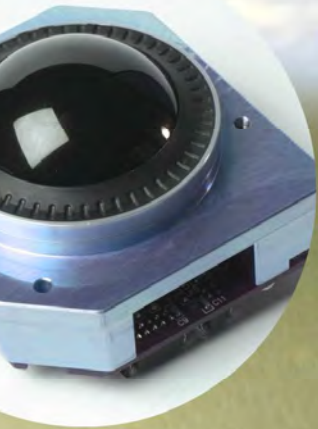


# AMETEK®

## TRAXSYS INPUT PRODUCTS





Introducing...

## Traxsys Input Products

Traxsys Input Products has established an enviable reputation in the design and manufacture of high quality Cursor Control Devices (CCDs) for the aerospace market.

Our products offer an intuitive, comfortable way of interacting with the latest Primary Flight Displays (PFDs) and avionics equipment, allowing pilots to seamlessly select active displays, use drop down menus, zoom, scroll and pan. All this and more can be achieved via an ergonomic, aerospace-approved device designed to reduce pilot workload.



As new aircraft are developed or existing are retro-fitted with 'glass cockpits', CCDs are replacing the traditional integrated switch panel and button pressing keyboards to ease interfacing.

With 25 years of expertise in computer interface products and experience within the aerospace sector, Traxsys Input Products is uniquely qualified to meet the challenges of the aviation industry. Our CCDs are currently in use on a variety of aircraft (fixed wing and rotorcraft) for both military and civilian applications.

Similar products are also available for simulation purposes, as well as for Air Traffic Control (ATC) applications where high quality and reliability are mandatory.

Other key markets include:

- ⊕ Medical
- ⊕ Industrial
- ⊕ Marine
- ⊕ Educational
- ⊕ Assistive Technology





# Aerospace Products

## Trackball Modules

Base trackball modules utilise optical technologies and are designed to meet the most arduous operational and environmental demands of the aerospace sector. Modules are available for direct incorporation into your avionics assembly.



## Force Sticks

Where special ergonomic considerations or limited space applies, Traxsys Input Products can provide force-operated joysticks (stiff sticks) configured to give infinitely variable output with effectively no moving parts. Signal conditioning and amplifier cards are available with a variety of output options.



## Track Ball Cursor Control Devices (CCDs)

A step up from the Trackball Module a typical CCD unit combines a number of features in a single device. CCDs are designed to be mounted directly in to your cockpit centre console. The CCD device provides the pilot with a highly intuitive device for directing and querying a variety of avionics functions.

## Touch Pad Cursor Control Devices (CCDs)

Where space and application demand, alternative input devices are available to provide an optimised, ergonomic solution.





## Traxsys Onboard

### Fixed Wing

✦ **Airbus**

A380  
A350  
A400M

✦ **Antonov**  
AN-148

✦ **Tupolev**  
TU-204

✦ **Dassault**  
900EX  
2000  
2000LX  
F7X

✦ **Cessna**  
Sovereign

### Rotary Wing

✦ **Agusta Westland**  
AW149  
AW101 Merlin  
AW159 Future Lynx

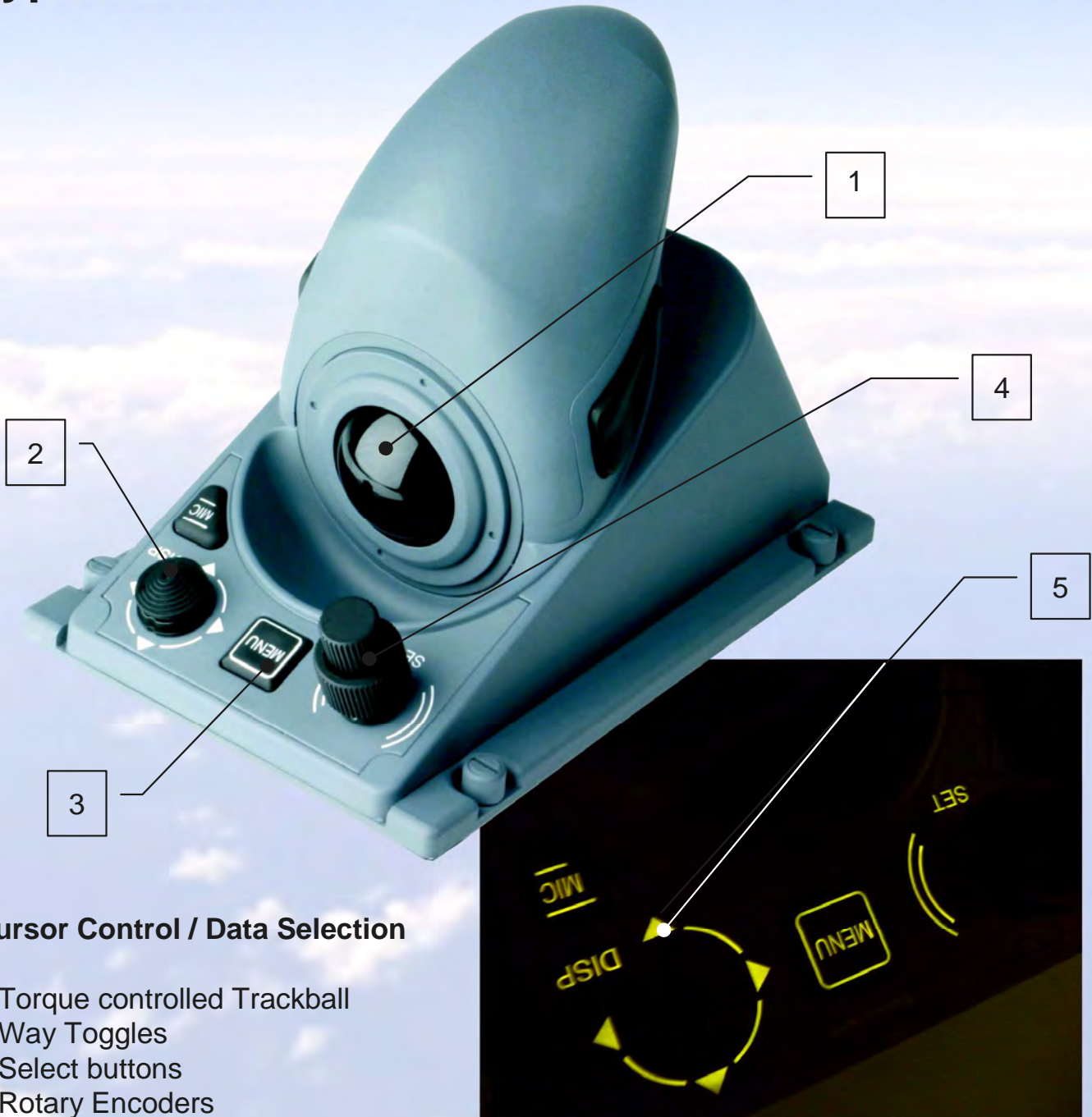
✦ **Sikorsky**  
CH-148  
S-76

✦ **Lockheed Martin**  
MH-60R  
MH-60S





# Typical Features



## Cursor Control / Data Selection

1. Torque controlled Trackball
2. Way Toggles
3. Select buttons
4. Rotary Encoders
5. Illuminated light plates

## System Protocols & Interface

- ⊕ Arinc 825 (Canbus)
- ⊕ Arinc 429
- ⊕ RS 422
- ⊕ RS 232
- ⊕ Quadrature
- ⊕ USB / PS2

## Additional Features / Options

- ⊕ Ergonomically designed housing
- ⊕ Left & Right hand-side position switching
- ⊕ Available in colors to match your cockpit
- ⊕ Dzus Plate installation.
- ⊕ Force Stick
- ⊕ Touch Pad

# Design & Development

As part of AMETEK, Traxsys Input Products is able to offer the service of experienced and dedicated design engineers to develop solutions suitable for your individual needs. Whatever your input requirements we are capable of providing robust solutions supported by more than twenty years experience.

## ⊕ **Team Core Competences:**

Systems Engineers  
Electronics Engineers  
EMC Engineers  
Mechanical Engineers  
Project Managers  
Manufacturing / Process Engineers  
Tooling Engineers  
Technicians

## ⊕ **Full Qualification on products:**

### **Environmental**

Humidity  
Salt Fog  
Rain  
Chemical Resistance  
Sand and Dust  
Temperature

### **Airworthiness**

Altitude  
Vibration  
Crash Safety  
Explosion Proofness  
EMC

## ⊕ **In-house facilities:**

3D CAD  
FEA - Static / Dynamic / Thermal / Modal  
Testing - IP / EMC / Vibration / Thermal

## ⊕ **Design and Development with extensive experience to the following standards:**

DO-160  
DO-254  
DO-170  
MIL-STD 461 (EMC)  
MIL-HDBK 454 (Gen requirements for electronic equipment)  
MIL-STD 810 (Environmental)  
MIL-STD 1472 (Human Engineering)  
DEF-STAN 59-41 (EMC)  
DEF-STAN 0035 (Environmental)  
DEF-STAN 00970 (Design & Airworthiness)

## ⊕ **Design Process Tools:**

Follow a stage gated NPI process  
Design for Manufacture / Assembly  
FMEA / FMECA  
MTBF Analysis  
Risk Analysis  
Tolerance Analysis  
Tool / Jig Design  
Custom Test Equipment Design  
Life Testing  
Design Verification Testing.  
Ergonomic Assessment

## ⊕ **Materials / Processes:**

Injection Molding  
Machined components  
Castings  
Composites  
Coatings



### Group Members

AMETEK Aerospace & Defense is a leading manufacturer of highly engineered and cost effective engine sensor suites, aircraft data management systems, cooling and ventilating systems, environmental control systems, and a variety of sub-assemblies to military and aerospace customers.

The following companies form the group. Contact details for each are available on the website.



Wichita, KS



Costa Mesa, CA



Wilmington, MA



Woodstock, NY



Garden City, NY



Penge & Andover, UK



Sunbury, UK



Penge & Andover, UK



Power & Data Systems

Binghampton, NY



Sensors & Fluid Management Systems

Wilmington, MA

**Total Air Probe**  
Wilmington, MA

**Aircontrol**  
Sunbury, UK

**Turbo Mass**  
Wilmington, MA

# Contact Us

If you would like to know more about our products please, contact our Sales department which will be pleased to assist you further.

AMETEK Airtechnology Group Ltd  
Traxsys Input Products  
33 Oakfield Road  
Penge  
London  
SE20 8EW  
United Kingdom

AMETEK Airtechnology Group Ltd  
Traxsys Input Products  
East Portway Industrial Estate  
Andover  
Hampshire  
SP10 3LU  
United Kingdom

Tel: +44 (0) 208 659 9090  
Fax: +44 (0) 208 659 9906  
Email: [traxsys.sales@ametek.co.uk](mailto:traxsys.sales@ametek.co.uk)



[www.traxsys.com](http://www.traxsys.com)



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ISO9001:2008 Design, Manufacture, Service and Repair  
Certificate number LRQ 0912120

AS9100 Rev C Design, Manufacture, Service and Repair  
Certificate number LRQ 0912120