

M8 / M9 / M12 / M23 Circular Connectors:



3 pole to 19 pole Industrial Connectors in straight or 90° cable and panel-mounting versions, field-attachable or pre-moulded with PVC/PUR cables. Standard gold-plated contacts. T- or Y- splitters and standard or customised cable assemblies offered. "A" coded and "D" coded versions also offered.



EN 175301-803 (DIN 43650) Connectors: Square & Rectangular Connectors with 2 or 3 poles + 1 or 2 earths. LED, LED + Varistor & LED + Diode versions offered, either field-attachable or with pre-moulded cables. M12/DIN adapters available with/without LED indicators. Suitable bases offered separately. A wide variety of splitters & cable assemblies, either standard or customised can be manufactured as required.



7/8" Connectors: Circular industrial connectors with 3, 4, 5 or 6 poles in field-attachable or pre-moulded versions with PVC / PUR cables. Mating panel connectors with or without wires, and T-splitters also offered.

Other Connectors and Accessories: EN175000 series and Automotive connectors available. M8/M12 Distribution boxes, Timer to use with EN 175301-803, Reed and Hall Effect Solid State Switches for Pneumatic and Hydraulic Cylinders & Conduit Fixing System.



Make: HTP High Tech Products s.r.l., Italy

Hermetically sealed connectors:



Military grade circular and rectangular connectors, high temperature high pressure bulkheads, highly engineered hermetic multi-pin interconnection headers and single feed thru's. Glass-to-metal and PEEK or Viton moulding sealing technologies, using Cold-Rolled Steel, SS and specialty metals such as Kovar, Titanium, Inconel, Monel, Hastelloy, Nitronic etc. Pressures and temperatures up to 40,000 psi and up to +260°C can be easily handled. Fine leak rate as low as 1×10^{-13} cc/second Helium at 1 atmosphere has been achieved. Several MIL-grade and commercial variants are available in the range.

Many customised versions have been developed to meet exacting standards and customer specifications.



Make: AMETEK Interconnect Technologies, USA

Micro D and Nano Connectors:



Micro D Wired & Solderable Series:

Rectangular connectors (as per MIL-DTL-83513) with solder or crimp type contacts. 7 standard contact arrangements and 4 different shell types.

Wire sizes available: 24, 25, 26, 28 & 30 AWG.



Micro D Combo Series: Any combination of Micro, Coax and Power contacts in any of the standard 2 row shells. In addition, 3 row 51 shell connector with 4 power and / or coax combination accompanied by 20 micro contacts.

Micro D Connector Saver Series: "Back to back" Pin to Socket configuration with 8 standard contact arrangements.



Micro D Circuit Series: Thru-hole solder tail connectors in 7 different styles in both 90° & vertical with termination exit leads on 0.100 x 0.100", 0.075 x 0.100", 0.050 x 0.100" & 0.075 x 0.075" grids. Mating interfaces per MIL-DTL-83513 and 24 AWG exit leads. Other options on request.

Circular Series: Micro-miniature Centre Jack screw Series, 10, 11, 26 & 35 contacts and full range of terminations.



Micro D Strip Series: 50 mil strip series; 1 to 43 micro contacts, SMT, Right Angle. Vertical Terminations, Optional Guide Pin, 1 mm Jackscrew, Mounting Holes and Latch, Crimped Stranded 24 to 30 AWG, Crimped Solid Wire 24 to 25 AWG or Solder Cups.

Nano Series: Single row/ dual row; single ended / double ended; PCB right angle/ vertical; SMT / Thru hole; D-type and circular shell styles - in accordance with MIL-DTL-32139.



Make: Uliti-Mate Connectors Inc., USA



Ultrasonic sensors: **MICROSONIC**

Used for linear displacement measurement or object sensing. Suitable for target distances from 20mm to 10m, with an accuracy of up to 0.025mm. Analog current / voltage, pnp / npn switching outputs are standard. Ultrasonic transducers with protective film, high chemical resistance and pressure resistance up to 6 bar have been developed for use in harsh environments. Several models have integrated displays and electronics to enable easy set-up and "teach-in". Most models are IP65 or IP67 sealed. Metal housings, very small packages and customised options available. Compatible with many optical sensors. All sensors comply with the International standard DIN EN ISO 9001.

Make: Microsonic, Germany



Industrial Sensors, Joysticks, Faders & Solenoids: **CURTISS - WRIGHT**
Penny & Giles

Joysticks:

Many models for 1, 2, 3 or more axes operation. Switched (digital), Potentiometric and Contactless sensing technologies. Long operating life and a variety of customisable handles and options for each model.



LVDTs:

Displacement transducers for linear stroke lengths of 5 mm to 150 mm. Extremely long life due to contactless technology. Small body size / footprint. Infinite resolution. DC / DC operation possible.

Contactless linear Sensors:

Model SLT-190 for stroke length measurement up to 500 mm. Extremely long life and virtually infinite resolution. IP67 sealed. Operates at temperatures of up to +150° C.



Contactless In-cylinder Sensors:

Contactless transducers for continuous cylinder stroke length measurement, from 25 mm up to 2,000 mm. Working pressure of 670 bar. Separate signal conditioning for DC-DC operation with choice of Voltage, Current or PWM outputs. Operating temperature range of -50° to +200° C.

Linear Position Sensors (Potentiometers):

Several models to cover measuring ranges from 10 mm up to 1,600 mm. Hybrid track technology ensures excellent linearity and long life (typically >100 Million cycles). IP 66 sealable. In-cylinder model ICS-100 operates up to 500 bar pressure. Virtually infinite resolution and very good repeatability.



Rotary Sensors:

Potentiometric (Conductive Plastic / Hybrid track) and Contactless (Hall Effect) angular sensors for ranges of 0 to 10° up to 0 to 360°. IP68 sealed / Submersible versions offered. SRS/SRH-500 models for harsh environments. Options include dual outputs, dual redundancy etc.

Signal Conditioners:

UCM model for any make of LVDT, with choice of Voltage, Current or PWM outputs. Model SSC for any sensor with 0 to +5V DC output. Housed in DIN-rail mountable enclosures and IP68 sealed for long life in harsh working environments



Tilt Sensors (Inclinometers):

MEMS-based absolute sensing technology. Measuring ranges of +/-10°, +/-20°, +/-30° and +/-60°. IP68 or IP69K sealed. 0.5 to 4.5V DC output.

Valve Position Transducers:

Model VPT351 for measurement range from 10 mm to 25 mm. Working pressure up to 420 bar. Hall-effect, no-contact sensing. Current / Voltage / PWM output options. Sealed to IP69K.



Make: Curtiss-Wright Industrial Group - Penny + Giles, U.K.

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Faders & Sliding Potentiometers:

Audio faders and video controllers for the world's leading sound and vision console manufacturers. Both manual and motorised linear motion faders available, apart from T-Bar video controllers. Several standard and customisable options are offered.



Solenoids:

Open Frame, Tubular, AC Laminated & Latching Solenoids, Solenoid Valves and other products. Manufactured since 1918 originally under Mechetronics brand. Ideal for a wide variety of applications including automotive, safety and security, MV switchgear, coin handling, vending, fluid power and business machines.

Make: Curtiss-Wright Industrial Group - Penny + Giles, U.K.

Draw Wire Sensors:



Ideal for compact installations to convert linear measurements to proportional electrical signals. Measuring ranges from 50 mm up to 50 m. Draw wire mechanics for Encoder assembly and Hydraulic Transducers also available. Variety of output options: Voltage, Current, Potentiometric and Digital (TTL, HTL, SSI, Profibus, CANopen, DeviceNet, Ethercat, Profinet etc.).



Laser Sensors:

LAS series Laser Sensors. Ideal for non-contact precision measurement of distance, route and position. High resolution up to 2 μm , 10 - 1000 mm measurement range, Protection upto IP67, Analog Voltage / Current output. Spot & Line laser versions available.



Analog Rotary Sensors:

WP series Analog Rotary Sensor. Measurement ranges from 0 to 90° up to 0 to 43200° (120 turns). 40 and 60 mm Housing Dia., Protection class up to IP67, Potentiometric / Voltage / Current outputs available.

Incremental Encoders:

Line driver (RS422, TTL) or Push-pull Incremental output, Solid / Hollow / Through Hollow Shaft options, IP64 Protection Class (Solid Shaft version up to IP67), Output frequency up to 300 KHz, Rotation speed up to 12,000 rpm. Customised versions also available.



Make: Waycon Positionsmesstechnik, Germany

Tilt, Vibration, Shock & Acceleration Sensors :



For Inclination Angle, Vibration, Shock and Acceleration detection and measurement. Available as simple switch-type indicative Components in SMD versions, MEMS Modules to go into user-designed packages, or as fully-packaged ruggedised Sensors with standard or user-defined outputs and connectors. Simple Interface, Ultra low (<0.35 μA) current consumption, RoHS compliant, High sensitivity & Long life. 100% USA made.



Make: SignalQuest, USA

Slip Ring Assemblies: **COBHAM**

Standard or Customized Electrical Slip Ring Assemblies for Power (up to 100s of Amps) or Data Signals (including Video, RS422, RS485, MIL-1553B, etc.). Various options including with / without Bore, Open / Sealed versions and in combination with Pneumatic / Hydraulic / Hyper-frequency / Optical Rotary Joints possible.



Make: Cobham Sliprings (Label), France

Pressure Transmitters (Ceramic / Silicon Sensor):



Suitable for lower pressure ranges of 100m bar to 200 bar. Choice of outputs. Operating temp. range of up to +125°C. Absolute Pressure measurement possible. Applications include pneumatic measurements, level sensing, etc.



Pressure Transmitters (Thin Film Sensor):

Robust sensors with measuring ranges of up to 3000 bar. Choice of outputs (4-20mA, 0-10v, 0-20mA, 0.5-4.5V). CAN output available Operating Temp. range up to +125°C. Ideal for off-highway vehicles & process automation.



Other Thin Film Sensors:

Force, flow and other OEM sensors can be developed based on application

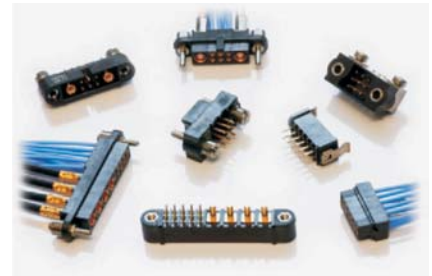
Make: Sensor Technik Wiedemann, Germany

Aerospace Panel & PCB Connectors:



CMM Micro Connectors: CMM Series High density Micro connectors (2mm pitch) for Board-to-board, Board-to-wire & Wire-to-wire applications. Mixed layout connectors with high reliability LF, HF & Power contacts available. RoHS compliant.

DMM Micro-D Mix connectors: Board-to-board, Board-to-wire, Wire-to-wire & Panel mount (1 to 4 rows of contacts) versions available. Low profile with 2mm pitch, Ruggedized with aluminium alloy 6061. Mixed layout connectors with LF, HF and HP contacts available. Comply with MIL-DTL-83513G (Micro-D standard).



Make: Nicomatic, France

Shilpa International was established in 1980 and incorporated in 1987. We are Importers, Exporters, Distributors and Manufacturer's Representatives for a wide range of High-Quality Electronic, Electrical and Electromechanical Components and Devices. We offer professional techno-commercial solutions from component to sub-system level for customers in diverse fields including Industrial Electronics, Telecommunications, Defence, Railways, Power Generation, Aerospace & Process Industries.



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