

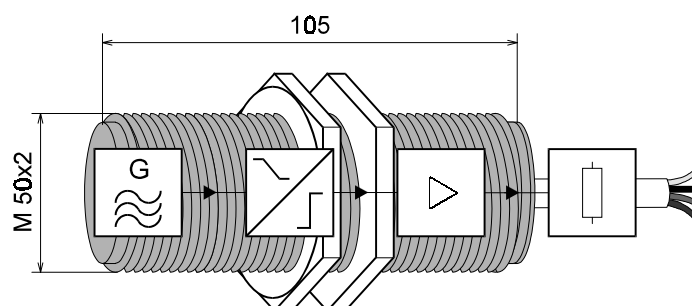
Induction sensing units IPS 50A, IPS 50B are designed for sensing of axial or radial position or revolutions of machines and technological equipment in heavy duties.

Contactless sensing unit of position transfers steady (also interrupted) or rotating mechanical movement into two-value signal. When drawing metal material (screen) nearer to the front side of the sensing unit (in an axial or a radial way), an "drain off" of oscillator energy comes and output activates. The sensing unit is manufactured in performance type IPS 50A (when drawing screen nearer, output activates, red LED lights up and green LED switches off) and IPS 50B (when drawing screen nearer, output stop activation, green LED lights up and red LED switches off).

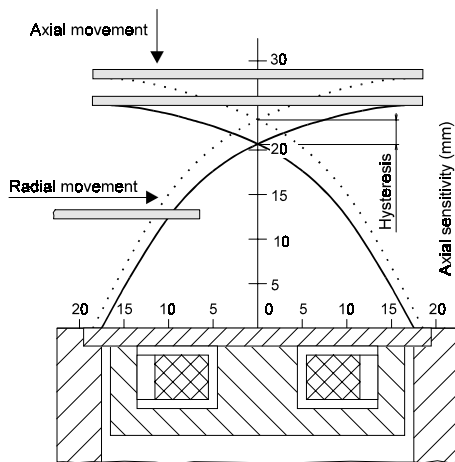
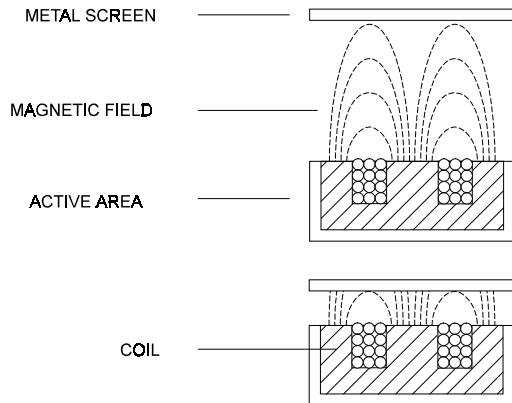
Output of the sensing unit, which is made in performance type PNP open collector, is resistant against short-circuiting, power overload, voltage with reverse polarity, induced voltage, high-voltage electrostatic discharges, surge overvoltage impulses of high energy and high-frequency fields according to ČSN EN 50082-2.

Length of resistant cable could be specified in the order, for example: IPS 50A / 3,5 m. When the length is not specified, the sensing unit is delivered with cable of default length 2 m. There are 2 pcs of plastic nut M50 x 2 in the sensing unit accessories, they serve for fastening it to frame.

Feeding voltage U_c	: 5 72 V DC
Feeding voltage ripple	: max. 10 %
Home consumption of sensor when closed at U_c 72 V	: 30 mA
Permanent current carrying capacity of sensor output	: 200 mA
Short-circuit carrying capacity of sensor output	: max. 500 mA
Voltage drops in sensor at current carrying capacity 200 mA	: ≤ 2 V
Switching frequency	: max. 500 Hz
Minimal dimension of screen (Fe)	: 40 x 40 x 0,5 mm
Switch on accuracy in an axial, radial way	: 0,5 mm
Switch off accuracy in an axial, radial way	: 0,5 mm
Axial sensitivity	: 15 mm
Hysteresis	: min.0,1 mm; max.0,5 mm
Temperature coefficient of axial sensitivity	: 0,25 mm / 10 °C
Ambient working temperature	: -25 up to +75 °C
Relative humidity	: 100 %
Insulation strength cable – box	: > 4 kV
Cover class	: IP 67
Weight	: 0,8 kg
Dimensions	: M50 x 2 / 105 mm



REPRESENTATION OF SENSOR FUNCTION

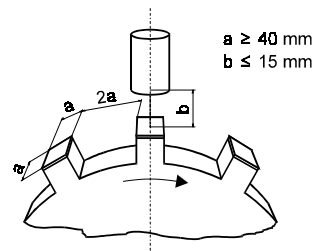
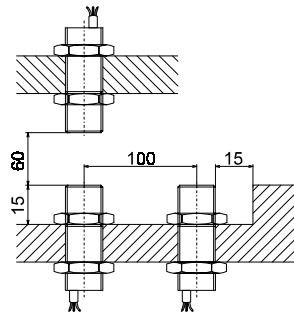


SWITCHING CHARACTERISTICS OF SENSING UNIT AND COEFFICIENTS FOR OTHER MATERIALS

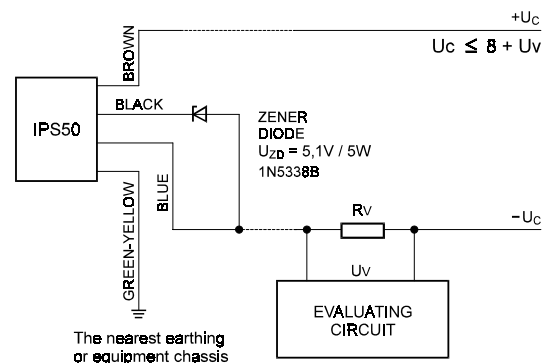
Steel	1
Nickel	cca 0,85
Brass	cca 0,50
Aluminium	cca 0,40
Copper	cca 0,35

————— Switching curve
 Disconnecting curve

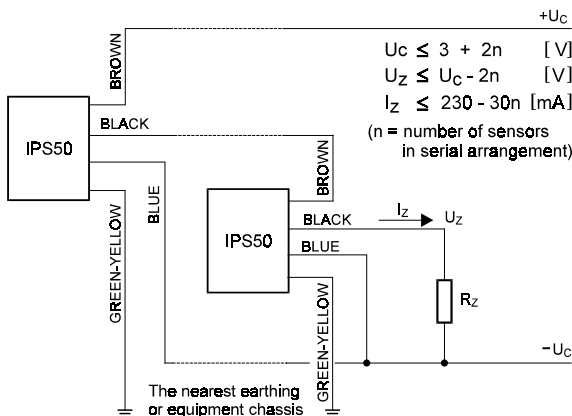
MINIMAL DISTANCE WHEN INSTALLATING



TWO-CONDUCTOR CONNECTION



SERIAL ARRANGEMENT OF SENSORS



Number of sensors in serial arrangement is limited by value of feeding voltage U_c and current carrying capacity of output (when I_z is the current) to maximum 6 pcs.

PARALLEL ARRANGEMENT OF SENSORS

