

MTP – Module Type Package









Product images are linked with more information.



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What is MTP?

MTP stands for "Module Type Package" and refers to a cross-manufacturer **standard** for the quick and easy configuration and implementation of modular production systems. MTPs define the properties and interfaces of system modules (Process Equipment Assembly, PEA) at a functional level to ensure compatibility, regardless of the technology used and the manufacturer. The aim is to make it easier to replace system modules and for them to be ready for use even more quickly. An MTP contains all the information required to integrate a module in a modular system, such as descriptions of operator displays and data objects. In this way, system modules from different manufacturers can be used



flexibly and easily connected to complex complete systems. MTPs significantly reduce the engineering effort of modular systems and enable the construction of true "plug-and-produce systems."





MTP Shortens Time to Market

The central promise of MTP is a significant reduction in time to market (TTM). Decentralized automation with modular systems opens up new ways to achieve greater flexibility and cost-effectiveness. However, individual customer requirements as well as differing control and management systems often represent an obstacle to modularization, as they cannot be sufficiently represented by modular architectures without uniform interface definitions such as those offered by MTPs.

Decentralized automation for modular machines

Turck's decentralized automation solutions break down rigid hierarchies by equipping machine modules with autonomous decision-making capabilities. This considerably reduces the load on the central controller and lowers the amount of wiring required, thereby achieving a significant cost advantage. In addition, minimized wiring means a reduction in potential sources of error and therefore maintenance costs. With its portfolio, Turck is able to offer a wide range of MTP solutions for end-to-end modularization in production



Learn more about MTP

Fast commissioning

Turck's edge controller controls the operation of individual modules in a decentralized and autonomous manner. The multibus-compatible PLC offers standardized and optimized control sequences for the individual components. Wiring and commissioning time can therefore be reduced by using the IP67 components, and the system can easily be expanded. In addition, the Turck solution can be easily integrated into the NAMUR Open Architecture (NOA) due to the parallel data access to Turck multiprotocol components.



Increased flexibility

Regardless of whether a system module is to be used in Ex zone 1 or 2 or in a safe area, Turck has suitable solutions in its range for every application scenario.

Unique

With the edge controllers, Turck offers what is currently the only fully distributed



IP67 solution for hazardous environments.



Using MTP Efficiently

MTP workflow for Process Equipment Assembly (PEA)



The edge controller works with Codesys based on the generated MTP file. This is then stored and installed in the Process Orchestration Layer (POL). The instructions are communicated via the industry standard OPC UA, which is supported by a large number of devices from different manufacturers. PEA (Process Equipment Assembly) can be quickly integrated into modular systems via the MTP. It therefore provides the basic prerequisite for end-toend modularization in production, allows fast commissioning and as a result enables a "plug and produce" approach.

Products

With its comprehensive IP67 range of edge controllers and I/O solutions, Turck enables the construction of completely cabinet-free solutions, both in safe and hazardous areas. In addition, the BL20 I/O system provides an IP20 solution for use in the safe area. The high-availability IP20 excom I/O system can be installed in Ex zones 2 and 1 or in the safe area.



Product images are linked with more information.

