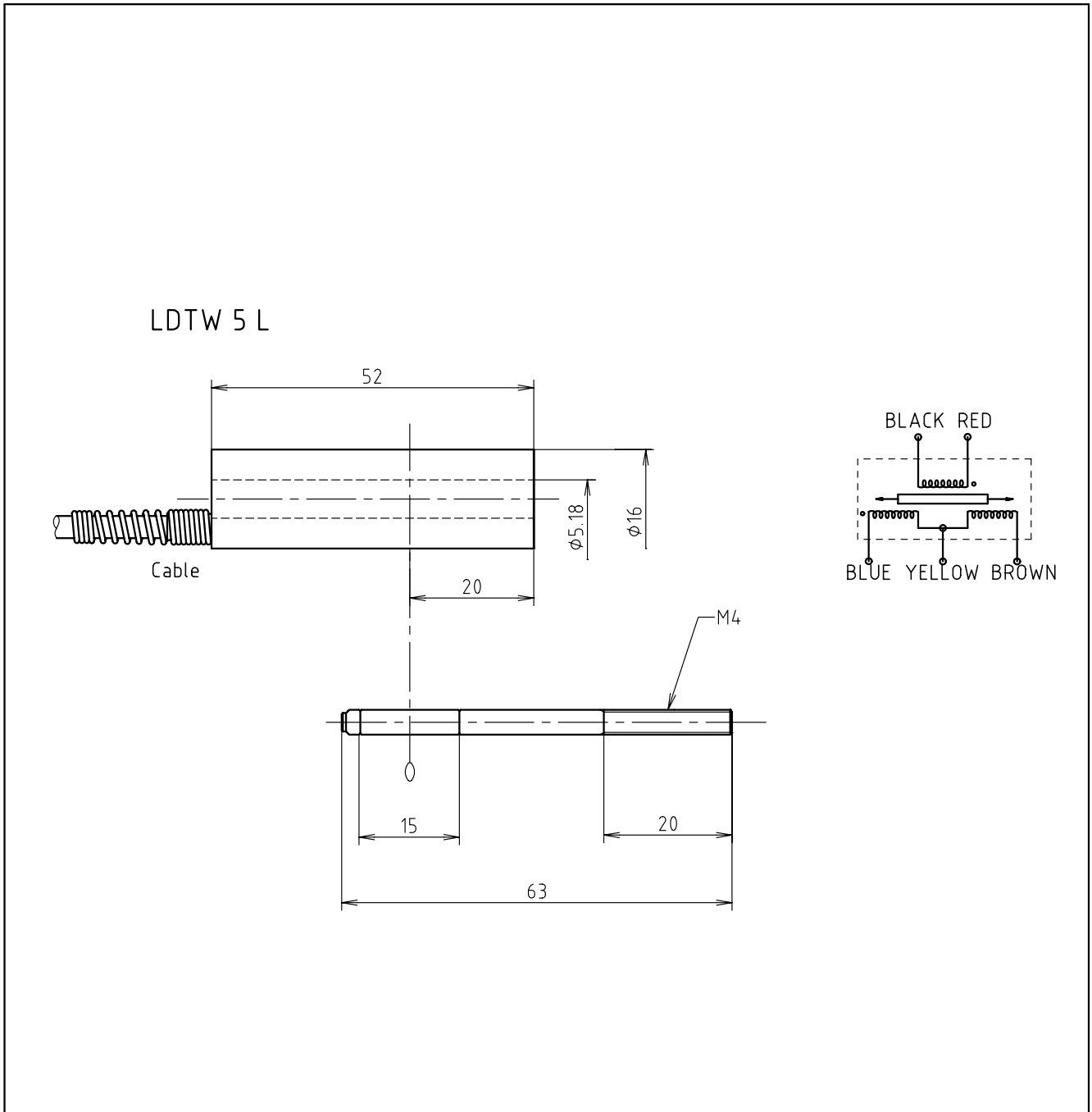


LINEAR VARIABLE DIFFERENTIAL TRANSFORMER LDTW 5 L



DESCRIPTION

The transducer is a linear variable differential transformer (LVDT) with a single primary winding, two secondary windings and a movable core. The primary winding is normally energized from a 5 kHz supply at 5 V_{RMS}, although other supply voltages and frequencies can be used. The two secondary windings are connected in series opposition so that the resultant output voltage is proportional to the core displacement from the electrical center. The phase of the transducer output signal reverses as the core moves through the central position. The coil form is surrounded by a compound tube which outside is made of stainless steel and inside of soft iron for electrostatic and electromagnetic shielding. The core is made of hydrogen annealed mumetal and mounted on a non-magnetic stainless AISI 316 core rod. The LDTW 5 L can work with most carrier wave measuring amplifiers as the HFJ ICAB 5k.

2009-04-07

H F Jensen A/S
Emdrupvej 70, DK-2400 Kbh NV
www.hfjensen.dk

Tel: +45 39 53 60 40
Fax: +45 39 53 60 48
info@hfjensen.dk

3.2.1

H F JENSEN
SENSOR TECHNOLOGY

SPECIFICATIONS

Linear range	±5 mm
Linearity	< 0,2 % at ±1 mm < 0,5 % at ±5 mm
Input voltage	500 mV _{RMS} to 5 V _{RMS}
Carrier frequency	nom. 5 kHz
Sensitivity (5 kHz)	67 mV/V/mm
Carrier phase shift (5 kHz)	< 10 °
Input impedance (5 kHz)	1100 Ohm
Output impedance (5 kHz)	400 Ohm
Temperature range	-40 °C to +150 °C
Temperature coefficient of sensitivity	< 0,01 %/°C
Residual voltage	< 5 mV/V
Connections	FEP cable, diameter ø3.6 mm, 5 wires, 0.1 mm ² .
Length of wire or cable	2 m