

LEADERSHIP
DRIVEN BY
PARTNERSHIP

PRODUCT PROFILE

Industrial Automation & Solar Product Range

Drive & Motion

- · AC Drive · AC Servo System · Encoder · Resolver · CNC Controller · AC Gear Motor · Motion Controller
- · Step motor & Driver · Linear Motion Products

Process Automation

- · PLC · HMI · Temperature Controller · Communication Module · Timer-Counter-Tachometer · Industrial Panel PC
- · SCADA · Embedded box PC · Distributed I/O Modules & Controllers · Data Acquisition card

Sensors

- Inductive Proximity Sensor Photoelectric Sensor Fiber Sensor Mark Sensor Laser Sensor Area Sensor
- · Safety Light Curtain · Pressure / Flow Sensor · Measurement Sensor · Ultrasonic Sensor · Capacitive Sensor
- Level Measurement Pressure Measurement Conductivity Sensor Force & Strain Sensor

Application Specific

- · Injection Molding Machine Controller · Energy Saving System for Injection Molding Machine · CNC Controller
- · Laser Marking System · Vision Sensor · Machine Vision System · Barcode Reader · Digital Industrial Camera

Manufacturing Products

· Switching Power Supply · Control Panel · Communication Module · UPS · Geared Motor / Gear Box

Mechatronics

· Speed Reducer · Precision Gear Head For Robotics & other applications

Solar Products

· Solar Module · Solar Pump · Solar Inverter · Solar Power Projects



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HUST

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ADVANTECH

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INOVANCE

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Panasonic

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Mass Flow Meters & Controllers

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SWITCHING POWER SUPPLY

- · Fully Automated Production Line
- · Single Output: 5V, 12V, 24V, 48V, Dual & Multi Output Series Available
- · Panel & Din-rail mount Series available
- · Overload & Short circuit protection
- · 100% full load Burn-in test
- · High Efficiency
- · Low Ripple & Noise
- · High Quality & Reliability
- · All Models available Ex-stock



INTERFACING MODULE (RELAY CARD)

- · Relay Module with 8/4 miniature relays
- · With Base (Relay-Pluggable)
- · Coil Voltage 24VDC
- · Jumpers are provided for selection between positive looping/negative looping
- · Mounting DIN 35 carrier rail





INDUSTRIAL CONTROL PANEL

Types of Panel

- · Design & Build as per customer requirement
- · Automation control panel with system integration of PLC, HMI, VFD, AC Servo
- · Instrumentation panel
- · Starter Panels DOL/STAR-DELTA/ATS
- · Automation Panel for Pressure Boosting Application
- · Power distribution panel, PCC, MCC, APFC
- · Bus Duct Panel · Feeder Panel · Synchronizing Panel
- · Design with proper cooling arrangement
- · High quality switch gears & automation components
- · MS/SS/ABS plastic enclosure with different industrial IP ratings IP44, IP55, IP65

Key Strengths

- · Complete Industrial Solution
- · High Quality & Reliability
- Excellent workmanship
- · Aesthetic & Ergonomic Design
- · Innovative concepts
- · Skill Engineering
- · High Product Value
- · Customer Satisfaction



GEARED MOTOR / GEAR BOX

· Medium Gear Motor: 100W~7500W

· Micro Gear Motor: 6W~250W

· R-F-K-S Series Gear Motor: 0.12KW~11KW

· Spur & Planetary Gearbox for Servo

· Brake Available

· High Durability

· High Efficiency

· High Speed Ratio



PUMP STARTER PANEL

- · Single Phase Starter Panel
- · Direct On Line Starter
- · Direct On Line Starter Panel
- · Star Delta Starter Panel
- · Auto Switch
- · Auto Transformer Control Panel (ATS)



SOLAR MODULE

- 150MW Start-Of-Art Fully Automatic Manufacturing Facility
- · High Power Module using Mono/Poly-crystal silicon solar cell
- · Bypass diode to minimize power drop caused by shade
- Anti-Reflection coating and BSF (back surface field)
 Structure to improve cell conversion efficiency
- White Tempered Glass, EVA resin and weatherproof film along with AL frame for extended outdoor use
- · 100% testing of all modules

LIMITED WARRANTIES - 25 YEARS

- 10 Years product warranty
- 90% of the specified minimum output of the module for a 10 years period
- · 80% of the specified minimum output of the module for a 25 years period



High Performance Economical Drive

SOLAR PUMP DRIVE

- · In-built auto MPPT
- · V/F and SVC control
- · Compatible with all 3-phase motor pumps
- · Supports IM/PM/BLDC motors
- · Solar and grid power compatible
- · Dry run protection
- · Support optional LCD display
- · Support GPRS/ GSM modem
- MPPT efficiency up to 99%
- Overload capacity: 150% for 60 sec.

Internal EMC filter

Complies with EN61800-3 Category C3 3nd Environment

Enhanced reliability protection against humidity and pollution dust



SOLAR INVERTER - SOLAX

COMMERCIAL & INDUSTRIAL SOLUTION

- 16A DC input current per string, support high power solar panels
- Maximum efficiency: up to 99%
- · Low startup voltage, Ultrawide MPPT voltage range
- · IP66 protection
- · Integrated SPD protection on both AC&DC
- · Multiple monitoring methods, Pocket WiFi/LAN (Optional)/4G (Optional)



SOLAR PUMP

IN-HOUSE MANUFACTURING OF SOLAR PANEL, SOLAR CONTROLLER & SOLAR PUMP

AC Pumps Range: 0.5 hp to 20 hp
DC Pumps Range: 1 hp to 10 hp
DC Helical Rotor Pumpset Range: 1 hp

STC & MNRE Approved Solar Pump

· NABARD Registered Solar Pump



DRM RELAYS

2 CO & 4 CO Electromechanical Relays

- 1CO (DPDT) = 10A or 4CO (4PDT) = 5A
- · 2.500 VA switching capacity
- · Models with LED, diode and mechanical test avail.
- · Available as kits or individual parts
- · Models available with gold plated contacts
- · International approvals: CE, UL, TUV
- Other voltages avail. (48, 110, 220 V DC & 48, 115 V AC)



POWER SUPPLIES

SINGLE / THREE PHASE POWER SUPPLIES

- · Single- and three-phase switched-mode power supply units
- · Slim design
- · Large temperature range from -25 °C to 70 °C
- · Remote monitoring via integrated status relay
- · Three-coloured LED indicators for simple error detection
- · Advanced visual warning at 90 % rated output current
- · International approvals



PCB CONNECTOR

- · Mismatching protected
- · Compact double row design
- · Simple integration into front panel of device

TERMINAL BLOCK

- · New push in contact
- · Marshalling with up to 1700 signal connections





TOOL KITS

- · Less lifetime costs due to long-lasting tools
- · High process reliability



VARIABLE FREQUENCY AC DRIVE (VFD)

- Wide power range : 1 Phase / 230V : 0.25 HP to 3 HP 3 Phase / 415V : 0.5 HP to 860 HP
- · V/F, Sensorless vector control of IM / PM / SynRM motors, Torque Control Modes
- · Inbuilt PLC Function*
- · Auto Energy Saving Function
- · Built in EMI filter* & PID Feedback Control
- Supports various network protocols(EtherCAT, EtherNet/IP, DeviceNet, PROFINET, PROFIBUS DP, Modbus TCP, CANopen)
- · Wide range of models to fit different industries
- · Industry specific Drive for Elevator, Elevator Door, Textile
- · Crane, CNC Spindle, Solar water Pump, Fan & Pump Application





PLC

- \cdot PLC supports 256 DI/D0 / 512 DI/D0 /1024 DI/D0
- · Supports Modbus ASCII/RTU: RS232/RS485 & Modbus TCP/IP / Ethernet I/P: Ethernet
- · Support 200KHz HSC & 200KHz : PTO
- RTC, Floating instruction & PID auto tunning function
- Special Module of Analog, Temperature, Position, Communication port, BAC net, Load cell & Remote IO modules (Devicenet and Ethernet)
- · Pulse type motion controller (2/3 axes) & CANOpen/EtherCAT motion controller module

MODULRIZED MID RANGE PLC FOR PROCESS INDUSTRIES

- · Highly integrated software ISPSoft: 5 languages (IEC-61131-3)
- · Enhanced flexibility: Max. 100m between 2 local extension racks
- · Improved maintainability: Hot-swapping function keeps the system running
- · Utilizes dual-core multi-tasking processor Execution Speed:0.3ms/1k step
- Max DIO: 4,352 points, AIO: 544 & RIO: Max. 125, 440 DIO / 3,920 AIO
- · CPU built-in with fully isolated RS-232/422/485, Mini-USB, Ethernet, SD Card 1.0
- AIO modules, DIO modules, Temperature modules, Network modules, Pulse-train,
 DMCNET/EtherCAT motion control modules, Devicenet & Ethernet based RIO modules
- · CPU, Backplane, Powersupply, Communication Redundancy supported



НМІ

- Text Panel with 2/4/8 line with max.24 Function keys
- Touch screen available in 4.3", 5.7", 7", 10.1" 12" & 15" with TFT LED display
- · High resolution with 65536 color
- · 3-communication port (RS232/RS485/RS422) & Ethernet port
- · Non editable history file & PDF writer
- · Support USB Client for High speed download/upload
- · Support USB Host for USB flash drive, Printer, Mouse and Barcode reader
- · VNC viewer software (PC + Android application) for remote communication
- · E-Server software for Data logging application
- · Supports Operation Log Viewer/user level password setting
- · Ethernet Model supports FTP & Alarm Email Function (SSL sequrity)
- Supports Text Panel with Inbuilt PLC





AC SERVO SYSTEM

- · Rated Output: 10 W to 22.0 kW
- Rated Torque: 0.032 Nm to 140.0 Nm
- · 23-bit Absolute / Incremental Encoder
- · Position / Internal Position / Speed and Torque Control Modes
- · 3.2KHz Velocity Response Frequency
- · Maximum 6500 RPM
- · 8Mpps Exclusive Interface for Line driver Pulses
- · Fit gain tuning function
- Full Close control with linear scale or external encoder
- · Quadrant projection suppression function
- · With / Without Holding Brake
- · Built-in Electronic cam (E-CAM) function
- · Modbus, EtherCAT, R-TEX Communication



TEMPERATURE CONTROLLER

- · PID, ON/OFF, Manual & PID Program control modes (Ramp/Soak)
- · Universal Input · Relay / Voltage pulse / Linear Voltage & Current Output
- · Various Panel size LCD & 7 segment display option
- · Dual Loop Output Control (Heating/Cooling Control)
- · Auto tuning function · Blind Temp. Controller with dual O/P
- · Special module for Valve Control · Retransmission Output
- · Parameters down load via PC software
- RS-485 MODBUS communication Password Protection & Key lock function



COUNTER/TIMER/TACHOMETER

- · 3 IN 1 · Mixed Timer + Counter Function
- Decimal Point setup available 6 digit LCD display
- Max.speed of the counter : 10kbps DIP switch for quick setup change
- · "Reset" & "Lock" key available for convenient use
- \cdot 12V power supply for internal & external sensor
- \cdot NPN & PNP input signal available $\,\cdot\,$ Relay & Transistor based output
- · Pre-scale function displays input concrete function
- · Optional RS485 communication



COMMUNICATION MODULE

- Convert RS-232 signals to RS-485/RS-422 differential voltage lines
- DeviceNet to RS-485 Converter CANopen to RS-485 Converter
- Ethernet IP Gateway Converter MODBUS IP Gateway Converter
- · USB to RS-485 Converter · Support RS-485/RS-422 communication
- · Various installation ways · Handle & isolate signal well
- Maintain data transmission correctly
- · To decrease damage by using transmission wire
- · Power & Shortage protection
- · Compact size with easy to Install





BRUSHLESS MOTOR

- Power Range: GV 50W to 130W & KV 50W to 750W, GP 50W to 130W
- · Rated speed: 3000 RPM & Max 4000RPM
- · Standard and high torque gear head can be use
- · Full time sine-wave drive with original CS sensor
- Speed control (0-5V DC)
 Programable DI / DO
 4 Internal speeds available
 Constant torque at 0-3000 RPM
- Low vibration, Low noise
 Compact size
- · Highly precise speed control with no slip

SENSORS



- · Photoelectric Sensor
- · Micro Photoelectric Sensor
- · Digital Color Mark Sensor
- · Inductive Proximity Sensor
- · Digital Laser Sensor
- · Digital Fiber Sensor
- · Area Sensor

- Static Control Device (Static Remover/Ionizer)
- · Safety Light Curtain
- · Laser Scanner
- · Digital Pressure Sensor
- · Measurement Sensor







- · Inductive Proximity Sensor
- · Photoelectric Sensor
- · Ultrasonic Sensor
- · Capacitive Proximity Sensor
- · Laser Sensor
- · My-Com Switch

OPTICAL FORK SENSOR

- · Detection of opaque labels
- · Fork width of 3 mm for precise sensing
- Fork depth of 40 mm to accommodate wide range of labels
- 4 wire function for NPN/PNP + NO/NC outputs
- · User friendly and easy settings



ULTRASONIC FORK SENSOR

- · Detection of transparent labels
- · Fork width of 3 mm for precise sensing
- Fork depth of 69 mm to accommodate wide range of labels
- · 4 wire function for NPN/PNP + NO/NC outputs
- · User friendly and easy settings
- · Metal housing for sturdy operations

GO JE STORY

PROCESS SENSORS

PRESSURE TRANSMITTERS

- Suitable for Air/ Industrial Gases / Liquid (Water, Oil) & Hygienic Applications.
- Standard analog output 0 -10V or 2 wire 4 20mA
- Different process connections. 1/2 & 1/4 BSP, NPT, TC End
- · Wide pressure range. Vacuum, O Up to 1000 Bar, mili bar ranges
- · FDA, 3A & EHEDG approvals, Suitable for CIP & SIP

LEVEL SENSORS

- \cdot Suitable for level detection of $\,$ Liquid / Powder / Sticky Material etc...
- · Alternate solution of fork type level sensor
- · Small Immersion length, Point level detection and contact type

CONDUCTIVITY TRANSMITTER

- · Suitable for Dairy & F&B Applications
- · Available in compact and cable version (Split Version)
- · Built in graphical display with touch screen, All hygienic design
- · Suitable for CIP, 3A & EHEDG approvals



5330





FLOW SENSORS

- $\boldsymbol{\cdot}$ Measures flow velocity of liquid materials only
- · Wide measuring range from 10 to 400 Cm / Sec
- · Measures flow and temperature at same time
- · Suitable for CIP & SIP
- Flexible outputs (2 Switching O/P, one switching O/P & one Analog output, 2 Analog outputs)

TEMPERATURE SENSOR & TRANSMITTERS

- · PT100 2 wire sensor with built in transmitter
- \cdot Head mounted type temperature transmitter















VISION SYSTEM

- · Advanced vision system with high end performance
- · 0.3M, 2M, 4M gray / color camera options
- · Dedicated stand-alone controller with upto 4 camera connection
- · All major inspection functions / checkers available with pre-processing analysis
- Reading and verification of 1D, 2D, Pharmacode etc...
- · Advance OCR/OCV tool for reading and verification of text
- · Connects to a variety of PLCs
- · Ultra high-speed data transfer by gigabit Ethernet

BARCODE READERS

- · Variety of Options available for Fixed-Mount, Handheld and Mobile Solution
- · Can Read any Symboligies of 1-D Codes, 2-D Codes, Postal Codes, DPM
- Patented Technology for Optimal Performance and Tractability
- Advance Functions like 1D Max, Hotbars, 2D Max, PowerGrid, HDR, HDR+, 1-D/2-D Auto-Discrimination, Multi-code
- · Modular Design for Maximum Flexibility, Liquid lens & Easy Setup Tools & Operation

BARCODE VERIFIERS

- · High-performance code quality verifier
- · Generate reports to demonstrate compliance within industry standardization guidelines
- Packed with powerful lighting options, robust grading algorithms, a high-speed processing engine, and a high-resolution camera
- Only DPM verifier on the market with 30, 45, and 90 degree lighting options
- · Fast, accurate algorithms provide reliable and repeatable results

VISION SENSOR

- · Proven, reliable Cognex In-Sight vision tools
- · Compact, modular design with field changeable, integrated optics and lighting
- Autofocus lens eliminates the need to manually refocus or adjust the mounting height of the sensor during line changeovers
- · Single-cable Power over Ethernet (PoE) models simplify installation
- · Monochrome and color image models with Flexible Mounting Configurations

2D & 3D VISION SYSTEM

- · Provide reliable, repeatable performance for the most challenging applications
- · Industrial grade with a library of advanced vision tools
- · High speed image acquisition and processing
- · Exceptional application and integration flexibility
- Industry-leading Vision Technology includes Deep Learning, PatMax RedLine™, PatMax® 3D, HDR+, SurfaceFX™
- · Vision System with upto 12M monochrome and color options

MASS FLOW METERS & CONTROLLERS

- · Pressure Controllers
- Liquid Flow meters and Controllers
- · CORIOLIS Based flow meters and controllers
- \cdot Fast, Accurate and Configurable
- · Laminar Flow -DP based measurement technology
- · Analog & Digital Communication in same instrument
- \cdot Fastest response time 10mS for meters and 100 ms for controllers
- · No warm up time · Built-in 98 gases
- · Widest operating range / Turn down ratio 10000:1

DIGITAL INDUSTRIAL CAMERA

- Excellent image quality and high frame rates, a camera design which enables rapid and flexible integration
- Wide variety of cameras in color and monochrome versions as well as resolution ranging from VGA to 25 megapixel
- The cameras are based on innovative technologies such as CCD & CMOS and include all relevant standard interfaces (GigE Vision®, USB3 Vision™ and Camera Link®)















CNC CONTROLLER

LNC

- •1~9 Axes Controller Dual Channel Option available
- Type 2+1 Turning or 3+1 Milling Controller Display 7" Or 8" Colour
- · EtherCAT Digital or Pulse type System · Ethernet, RS485 Port
- · Inbuilt I/O (16I X 160) x 2, Expansion I/O Possible
- · Absolute Encoder Connectivity · 256MB SD or 1GB CF Card, USB Port
- · Macro Command, Background Editing · Gantry function for Axis pair
- · Linear or Rotary Axis Selection · WebAccess / Industry 4.0 / Cloud Monitoring

HUST

- ·1~ 9 Axes Controller · Pulse and Analog Command
- 5.7", 8.0" & 10.4" Display Graphical simulation & MPG Function
- · 48/32 I/O Inbuilt and 192/128 Expansion I/O
- · Program memory up to 512 KB (USB 2GB optional)
- · RS232 Communication, Gantry Function
- · User can design PLC & Screen program
- · User can design program by CAD / CAM
- · Macro Command, NPN Input type

PLASMA CONTROLLER

- · Dedicated for plasma & gas cutting
- \cdot 2~3 Axes Controller \cdot 7" / 10.4" / 15" Colour Display
- · Plasma, Gas cutting & Dusting Draw machine
- · 48 categories different graphics ready to use
- · Support FastCAM, FreeNEST & SmartNEST IBE Software
- 64 MB CF card, USB supported Torch height control interface possible
- Easy to download new graphics Supported XY Mirror, Angle adjustment
- · Zoom In / Zoom out, Lead In & Lead Out
- · Brake point recovery, Backward & forward Function

ENGRAVING CONTROLLER

- Dedicated Controller for Woodworking & Stone Carving
- User Friendly Remote Unit 3+1 & 5+1 Axes Control
- · Precision High Speed machining · 5.6 Inch Color Display
- · 0~10V Spindle Command · Arc Machining Smooth and Fast
- · Backlash Compensation
- USB Supported, Inbuilt SD Card, EMG-Stop Switch on remote
- · Manual pulse Generator with 1, 10, 100 Micron selection
- · Break Point Resume, Own Screen Design
- \cdot I/O can be modified, User Define Alarm
- · ATC Configuration is possible · Touch Probe, 10 Work Offset
- · All Type Tool path program supported

INJECTION MOLDING MACHINE CONTROLLER

- Dual CPU : ARM or X86 industrial CPU is used in Human-Machine Interface unit and microprocessor with RISC is used in the system unit
- \cdot The product is equipped with USB interface, so that molding parameters can be backed up and the updated program can be download
- An Ethernet cable is connected between the HMI unit and the system control unit. Its speed is 10 times faster than the traditional RS232
- Human-machine operating system uses Linux-OS, which not only improves the stability but also supports many kinds of peripheral devices
- HMI with 7.4", 8.4", 10.1" TFT LCD panel, full color screen display, vivid colors, and sharp images. The status animation can be displayed

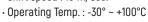
ENERGY SAVING SYSTEM FOR IMM

- · Significant result of Energy Saving (Up to 87%)
- · Reliable IMM Control Experience
- · High Quality Servo Motor Drive Technology
- · Most Energy Saved with Servo Motor
- · Safety and Protection is the top priority
- · Precise pressure control
- · Computer control units Integration



POSITION TRANSDUCER

- LTM Series, ROD type Linear Scale, Stroke Length : 50 ~ 900mm
- PKM Series, Slider type, Linear Scale, Stroke Length: 100 ~ 2000mm
- Repeatability : < 0.01mm
- Shift speed: 10 m/sec.





PT - PRESSURE TRANSDUCER

- 0 250 Bar & 0 ~ 1000 Bar
- · 0-10VDC, 0.1~10.1VDC, 4~20mA analog output
- · Process Temp. : -40° ~ +125°C



HYDRAULIC PUMP

- · Helical & Internal Gear Pump With Axial & Radial Gap Compensation
- · Range: 25cc ~ 160cc
- · Suction & Pressure Port Radial · Low Noise
- · Low Pulsation (Pressure Pulsation ~ 2%)
- Fast Reverse RPM Allowed: Max < 400
- · Intermittent Operation At High Pressure & Low Speed



Application

- · Packaging Machines
- · Machine Tools & Metal Forming
- · Plasma CNC Cutting Machine
- · Medicine MFG, Pharma Machines

SPEED REDUCER

- Rated Output : 6Nm to 3000Nm
- · Ratio: 3:1 to 100:1
- Very precise performance
- · Wide range of Applications in industries
- · Inline Right angle models available
- · Easy to mount & assemble
- · Life time lubrication free product
- · Maintenance free product
- · Freedom for 360 °mounting
- · Smooth rotation even at very low speed.
- · Low operating noise



Application

 Robotics, Medical Equipment, Semiconductor & Circuit Mfg. Machine Tools or Any Assembly Automation

FLEXWAVE

Latest Technology development - Strain Wave Gear Technology - consist of Flexible drum and Elastic Bearing

- · Near Zero backlash (lost motion < 1 arc min)
- High efficiency ratings
- · High reduction ratios in a compact footprint
- \cdot Exceptional repeatability and torsional stiffness
- \cdot Extremely light weight with superior torque density





· General Automation & Testing

· Printing Machines & Conveyors

· Semiconductor & Circuit MFG

Application

 Robotics, Indexing Table, Machine Tools, Pipe Bending, Wire Forming, Welding Positioner, Automobile Automations, Solar Tracker, Medical Equipment,

CORONEX

Technology Development - Epitrochoidal or Cycloidal

- · Original tooth profile by Nidec-Shimpo
- · High accuracy with zero backlash (<1 arc min)
- · Compact Size
- · High Rigidity & Torque
- · Low Noise
- · High Efficiency
- · Hollow Input



AGV (Automatic Guided Vehicle) S-CART

- · Perfect for Material movement Towing, Lifting & Conveying
- · Payload capacity 100, 500, 1000 Kg
- · 8 Hour continuous operation (1 Hour charging time)
- · Normal Speed 30 m/min, Max Speed up to 60 m/min
- · Autonomous and guide less Navigation without the need for magnetic tape tracks
- Obstacle detecting sensor, Emergency stop, LED status, JIS (Japanese Industrial standard) approved
- · Controlled remotely from a Tablet or PC
- Perfect for Food Industries, Pharma industries, Automotive, Logistics, E-Commerce, Warehouses and Mass Manufacturing set-ups



PRECISION WORM GEARBOXES

- · Preloaded input taper bearings
- Maintenance free
- · Oversized taper roller bearings
- · Single piece housing
- · Output torsional backlash available in 3 ranges
- · Optimized contact pattern
- · Special bronze alloy
- · Gearheads can run up to 6000 RPM
- · Servomotor mounted within 5 minutes



COMPONENT TYPE

RV Series

- RV Original (No main bearing)
- · RV C (Hollow shaft) · RV E

Application

 \cdot Industrial Robots, Welding Positioner, Turn Table & Indexers, Automated Gantry, Machine Tool, Pipe Bending Machine

· RV N



GEARHEAD TYPE

RD Series

- RDS-E/RDS-C (Hollow shaft) Right angle input type
- RDR-E/RDR-C (Hollow shaft)
 Pulley input type
- · RDP-E/RDP-C (Hollow shaft)

RS Series

- · RS 900A
- GH Series

 Flange Output
- · RS-320A
- · Shaft Output

Application

 Industrial Robots, Welding Positioner, Turn Table & Indexers, Automated Gantry, Machine Tool, Pipe Bending Machine



SERVO ACTUATOR - RV AF

Integrated Nabtesco precision gear & Servo Motors from Panasonic Corporation

- · Simple, Compact, Worry-free Actuator
- · Unified drive ensures safety, Comfort & a sense of security

Application

 Industrial Robots, Welding Positioner, Turn Table & Indexers, Automated Gantry, Machine Tool, Pipe Bending Machine



LM GUIDE

Linear guideways provides linear motion by re-circulating rolling elements between a profiled rail and a bearing block. Hiwin Corporation offers multiple linear guideway series, each featuring different options for sizes, loading capabilities, accuracies and more.

PRODUCT RANGE

- · HG Machine Tools
- EG Automation Industry
- WE Single Axes Equipment
- · RG High Rigidity Application
- · MGN Medical & Semiconductor
- QE Highspeed Requirement
- · CG Cover Strip for Dustproof



BALL SCREW

- Ballscrews convert rotary motion into linear motion and are most commonly used in industrial machinery & precision machines
- Hiwin Corporation has the capability of producing JIS CO class ground ballscrews, & DIN 5 class for precision rolled ballscrews. Ballscrew O.D. ranging from 4mm to 120mm & with Dm-N values up to 220,000

PRECISION GROUND / ROLLED

- Super S seriesSuper T series
- · Rotating Nut (R1)
- · Heavy Load Series (RD)
- · Mini Roller



LINEAR MOTOR

- · Max. acceleration 100 m/s2
- · Max. speed 5 m/s
- · Length up to 4,000 mm
- · Equipped with coreless linear motors
- · Slight inertia and fast acceleration
- · No cogging
- · Simple assembly
- · Especially rigid aluminum frame with low profile



INDUSTRIAL ROBOT - SINGLE-AXIS ROBOT

- · Complete selection of single-axis robots and accessories
- Drive type : Ballscrew, Tooth belt
- AC motor output : 30W~750W servo motor or stepper motor
- Motor connection type (depends on available space):
 Direct, Bottom, Internal, Left, Right
- · Max stroke : 100mm
- · Easy installation
- · Customized designs available
- · Easy transformation multi-axis robot



TORQUE MOTOR & DIRECT DRIVE MOTOR

- · No backlash
- · Hollow shaft
- · No gear transmission losses
- · Max Torque : 450Nm
- · Repeatability: ±3 arc/sec.
- · Max. Speed: 700RPM
- · Resolution : 4320000 p/rev





TORQUE MOTOR ROTARY TABLE

- · Zero backlash provide stable accuracy
- · Compact structure design
- · Using axial/radial bearing
- · Provide high dynamic accuracy
- · High rotation speed



LINEAR ACTUATOR

- · Offering an electricity elevating platform
- · Simple installation
- · Light Weight & compact structure
- · High rigidity



MOTION CONTROLLER

- · 1.5 Axis to 128 Axis controller
- Multi-tasking programming using Trio basic software
- · Supports IEC 61131-3 programming
- · Supports Analog Servo close-loop and Pulse O/P control
- $\boldsymbol{\cdot}$ Support digital drives on RTEX, EtherCAT, SERCOS, SLM
- Anybus CC device supports: Devicenet, CANopen, CCLink, Profibus, Profinet IO, Modbus-RTU & TCP
- · Digital & Analog I/O Expansion module available
- · Built-in Ethernet, CAN, RS232 & RS485 port
- · SD card for memory data transfer



SCADA

- · Client view support for mobile & PC
- · Open real-time data connectivity : OPC, Modbus, BACnet, DDE Server
- Open offline data connectivity: SQL Server, Oracle, MySQL, MS Access Database
- · Redundant SCADA & Communication Ports
- Google Maps and GPS Location Tracking Support Customize Report
- · Remote access to alarms, Data and E-mail alarms, SMS alarm notification
- · Support LonWorks LNS and BACnet IP
- · Ample Driver Support Web Access support hundreds of devices
- · Multi-touch gesture support
- · Web-enabled video and audio integration
- · Special Tools for Schenduler and EMS System



INDUSTRIAL PANEL PC

- Embedded Industrial Touch Panel PC (TPC), Automation Panel PC(PPC), Rack mount chassis PC which can be used for widerange of industrial application
- · Slim and compact 6 cm depth fanless design, Easy for space limited installation
- · Varieties of Sizes available: 5.7",6.5",10",12",15",17",18.5" & 21.5"
- · Varieties of Motherboard : SBC, Mini-ITX / Mirco ATX, ATX
- Varieties of Intel processors: Intel Atom, Dual core, Core2 Duo, Core2 Quad, Intel core i3, i5, i7, Celeron mobile
- · Variety of OS support including: WES7, WinXP/XPe, WinCE and Linux
- · Extremely rugged design with die-casting bezel & Aluminium housing
- Wide temperature range -20deg ~ 60deg for harsh environment
- · Front panel: NEMA4, IP65 certified & 2KV Isolation protection



INDUSTRIAL EMBEDDED BOX PCS

- Varieties of Intel processors: Intel Atom, Dual core, Core2 Duo, Core2 Quad, Intel core 13, 15, 17, Celeron mobile
- 4 x GbE support IEEE 1588, 2 x USB 3.0 super-speed ports
- 4 x DI, 4 x DO, 1 x RS-232, 2 x RS-422/ 485
- DP + VGA dual display outputs
- Dual Power Inputs and Wide Temperature
- · iDoor technology support with PCI Slot
- \cdot Extremely rugged design with die-casting bezel & Aluminium housing
- 2KV Isolation protection prevents damage from accidental shock, Surge or ground loops
- · Front panel: NEMA4, IP65 certified
- IEC 61850-3 and IEEE 1613 Certified Substation computers
- · Class I, Division 2 Certification for Oil & Gas



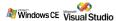
DISTRIBUTED I/O MODULES & CONTROLLERS

- · Support RS485, Ethernet, Wireless connectivity
- 1/2/6/8/16 channel Analog I/O modules
- · 2/4/8/12/15/16 channel Digital I/O modules
- · Temperature/Humidity Input modules
- · Isolated Repeaters & convertors range (Rs232 to Rs485, USB toRS232/RS485/RS422, Fiberoptic to RS232/RS485/Rs422)
- Multiple protocol support: Modbus TCP, TCP/IP, UDP, HTTP, DHCP, Ethernet/IP, Profinet
- · Intelligent control ability by Peer-to-Peer and GCL function
- · Web language support: XML, HTML 5, Java Script
- · Support Wide communication distance range upto 15Km
- · Wide Temperature & Power Input Range
- · Over Current and Temperature Shutdown
- · Surge, EFT and ESD Protection















DATA ACQUISITION AND CONTROL CARDS

PCI/PCIE SERIES DAQ MODULES:

- · Support PCI/PCIe/USB based DAQ card
- · Max.96ch isolated DI/DO modules
- · Max.250Ks/s high speed AI/AO modules
- · 8-port PCI/PCIe Serial Communication Card(RS232/RS485/RS422) with Surge Protection
- · Support PCI/PCIe based Motion card for machine automation

USB DAQ MODULES:

- · Portable, Robust & Versatile
- · Max. 200 kS/s, 16-bit, 16-ch Multifunction USB Module
- · Max.48/24 TTL digital I/O modules
- · Support DIN-rail/Wall/Panel/Vesa mount



INDUSTRIAL COMMUNICATION

WLAN DEVICE SERVERS

- -1/2-port RS232/422/485 to 802.11b/g/n WLAN Serial Device Servers modules
- ⋅1/2-port RS-232/422/485 to GPRS IP Gateways modules
- · Dual SIM slots for connection redundancy

SERIAL DEVICE SERVER/MODBUS GATEWAY

- · 1-port/2-port/4-port RS-232/422/485 Serial Device Server
- · 2 x 10/100 Mbps Ethernet ports for LAN redundancy

INDUSTRIAL ETHERNET SWITCHES

- · Max.16 High speed port Ethernet managed/unmanged switches
- Redundant Dual 12 ~ 48 VDC power input and 1 relay output
- · Class-1 Div-2 certified & IPv6 support



ROTARY ENCODERS

- · Compact & Rugged Design
- **Resolution**: 100 ~ 480000 PPR
- Operating Voltage : 5V, 4.75~30V, 8~30V DC
- · Available in **Shaft diameter** : 6mm, 8mm, 10mm

Hollow Shaft diameter: 8mm, 10mm, 12mm, 14mm, 15mm, 20mm, 25mm, 30mm....115mm

- Output Type: Open Collector, Push-pull, Line Driver, Programmable Encoder, Communication Encoder, Sin-Cosin Encoder
- · Available with different communications CANopen, PROFIBUS, Device Net, SSI, Parallel Interface, EtherCAT
- · Linear Encoder, Magnetic Encoder, Heavy duty Encoder, Cable-Pull Encoders Beringless Encoders with 16~740mm Hollow Shaft diameter



RESOLVERS

- · Absolute Position & Velocity detection
- · Angle Sensor that Converts Rotational Angles Into Electric Signals
- · Input Voltage 4V, 5V, 7V, 10V AC rms
- · Allowable rotating speed up to 40,000RPM
- · Robustness against noise enables long-distance transmission
- · Constant output against Moisture, Vibration, Dust, Temperature, Humidity



STEPPER MOTOR

2 PHASE & 5 PHASE

- · Small driver and motor, yet high torque
- · Fast response provides shorter system cycle time for repetitive operations
- Smooth drive is provided even with coarse resolution of one division (full-step) or two (half-step) settings
- · Microstepping system
- Driving step angle is 1.8 degree/pulse. The dip switch enables changeover between full-step (1.8 deg) and half-step(0.9 deg) operation LED indication when a heatsink excessivel heats up



RTA STEPPER DRIVER

• Range of Operating Voltage : 24~85V DC & 110~230V AC

· Range of Current: 0.6~12.0 Amps

- Microstepping Range : 400, 800, 1600, 3200, 6400, 12800 steps/revolution
- · Support CANopen, EtherCAT communication
- · High Efficiency CHOPPER with MOSFET final stage output
- · Electronic damping facility for further acoustic noise & mechanical vibrations reduction

TYPES OF STEPPING DRIVES

STEP & DIRECTION



ADVANCED 🗗



ANALOG INPUT



PROGRAMMABLE









SCHNEIDER MAKE SWITCHGEAR PRODUCTS

- ACB
- · MCCB
- ·SDFU
- · MCB
- · RCCB
- MPCB
- · Power Contactor
- · Control Contactor

- · Thermal Overload Relay
- \cdot Capacitor Duty Contactor
- $\cdot \ \mathsf{Power} \ \mathsf{Factor} \ \mathsf{Capacitor}$
- · Push Button
- Selector Switches
- $\cdot \ \text{Indicating Led Lamp} \\$
- Digital Panel Meter







DC COOLING FAN

Wide Temperature Range DC Cooling Fan

- · -40°C to 85°C
- · 40,000 hrs
- · 40 mm to 120 mm Fan size
- · 12 Vdc or 24Vdc supply



ETHERNET SWITCH

- Unmanaged switches, managed switches, PoE switches, Rackmount switches and EN 50155 standard switch
- · Up to 52 Port Option available
- · Up to 10 G speed
- · In-build fiber / SFP/ M12 / PoE / DSL / PTP connection option
- · Suitable for Hazardous Location
- · Industrial-grade reliability, Network redundancy, Strengthened security, Easy management
- · Competitive price-to-performance ratios
- · ATEX, Class I Division 2, ABS, DNV-GL, LR, NK, NEMA, EN 50121-4, EN50155 Certified Product



SERIAL DEVICE SERVER

- General / Wireless and Secure terminal Server Option
- Up to 16 Serial Port Option with RS232/RS485/RS422 connectivity
- · Inbuilt Remote I/O Option
- · Ethernet redundancy with Turbo Ring/Chain and RSTP/STP supported
- · IEC 61850-3, IEEE 1613 (power substations) compliant
- IEEE 1588V2 and IRIG-B time synchronization functions
- · Supports IEC 61850 MMS protocol
- · Security features based on IEC 62443/NERC CIP
- · -40 to 85°C wide operating temperature



SERIAL CONVERTERS

- · Serial to Serial , Serial To fiber, Fieldbus To Fiber Option
- · Decreases signal interference
- · Protects against electrical interference and chemical corrosion
- · Supports baudrates up to 921.6 kbps
- · Wide-temperature models available for -40 to 75°C environments
- \cdot CAN and Profibus protocol Supported



USB TO SERIAL CONVERTER

- Up to 16 Serial to USB option / Up to USB HUB Option
- · Hi-Speed USB 2.0 for up to 480 Mbps USB data transmission rates
- 921.6 kbps maximum baudrate for fast data transmission
- · Real COM and TTY drivers for Windows, Linux, and macOS
- · Mini-DB9-female-to-terminal-block adapter for easy wiring
- · LEDs for indicating USB and TxD/RxD activity
- · 2 kV isolation protection (for "-I" models)



PROTOCOL GATEWAY

- · DNP3/IEC 101/IEC 104/Modbus-to-IEC 61850 gateways
- · Modbus RTU/ASCII/TCP-to-PROFINET / Ethernet IP / Bacnet IP gateways
- · Modbus/PROFINET/EtherNet/IP to PROFIBUS slave gateways
- \cdot 8 and 16-port redundant Modbus gateways
- PROFIBUS to PROFINET gateway
- · Easy and web configuration utility



MUTIPORT SERIAL BOARD

- · PCIe/UPCI/PCI Serial Cards
- \cdot Up to 16 Port Option on single board
- · CAN communication option
- · Onboard Isolation Option
- · Software Selection for RS-232/422/485
- · Low-profile form factor fits small-sized PCs
- · Easy maintenance with built-in LEDs and management software







- · Multiple DI/DO/AI/AO option
- · Serial / LAN and wireless Option
- · Relay / Thermocouple and RTD option
- · Control Logic through C/C++/IEC-61131-3
- · Communication through Modbus Serial / Modbus TCP/IP / Ethenrnet IP / Restful API / SNMP
- · Stand Alone and Moduler Option
- · Rugged and compact design



ETHERNET MEDIA CONVERTERS

- 10/100/1000BaseT(X) and 1000BaseSFP slot supported
- · Link Fault Pass-Through (LFPT)
- · Power failure, port break alarm by relay output
- · Redundant power inputs
- · -40 to 75°C operating temperature range (-T models)
- · Power failure alarm by relay output
- IEEE 802.3af and PoE standard compliance Option
- · Hazardous locations (Class 1 Div. 2/Zone 2, IECEx) and EN61850-3 certified product



WIRELESS AP/BRIDGE/CLIENT

- · IEEE 802.11a/b/g/n compliant client
- · Comprehensive interfaces with one serial port and two Ethernet LAN ports
- · Millisecond-level Client-based Turbo Roaming
- · Easy setup and deployment with AeroMag
- · Easy network setup with Network Address Translation (NAT)
- · Integrated robust antenna and power isolation
- · Anti-vibration design
- · Compact size for your industrial applications



CELLULAR GATEWAYS/ROUTERS

- · GuaranLink for reliable cellular connectivity
- · Dual cellular operator backup with dual-SIM
- · Cellular WAN and Ethernet WAN backup mechanism for a complete path redundancy
- · Rugged hardware design well suited for hazardous locations (ATEX Zone 2/IECEx)
- · VPN secure connection capability with IPsec, GRE, and OpenVPN protocols
- · Primary and secondary power inputs for power source redundancy
- · Cellular link redundancy with dual-SIM GuaranLink support
- · DIN-rail housing and wall-mountable housing
- · Centralized private IP management software with OnCell Central Manager



SECURE ROUTER

- · All-in-one firewall/NAT/VPN/router/switch
- · Secure remote access tunnel with VPN
- · State full firewall protects critical assets
- · Inspect industrial protocols with Packet Guard technology
- · Easy network setup with Network Address Translation (NAT)
- · RSTP/Turbo Ring redundant protocol enhances network redundancy
- · -40 to 75°C operating temperature range (-T model)
- · Security features based on IEC 62443/NERC CIP and EN50155 Product
- · Check firewall settings with intelligent Setting Check feature



IOT GATEWAY

- · Armv7 Cortex-A8 300/600/1000 MHz processor
- Dual auto-sensing 10/100 Mbps Ethernet ports
- · Inbuilt DI/DO option
- · Rich programmable LEDs & a programmable button for easy installation & maintenance
- · Moxa Industrial Linux with 10-year superior long-term support
- · Mini PCle socket for Wi-Fi/cellular module
- · SD slot for storage expansion
- · -40 to 85°C wide temperature range and -40 to 70°C with LTE enabled
- IEC 61000-6-2/6-4 standards for harsh industrial environments
- · Suitable for IoT application
- · Microsoft Azure, AWS certified device

APPLICATION ENGINEERING / MARKETS

Our solutions can boost efficiency in a range of applications across industrial and commercial environment including plastic, textile, packaging, ceramics, pharma, manufacturing, automobile, machine tools, oil & gas, food & beverages, IOT, commercial establishments and others. We have capability to cater to startups, medium to small enterprises as well as large enterprises.

TEXTILE



AC Drive - Encoder - PLC - Resolvers - SCADA - Industrial Panel PC

OIL & GAS



SCADA - Industrial Panel PC

CERAMICS



SCADA - Industrial Panel PC - AC Drive - PLC

ELEVATOR



AC Drive - Encoder

INJECTION MOLDING



Energy Saving Servo - Hydraulic Pump - Dedicated Controller - Linear Scale

MACHINE TOOL



CNC Controller - Encoder - Resolvers - SCADA - Industrial Panel PC

PHARMACEUTICAL



Ultrasonic Sensor - Inductive Proximity Sensor - Vision Sensor - Photoelectric Sensor - Digital Industrial Camera - Vision System - SCADA

AUTOMOBILE



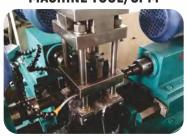
Encoder - Resolvers - Vision Sensor - Digital Industrial Camera - Vision System - SCADA - Industrial Panel PC

FOOD & BEVERAGE



PLC - Speed Reducer - Encoder - Resolvers - 2 & 5 Phase Step Motors - Motion Controller - Sensors - Vision Sensor - Vision System - Digital Industrial Camera - SCADA - Industrial Panel PC

MACHINE TOOL/SPM



LM Guide - AC Servo - Ball Screw

PLASTIC



AC Drive - PLC - Vision Sensor - SCADA - Industrial Panel PC

ROBOTICS



- Vision Sensor - Digital Industrial Camera - Vision System

PRINTING MACHINE

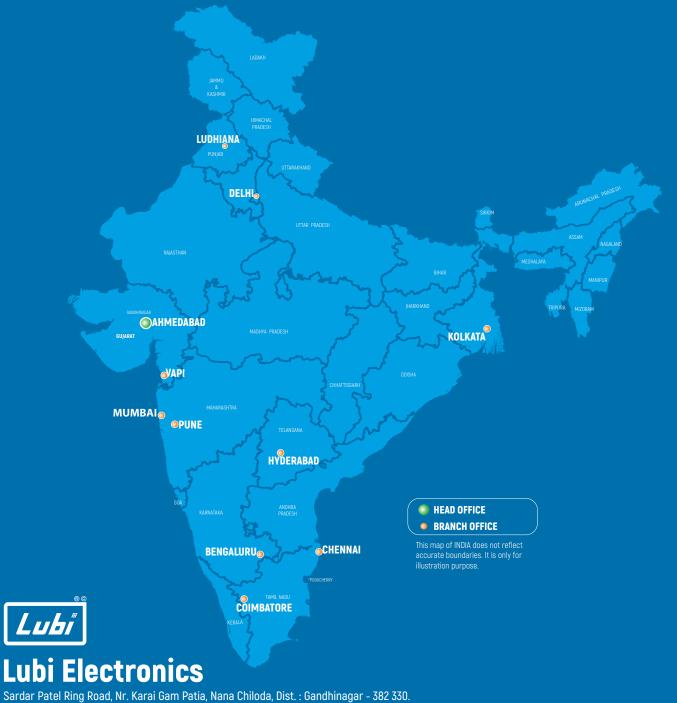


AC Drive - AC Servo - Sensor - AC Gear Motor - PLC - Motion Controller

PACKAGING MACHINE



AC Drive - PLC - AC Gear Motor - AC Servo System - Speed Reduceer - Encoder - Resolvers - 2 & 5 Phase Step Motor - Motion Controller - Sensors - SCADA - Vision System - Industrial Panel PC



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PUNE

Breman Business Center, Off. No.301, Nr. City International School, Opp. Breman Square, University Road, Aundh Pune - 411 007.

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