Romano GmbH
Specialist in measurement technology

FO modules

Description of the fiber optic modules

FO transmitter / receiver for applications in connection with Magnescale interpolators

With a transmitter and a receiver module (LWLS1 and LWLE2), the four digital TTL / RS422 signals (PCA, PCB or PCU, PCD, alarm, reset) of a magnescale interpolator (e.g. MD20 A / B) can be potential-free over large Distances are transmitted. The A / B (PCA, PCB) or Up / Down (PCU, PCD) counts and the alarm signaling are transmitted from the transmitter towards the receiver, the acknowledgment of the alarm (reset) from the receiver towards the transmitter. The modules can be mounted on 35mm DIN rails. The optical connection is made via ST connectors, the electrical connection via D-Sub connector or terminal block. The dimensions of a module are: width 40mm, length without contacted connector 95mm, height when mounting on top hat rail TS35 / 7.5 approx

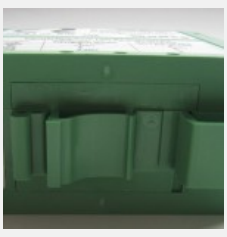
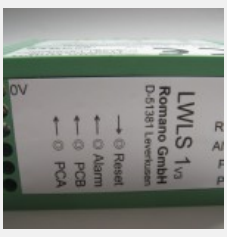
The maximum length of the fiber optic cable is 400 meters. Signals with a pulse duration of DC up to 0.5µs (0-2MHz) can be safely transmitted.

LWLS1 transmitter module

The transmitter module consists of three fiber optic transmitters and one fiber optic receiver. The supply voltage of 5VDC and the TTL / signal lines can come directly from the detector via an adapter cable or can be supplied via screw terminals. The average current consumption is approx. 250mA.

For use in connection with the Magnescale MD20 A / B interpolator, a 9-pin D-Sub socket is installed, which is connected to the output connector (MR-20 RMAG) of the MD20 A / B using a separately available adapter cable.



Receiver module LWLE2

The receiver module consists of three fiber optic receivers and one fiber optic transmitter. The supply voltage of 5-24VDC and the signal lines can either be supplied via a D-Sub connector or via screw terminals. The average

current consumption varies between 50 and 180mA depending on the supply voltage.

For the adapter cable connection, a 9-pin D-Sub connector is installed, which is connected to the customer's counter module via the separately available adapter cable. The output signals are voltage difference signals (corresponding to RS422).

Fiber optic cable

The fiber optic cable is tailored to the application and contains a 50 / 125µm multimode outer cable with high mechanical protection and ST connectors. There are 3 x 4 light guides in each cable, of which only 2 x 4 fibers are used for 2 interpolators (rolling mill application, position measurement of the adjustment cylinder).
