

Gearheads

NEMA, Metric & Bu-Ord Size Gearheads
Motors & Gearmotors • Right Angle Drives • Speed Reducers
Catalog D125-1

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SDPSI

Stock Drive Products / Sterling Instrument



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Domestic Sales Conditions

Ordering by phone: Telephone: 516-328-3300

We can give you price and stock status on every catalog item over the phone. For larger production quantities, we can fax you a written quote of price and delivery. Please call us between 9AM and 5PM New York time or fax us anytime. If you prefer, you can contact one of our sales representatives listed on the following pages.

Ordering by fax: Toll Free Fax: 1-800-345-1144 (for orders, only)

Please use our toll free fax number to order.
Specify part numbers, quantities, delivery dates needed and method of shipment.

Ordering by Mail:

Mail is sorted, and orders are promptly processed by our Sales Department.

Open Account Orders:

A minimum order is \$50 plus shipping charges. Orders requiring any type of special handling or certification are subject to additional charge.
Terms: Net 30 days, F.O.B. New Hyde Park, NY.

Credit Card Orders:

For your convenience, we accept VISA®, MasterCard®, American Express® and Optima®. You will be billed for merchandise and freight when parts are shipped, subject to credit card approval. A minimum order is \$50 plus shipping charges.

Credit:

New accounts having a satisfactory rating will receive open credit terms; otherwise, initial order may be on a C.O.D. basis pending credit approval. C.O.D. orders are subject to an additional handling charge.

Method of Shipment:

U.P.S., FedEx or as specified by customer.

Returns and Exchanges:

All returns and exchanges must have prior written approval. Returns must be made within 15 days after receipt of material. Returned merchandise will be inspected and a charge made for restocking. No credit will be allowed on used or modified parts, or catalog parts purchased on a quantity basis. Notification of any shortages must be reported within 10 days after receipt of goods.

Note:

Price and specifications are subject to change without notice. Every effort has been made to provide accurate technical and product information. The company disclaims responsibility for any error or omission in the accuracy of the technical and product information published.

SALES IN CALIFORNIA

in Northern California: (Our Office and Distributor)

Western Component Sales North, Inc.
871-F Industrial Road
San Carlos, California 94070

TEL: 650-594-1222 FAX: 650-595-4298

in Southern California: (Our Sales Representative)

Western Automation, Inc.
23011 Moulton Parkway, Unit F-1
Laguna Hills, California 92653

TEL: 949-859-6988 FAX: 949-859-8622



Domestic Sales Representatives



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Tel: (978) 973-0600 Fax: (978) 454-0363

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Tel: (630) 960-2046 Fax: (630) 960-2447

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7480 Pinehurst Road, Saint Paul, MN 55115
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Tech Rep Sales Co., Inc.

7388 South Revere Parkway, Unit 805
Englewood, CO 80112
Tel: (303) 799-8877 Fax: (303) 799-8833

International Sales Conditions

All international purchase orders for products should be directed to your nearest international distributor shown on the next page or:

DESIGNATRONICS FOREIGN SALES CORPORATION

2101 Jericho Turnpike, Box 5416,
New Hyde Park, New York 11042-5416

TEL: 516-328-3300 FAX: 516-326-8827

Minimum order:

\$75 with a \$10 charge for our standard export handling; i.e., \$85 minimum billing.
If the order exceeds \$100, there is no export handling charge made.

Large quantity order:

Considerable discounts are made available for large quantity orders.
Please request a quote for price and delivery.

METHODS OF PAYMENT

Open Account Orders:

If you have an open account, we will ship and bill you, net 30 days,
F.O.B. New Hyde Park, NY.

Credit Card Orders:

For your convenience, we accept VISA®, MasterCard®, American Express®
and Optima®. You will be billed for merchandise and freight when parts are shipped,
subject to credit card approval. A minimum order is \$85 plus shipping charges.

Credit:

Purchase orders accompanied by Bank References will be shipped on open credit
terms. Otherwise, an irrevocable letter of credit or prepayment is requested.

Method of Shipment:

U.P.S., FedEx, Air Parcel Post, or as specified by customer.

Returns and Exchanges:

All returns and exchanges must have prior written approval. Returns must be made
within 15 days after receipt of material. Returned merchandise will be inspected and
a charge made for restocking. No credit will be allowed on used or modified parts, or
catalog parts purchased on a quantity basis. Notification of any shortages must be
reported within 10 days after receipt of goods.

Note:

Price and specifications are subject to change without notice. Every effort has been
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How to use the Index

There are two ways to access the information on parts you are looking for, as shown below:

METHOD 1: IF YOU KNOW THE PART NUMBER

The **Part Number Index**, starting at page 9, will direct you to the appropriate section and catalog page. Match the part number as closely to one of the entries in the **Part Number Index**. The dots denote variable characters on the page. Then, go to the section and the page number indicated. Often, the series will continue on to the facing page.

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Part Number Series

Section – Page Number

METHOD 2: IF YOU KNOW THE NAME OF THE ITEM

The Alphabetical Index is at the end of this catalog. We have tried to make as many entries as possible to make it easier for you to find the products you are looking for. Consequently, the same page may be referenced under several headings.

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Fractional and Decimal Inch & Metric Equivalents



INCH		METRIC		INCH		METRIC	
Fractional	Decimal	mm	Fractional	Decimal	mm	Fractional	mm
	.00394	.1		.46875	11.9063	15/32	
	.00787	.2		.47244	12.00	1/2	
	.01181	.3		.484374	12.3031	31/64	
	.015625	.3969	1/64	.5000	12.70		
	.01575	.4		.51181	13.00	33/64	
	.01969	.5		.515625	13.0969	17/32	
	.02362	.6		.53125	13.4938	35/64	
	.02756	.7		.546875	13.8907	9/16	
	.03125	.7938	1/32	.55118	14.00	37/64	
	.0315	.8		.5625	14.2875		
	.03543	.9		.578125	14.6844	19/32	
	.03937	1.00		.59055	15.00	39/64	
	.046875	1.1906	3/64	.59375	15.0813		
	.0625	1.5875	5/64	.609375	15.4782	5/8	
	.078125	1.9844		.625	15.875		
	.07874	2.00		.62992	16.00	41/64	
	.09375	2.3813	3/32	.640625	16.2719	21/32	
	.109375	2.7781	7/64	.65625	16.6688		
	.11811	3.00		.66929	17.00	11/16	
	.125	3.175		.671875	17.0657	43/64	
	.140625	3.5719	9/64	.6875	17.4625	45/64	
	.15625	3.9688	5/32	.703125	17.8594		
	.15748	4.00		.70866	18.00	23/32	
	.171875	4.3656	11/64	.71875	18.2563	47/64	
	.1875	4.7625		.734375	18.6532		
	.19685	5.00		.74803	19.00	3/4	
	.203125	5.1594	13/64	.7500	19.05		
	.21875	5.5563	7/32	.765625	19.4469	49/64	
	.234375	5.9531	15/64	.78125	19.8438		
	.23622	6.00		.7874	20.00	25/32	
	.2500	6.35		.796875	20.2407	51/64	
	.265625	6.7469	17/64	.8125	20.6375		
	.27559	7.00		.82677	21.00	13/16	
	.28125	7.1438	9/32	.828125	21.0344		
	.296875	7.5406	19/64	.84375	21.4313	27/32	
	.3125	7.9375		.859375	21.8282	53/64	
	.31496	8.00		.86614	22.00	55/64	
	.328125	8.3344	21/64	.875	22.225		
	.34375	8.7313	11/32	.890625	22.6219	57/64	
	.35433	9.00		.90551	23.00		
	.359375	9.1281	23/64	.90625	23.0188	29/32	
	.375	9.525		.921875	23.4157	59/64	
	.390625	9.9219	25/64	.9375	23.8125		
	.3937	10.00		.94488	24.00	15/16	
	.40625	10.3188	13/32	.953125	24.2094		
	.421875	10.7156	27/64	.96875	24.6063	31/32	
	.43307	11.00		.98425	25.00		
	.4375	11.1125	7/16	.984375	25.0032	63/64	
	.453125	11.5094	29/64	1.0000	25.4001	1	



Conversion of Small Inch to mm



inches	mm	inches	mm	inches	mm
0.001	0.0254	0.01	0.254	0.1	2.54
0.002	0.0508	0.02	0.508	0.2	5.08
0.003	0.0762	0.03	0.762	0.3	7.62
0.004	0.1016	0.04	1.016	0.4	10.16
0.005	0.1270	0.05	1.270	0.5	12.70
0.006	0.1524	0.06	1.524	0.6	15.24
0.007	0.1778	0.07	1.778	0.7	17.78
0.008	0.2032	0.08	2.032	0.8	20.32
0.009	0.2286	0.09	2.286	0.9	22.86

inches	inches									
	0	0.0001	0.0002	0.0003	0.0004	0.0005	0.0006	0.0007	0.0008	0.0009
	millimeters (mm)									
0	.00000	.00254	.00508	.00762	.01016	.01270	.01524	.01778	.02032	.02286
0.001	.02540	.02794	.03048	.03302	.03556	.03810	.04064	.04318	.04572	.04826
0.002	.05080	.05334	.05588	.05842	.06096	.06350	.06604	.06858	.07112	.07366
0.003	.07620	.07874	.08128	.08382	.08636	.08890	.09144	.09398	.09652	.09906
0.004	.10160	.10414	.10668	.10922	.11176	.11430	.11684	.11938	.12192	.12446
0.005	.12700	.12954	.13208	.13462	.13716	.13970	.14224	.14478	.14732	.14986
0.006	.15240	.15494	.15748	.16002	.16256	.16510	.16764	.17018	.17272	.17526
0.007	.17780	.18034	.18288	.18542	.18796	.19050	.19304	.19558	.19812	.20066
0.008	.20320	.20574	.20828	.21082	.21336	.21590	.21844	.22098	.22352	.22606
0.009	.22860	.23114	.23368	.23622	.23876	.24130	.24384	.24638	.24892	.25146
0.010	.25400	.25654	.25908	.26162	.26416	.26670	.26924	.27178	.27432	.27686
0.011	.27940	.28194	.28448	.28702	.28956	.29210	.29464	.29718	.29972	.30226
0.012	.30480	.30734	.30988	.31242	.31496	.31750	.32004	.32258	.32512	.32766
0.013	.33020	.33274	.33528	.33782	.34036	.34290	.34544	.34798	.35052	.35306
0.014	.35560	.35814	.36068	.36322	.36576	.36830	.37084	.37338	.37592	.37846
0.015	.38100	.38354	.38608	.38862	.39116	.39370	.39624	.39878	.40132	.40386
0.016	.40640	.40894	.41148	.41402	.41656	.41910	.42164	.42418	.42672	.42926
0.017	.43180	.43434	.43688	.43942	.44196	.44450	.44704	.44958	.45212	.45466
0.018	.45720	.45974	.46228	.46482	.46736	.46990	.47244	.47498	.47752	.48006
0.019	.48260	.48514	.48768	.49022	.49276	.49530	.49784	.50038	.50292	.50546
0.020	.50800	.51054	.51308	.51562	.51816	.52070	.52324	.52578	.52832	.53086



Conversion of Small mm to Inch



mm	inches	mm	inches	mm	inches
0.01	0.00039	0.1	0.00394	1	0.03937
0.02	0.00079	0.2	0.00787	2	0.07874
0.03	0.00118	0.3	0.01181	3	0.11811
0.04	0.00157	0.4	0.01575	4	0.15748
0.05	0.00197	0.5	0.01969	5	0.19685
0.06	0.00236	0.6	0.02362	6	0.23622
0.07	0.00276	0.7	0.02756	7	0.27559
0.08	0.00315	0.8	0.03150	8	0.31496
0.09	0.00354	0.9	0.03543	9	0.35433

mm	millimeters (mm)									
	0	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
	inches									
0	.00000	.00004	.00008	.00012	.00016	.00020	.00024	.00028	.00031	.00035
0.010	.00039	.00043	.00047	.00051	.00055	.00059	.00063	.00067	.00071	.00075
0.020	.00079	.00083	.00087	.00091	.00094	.00098	.00102	.00106	.00110	.00144
0.030	.00118	.00122	.00126	.00130	.00134	.00138	.00142	.00146	.00150	.00154
0.040	.00157	.00161	.00165	.00169	.00173	.00177	.00181	.00185	.00189	.00193
0.050	.00197	.00201	.00205	.00209	.00213	.00217	.00220	.00224	.00228	.00232
0.060	.00236	.00240	.00244	.00248	.00252	.00256	.00260	.00264	.00268	.00272
0.070	.00276	.00280	.00283	.00287	.00291	.00295	.00299	.00303	.00307	.00311
0.080	.00315	.00319	.00323	.00327	.00331	.00335	.00339	.00343	.00346	.00350
0.090	.00354	.00358	.00362	.00366	.00370	.00374	.00378	.00382	.00386	.00390
0.100	.00394	.00398	.00402	.00406	.00409	.00413	.00417	.00421	.00425	.00429
0.110	.00433	.00437	.00441	.00445	.00449	.00453	.00457	.00461	.00465	.00469
0.120	.00472	.00476	.00480	.00484	.00488	.00492	.00496	.00500	.00504	.00508
0.130	.00512	.00516	.00520	.00524	.00528	.00531	.00535	.00539	.00543	.00547
0.140	.00551	.00555	.00559	.00563	.00567	.00571	.00575	.00579	.00583	.00587
0.150	.00591	.00594	.00598	.00602	.00606	.00610	.00614	.00618	.00622	.00626
0.160	.00630	.00634	.00638	.00642	.00646	.00650	.00654	.00657	.00661	.00665
0.170	.00669	.00673	.00677	.00681	.00685	.00689	.00693	.00697	.00701	.00705
0.180	.00709	.00713	.00717	.00720	.00724	.00728	.00732	.00736	.00740	.00744
0.190	.00748	.00752	.00756	.00760	.00764	.00768	.00772	.00776	.00780	.00783
0.200	.00787	.00791	.00795	.00799	.00803	.00807	.00811	.00815	.00819	.00823



U.S. to Metric Conversion Multipliers



	METRIC to U.S.			U.S. to METRIC		
LENGTH	Millimeters	x 0.0394	= Inches	Inches	x 25.4000	= Millimeters
	Meters	x 39.3701	= Inches	Inches	x 0.0254	= Meters
	Meters	x 3.2808	= Feet	Feet	x 0.3048	= Meters
	Meters	x 1.0936	= Yards	Yards	x 0.9144	= Meters
	Kilometers	x 3280.84	= Feet	Feet	x 0.0003048	= Kilometers
	Kilometers	x 0.6214	= Statute Miles	Statute Miles	x 1.6093	= Kilometers
	Kilometers	x 0.5396	= Nautical Miles	Nautical Miles	x 1.8532	= Kilometers
AREA	Square mm	x 0.0016	= Square Inches	Square Inches	x 645.160	= Square mm
	Square cm	x 0.1550	= Square Inches	Square Inches	x 6.4516	= Square cm
	Square Meters	x 10.7639	= Square Feet	Square Feet	x 0.0929	= Square Meters
	Square Meters	x 1.1960	= Square Yards	Square Yards	x 0.8361	= Square Meters
	Hectares	x 2.4711	= Acres	Acres	x 0.4047	= Hectares
	Square km	x 247.105	= Acres	Acres	x 0.004047	= Square km
	Square km	x 0.3861	= Square Miles	Square Miles	x 2.5900	= Square km
WEIGHT	Grams	x 15.4324	= Grains	Grains	x 0.0648	= Grams
	Grams	x 0.0353	= Ounces (Avd.)	Ounces (Avd.)	x 28.3495	= Grams
	Grams	x 0.0338	= Fluid oz. (water)	Fluid oz. (water)	x 29.5735	= Grams
	Kilograms	x 35.2740	= Ounces (Avd.)	Ounces (Avd.)	x 0.0283	= Kilograms
	Kilograms	x 2.2046	= Pounds (Avd.)	Pounds (Avd.)	x 0.4536	= Kilograms
	Metric Tons (1000 kg)	x 1.1023	= Net Ton (2000 lbs.)	Net Ton (2000 lbs.)	x 0.9072	= Metric Tons (1000 kg)
	Metric Tons (1000 kg)	x 0.9842	= Gross Ton (2240 lbs.)	Gross Ton (2240 lbs.)	x 1.0160	= Metric Tons (1000 kg)
FORCE	Newtons	x 3.5969	= Ounces _f	Ounces _f	x 0.2780	= Newtons
	Newtons	x 0.2248	= Pounds _f	Pounds _f	x 4.4482	= Newtons
	Kilograms _f	x 2.2046	= Pounds _f	Pounds _f	x 0.4536	= Kilograms _f
TORQUE	Newton Meters	x 141.6119	= Ounce _f Inches	Ounce _f Inches	x 0.0071	= Newton Meters
	Newton Meters	x 8.8508	= Pound _f Inches	Pound _f Inches	x 0.1130	= Newton Meters
	Newton Meters	x 0.7376	= Pound _f Feet	Pound _f Feet	x 1.3558	= Newton Meters
POWER	Kilowatt	x 1.3410	= Horsepower	Horsepower	x 745.6999	= Watt
	Watt	x 0.0013	= Horsepower	Horsepower	x 0.7457	= Watt



Miscellaneous Conversion Factors



Quantity	Conventional		SI Unit	Conversion Factors
	Inch Unit	Metric Unit		
Length	Inch inch	Meter m	Metre m	1 inch = 25.4 mm 1 mm = 0.03937 inch 1 m = 3.2808 ft 1 ft = 0.3048 m
Area	Square Inch inch ²	Square Centimeter cm ²	Square Metre m ²	1 inch ² = 6.4516 cm ² 1 cm ² = 0.155 inch ² 1 m ² = 10.764 ft ² 1 ft ² = 0.092903 m ²
Mass	Pound Mass lb	Kilogram Mass kg	Kilogram Mass kg	1 lb = 0.45359237 kg 1 kg = 2.2046 lb
Force	Pound Force lbf	Kilogram Force kgf	Newton N	1 lbf = 0.45359237 kgf 1 lbf = 4.44822 N 1 kgf = 2.2046 lbf 1 kgf = 9.80665 N 1 N = 0.1019716 kgf 1 N = 0.224809 lbf
Stress Pressure	Pounds Per Square Inch lbf/inch ²	Kilogram Per Square Centimeter kgf/cm ²	Pascal N/m ² (Pa)	1 MPa (megapascal) = 10 ⁶ N/m ² = N/mm ² 1 kPa (kilopascal) = 10 ³ N/m ² 1 lbf/inch ² = 0.070307 kgf/cm ² 1 lbf/inch ² = 7.0307 • 10 ⁻⁴ kgf/mm ² 1 lbf/inch ² = 6.8947 • 10 ⁻³ N/mm ² (MPa) 1 kgf/cm ² = 14.2233 lbf/inch ² 1 kgf/cm ² = 9.80665 • 10 ⁻² N/mm ² (MPa)
Torque Work	Inch • Pounds lbf • inch	Kilogram- Meters kgf • m	Newton- Metres N • m	1 lbf • inch = 1.1521 kgf • cm 1 kgf • cm = 0.8679 lbf • inch 1 lbf • inch = 0.1129848 N • m 1 kgf • m = 9.80665 N • m 1 kgf • cm = 9.80665 • 10 ⁻² N • M 1 N • m = 8.85 lbf • inch 1 N • m = 10.19716 kgf • cm
Power	lbf • ft/min	kgf • m/s	N • m/s	1 kW = 1000 N • m/s 1 kW = 60,000 N • m/min 1 kW = 44,220 lbf • ft/min 1 kW = 1.34 hp 1 hp = 75 kgf • m/s 1 hp = 44,741 N • m/min 1 hp = 33,000 lbf • ft/min 1 hp = 0.7457 kW
Velocity	Feet Per Second ft/sec	Meters Per Second m/sec	Metres Per Second m/s	1 ft/sec = 0.3048 m/sec 1 inch/sec = 2.54 cm/sec 1 ft/min = 0.00508 m/sec 1 mile/hr = 0.44704 m/sec 1 km/hr = 0.27777 m/sec 1 mile/hr = 1.609344 km/hr
Acceleration	Feet Per Second Square ft/sec ²	Meter Per Second Square m/sec ²	Metre Per Second Square m/sec ²	1 ft/sec ² = 0.3048 m/sec ²