Available in sizes to suit every kind of business, Explorer Classic machines combine innovative design with proven construction and patented technology. User-friendly operation driven by the flagship dimensional metrology software PC-DMIS, gives an effective measurement solution for the needs of new entrants to the CMM market.

The Explorer Classic range from 400mm x 500mm x 400mm to 1000mm x 2100 x 800mm, with advanced frame design, well-engineered structure, specially-designed controller technology and the latest software packages, the range balances accuracy, throughput and reliability with price/performance ratio, is designed to enable customers to improve quality control across the production process and provide great value for money.

Providing multifaceted yet cost-effective dimensional inspection capabilities, Explorer Classic offers the ideal option for customers looking to purchase their first coordinate measuring machine or increase capacity for an existing quality assurance operation.
PROVEN TECHNOLOGY

Patented TRICISION® bridge design with wider bearing separation, a lower center of gravity and lighter weight than a conventional bridge CMM beam.

European-import, high-precision optical scales installed with one end fixed and the other freely extensible.

The patented design improves the dynamic characteristics of the machine and ensures the safety of the Z axis.

Integral dovetail guide way on Y-axis enhance the performance.

Patented counterbalance design improves measuring performance.

Patented TRICISION design with triangular cross section which provides optimum stiff-to-mass ratio for unquestioned precision and long-term stability.

Remote mounted drive motors reduce moving mass for faster setting, dissipate heat away from the machine frame.

Heavy, stable granite table resists vibrations.

Heidenhain high-resolution MET-ALLUR® scales with PTB certified thermal expansion coefficient.

All three axes run on high-precision self-cleaning air bearings, providing smooth movement that reduces wear on the guide ways.

One-piece table construction, patented dovetail guideways are precision-machined in granite to improve accuracy and repeatability.
A NEW DIMENSION IN PROBE TECHNOLOGY

The HH-MI is a manually indexable probe head featuring an integrated high precision touch trigger probe. The probe head is capable of indexing in 15° increments and can achieve 168 unique positions without the need of requalification. The head can be easily locked, unlocked and rotated with one hand. The built-in touch trigger probe can be manually adjusted to allow for a wide range of probe combinations.

The HH-A-T5 is a motorised indexable probe head featuring high speed operation & high rotational torque. The probe head is fitted with a Kinematic Joint (TKJ) which can be connected to a Multiwire to give multi sensor support. The TKJ can be changed either manually or automatically without the need for requalification. The probe is capable of indexing in 5° increments and can achieve 3024 unique positions.

**HH-MI**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position repeatability</td>
<td>1.5 µm</td>
</tr>
<tr>
<td>Probe repeatability (2σ)</td>
<td>0.35 µm</td>
</tr>
<tr>
<td>Increments</td>
<td>15°</td>
</tr>
<tr>
<td>Angular rotation</td>
<td>A= 0° - 90°, B= ±180°</td>
</tr>
<tr>
<td>Measuring directions</td>
<td>±X, ±Y, ±Z</td>
</tr>
<tr>
<td>Adjustable trigger force</td>
<td>0.1 N - 0.3 N</td>
</tr>
<tr>
<td>Max. stylus length</td>
<td>100 mm</td>
</tr>
<tr>
<td>Styli</td>
<td>M3</td>
</tr>
<tr>
<td>Weight</td>
<td>493 g</td>
</tr>
</tbody>
</table>

**HH-A-M5/ HH-A-T5**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position repeatability</td>
<td>0.5 µm</td>
</tr>
<tr>
<td>Increments</td>
<td>5°</td>
</tr>
<tr>
<td>Total number of Positions</td>
<td>3,024</td>
</tr>
<tr>
<td>Increments</td>
<td>A= +90° ——115°, B= ±180°</td>
</tr>
<tr>
<td>Rotations speed</td>
<td>90° in 2s</td>
</tr>
<tr>
<td>Maximum Extension Length</td>
<td>300 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>700g</td>
</tr>
</tbody>
</table>
THE MOST POPULAR AND POWERFUL INSPECTION SOFTWARE PC-DMIS

PC-DMIS is the world’s most powerful and widely used dimensional inspection software. Available in multiple versions and with a number of options packages, it provides the most comprehensive solution to any type of metrology application.

**PC-DMIS PRO**

Designed to enable users to perform simple inspection operations without CAD data, PC-DMIS PRO features an easy-to-use graphical user interface. Quick-start routines for probe calibration, part alignment and reporting allow operators to efficiently create part programs and perform the measurement tasks.

**PC-DMIS CAD**

PC-DMIS CAD is ideal for manufacturers of prismatic parts that want to integrate CAD into inspection operations. It allows users to program and inspect parts using CAD models ranging from simple 2D blueprints through to full 3D solid models. While guiding users through the programming process, CAD offers the user an interface that allows them to finalise programs more quickly, improving productivity.

**PC-DMIS CAD++**

PC-DMIS CAD++ enables users to measure complex parts. It includes all the capabilities of PCDMIS CAD and adds the ability to measure complex, contoured surfaces including thin-walled sheet metal, plastic, blades, dies and moulds. PC-DMIS CAD++ supports numerous scanning devices and applications and includes algorithms for managing large amounts of data. It links to CAD, allowing users to compare measurement results directly against models for unsurpassed speed and accuracy. It is feature-rich, yet easy to use.
**EXPLORER CLASSIC 04.XX.04 SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Models</th>
<th>MPE (µm), L(mm)</th>
<th>Max.3D Speed (mm/s)</th>
<th>Max. 3D Accel (mm/s²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.xx.04</td>
<td>MPEE(1) MPEP(2)</td>
<td>3.5</td>
<td>340</td>
</tr>
</tbody>
</table>

(1) MPEE according to ISO 10360-2 : 2001
(2) MPEP according to ISO 10360-2 : 2001

Performance data are valid if the following specification are met:
- Temperature range: 18 - 22°C;
- Max. air temperature variation: 1°C/h - 2°C/24h;
- Max. gradient in space: 1°C/m;
- Relative humidity: 25% - 75%

**EXPLORER CLASSIC 04.05.04 STROKES, DIMENSIONS AND WEIGHTS**

<table>
<thead>
<tr>
<th>Models</th>
<th>Strokes (mm)</th>
<th>Overall Dimensions (mm)</th>
<th>Daylights (mm)</th>
<th>Max.Part Weight (kg)</th>
<th>CMM Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X  Y  Z(1)</td>
<td>LX  LY  LZ</td>
<td>DX  DY  DZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.05.04</td>
<td>440  490  390</td>
<td>1030  1160  2340</td>
<td>559  750  483</td>
<td>227</td>
<td>321</td>
</tr>
<tr>
<td>04.07.04</td>
<td>440  690  390</td>
<td>1030  1285  2340</td>
<td>559  995  483</td>
<td>200</td>
<td>423</td>
</tr>
</tbody>
</table>

Z(1): When configuring indexable probe head, Z stroke would be 360mm.

**TECHNICAL CHARACTERISTICS**

**Mechanical Frame**
Stiff mechanical structure made entirely of aluminum alloy

**Surface Plate**
Material: granite
Part locking: threaded inserts M10 x 1.25

**Measuring System**
METALLUR liner scales
System Resolution: 0.078µm

**Environment**
Temperature range: 10 - 45 °C
Relative humidity: 90 %, non condensing

**Thermal Compensation**
Linear: 18 - 22 °C

**Sliding System**
Air bearing on all axes

**Ram Counterbalance**
Pneumatic, adjustable

**Air Supply**
Minimum air supply pressure: 5.2 bar~8.0bar
Air consumption: 90NL/min

**Power**
Voltage: 220 V/50Hz
EXPLORER CLASSIC 05.07.05, 07.10.00 SPECIFICATIONS

EXPLORER CLASSIC 05.07.05, 07.10.00 STROKES, DIMENSIONS AND WEIGHTS

<table>
<thead>
<tr>
<th>Models</th>
<th>MPE (µm), L (mm)</th>
<th>Max. 3D Speed (mm/s)</th>
<th>Max. 3D Accel (mm/s²)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH-MI</td>
<td>HP-T/HP-TM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MPEE(1)</td>
<td>MPEP(2)</td>
<td></td>
</tr>
<tr>
<td>05.07.05</td>
<td>2.7 + 3.5L/1000</td>
<td>3.0</td>
<td>2.5 + 3.5L/1000</td>
</tr>
<tr>
<td>07.10.05</td>
<td>2.9 + 3.5L/1000</td>
<td>3.1</td>
<td>2.7 + 3.5L/1000</td>
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<tr>
<td>07.10.07</td>
<td>2.9 + 3.5L/1000</td>
<td>3.1</td>
<td>2.7 + 3.5L/1000</td>
</tr>
</tbody>
</table>

(1) MPEE according to ISO 10360-2:2001
(2) MPEP according to ISO 10360-2:2001

Performance data are valid if the following specification are met:
- Temperature range: 18 - 22°C
- Max. air temperature variation: 1°C/h - 2°C/24h
- Max. gradient in space: 1°C/m
- Relative humidity: 25% - 75%

EXPLORER CLASSIC 05.07.05, 07.10.00 STROKES, DIMENSIONS AND WEIGHTS

<table>
<thead>
<tr>
<th>Models</th>
<th>Strokes (mm)</th>
<th>Overall Dimensions (mm)</th>
<th>Daylights (mm)</th>
<th>Max. Part Weight (kg)</th>
<th>CMM Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>Y</td>
<td>Z</td>
<td>Lx</td>
<td>Ly</td>
</tr>
<tr>
<td>05.07.05</td>
<td>500</td>
<td>700</td>
<td>500</td>
<td>999</td>
<td>1445</td>
</tr>
<tr>
<td>07.10.05</td>
<td>700</td>
<td>1000</td>
<td>500</td>
<td>1199</td>
<td>1740</td>
</tr>
<tr>
<td>07.10.07</td>
<td>700</td>
<td>1000</td>
<td>700</td>
<td>1199</td>
<td>1740</td>
</tr>
</tbody>
</table>

TECHNICAL CHARACTERISTICS

**Mechanical Frame**
- X and Z: granite construction
- Y: integral dovetail guideways, machined into the table

**Surface Plate**
- Material: granite
- Part locking: threaded inserts M8 x 1.25

**Measuring System**
- METALLUR liner scales
- System Resolution: 0.078µm

**Environment**
- Temperature range: 10 - 45 °C
- Relative humidity: 90%, non condensing

**Sliding System**
- Air bearing on all axes

**Thermal Compensation**
- Linear: 18 - 22 °C

**Ram Counterbalance**
- Pneumatic, adjustable

**Air Supply**
- Minimum air supply pressure: 5 bar
- Air consumption: 90NL/min

**Power**
- Voltage: 220 V/50Hz

Performance data are valid if the following specification are met:
- Temperature range: 18 - 22°C
- Max. air temperature variation: 1°C/h - 2°C/24h
- Max. gradient in space: 1°C/m
- Relative humidity: 25% - 75%
EXPLORER CLASSIC 06.XX.06, 08.XX.06 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Models</th>
<th>MPE (µm)</th>
<th>L (mm)</th>
<th>Max. 3D Speed (mm/s)</th>
<th>Max. 3D Accel (mm/s²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH-MI</td>
<td>MPE(1)</td>
<td>MPE(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.xx.06</td>
<td>2.6 + 3.3L/1000</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08.xx.06</td>
<td>2.8 + 3.3L/1000</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) MPE according to ISO 10360-2: 2001
(2) MPE according to ISO 10360-2: 2001

Probe configuration for performance test:
- HH-MI: Stylus length 21mm, tip diameter 4mm
- HP-T/HP-TM: Standard measuring force, Stylus length 10mm, tip diameter 4mm

Performance data are valid if the following specifications are met:
- Temperature range: 18 - 22°C;
- Max. air temperature variation: 1°C/h, -6°C/24h;
- Max. gradient in space: 1°C/m;
- Relative humidity: 25% - 75%

EXPLORER CLASSIC 06.XX.06, 08.XX.06 STROKES, DIMENSIONS AND WEIGHTS

<table>
<thead>
<tr>
<th>Models</th>
<th>Strokes (mm)</th>
<th>Overall Dimensions (mm)</th>
<th>Daylights (mm)</th>
<th>Max. Part Weight (kg)</th>
<th>CMM Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>Y</td>
<td>Z</td>
<td>Lx</td>
<td>Ly</td>
</tr>
<tr>
<td>06.08.06</td>
<td>600</td>
<td>800</td>
<td>600</td>
<td>1150</td>
<td>1623</td>
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<tr>
<td>06.10.06</td>
<td>600</td>
<td>1000</td>
<td>600</td>
<td>1150</td>
<td>1823</td>
</tr>
<tr>
<td>08.10.06</td>
<td>800</td>
<td>1000</td>
<td>600</td>
<td>1350</td>
<td>1823</td>
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<tr>
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<td>1200</td>
<td>600</td>
<td>1350</td>
<td>2023</td>
</tr>
</tbody>
</table>

TECHNICAL CHARACTERISTICS

**Mechanical Frame**
- X and Z: Micromachined anodized light alloy extrusion
- Y: integral dovetail guideways, machined into the table

**Surface Plate**
- Material: granite
- Part locking: threaded inserts M8 x 1.25

**Measuring System**
- METALLUR liner scales
- System Resolution: 0.078 µm

**Environment**
- Temperature range: 10 - 45 ºC
- Relative humidity: 90%, non-condensing

**Sliding System**
- Air bearing on all axes

**Thermal Compensation**
- Linear: 18 - 22 ºC

**Ram Counterbalance**
- Pneumatic, adjustable

**Air Supply**
- Minimum air supply pressure: 5 bar
- Air consumption: 90NL/min

**Power**
- Voltage: 220V/50Hz
EXPLORER CLASSIC 10.XX.08 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Models</th>
<th>MPE(µm), L(mm)</th>
<th>Max. 3D Speed (mm/s)</th>
<th>Max. 3D Accel (mm/s²)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH-MI</td>
<td>HP-T/HP-TM</td>
<td></td>
</tr>
<tr>
<td>MPE(1)</td>
<td>MPE(2)</td>
<td>MPE(1)</td>
<td>MPE(2)</td>
</tr>
<tr>
<td>10.xx.08</td>
<td>3.0 + 4.0 L/1000</td>
<td>2.8 + 4.0 L/1000</td>
<td>3.0</td>
</tr>
</tbody>
</table>

(1) MPE(1) according to ISO 10360-2 : 2001
(2) MPE(2) according to ISO 10360-2 : 2001

Probe configuration for performance test:
- HH-MI: Stylus length 21mm, tip diameter 4mm
- HP-T/HP-TM: Standard measuring force, Stylus length 10mm, tip diameter 4mm

Performance data are valid if the following specification are met:
- Temperature range: 18 - 22°C;
- Max. air temperature variation: ±1°C/h, ±2°C/24h;
- Max. gradient in space: ±1°C/m
- Relative humidity: 25% - 75%

EXPLORER CLASSIC 10.XX.08 STROKES, DIMENSIONS AND WEIGHTS

TECHNICAL CHARACTERISTICS

Mechanical Frame
X and Z: Micromachined anodized light alloy extrusion
Y: Integral dovetail guideways, machined into the table

Environment
Temperature range: 10 - 45 °C
Relative humidity: 90%, non condensing

Sliding System
Air bearing on all axes

Surface Plate
Material: granite
Part locking: threaded inserts M8 x 1.25

Thermal Compensation
Linear: 18 - 22 °C

Ram Counterbalance
Pneumatic, adjustable

Measuring System
METALLUR liner scales
System Resolution: 0.078µm

Air Supply
Minimum air supply pressure: 5 bar
Air consumption: 90NL/min

Power
Voltage: 220 V/50Hz
Hexagon Manufacturing Intelligence helps industrial manufacturers develop the disruptive technologies of today and the life-changing products of tomorrow. As a leading metrology and manufacturing solution specialist, our expertise in sensing, thinking and acting – the collection, analysis and active use of measurement data – gives our customers the confidence to increase production speed and accelerate productivity while enhancing product quality.

Through a network of local service centres, production facilities and commercial operations across five continents, we are shaping smart change in manufacturing to build a world where quality drives productivity. For more information, visit HexagonMI.com.

Hexagon Manufacturing Intelligence is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity across geospatial and industrial enterprise applications.