AMS 300i
Laser distance measurement device for maximum accuracy

integrated connectivity.
UNCOMPROMISING EXACT — LIMITLESS COMPATIBLE

The AMS 300i — leading in measuring dynamic, functionality and variety of integrated interfaces.

MEASURE DISTANCES — FAST AND ACCURATELY

The AMS 300i is used wherever position data of moving system components, such as in high-bay warehouses, needs to be detected quickly and reliably.

The unique selection of interfaces makes the AMS 300i a truly global player. Measurement data can, in part, even be output in parallel on two interfaces, e.g., for diagnostic and control purposes.
EASY HANDLING — UNCOMPPLICATED INTERFACE SELECTION

Through the use of the latest signal processors, distances of up to 300 m are calculated with maximum accuracy and extremely quickly — in intervals on the order of milliseconds. Borderline situations can also be detected and indicated with the integrated, extensive functionality catalog of devices. Extensive diagnostic functions also make possible timely prefailure messages.

- **intergrated connectivity**.
  - All major fieldbuses are integrated directly in the device
  - For Ethernet models, a switch is provided for setting up a line or ring structure
  - Configuration is performed directly in and via the control
  - In the event that a replacement should be necessary, all parameters are automatically transferred to the new device via the fieldbus
  - With PROFIBUS and PROFINET, a parallel SSI interface is available

- **easy handling**.
  - Integrated mounting solution for the easy alignment and fastening of the set alignment
  - Interference-free parallel operation with optical data transceivers DDLS 200 and DDLS 500
  - Red light laser for simple alignment
  - Through the mechanical fastening (ball mount), the device does not need to be retaught following a device exchange
  - 5 language display
  - Standard M12 connection technology

- **think modular**.
  - A number of selectable functions can be optimally adapted to your application. Interfaces, heating, operating ranges

- **availability control**.
  - Through the constant monitoring of relevant parameters, such as laser, temperature, received signal level, position window or speeds, the system can output a message in good time before a failure occurs, thereby allowing the device to be checked and serviced in advance
CONVINCING IN ALL AREAS

Absolute accuracy, failure protection and simple handling make the AMS 300i the right choice.

**Integrated Connectivity**

The data of an AMS 300i model can, for example, be output simultaneously via two parallel interfaces. Configuration and output of the position values and diagnostic data take place here via the PROFIBUS or PROFINET interface. At the same time, the position data is output via the SSI interface and can, thus, be used to control the motor.

The following actions can be performed in parallel with the two parallel interfaces:

- Configuration
- Diagnostics
- Visualization
- Positioning

**Diagram:**

- AMS 304i ... SSI
- AMS 348i ... SSI
- PROFINET
- PROFIBUS
- PLC
- Axis drive
- SSI interface
- Frequency inverter
**easy handling.**

The AMS 300i can be mounted directly next to an optical data transceiver without any mutual interference occurring between the two systems. As a result, both devices can also be used in situations with limited installation space.

**easy handling.**

The integrated alignment and fastening unit is used to align the device. Thanks to the absolute linear accuracy and a ball mount, reteaching is not necessary following an exchange.

**availability control.**

Diagnosis can be performed directly on the device via the five-language display. Data such as soiling control can also be transferred to the control via the interfaces.
TECHNICAL DATA AND ACCESSORIES

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>AMS 3xxi 40</th>
<th>AMS 3xxi 120</th>
<th>AMS 3xxi 200</th>
<th>AMS 3xxi 300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range [m]</td>
<td>0.2 – 40 m</td>
<td>0.2 – 120 m</td>
<td>0.2 – 200 m</td>
<td>0.2 – 300 m</td>
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<tr>
<td>Accuracy</td>
<td>±2 mm</td>
<td>±2 mm</td>
<td>±3 mm</td>
<td>±5 mm</td>
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<tr>
<td>Consistency / 1 sigma</td>
<td>0.3 mm</td>
<td>0.5 mm</td>
<td>0.7 mm</td>
<td>1.5 mm</td>
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<tr>
<td>Light spot diameter</td>
<td>≤40 mm</td>
<td>≤100 mm</td>
<td>≤150 mm</td>
<td>≤220 mm</td>
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<tr>
<td>Max. traverse rate</td>
<td>≤10 m/s</td>
<td></td>
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<tr>
<td><strong>Electrical data</strong></td>
<td></td>
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<tr>
<td>Supply voltage</td>
<td>18 – 30 VDC</td>
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<tr>
<td>Current consumption</td>
<td>250 mA without heating / 500 mA with heating</td>
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<tr>
<td><strong>Optical data</strong></td>
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<tr>
<td>Transmitter</td>
<td>Laser diode, red light, wavelength 650 – 690 nm</td>
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<tr>
<td>Laser class</td>
<td>Laser class 2 acc. to EN 60825-1; CDRH</td>
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<tr>
<td><strong>Environmental conditions</strong></td>
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<tr>
<td>Operating temperature</td>
<td>-5 – 50 °C without heating / -30 – 50 °C with heating</td>
<td></td>
<td></td>
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<tr>
<td>Degree of protection</td>
<td>IP 65</td>
<td></td>
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<tr>
<td><strong>Interfaces</strong></td>
<td>PROFIBUS, PROFINET, DeviceNet, CANopen, EtherNet IP, EtherCAT, Ethernet, SSI, RS 232 / 422 / 485, Interbus</td>
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<tr>
<td><strong>Certifications</strong></td>
<td>ISO 9001</td>
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</table>

MODELS
- Integrated heating down to -30 °C
- Connections M12
- Operating range 40 / 120 / 200 / 300 m
- Address setting and diagnosis via display

ACCESSORIES
We also have all the necessary accessories for the optimal mounting and connection of our laser distance measurement devices in our product range:
- Reflective tapes
- Heated and unheated pre-mounted reflectors
- Connection cables and connectors
- Deflecting mirror
With regard to our product developments, we systematically place emphasis on the especially good usability of all devices. To this end, simple mounting and alignment are taken into account — just as the uncomplicated integrability of the sensors in existing field bus systems and easy configuration, e.g. via a web browser, are.

Whoever can do it all, can do nothing right. Which is why we concentrate on selected target sectors and applications. There, we are specialists and know all aspects inside out. For this purpose, we optimize our solutions and offer a comprehensive product range that makes it possible for our customers to obtain the absolute best solutions from a single source.

The technical and personal closeness to our customers, and a skilled, straightforward handling of queries and problems, are among our strengths — and will remain so. Consequently, we will continue to expand our service offerings and, indeed, also forge ahead in new directions to persistently redefine the utmost in customer service. Whether on the phone, in the Internet or on-site with our customers — regardless of when and where the expertise of the sensor people is needed at any time.

Info at: www.leuze.com
Switching Sensors
Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors
Distance sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

Products for Safety at Work
Optoelectronic Safety Sensors
Safe Locking Devices, Switches and Proximity Sensors
Safe Control Components
Machine Safety Services

Identification
Bar Code Identification
2D-Code Identification
RF Identification

Data Transmission/
Control Components
MA Modular Connection Units
Data Transmission
Safe Control Components

Industrial Image Processing
Light Section Sensors
Smart Camera