

SERVOCONTROLS

(An ISO 9001 and AS9100 RevD Company)



SERVOCONTROLS

Closing The Loop

Position Transducers,
Nanomotion Piezo motors, & Air Data sensors



Automotive Crash Testing

Outrigger Positioning

Applications

- Aerospace / Automotive Testing
- Government test facilities
- Gas Turbine power plants
- Car and truck manufacturers
- Damper Industries
- Space Research Organizations
- Motion Platforms & Entertainment
- Aerospace Structural Testing
- Medical Equipment Manufactures
- Precision mine detection



Mine detection radars



Air Data measurements



160 series (360° rotation)

Ranges up to 42.5 inches



MLP Series

Ranges up to 6 inches



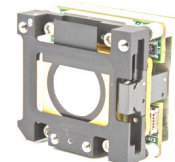
M150 (World's smallest P.T)

Ranges up to 1.5 inches



PT9101

Heavy duty with 550+ inches



S787 NUC Shutter

NUC Process for IR Cameras

Indian Space Research Organisation
Mars Orbiter Mission

Application : For Special deploy mechanism of Antenna and it's positioning for "Mangalayaana" space application

Servocontrols Aerospace (I) Pvt Ltd Belgaum celebrated the success of MARS (Mangalayaana). It is proud moment to every Indian and all Belgaumites as the Cryogenic Position sensors supplied by Servocontrols Aerospace have been used in this mission. We all wish ISRO many more success in coming days & wish to build large space industry in India

SERVOCONTROLS AEROSPACE INDIA PVT LTD, BELGAUM
PROUD VENDOR FOR ISRO
CONGRATULATES ISRO FOR THEIR SUCCESSFUL MARS ORBITER MISSION 24-09-2014

PROUD : SERVOCONTROLS POSITION SENSOR SERVING IN MOM SPACE APPLICATION

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Celesco

Position Transducers



PT9101



CLWG



MT2A



PT101

Cable Extension Transducers, Principles of Operation:

A Cable-Extension Transducer, sometimes also known as a string pot, a draw wire sensor, a string encoder or a yo yo pot, is a device used to detect and measure linear position and velocity using a flexible cable and a spring-loaded spool. Simply mount the transducer's body to a fixed surface and attach the stainless steel cable to the movable object. As the object moves, the transducer produces an electrical signal that is proportional to the cable's linear extension or velocity. This signal can then be sent to a display, a PLC or data acquisition system.

Types of Position Transducer:

1. Linear Position Transducer



MLP-XXX

MLP Series:

MLP-12 MLP-25 MLP-50 MLP-75 MLP-100 MLP-125 MLP-150. Celesco's miniature MLP series linear potentiometers offer unrivaled performance in an amazingly small size. Though small, the MLP is environmentally robust (IP67), operates over a broad temperature range (-22° to 300°F) and is long lasting (>25 million cycles). These features make our miniature MLP linear potentiometer the perfect solution for many applications including industrial, medical, automotive and motion control.

2. Cable Extension P.T



MT2X

MT2 & MT3 series :

The MT2 and MT3 miniature series features a highly-tensioned heavy-duty measuring cable that was designed for the high-acceleration demands encountered in flight testing and automotive crash tests. The MT3A offers IP67 protection for testing applications in wet environments Output Signal Options: Voltage Divider (potentiometer) and Incremental Encoder. Measurement ranges available are 0-3", 0-9", 0-15" and 0-30"

3. Rotary Position Transducer:



CH25

RT series :

The RT9000 Series rotational transducer is similar to above with full stroke ranges starting at 0-90° up to 0-50 turns maximum. For ranges covered by this series, this series is more cost effective than above. Additionally, the RT9420 is available for applications requiring intrinsically safe (CSA) approvals. Environmental suitability: NEMA 6, IP68



What Measurement Ranges Are Available? Celesco currently offers full stroke ranges from as small as 0-2 inches and all the way up to 0-1700 inches (140 ft.) (42.5 meter)

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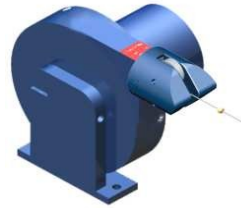
Firstmark Position Transducers & Standby Compass Calibrator (SCC)



Providing the Ultimate Solutions in Precision Displacement Sensors



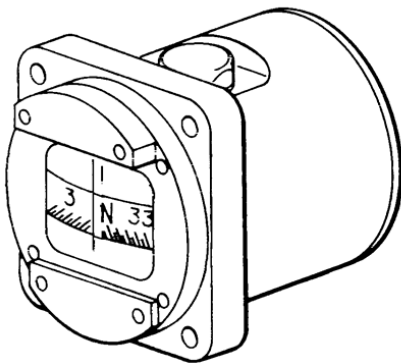
- These all-environment miniature displacement transducer are also referred to as draw wire transducers, string pots, string encoders, cable extension transducers, and yo yo pots. Complementary to LVDTs, encoders, linear potentiometers, and related displacement sensors,
- Firstmark Controls position transducers are noted for their small size, rugged performance, accuracy, flexible mounting, and easy installation
- "The Flexible Alternative to LVDTs and Linear Potentiometers" Linear, Rotary, Angular & 2D measurements



SCC

Standby Compass Calibrator

Eliminates the Physical Rotation of the Aircraft by Setting a Dial



INTRODUCTION:

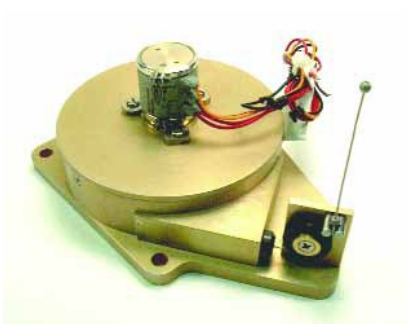
The Standby Compass Calibrator is designed to permit accurate compensation of permanent magnetization errors and completion of the compass calibration card for an aircraft's standby compass without physically rotating the aircraft.

Standby compasses are now compensated by physical rotation of the aircraft, either on the ground or in the air. Use of the Standby Compass Calibrator eliminates the need for conventional airborne or ground swinging processes, allowing the standby compass to be compensated more rapidly and inexpensively.

PRINCIPLE OF OPERATION:

The Standby Compass Calibrator performs two separate functions:

1. Cancels the Earth's field at the standby compass.
2. Adds a standard magnetic field which can be rotated to simulate aircraft heading which permits compass error to be determined without physical rotation of the aircraft.



Quality Level Testing



Vehicle & Crash Testing



Flight data recorder

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Servocontrols Nanomotion Piezoelectric actuators and shutters



Commercial & Defense Optronic Applications

“In most optronic defense/security applications, structures must be lightweight and ultrastable. These state-of-the-art optronic devices need to operate/survive in various environmental conditions, including wide temperature excursions and severe vibration levels under atmospheric pressure or in a vacuum”.

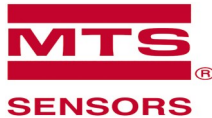
Features :

- ◆ Unlimited, direct drive travel – linear and rotary
- ◆ Optimize SWaP
 - Smallest footprint with flexible packaging
 - Lightest weight
 - Most power efficient / high power density
- ◆ Quiet operation /No detectable noise
- ◆ Fast response times
- ◆ Built in holding / braking without power consumption
- ◆ Built in “clutch”
- ◆ No intrinsic magnetic field / No EMI



Target Acquisition
-Common Laser Range Finder
-Laser Target Locating Module

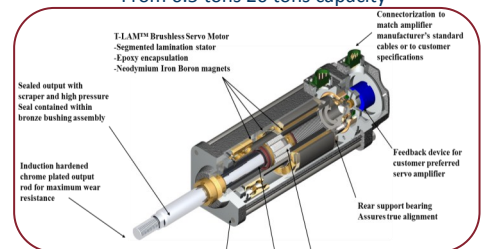
Gimbals for small UAV's



Non Contact type Temposonics Position sensors for Ground Test Applications : Electromechanical Actuator From 0.5 tons 20 tons capacity



Servo Actuators with Servo valve, Inbuilt Temposonic Position sensor and Load cell



High frequency Static & Dynamic fatigue testing



R - Series Position sensors

Accuracy : 0.5 micron*
Stroke : 50 mm - 7500mm



2/3/6 DOF Electro mechanical / Hydraulic Motion Platforms with payload 1 - 20 tons

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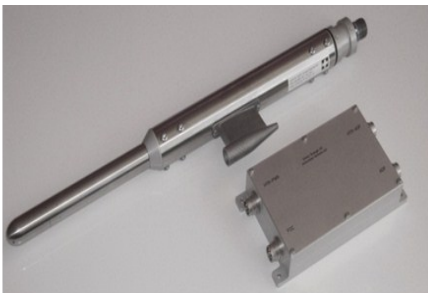
Pitot Probes and Air Data Sensors

A trusted name in Aerospace & Defense industry for Air Data Sensors

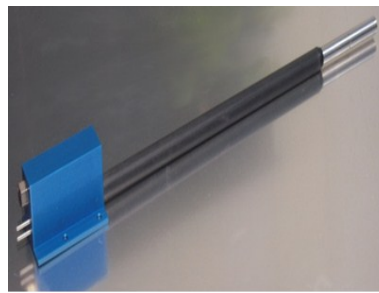


Simtec has an extensive portfolio of Air Data products

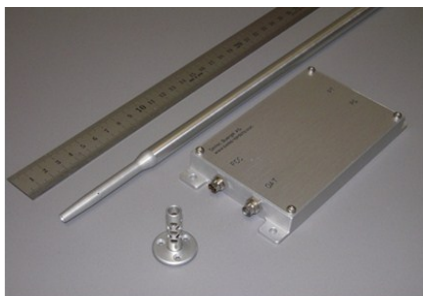
Servocontrols Aerospace India and Simtec Buergel AG have entered into a Technical Partnership Agreement on Feb. 2017 to support the development of applications based on Simtec's Digital smart probe technology. Simtec Buergel AG develops, manufactures and sells air data systems. Among Simtec products are complete air data systems, air data computers, pitot-static probes, multi-hole probes, AOA and AOS probes. ServoControls is the leader in India for



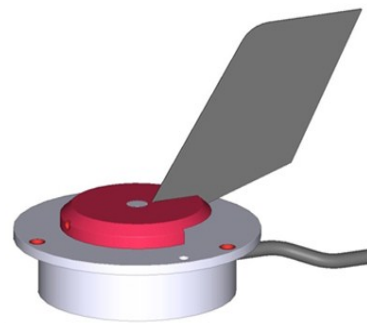
ADP-5.5 Smart Air Data Boom



Heated Pitot-Static Probe HPS-1



Pitot-Static System PSS-8™
Low-cost pitot-static system for small UAVs



Smart Miniature Vane SMV-1



Product flying on tens of thousands of aircraft worldwide

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Products supplied with application details

Sl. No	Customer Details	Product details	Application	Product images
1	Case New Holland construction equipment manufacturer	Position Transducer, model no: PT1DC-40-UP-MoPo-M6-SG. Various servo valves & servo actuators	To test various position travel movement In earth mover vehicles	
2	India Thermit # Kanpur	Position Transducer, model no: PT420-0005-114-1120. Various servo valves & servo actuators	To test in Rail flash belt welding machine	
3	Tata Marcopolo # Dharwad	Position Transducer, Model No: PT1DC-20-UP-Z5-MC4-SG. Various servo valves & servo actuators	To measure the travels of hatrack deflection , clutch & brake travels	
4	Indira Dampers # Ranipet	Position Transducer, Model: RT8420-0R25-122-1110. Various servo valves & servo actuators	For testing gate position of damper	
5	Bhote Koshi Power Plant # Nepal	Position Transducer, Model No. PT9420.0350-311-1230	To measure conveyer position measurement	
6	Adhunik Cement # kolkata	Linear Position Transducer, Model No. MLP-75	Roller press in between gap measurement	
7	Lear Automation # Pune	Position Transducer, Model No. PT1A-30-UP-1OK-MC4	Seat Position testing	
8	Krishak Bharati # Surat	Rotational Transducer, RT8420-0R25-122-1160	Diverter Damper is used in GT	

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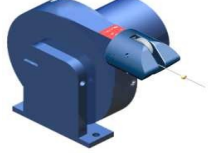


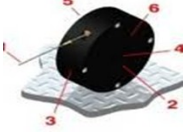
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Products supplied with application details

Sl. No	Customer Details	Product details	Application	Product images
9	Automotive Research Association of India # Pune	Position Transducers, Model No: 161-2405H-ASU. Various servo valves & servo actuators	For crush/deformation of occupant cabin wall during frontal crash / Pendulum Impact / rollover tests	
10	Indian Space Research Organization. ISRO # Bangalore	Position Transducer, model no: 173-0241-L2N, 150-0121-L2N-2, 180-0803-LN. Various servo valves & servo actuators	For special deploy mechanism of Antenna in Mangalayaan & Chandrayaana space application	
11	HAL-ARDC Bangalore	Position Transducer, Model No : 174-0321-R3N-1. Various servo valves & servo actuators	To measure aileron movement of trainer aircraft.	
12	Tata Motors # Pune	Position Transducer, Model No: 161-2405-BSU. Various servo valves & servo actuators	For automotive crash testing	
13	Indian Institute of technology # Kanpur	Position Transducer, Model No : L020-00(Flexible, Rugged) & Mini Air data boom, Model: 100400	various position measurement and Total Pressure, Static Pressure, Angle of Attack, and Angle of Side-slip in experimental aircraft	
14	BAJAJ Auto Ltd. Pune	Position Transducer, model no: 174-176-0621-R3E	To measure clutch & brake travels	
15	NATIONAL AEROSPACE LABORATORIES, BANGALORE	Position Transducer, model no: : 174-0321T & 174-0321TR. Various servo valves & servo actuators	For structural testing	
16	HAL # Kanpur	Air data probe, Model No: 300364, Test fixture/ Adapter Model: 300653	To measure static & total pressure for Mid-Sized trainer Aircraft	
17	Aeronautical development Establishment # Bangalore	Mini Air data boom, Model No : 4512-01, Pitot static probe with heater Model No : 4207-01	Air data boom to measure angle of attack vane, angle of side slip vane, true air speed and temperature sensor for Small- and Mid-Sized Aircraft	

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SERVOCONTROLS 100% EOU unit in 12 acres of land
near Hattargi Belgaum Special economy Zone



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SERVICING OF SERVO VALVES & ACTUATORS

World Class Servo valve Repair, Assembly, Test Lab. All Brands, All Types, All Configurations

We Repair/ service Proportional, Servo Proportional & Servo valves.

Abex, Atchely, Cincinnati, Dowty, Dyval, EMG, Herion, Hydromatic, Kawasaki, LHC, Moog, Star, Oilgear, Olsen, Parker, Pegauses, Plasser, Rexroth-Bosch, Schneider, Sopelem, Towler, TSS, Ultra, Vickers etc.

SERVICING OF TEMPOSONIC SENSORS

We have dedicated Electronics lab with all necessary instrumentation and inventories for Servicing Temposonic position sensors.

TECHNICAL ALLIANCE PARTNERS



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