



MDDE1122 + RAM-MH-16

IMAGE SOURCE: Motec GmbH

Freely programmable ultra-wide smart displays offer maximum design flexibility

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- AMETEK VIS introduces the MDDE3xxx family of freely programmable smart displays for mobile machinery.
- The displays support AI-based assistance systems and multiple camera integrations, enhancing safety and efficiency.
- The MDDE3084 (8"") and MDDE3124 (12.3"") models feature high-resolution IPS displays with optional touch support.

- The displays are powered by an i.MX8M Plus quad processor with an integrated Neural Processing Unit (NPU).
- Machine manufacturers can customize the displays with their own applications or use pre-defined software packages from AMETEK VIS.
- The integrated design reduces the need for multiple display units, cutting costs and saving installation space.

With the MDDE3xxx family, AMETEK VIS has developed freely programmable smart displays that offer machine manufacturers maximum flexibility. In addition to displaying various vehicle information, they not only allow the integration of multiple camera displays, but they can also host complex AI-based assistance systems thanks to powerful compute platform.

Manufacturers of mobile machinery face the challenge of processing and presenting the large amount of digital data and information provided by modern sensor systems to the machine operator in a way that adds value in the form of increased comfort, safety and efficiency without additional distraction.



MDDE3124

IMAGE SOURCE: Motec GmbH

Increased comfort and, above all, ergonomics are of great importance in almost all mobile machines, as operators often spend many hours at a time in their machines. Given the size of the machines and their large blind spots, safety is a major concern not only on the road but also at work sites. And increased efficiency can result in higher yields or more sustainable construction, as examples.



MDDE3124

IMAGE SOURCE: Motec GmbH

It is essential that assistance systems do not become a distraction or interfere with operations, but rather fit intuitively into the workflow. With this in mind, our team at AMETEK VIS has developed the new MDDE3084 (8") and MDDE3124 (12.3") smart displays so that driver and vehicle information and ADAS assistance systems complement and integrate perfectly.



MDDE3124

IMAGE SOURCE: Motec GmbH

The displays provide machine builders with powerful, freely programmable solutions that give them all the options they need to create the human-machine interfaces of the future. The displays are based on an i.MX8M Plus quad processor with an integrated Neural Processing Unit (NPU). The NPU processes complex machine learning algorithms and optimizes the displays for AI applications such as camera-based person or object recognition. The IPS displays offer a resolution of up to 1920x720px with a brightness of 1000 nits and optional touch support.



MDDE3124

IMAGE SOURCE: Motec GmbH

The flexibility of the MDDE3xxx family is particularly noteworthy. Machine manufacturers can choose to configure the displays completely individually with their own applications and UX elements - or rely on pre-defined software packages provided by AMETEK VIS. The MDDE3084 and MDDE3124 offer the operator endless possibilities to optimize for specific operating requirements, regardless of whether the display is primarily used to display vehicle information or multiple camera displays, whether it is installed horizontally or vertically, whether it is integrated into the dashboard or mounted with a RAM holder. Depending on whether the MDDE3xxx is installed as in-dash instrument cluster or as on-dash display, touchscreen functionality can be activated or not.



MDDE3124

IMAGE SOURCE: Motec GmbH

The hardware also leaves nothing to be desired: 9 switched STB/STG inputs, 2 CAN, 1 Gigabit Ethernet and 1 RS232 port, as well as external display connections, give machine builders complete flexibility. For the implementation of assistance systems, the displays have four camera connections for Ethernet, BroadReach or analogue cameras. Thanks to the displays' powerful compute platform, there is no need for an additional video control unit; data processing takes place directly in the intelligent display.



Motec MDDE3124

IMAGE SOURCE: Motec GmbH

These features make the MDDE3084 and MDDE3124 the first choice for building AI-based ADAS systems that contribute to operator comfort and, above all, safety. If you do not have their own engineering capabilities, you can rely on solutions pre-developed by AMETEK VIS to implement 360-degree systems or automated person and object recognition.



Motec MDDE3124

IMAGE SOURCE: Motec GmbH

Logical functions are pre-programmed, such as the automatic display of camera information as soon as people are detected in the predefined critical area. In addition, different threat levels can be defined to trigger different alarms. These can be both audio signals and visual effects on the display to increase the safety of all those involved in the process and the availability of the machine. Dangerous situations are effectively prevented, avoiding accident costs for the machine operator.



Motec MDDE3124

IMAGE SOURCE: Motec GmbH

The integrated nature of MDDE3xxx itself also contributes to cost savings: by combining different functions in one large, central display unit, machine manufacturers can eliminate the need for a large number of different display units. In addition to the initial cost, the reduced number of individual components also reduces cabling, installation and service costs. Reducing the number of indicators also saves valuable installation space and weight.

Source: Motec GmbH