

BELT SPEED SENSOR – MAGNETIC PICK-UP

DESCRIPTION

The belt speed sensor supplied with the belt scale is a stainless steel magnetic pick-up. It is not a proximity switch, and does not require a supply voltage. It produces a sinusoidal output, the frequency of which is proportional to the belt speed. The amplitude of the voltage output is proportional to the rotational speed of the idler roll/sprocket, and the proximity of the magnetic pick-up to the sprocket.

A sprocket is also supplied with the sensor, which is installed on the end of an idler roll. If the sprocket has not been fitted by Web-Tech, it is extremely important that the sprocket be fitted centrally to the idler roll. We suggest that the sprocket be fitted, then rotated in a lathe to check its concentricity.

MECHANICAL INSTALLATION

The installation of the magnetic pick-up should be on an idler adjacent to the weighframe. The idler roll used should be the horizontal centre roll

The magnetic pick-up should be adjusted so that the sensor “nib” is 0.5 mm from the sprocket tooth. After adjustment and the locknut tightened, the idler roll should be rotated by hand to ensure that no teeth on the sprocket come into contact with the sensor nib.

ELECTRICAL INSTALLATION

The magnetic pick-up is provided with a two (2) core cable approximately 2.5 metres long. Therefore the belt speed sensor junction box must be installed within it's reach. The cable should be mechanically protected.

Refer to drawing “MPU-1” for termination details.

PART NUMBERS

The P/No. for the magnetic pick-up is:
“BS-013”.