C-compression	20 lbs.
T-tension	20 lbs.
Mx	35 in.-lbs.
My	50 in.-lbs.
Mz	35 in.-lbs.

**WBGL-90**



## Dimensions: Inches (mm)

### WBGX 90 Series



### Specifications

Load Capacity	WBGX90
Grip Force @ 80 PSI	36 lbs
Stroke	4 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.6 sec
Maximum Pressure	120 PSI
Unit Weight	3.2 lbs

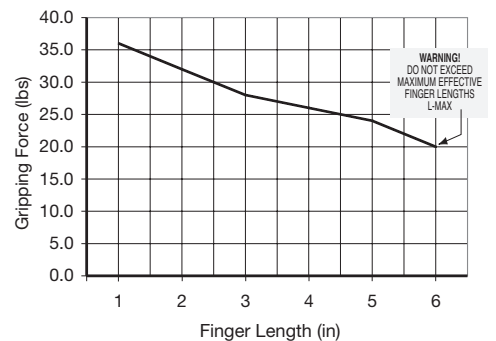
### Static Condition

Load Capacity	WBGX90
C-compression	100 lbs.
T-tension	100 lbs.
Mx	175 in.-lbs.
My	250 in.-lbs.
Mz	175 in.-lbs.

### Dynamic Condition

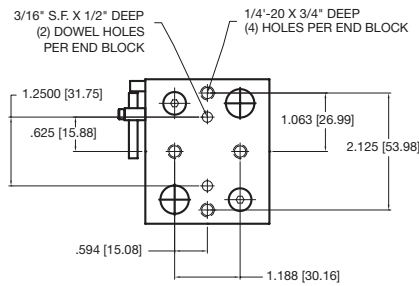
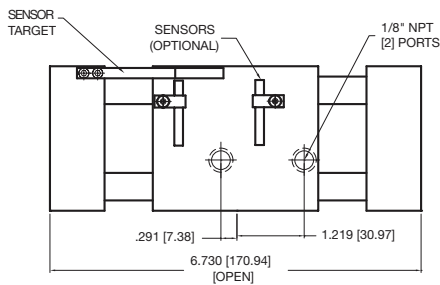
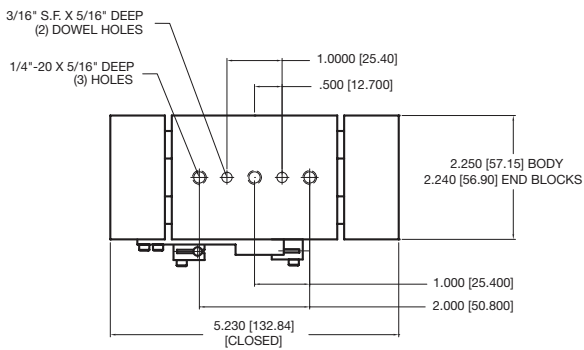
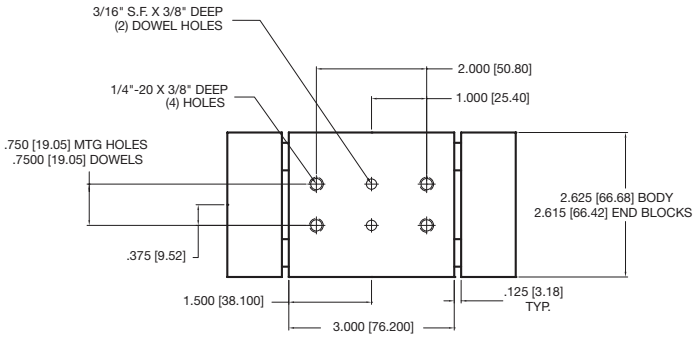
Load Capacity	WBGX90
C-compression	20 lbs.
T-tension	20 lbs.
Mx	35 in.-lbs.
My	50 in.-lbs.
Mz	35 in.-lbs.

### WBGX-90



**Dimensions: Inches (mm)**

**WBGs 200 Series**



**Specifications**

Load Capacity	WBGs200
Grip Force @ 80 PSI	84 lbs
Stroke	1.5 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	3 lbs

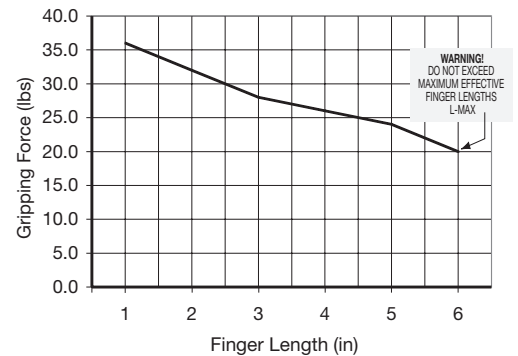
**Static Condition**

Load Capacity	WBGs200
C-compression	500 lbs.
T-tension	500 lbs.
Mx	500 in.-lbs.
My	750 in.-lbs.
Mz	500 in.-lbs.

**Dynamic Condition**

Load Capacity	WBGs200
C-compression	50 lbs.
T-tension	50 lbs.
Mx	50 in.-lbs.
My	75 in.-lbs.
Mz	50 in.-lbs.

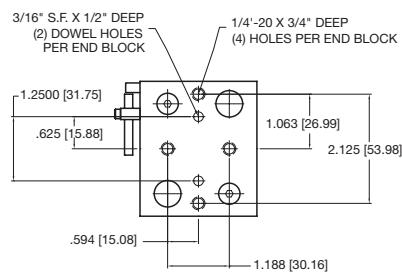
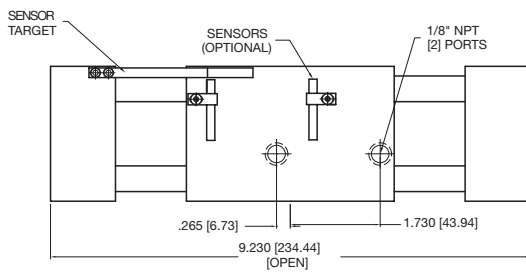
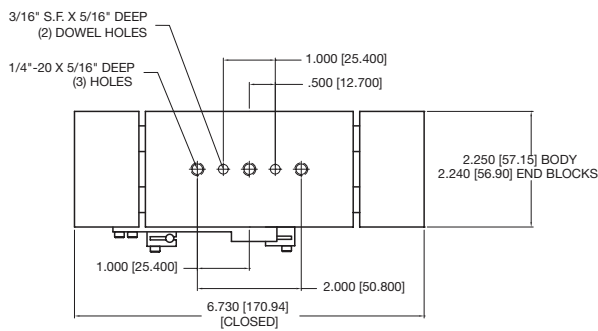
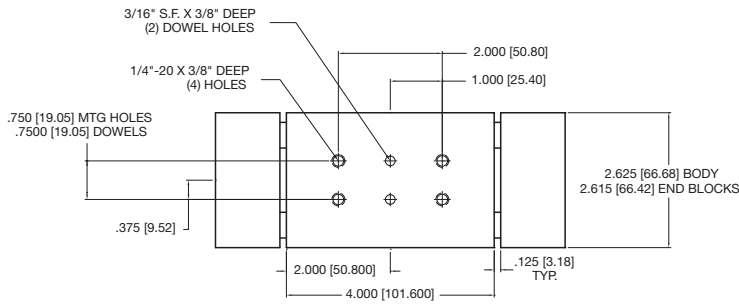
**WBGs-200**





## Dimensions: Inches (mm)

### WBGL 200 Series



### Specifications

Load Capacity	WBGL200
Grip Force @ 80 PSI	84 lbs
Stroke	2.5 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	4 lbs

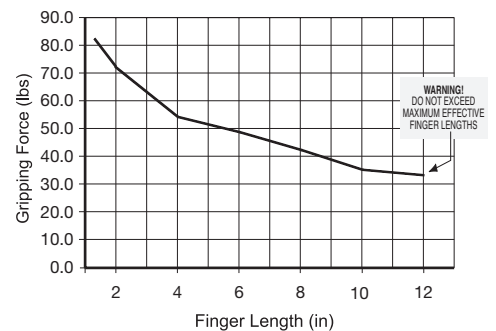
### Static Condition

Load Capacity	WBGL200
C-compression	500 lbs.
T-tension	500 lbs.
Mx	500 in.-lbs.
My	750 in.-lbs.
Mz	500 in.-lbs.

### Dynamic Condition

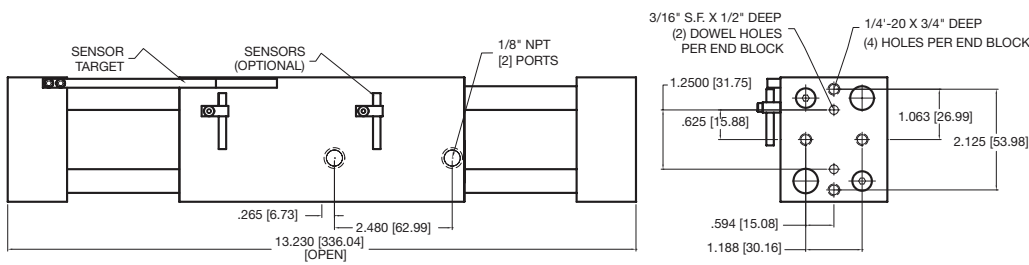
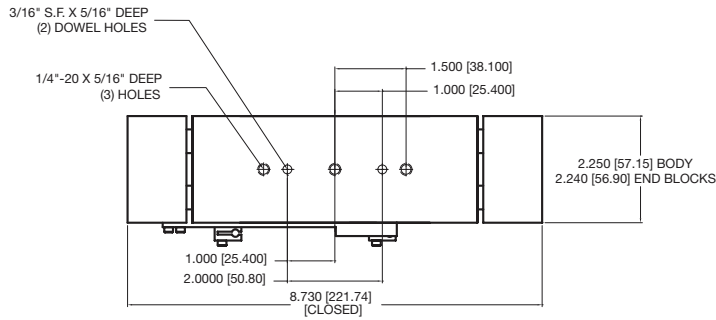
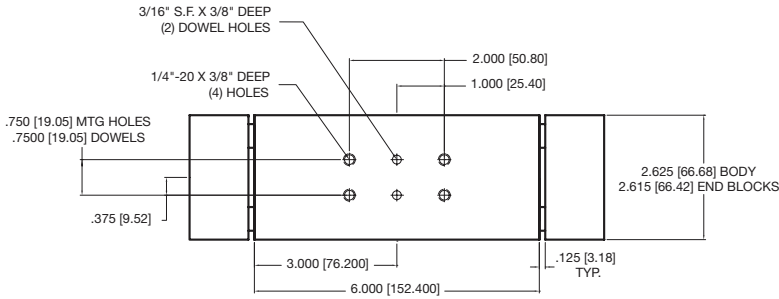
Load Capacity	WBGL200
C-compression	50 lbs.
T-tension	50 lbs.
Mx	50 in.-lbs.
My	75 in.-lbs.
Mz	50 in.-lbs.

### WBGL-200



**Dimensions: Inches (mm)**

**WBGX 200 Series**



**Specifications**

Load Capacity	WBGX200
Grip Force @ 80 PSI	84 lbs
Stroke	4 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.5 sec
Maximum Pressure	120 PSI
Unit Weight	6 lbs

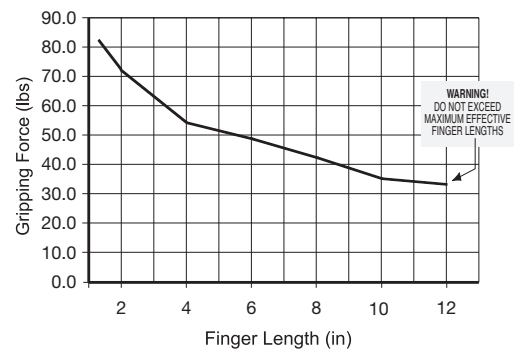
**Static Condition**

Load Capacity	WBGX200
C-compression	500 lbs.
T-tension	500 lbs.
Mx	500 in.-lbs.
My	750 in.-lbs.
Mz	500 in.-lbs.

**Dynamic Condition**

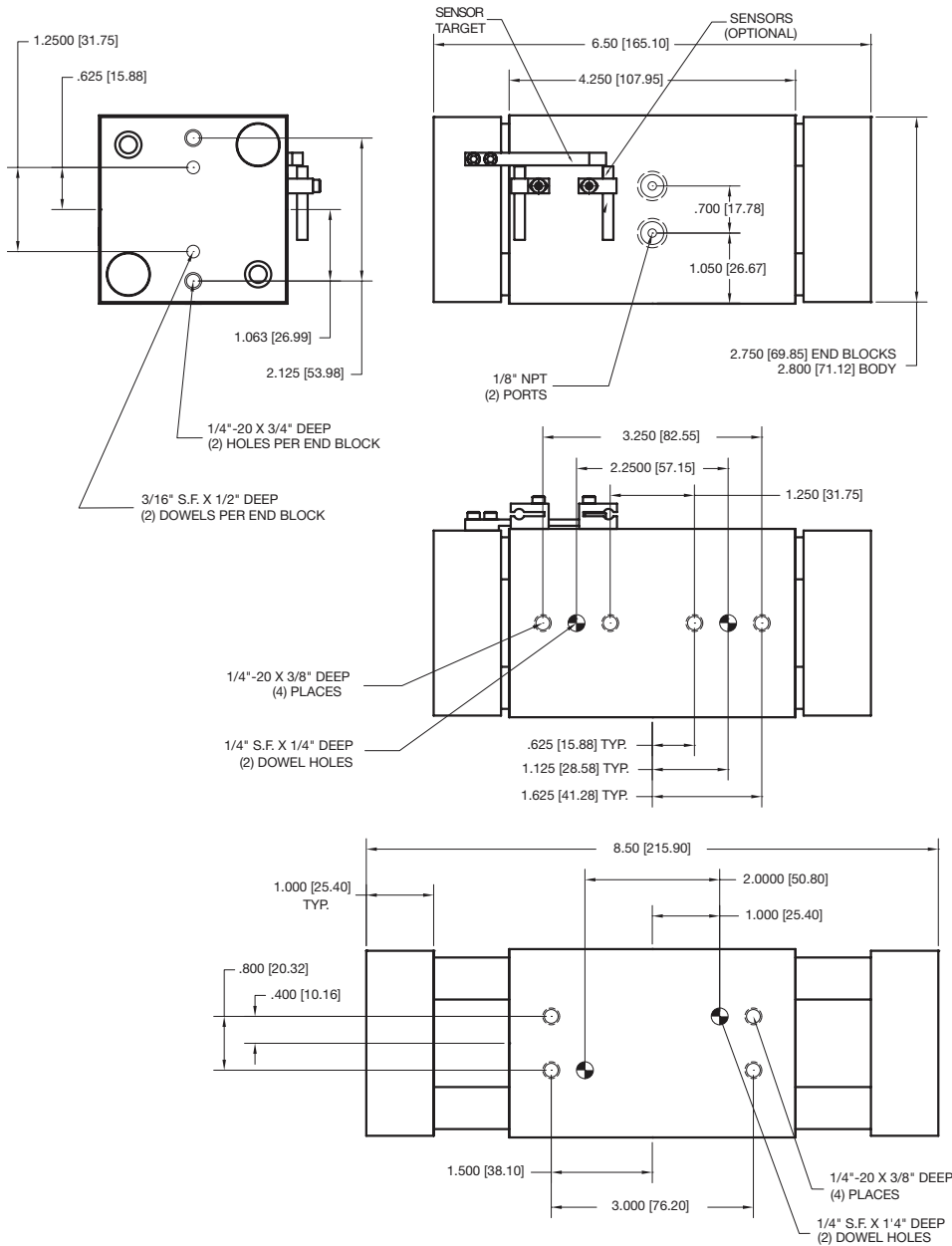
Load Capacity	WBGX200
C-compression	50 lbs.
T-tension	50 lbs.
Mx	50 in.-lbs.
My	75 in.-lbs.
Mz	50 in.-lbs.

**WBGX-200**



## Dimensions: Inches (mm)

### WBGs 300 Series



### Specifications

Load Capacity	WBGs300
Grip Force @ 80 PSI	130 lbs
Stroke	2 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	6.3 lbs

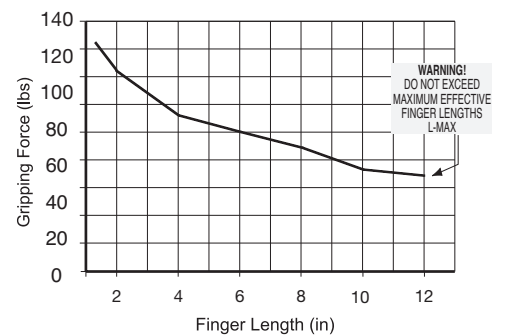
### Static Condition

Load Capacity	WBGs300
C-compression	1300 lbs.
T-tension	1300 lbs.
Mx	1100 in.-lbs.
My	1500 in.-lbs.
Mz	1100 in.-lbs.

### Dynamic Condition

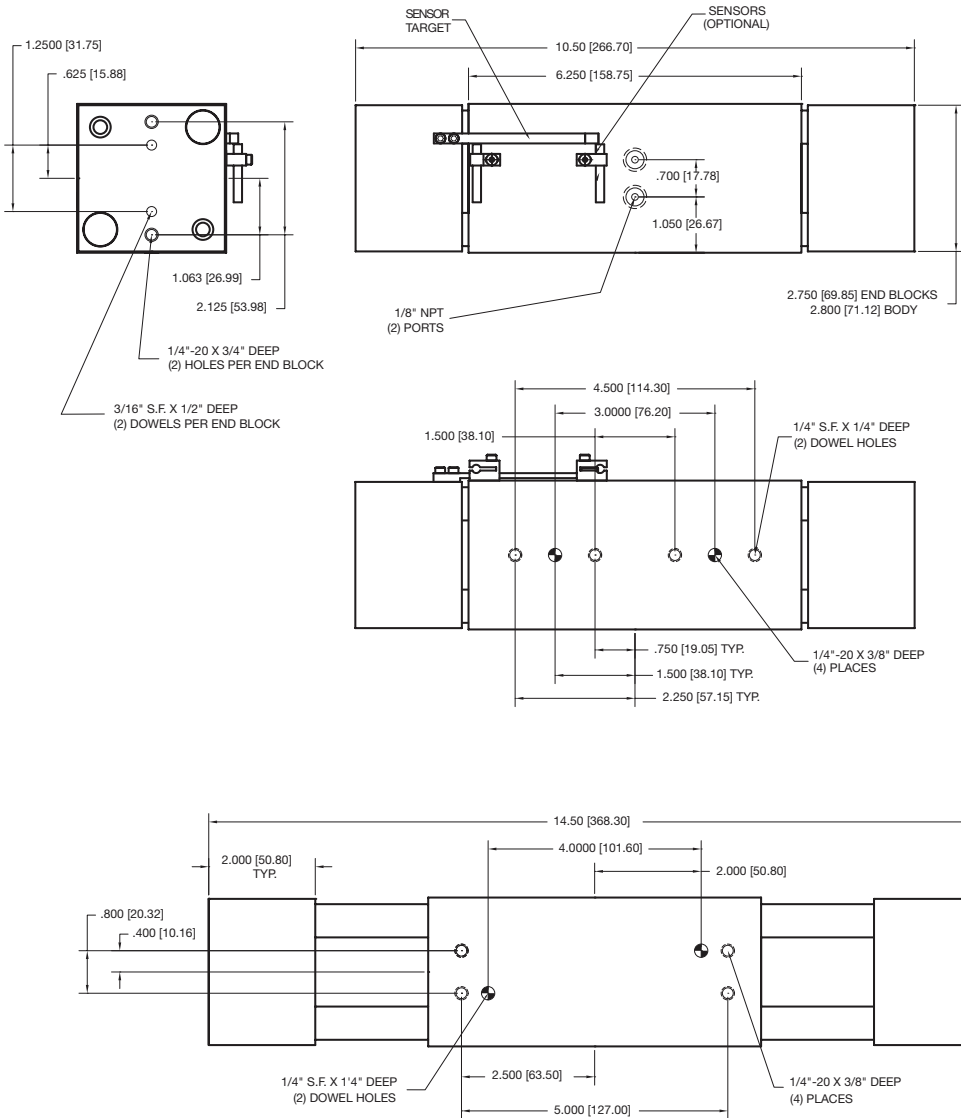
Load Capacity	WBGs300
C-compression	150 lbs.
T-tension	150 lbs.
Mx	120 in.-lbs.
My	130 in.-lbs.
Mz	120 in.-lbs.

### WBGs-300



**Dimensions: Inches (mm)**

**WBGL 300 Series**



**Specifications**

Load Capacity	WBGL300
Grip Force @ 80 PSI	130 lbs
Stroke	4 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	8 lbs

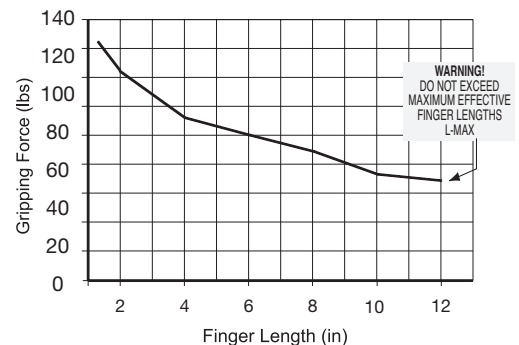
**Static Condition**

Load Capacity	WBGL300
C-compression	1300 lbs.
T-tension	1300 lbs.
Mx	1100 in.-lbs.
My	1500 in.-lbs.
Mz	1100 in.-lbs.

**Dynamic Condition**

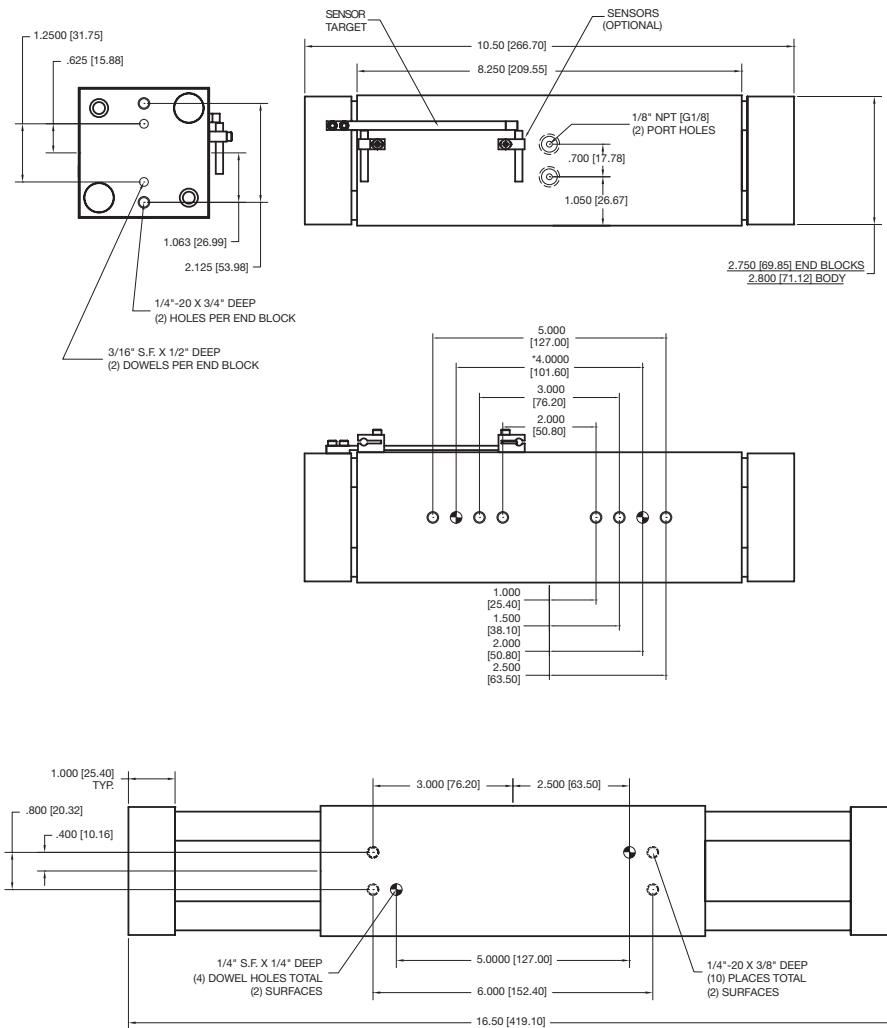
Load Capacity	WBGL300
C-compression	150 lbs.
T-tension	150 lbs.
Mx	120 in.-lbs.
My	130 in.-lbs.
Mz	120 in.-lbs.

**WBGL-300**



## Dimensions: Inches (mm)

### WBGX 300 Series



### Specifications

Load Capacity	WBGX300
Grip Force @ 80 PSI	130 lbs
Stroke	6 in.
Repeatability	+/- 0.002
Operating Temp.	-20°/180°F
Max. Actuation Speed	0.3 sec
Maximum Pressure	120 PSI
Unit Weight	9.7 lbs

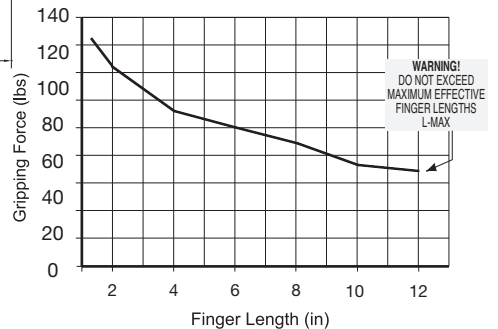
### Static Condition

Load Capacity	WBGX300
C-compression	1300 lbs.
T-tension	1300 lbs.
Mx	1100 in.-lbs.
My	1500 in.-lbs.
Mz	1100 in.-lbs.

### Dynamic Condition

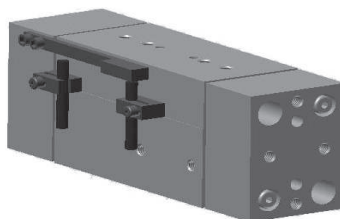
Load Capacity	WBGX300
C-compression	150 lbs.
T-tension	150 lbs.
Mx	120 in.-lbs.
My	130 in.-lbs.
Mz	120 in.-lbs.

### WBGX-300



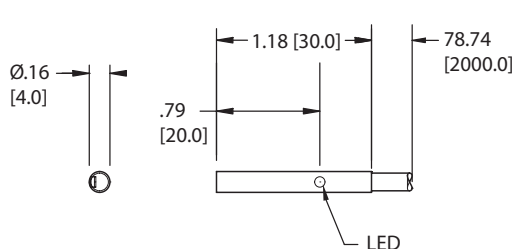
**WBG Series Gripper**

Bore	Bracket P/N
WBG	CT-500



Sensor Description	Standard Cord Set	Quick Disconnect
Prox PNP	PROX-4FL2-P	PROX-4QDS-P
Prox NPN	PROX-4FL2-N	Not Available

**Prox Switch (NPN NO) Flying Lead - PROX-4FL2-N**  
**Prox Switch (PNP NO) Flying Lead - PROX-4FL2-P**



**PNP N/O**  
 1 → BN  
 4 → BK  
 3 → BU

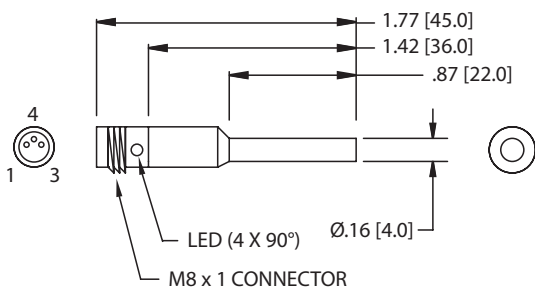
**NPN N/O**  
 1 → BN  
 4 → BK  
 3 → BU

Electrical Design  
 Output  
 Operating Voltage  
 Current Rating  
 Short Circuit Protection  
 Overload Protection  
 Reverse Polarity Protection  
 Voltage Drop  
 Current Consumption  
 Real Sensing Range  
 Switching Frequency  
 Ambient Temperature  
 Protection  
 Switch-Point Drift  
 Hysteresis  
 Operating Distance  
 Correction Factor

Housing Material  
 Function Display Switching Status  
 Connection

3-Wire DC PNP/NPN  
 Normally Open  
 10-36 VDC  
 100 mA  
 Yes (Non-Latching)  
 Yes  
 Yes  
 < 2.5V  
 < 15 mA @ 24V  
 .8mm ± 10%  
 > 2000 Hz  
 -25°C to 70°C  
 IP 65, III  
 -10 - 10% OF Sr  
 1 - 15% OF Sr  
 0 - .65mm  
 Mild Steel=1, Stainless Steel=.7,  
 Brass=.5, Alum.=.4, Copper=.3  
 Housing; Stainless Steel: POM  
 Yellow LED  
 PVC Cable, 2m, 3 x .14mm2

**Prox Switch (PNP NO), 8 mm connector - PROX-4QDS-P**



Electrical Design  
 Output  
 Operating Voltage  
 Current Rating  
 Short-Circuit Protection  
 Overload Protection  
 Reverse Polarity Protection  
 Voltage Drop  
 Current Consumption  
 Real Sensing Range  
 Switching Frequency  
 Ambient Temperature  
 Protection  
 Switch-Point Drift  
 Hysteresis  
 Operating Distance  
 Correction Factor

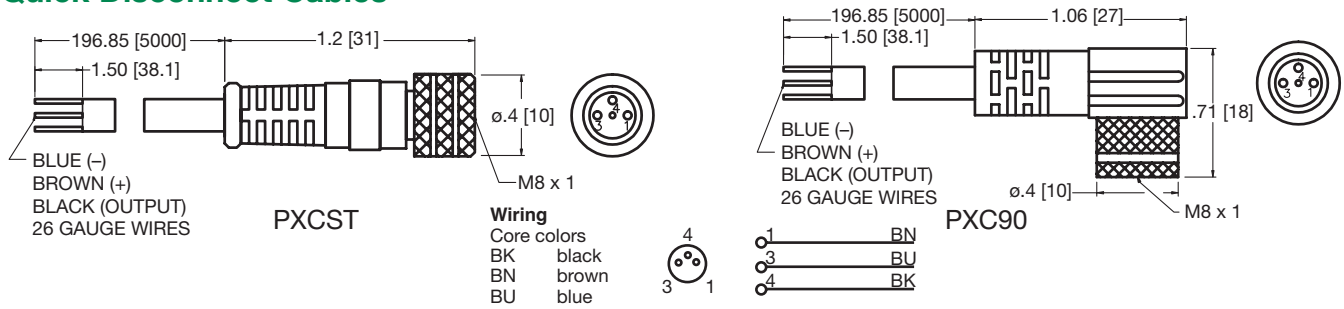
Housing Material  
 Function Display Switching Status  
 Connection  
 Remarks  
 Accessories  
 Agency Approvals

3-Wire DC PNP  
 Normally Open  
 10-36 VDC  
 100 mA  
 Yes (Non Latching)  
 Yes  
 Yes  
 < 2.5 V  
 < 15 mA @ 24V  
 8mm ± 10%  
 > 2000 Hz  
 -25°C to 70°C  
 IP 67\*, III  
 -10 - 10% OF Sr  
 1 - 15% OF Sr  
 0 - .65mm  
 Mild Steel=1, Stainless Steel=.7,  
 Brass=.5, Alum.=.4, Copper=.3  
 Housing: Stainless; POM  
 Red LED (4 X 90°)  
 M8 Connector  
 cULus- Class 2 Source Required  
 Mounting Clamp



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

### Quick Disconnect Cables



Order Code	Type	Operating Voltage	Current Rating	Cable Material	Protection	Connector
PXCST	Straight 5 m Cable (3 x 26 Gauge wire)	60 AC/75 DC	3 A	PUR	IP 68, III	M8
PXC90	90° 5 m Cable (3 x 26 Gauge wire)	60 AC/75 DC	3 A	PUR	IP 68, III	M8



World Class Supplier of Pneumatic Components



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