

Digital speedometer for drives with three-phase motors

Redesign

A plug-and-play redesign of the incremental decoder and signal evaluator is now available as a replacement for the original electronics in the H&B digital speedometer, which is also cross-compatible with original module.

I.e. the redesign can be used for the incremental decoder with original signal evaluator or the original incremental decoder with the redesign of the signal evaluator.

Each combination is a functional unit whose components are electrically and dimensionally compatible with the existing housing for the H&B digital speedometer.

The digital speedometer is used in combination with the three-phase drive and the PD02 drive control.

As a 2-line supplier it sends a life-zero pulse signal that the drive control then evaluates by detecting the direction of rotation and the position speed and thus controls the rotational field for the drive motor.

The digital speedometer has a sprocket with 48 teeth of a ferromagnetic material on the drive shaft-

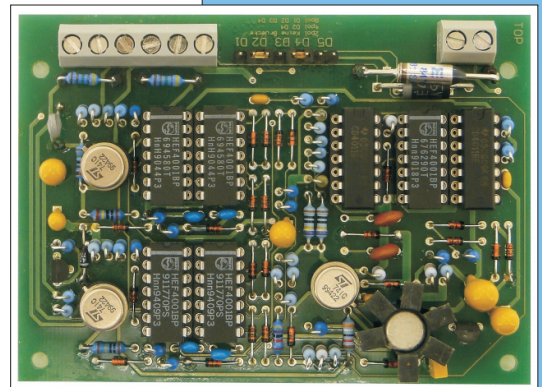
The teeth in the ring generate changes in resistance on the incremental decoder field plates, which alters the bridge voltages using the two bridge circuits.

Two down-stream Schmitt triggers and logic for detecting the rotational direction generate an electric pulse of 4 or 16mA which is then superimposed on the constant current.

The 4mA pulse detects the rotational speed to the left, 16mA the rotational speed to the right.



H&B Originalcase



Redesign Signaloutput

Technical data:

Signaloutput:

Supply	: 24V nom. (15 to 36V)
Load	: 330Ω
Output	: Constant current 10mA; Pulse: left 4mA, right 16mA
Increments/360°	: 96; tooth 1,2mm, gap 2,2mm

Incrementaldecoding:

Bridge with 2 magnetic field sensors for tooth profile detection 1,2mm, gap 2,2mm. The distance between the field detector and the ring gear must be 0,2mm



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