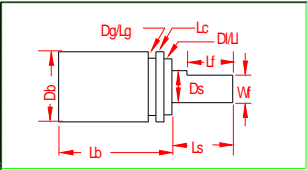
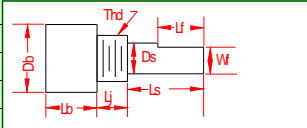
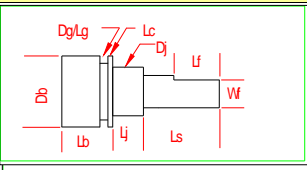
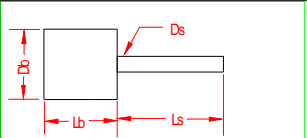


Hallpot® configurations with small bodies 0.550 inches in diameter. These are commonly made for various users. All produce basic signal response. Most may be modified to fit specific user needs.

MODELS	OUTLINE	Body Diameter Inches	Body Length	Shaft Length Inches	Shaft Diameter	Journal Diameter	Journal Length Inches	Collar Locator	Clearance Flange
		Db	Lb	Ls	Ds	Dj	Lj	DI, LI	Lc or Lfl
55SB-B	Servo Mount with Two Ball Bearings	0.550 / 0.548	0.825 / 0.820	0.525 / 0.480	0.250 / 0.248	N/A	N/A	0.500 / 0.498, 0.065	Lc or Lfl 0.065
Single Output									
55TJ-B	Threaded with Journal Bearing	0.550 / 0.540	0.425 / 0.410	0.63	0.250 / 0.248	0.375 / 0.373	0.25	N/A	N/A
Single Output									
3/8-32 Thd									
55SJ-B	Servo Mount with Journal Bearing	0.550 / 0.540	0.425 / 0.410	0.63	0.250 / 0.248	0.375 / 0.373	0.25	N/A	0.045
Single Output									
Plain Journal									
55PB-B	Plain Body with two Ball Bearings	0.550 / 0.545	0.600 / 0.595	0.88	User Spec	N/A	N/A	N/A	N/A
Single Output									
Plain Body									
Short Body									

SPECIALIZED CONFIGURATION DESIGNS. Most of these versions are made to fit the specific needs of users who need exceptionally rugged angle sensors or sensors with special parameters. They normally are made to order; however, so many versions have been made that some of the configurations are standardized. Refer to the pdf file "SEVERE ENVIRONMENT VERSIONS" on the Home Page.

SEVERE ENVIRONMENT configurations are made to be used in environments that are hostile to nearly any sort of normal components. In general, they may be immersed directly into the environmental fluid with no added protection from the fluid. They are constructed from materials that resist being eroded by the fluids. Additionally they are filled with a special silicone grease that will not dissolve in the fluids or be washed out of the device. This grease acts as a coupling such that pressure difference is near zero psi and the hallpots® will not be crushed. They should not be struck with objects or be subjected to large mechanical stress such as being stepped on.

SEVERE SHOCK configurations are made to provide continuous signals that are not affected by the shock and vibration that come from the environment. Internal components are encapsulated and ball bearings are used to prevent unwanted motion between internal components to minimize or eliminate the effect of vibration on the signals. As an example, when used in Automobile Test Dummies, ATD, they continue to produce signals for the few milliseconds of the impact such that the impact signature is recordable. These are designed for dry environments as they are intended for applications internal to the user's equipment.

DIRTY ENVIRONMENT designs are used where the hallpot® will be subjected to repetitive exposure to mud, snow, ice, splashing water, saltwater from road de-icing salt, oil and other contaminants. They may be used on the steering and suspension systems of military, industrial, and commercial vehicles. They can be used in and around engine compartments and throttle linkages that may be exposed to dirty conditions. The lead end is sealed. These do not need protection from the environment but should not be struck with objects or subjected to mechanical stress such as being stepped on.

MANUAL INPUT versions are designed to be used to control vehicles, machinery and tools that use the human operator as an input source. This includes manual or foot operated inputs. They usually have built-in teflon® O-ring seals on the shaft to serve the purpose of keeping dirt out and to control the friction of the shaft. Friction on the shaft permits the hallpot® to be driven by a thumbwheel and then permit the hand to be removed and the thumbwheel will not move from vibration. The lead ends are conormally coated to be moisture and dirt resistant.

EXPLANATION OF PART NUMBERING, USEFUL INFORMATION, ALTERATIONS TO FIT USER NEEDS

LISTED MODELS --- All of the models shown have been produced for various users. There are additional models available. Those shown are what we think people normally want because of repeated orders or multiple users.

SPECIALIZED MODELS --- Elweco, Inc will make whatever changes to any model that is feasible and for which the user is willing to pay necessary design or engineering charges. This is done so that a user who wants to replace some existing angle sensor that is troublesome, with the reliability of the hallpot® angle sensor, may do so without the need for modifying his own hardware. **We make the part fit your space.**

PART NUMBER EXPLANATION --- Normally an explanation of a manufacturer's part number structure is not too interesting. Some users do want to know what it means, so just in case you are one who wants to know, the explanation follows.

BODY		HOUSING		WITHOUT		USER OPTIONS --- USER SPECIFIES THE FOLLOWING PARAMETERS
DIAMETER	PLUS >>>>>>>>>>	AND	PLUS >>>>>>>>>>	OR WITH	PLUS >>>>>>>>>>	
		BEARING		AMPLIFIERS		
100	1000 mils	TJ	Threaded Journal with sleeve bearing	-B	Basic Signal with no Amplification. These versions track the power voltage	Power Supply Voltage
75	750 mils	SJ	Servo Mount Journal with sleeve bearing	-G	Amplified signal. Five volt units track the power voltage. Larger voltage units do not track.	Quiescent Voltage
55	550 mils	TSJ	Threaded Journal with sleeve bearing and servo-groove	-SC	A Sine-Cosine resolver output without amplification. Five volt power with tracking	Operating Angle
M55, M75 or M100 Indicates that some dimensions on the housing or shaft are in Metric to user specifications.		SB	Servo Mount Body with two ball bearings	-GSC	A Sine-Cosine Resolver output with Amplifier controlled parameters. Five volt power with tracking	Signal Response
		PB	Threaded Journal with sleeve bearing	-G5C	Gain controlled signal with tracking. Five volt power, Commercial version	Special Signal Response
				-G5M	Gain controlled signal with tracking. Five volt power, Military and severe industrial applications	Options
				-.GH	Gain controlled with a power supply range of +12 to +35 Vdc.	
				-.GL	Gain controlled with a power supply range of +7 to +16Vdc.	

FLAT ON SHAFT --- Length of flat is 0.38 inches and shaft thickness is at the flat is 0.215 inches for all models unless the user specifies differently. A flat on threaded journals may also be specified by the user.

USEFUL INFORMATION-- This information is intended to assist the user to make connections or to apply hallpot® angle sensors. Please call Elweco, Inc if you need any additional information or assistance

TERMINALS, The terminals used on hallpots® are Vector #K24. They are available from Digi-Key (D-K) as part number V1055-ND. Wires may be attached to these terminals by soldering to them. These pins protrude beyond the end of the body between 0.20 to 0.25 inches depending on the version. In most devices, the wires may be soldered within the end of the housing. No electronic components protrude beyond the end.

CONNECTOR SOCKETS. Small terminal sockets can be attached to connecting leads using either of two sockets. A low priced socket is AMP / TYCO # 66569-3 as A1029-ND in the D-K catalog. A socket which will hold more securely under vibration is AMP / TYCO #205090-1 as A2161-ND in the D-K catalog.

THIS COLLECTION SHOWS SOME OF THE VARIATIONS MADE FOR USERS. Notice that no two are alike in this picture



THIS COLLECTION CONTAINS DEVICES WITH JOURNAL BEARINGS, BALL BEARINGS, DIFFERENT SIZE AND SHAPE SHAFTS, SERVO-MOUNT, THREAD MOUNT, LEADS, SEALED BACKS, SOLDER TERMINALS, SEALED SHAFTS WITH O-RINGS, EXTREME ENVIRONMENT, MILITARY ENVIRONMENT, AND OTHER FEATURES.

TRACKING FEATURES. All 5.000 volt models track the power supply voltage over an allowable range of +4.5 to +6.0 volts. This means that Ebo is proportional to the power supply voltage and the output signal response is also proportional. The normal initial value of Ebo is always 2500 millivolts although, on occasion, we change this parameter to suit the needs of the user. Models with internal voltage regulators are specified as having an allowable power supply range of either +7 to +16 volts or +12 to +36 volts are fixed and do not track the power supply. These signals are not affected by power supply variations.

WIRE ATTACHMENT SERVICE. Elweco Inc will attach lead wires to the terminals at the request of the user. Insulation on the wires will be either vinyl or Teflon®. This is done with an added charge.

OIL FILLED OPERATION. All models may be filled with inert oil and operated with great pressures applied. The usual purpose of oil filling is to enable operation under water in an ocean or lake environment or inside pipelines of various sorts. Silicone or vegetable oils are normally used. Consult with Elweco, Inc if you need to operate in such an environment.

INTERNAL FRICTION OPTION. Journal bearing models can be supplied with internal O-Rings to control the friction of the rotor. Typical torque values are in the order of 50 to 200 gmf X cm. Applications for controlled torque are usually for manual input devices with a thumbwheel or lever to keep the set value from changing under vibration.