



INSTALLATION GUIDE to lvdt's with onboard electronics to provision of electromagnetic compatibility

V1300.4463

1. Power Supply

The power supply unit that is used has to comply with EMV standards (CE mark, declaration of conformity).

Generally, LVDT's with integrated electronics must not be connected to low voltage AC or DC networks (inputs and outputs). Built-in relays, contactors etc. must be wired with arc suppression devices or overvoltage limiting components. Possible HF influences on the supply line to the LVDT have to be avoided.

2. Connecting cable

Between control cabinet and inductive transducer a cable with a common cable screen is to be used. The quantity of the single cable connections must be chosen according to the wiring diagram in the dimensional drawing. Additional single cable connections must be potential free on both sides. The max. cable length = 50m. Min. cross section up to 25 m = 0.25mm². Min. cross section larger than 25m = 0.5mm². The capacity should not exceed 130 pF/m (wire/wire). Power lines resp. PWM cables must not be routed in parallel to the connecting cables of the transducer. The cable screen is to be grounded on both sides (see section „grounding“) whereby ground loops must not occur.

3. Connectors

The connectors has to be installed according the connection diagram, the cable shield has to be tied on the whole periphery to the provided coupling clamp in the connector.

4. Grounding

The housing of the linear stroke transducer has to be connected to the grounded magnet/valve metal machine frame. The cable shield of the linear stroke transducer has to be tied with the earth ground in the control cabinet. A low-ohmic potential compensation wire has to be provided between the control cabinet and the machine frame (cable wire > 10 mm² cross section) to prevent Ground-loops.