

FSCHG 02-3

DATA SHEET

Description

The latest addition to the HEINZMANN range of accessories is the 3 channel speed switch incorporating:

- ➔ Crank termination
- ➔ Under speed
- ➔ Over speed
- ➔ Meter current output

All settings are fully adjustable.

The FSCHG 02-03 incorporates the latest well proven technology which will allow a single variable reluctance speed probe the possibility to have fully adjustable trip levels up to 10 kHz frequency.

There is also a 1 mA current output proportional to the frequency to use for a PLC speed input or meter display. This is again fully adjustable for meter calibration purposes.



Features

Compact rail mounted package

High reliability

Wide range of supply voltage

DIN rail design

Ground loop elimination for speed pickup

Specification

Supply voltage	18–35 VDC
Input range	0–10,000 Hz
Input voltage	200 mV minimum for starting
Current output	0–1 mA fully adjustable max. setting
Voltage output	0–5 V
Speed levels	3 levels fully adjustable
Temperature range	-25 to +85 °C
Non linearity	0.01 % max.



Standard text is shown.
Text can be set to customer requirements.

Connections

1	n/c S2
2 com.	Under-speed
3	n/o
4	n/c S3
5 com.	Over-speed
6	n/o
7	n/c S1
8 com.	Crank
9	Speed pickup input
10	0 VDC supply, meter and speed signal
11.	0 - 1 mA or 0-5 V output speed indication
12	+24 VDC supply

Technical data

Electrical Connections	
Voltage supply	24 VDC < 40 mA Operating range 18-36 VDC
Frequency Input	Min. 200 mVAC Max. 0-10 kHz Input resistance 10 kOhm
Current output fully adjustable or	0-1 mA 75 Ohm meter display
Voltage output	0-5 VDC Load > 100 kOhm
Wiring	1 mm ² screw connectors

Technical data	
Ambient temperature	-25 up to +85 °C
Non linearity	0.01 % max.
Response time	< 10 ms
Protection class	IP00
Vibration	+/- 1 mm at 1 ... 20 Hz Max. 0.24 m/s at 21-63 Hz Max. 9 g at 64-2000 Hz
Weight	0.25 kg

Meter output:

This output can be used as a 0 to 1 mA output for a moving coil meter, or as a voltage output of 0 to 5 Volts.

Used as a voltage output of 0 – 5 V allows easy setting of the operating range. Connect a digital multi meter to the output. With the system running at normal speed, adjust the meter output pot to give 5 V. Using a signal generator, 1500 rpm, 160 T is 4000 Hz, adjust meter pot to give 5 V.

Adjusting the other potentiometers:

- ➔ Crank 500 rpm is 1334 Hz
- ➔ Under-speed 150 rpm is 400 Hz
- ➔ Over-speed 1800 rpm is 4800 Hz. (This is the standard calibration at the factory.)

For engines with different numbers of teeth, calculate the frequency for 1500 rpm.

Input this frequency and adjust the meter adjust pot to give 5 V out. If the adjustment of the other potentiometers have already been completed at 4000 Hz, it should not be necessary to adjust them again. If necessary, calculate the frequencies for the new number of teeth and check/adjust as necessary. Other frequency ranges can be factory set, please discuss with manufacturer.

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