

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

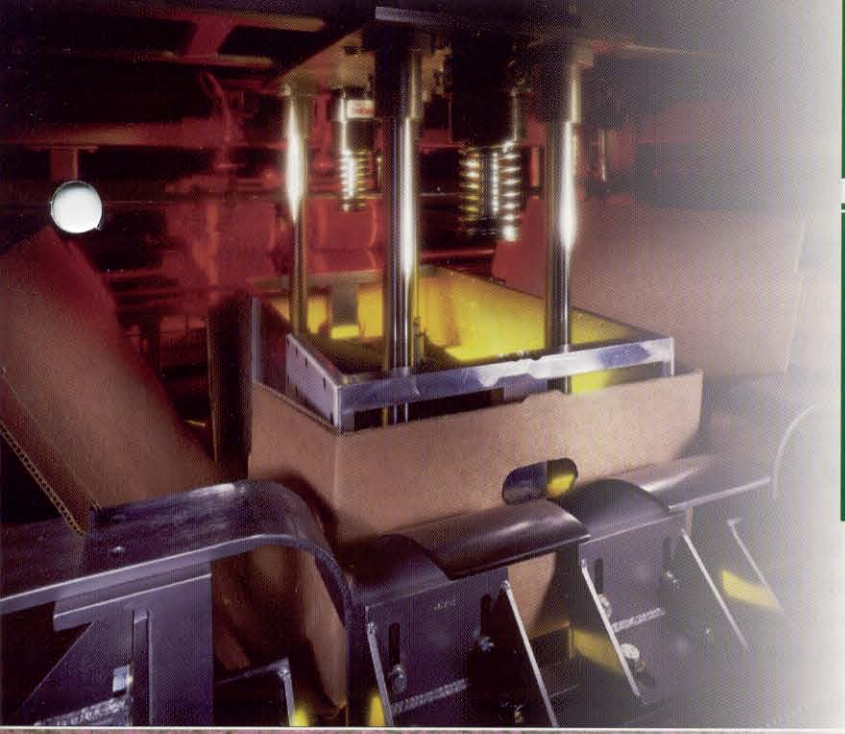
Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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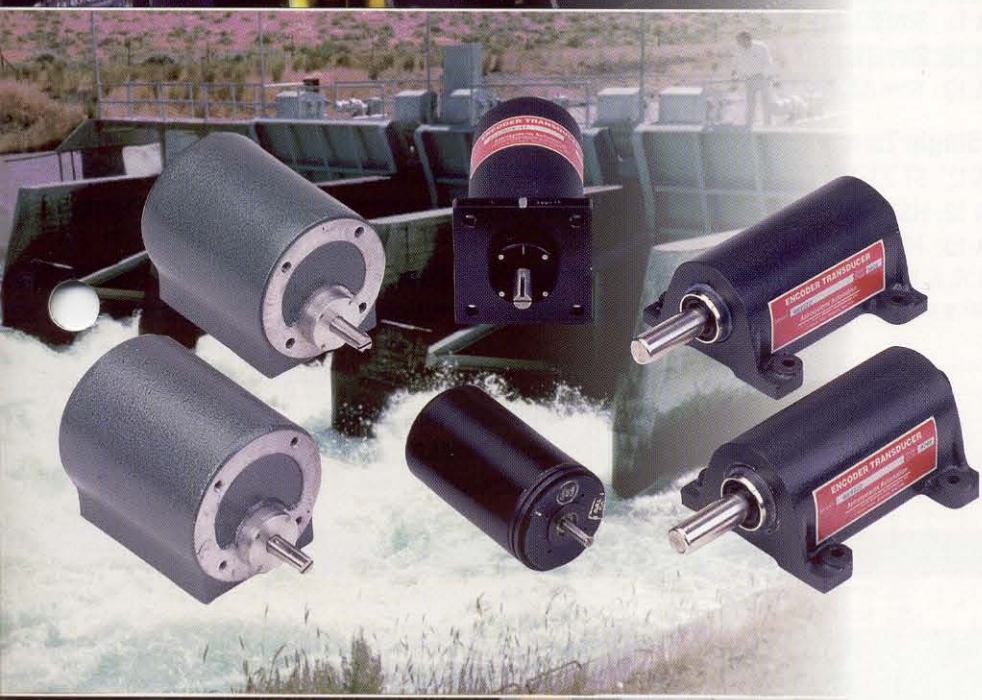
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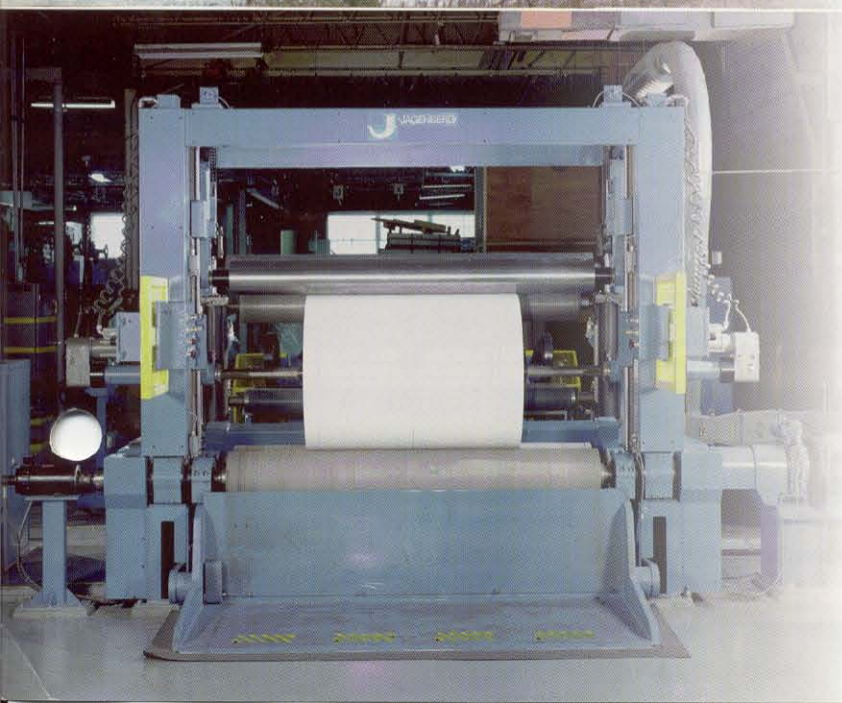


Transducers

Ultra-Reliable Precision Resolvers

Rugged, Accurate Position Sensors





Transducers

Features & Benefits

- Rugged, resolver-based position transducers provide absolute position feedback.
- Compatible with any Astrosystems motion controller or programmable encoder.
- Available in NEMA 1, 12, 13, 4X, explosion proof, submersible and radiation resistant versions.
- Cable lengths up to 1000 feet allow for the remote installation of electronics to protect against harsh environments.
- Available in a variety of sizes and output configurations making the Astrosystems Transducer family the most flexible product offering.

Applications

- ***Food Processing (washdown)***
- ***Packaging Machinery***
- ***Pick-n-Place***
- ***Indexing***
- ***Automated Assembly***
- ***Winding***
- ***Conveyors and Conveyor Merge***
- ***Any Machine Requiring Absolute, Precision Feedback***

Astrosystems Automation

Division of North Atlantic Instruments, Inc.

Design Features

Single Turn, Multiturn

Resolvers are bi-directional, continuous rotation devices that measure full 360° rotation. Many applications require more than one turn to drive the element being monitored, e.g. lead screw, rack and pinion, pulley or belt driven conveyor.

To determine absolute position without counting turns, Astrosystems offers multiturn Transducers. They contain two geared resolvers using instrument class precision gears in one of four ratios: 1:10, 36, 64 or 100.

Geared single turn

For multiturn applications where the required resolution over the total travel is 12 bits or less, a transducer containing a single resolver with built-in gear reducer is often sufficient.

Resolver Housing

Transducer size refers to housing diameter expressed in tenths of an inch. All Astrosystems transducers contain size 11 stainless steel resolvers.

Nomenclature, Sizing

Single Turn (ST)

NEMA 1: Size 11, ST11
NEMA 12: Heavy Duty, size 26 HST 26
NEMA 13: Spray-Proof, size 26 HST 26U
NEMA 4X: Washdown, size 21, HST21U

Multiturn (MT), *turns

NEMA 1: Size 23, MT 23-1/*
NEMA 12: Size 34, HMT 34-1/*
NEMA 13: Size 34, HMT34-1/*-U

Geared Single Turn:

NEMA 1: ST 23-1/*
NEMA 12: HST 34-1/*
NEMA 13: HST-1/*-U

(Suffixes A, C, E, K, W, etc. will refer to minor differences in wiring or output.)

Submersible

Transducer can be used in applications that require long term operation in equipment subjected to saltwater or fresh water operation.

Explosion-Proof-XC

Astrosystems explosion-proof transducers comply with the following standards:

NEC	CL I, Group D
	CL II, Group E, F, G
ULSTD	886 CL II
CSASTD	C2.2 No. 30 (1970)

Radiation Resistant-NRR

Radiation resistant transducers for nuclear applications are designed to withstand 10^9 rads total dosage (gamma equivalent approximately 2 x 10^{18} gamma photons/cm^2). Applications include fuel rod positioning, manipulator control, waste handling, valve monitoring, gamma scanners and x-ray welding. The size 23 transducers have built-in gear ratios of 1:1, 10, 36, 64 and 100 for multiturn or geared single turn applications.

Specifications

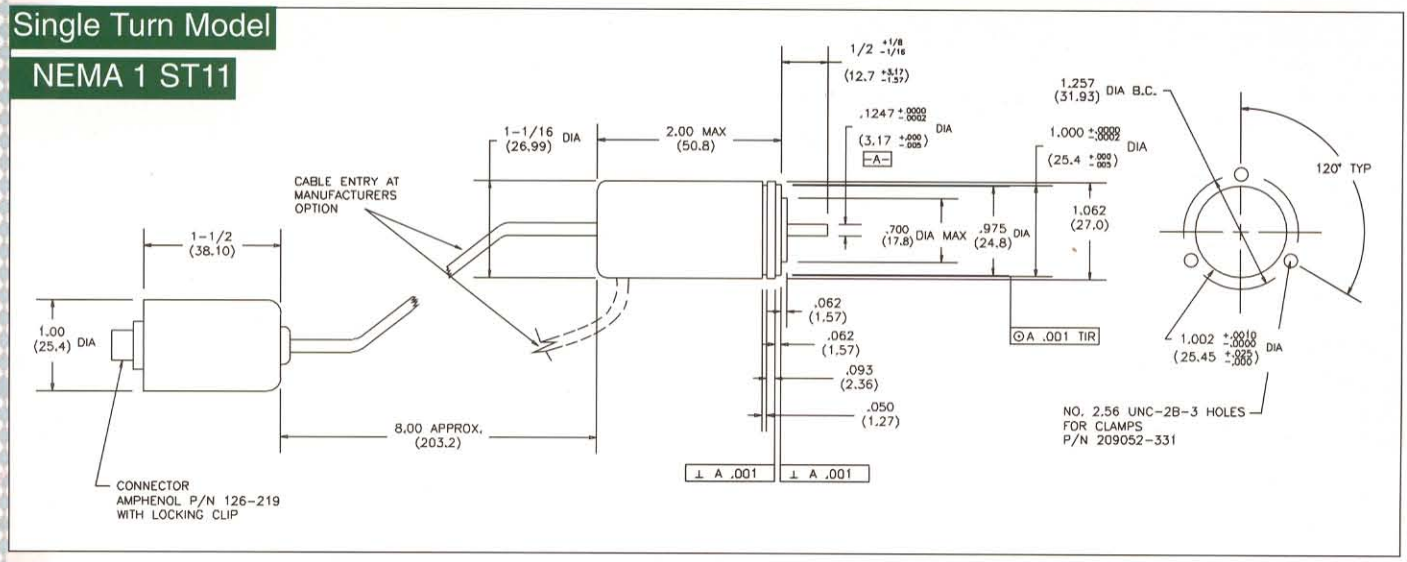
Specifications	ST11	HST 26	MT 23-1/* ST 23-1/**	HMT34-1/* HST 34-1/*	HST XC(1)	HST 21U
Starting Torque, maximum (oz-in)	.07	1.0(2)	0.1	1.0	6.0	4.0
Moment of Inertia (gm-cm²)	3	15	5	15	35	60
Shaft Load, maximum: axial (lb_f)	.3	35	5	35	100	400
radial (lb_f)	.7	75	8	75	500	400
Weight (lb)	.25	2	1.2	2.75	2.5	2.75
Maximum Slew Speed (RPM)	3000	3000	3000	3000	3000	3000
Vibration (g's to 2000 cps)	15	15	15	15	15	15
Shock (g's for 11 ms)	50	50	50	50	25	50
Accuracy	0.088°	0.088°	0.088°	0.088°	0.088°	0.33°
Radiation (rads)	10^7	10^7	10^7	10^7	10^7	10^7
Operating Temperature (°C)	-20 to +85	-20 to +85	-20 to +85	-20 to +85	-20 to +85	-20 to +85

* 10, 36, 64, 100 turns; ** 10, 36, 100 turns; (1) Multiturn transducers available; (2) U NEMA 13 housing: 2.0 oz-in

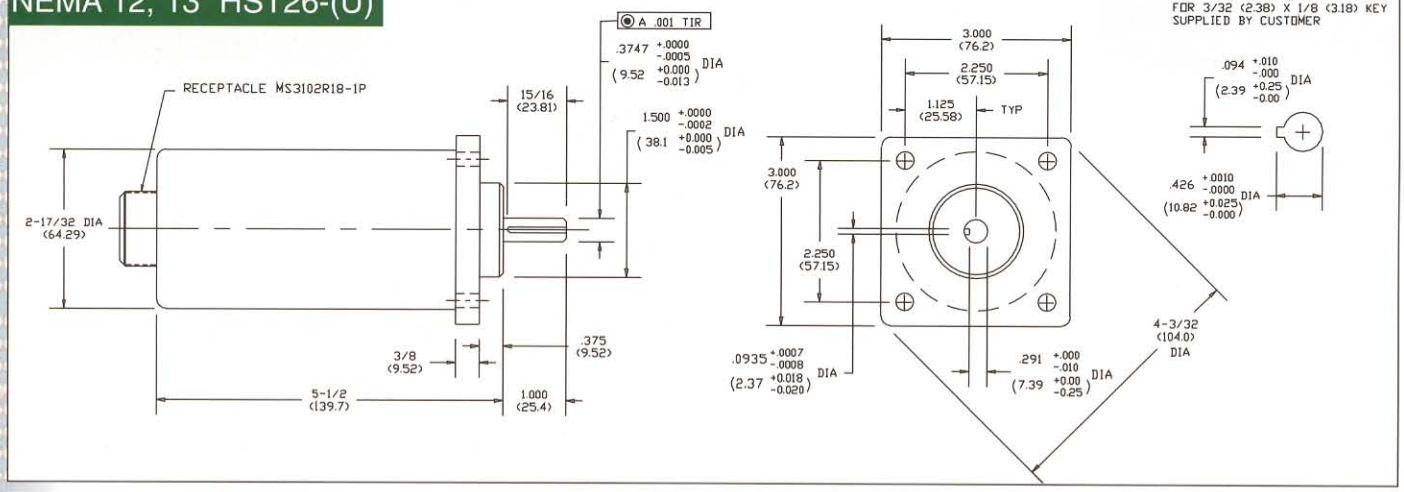
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Installation Drawings

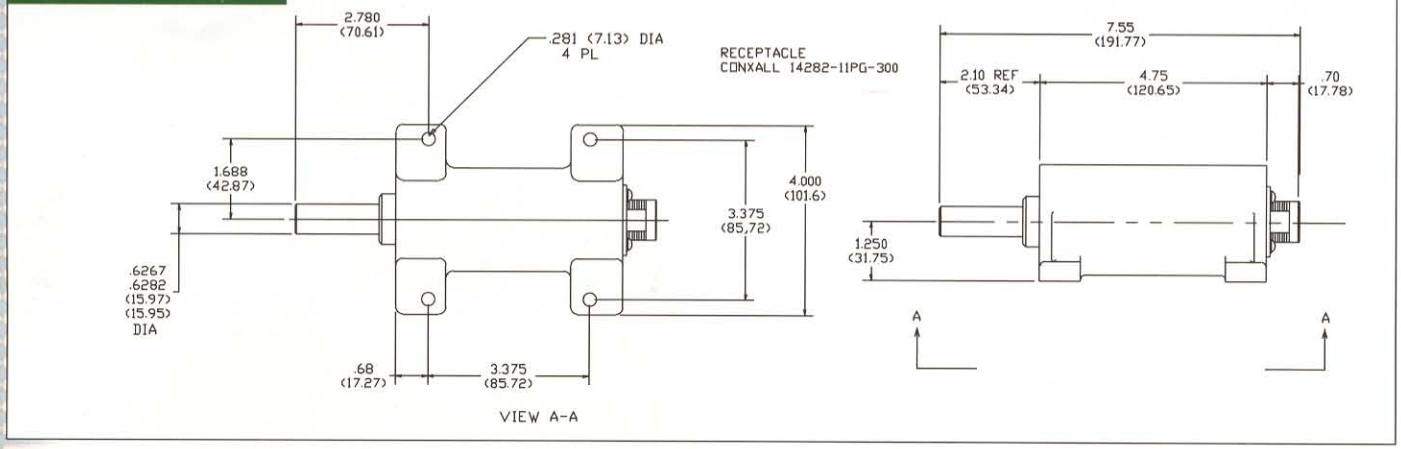
Single Turn Model
NEMA 1 ST11



Single Turn Model
NEMA 12, 13 HST26-(U)



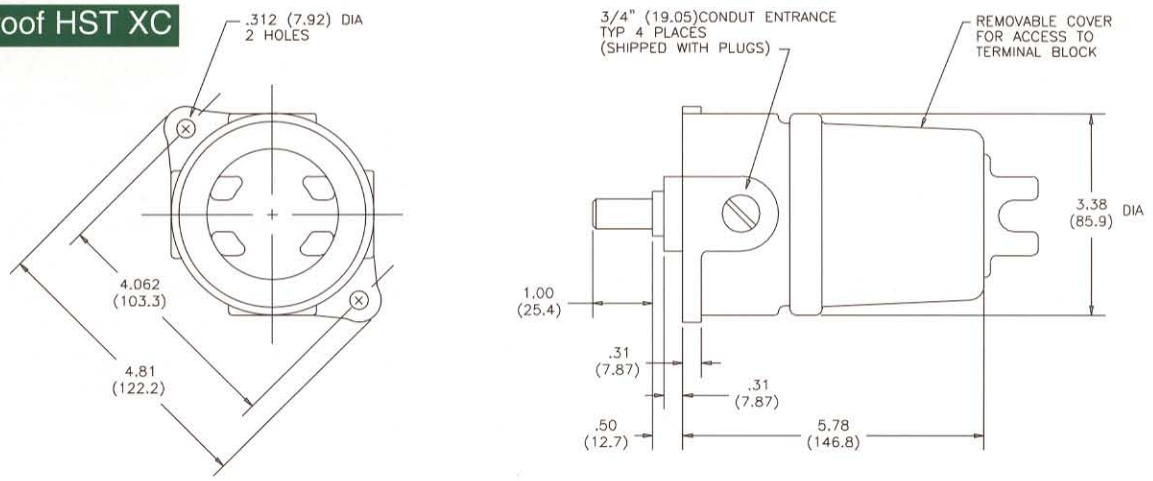
Single Turn Model
NEMA 4X HST21U



Installation Drawings

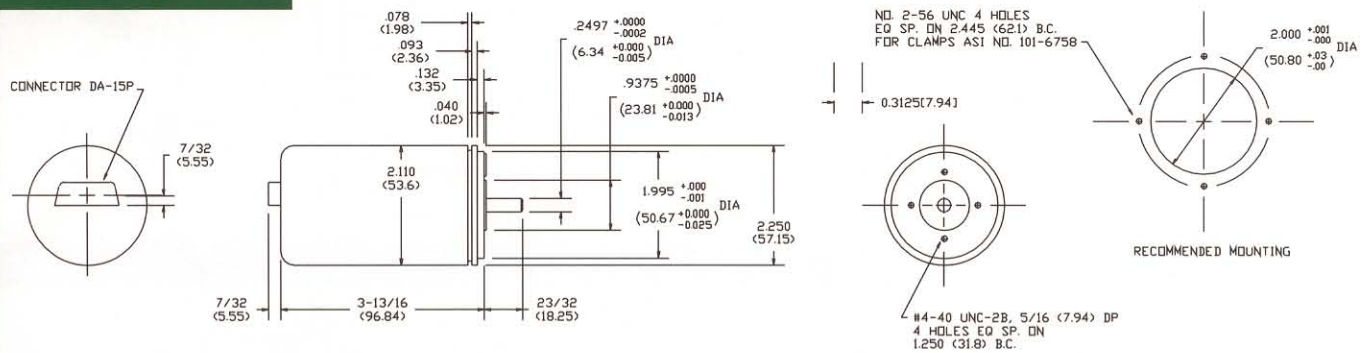
Single Turn Model

Explosion Proof HST XC



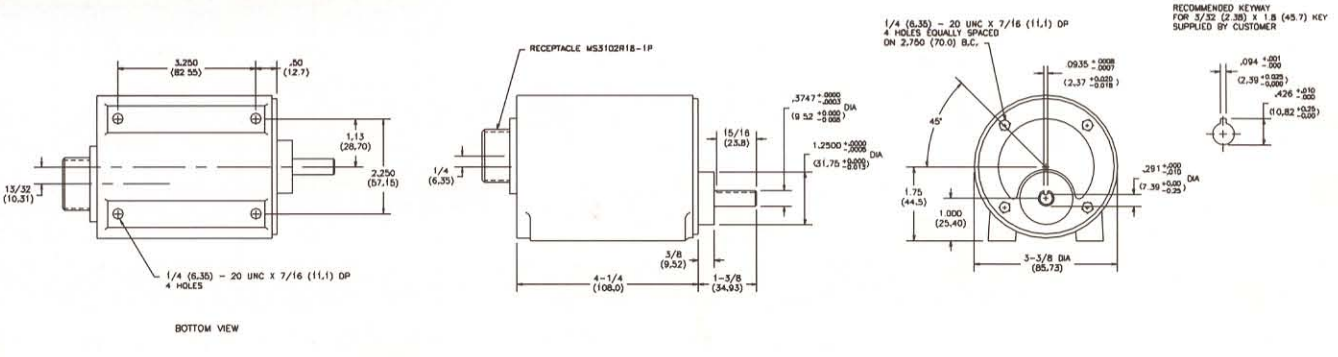
Multiturn Model

NEMA 1 MT23-1/*
ST 23-1/**



Multiturn Model

NEMA 12, 13 HMT34-1/*- (U)
HST 34-1/**- (U)



Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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