

IO-Link interface for linear sensors

Contactless position measuring system now also with IO-Link

The extensive family of TR interfaces has a new member: Linear absolute encoder LMP30 now also comes equipped with an IO-Link interface. The efficient point-to-point communication is based on the well-known three-wire sensor and actuator connection, with no additional requirements on the cable material. IO-Link is not a field bus, but the evolutionary further development of the previous tried and tested connection technology for sensors and actuators.

With LMP30 with IO-Link you can use the usual sensor cables with M12 plug connectors in a star configuration, so that even complex linear encoders can be connected to the network infrastructure. The sensor provides a multitude of information via a simple IO-Link connection: position, speed, operating hours, device temperature, field strength-dependent presence signal for the magnet, averaged speed and position (the averaging can be parameterized), end position information.

The output resolution of the contactless measuring system can be adjusted via IO-Link: 5 / 10 / 20 / 100 μm . The adjustment of the machine axis (=preset) also occurs directly via IO-Link. LMP30 with IO-Link enables internal states to be converted into programmable switching states of the digital output. This enables simple implementation of e.g. speed monitoring, position limit value monitoring, limit switches, temperature warnings and much more. LMP30 IO-Link works quickly and precisely. With measurement lengths up to 2 m, a cycle time of below 1 ms is achieved. With measurement lengths of 1.5 m the linearity deviation is ± 0.15 mm. LMP30 IO-Link is available with measurement lengths up to 3 m.

The profiled housing has a flat surface with few edges and beads. This prevents production waste from getting caught and blocking the system. The magnets are unguided and do not touch the measuring system; detection is permanently wear-free. The measuring system is fixed to the machine bed with several V-clamps. The clamps can be moved, and the mounting position can be adapted to the conditions of your system or machine within wide limits.

Like all TR's magnetostrictive measuring systems, the LMP30 IO-Link also uses passive absolute magnets for scanning the position. These permanent magnets do not require a cable feed and operate without a trailing cable. The mass of the magnet is very small, so that even highly dynamic applications can be scanned absolutely and directly.

More Product Information: <http://www.tr-electronic.com/s/S016582>



Linear absolute sensor LMP30 by TR-Electronic with Interface IO-Link