

# **LINEAR MOTION CONTROL**

Technical Data Sheet

### I300 High Torque Zero Backlash Brake

Nexen's I300 brake is designed for zero backlash holding and emergency stopping making it ideal for indexers and positioning systems. The spring engaged, air released, patented braking element locks and holds the shaft in position without any displacement or reversing of the load. It is flange or shaft mounted and has a keyless compression bushing shaft connection for easy installation and IP67 rated when flange mounted. High torque and short response time ensure the shortest possible stopping distance and precise holding. Brakes can be stacked for additional holding power or redundant braking.

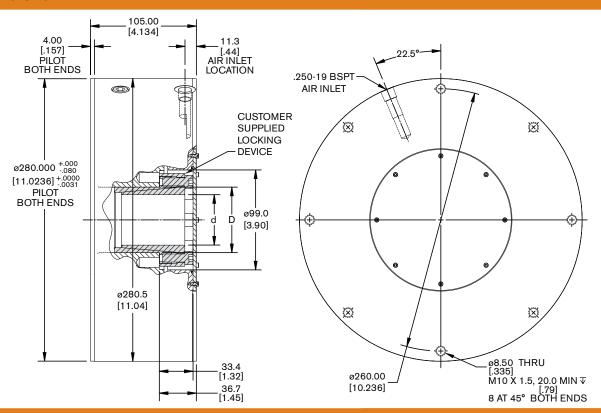




#### **Features**

- Zero backlash
- Torque up to 500 Nm [4425 in-lbs]
- No shaft rotation due to brake actuation
- · Shaft end or through shaft mounting
- Capable of 2000 RPM
- Spring engaged, air released
- Releases at 4.1 Bar [60 psi]
- Stackable for higher holding power or redundancy
- IP67 rated

#### **Dimensions**



## **Product Specifications**

Rated Brake Torque: 400 Nm [3540 in-lbs] @ 4.1 Bar (60 psi) Release

500 Nm [4425 in-lbs] @ 5.5 Bar (80 psi) Release

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Backlash: Zero with keyless locking device

Release Pressure: 4.1 Bar [60 psi]

**Torsional Rigidity:** 8,341,000 Nm/rad [6,152,000 ftlb/rad]

Rotational Inertia: 0.0212 kgm<sup>2</sup> [0.502 lbft<sup>2</sup>]

Dynamic Capability: E-stops allowed, no cyclic dynamic stopping allowed

Engagement Response Time: 85 ms

Ratings: IP67 when end mounted and sealed to the machine frame

Service Life: 1 million holding cycles, dynamic stops application dependent

Temperature Range: 4 to 100° C [40 to 200° F]

Construction: Cast iron housing, steel locking device access cover, black paint

Brake Product Number	Brake Bore (D)	Locking Device Bore (d)
965500	65.00 mm	50.00 mm
	[2.559 in]	[1.969 in.]
965501	72.00 mm	Compomac,
	[2.835 in.]	Midas #7237 <sup>(2)</sup>
965502 <sup>(3)</sup>	65.00 mm <sup>(3)</sup>	50.00 mm <sup>(3)</sup>
965509 <sup>(3)</sup>	[2.559 in.]	[1.969 in.]
965503	71.00 mm	55.00 mm
	[2.795 in.]	[2.165 in.]

<sup>(1)</sup> Manufacturer of shaft must contact specific locking device supplier for shaft dimensions and tolerances

Suggested Customer Supplied Locking Devices		
Brand	Model	
B-LOC	B800	
Climax Metal	170 Series	
Gerwah Peter	PSV 2010.1	
KTR Clampex	KTR 250	
Lovejoy SLD	SLD 1900	
Ringfeder	RfN 7110	
Ringspann	RLK 110	
Tollok	TLK 110	
US Tsubaki	PL TF	

Specify locking device size 65 mm x 50 mm for I-300 #965500 Specify locking device size 71 mm x 55 mm for I-300 #965503

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<sup>(2)</sup> Compomac "Midas" #7237 locking device, bore sizes: 28, 30, 32, 35, 38, 40, 42, 45, 48, 50, 55 and 60 mm

<sup>(3)</sup> Brake hub is bored and keyed, locking device not required