**Instruction manual**  F2V

**Bardac drives**

**Input Options**
The input stage is a voltage comparator with one input biased midway and the other with a 4.7K pull up resistor to +10V. This configuration allows either or both inputs to be taken to +10V.

**Output Options**
The analogue output voltage is directly proportional to the input frequency. The +10V supply is taken from the drive reference which is also usually fed to the speed setpoint potentiometer. This method eliminates errors due to reference drift. The output is a 0-5V signal available at T5. A separate output is also available via a 0.8K resistor at T6 which is designed to interface directly with the tacho input of drive units.

**Inverted Output**
Provision is made for the output to be inverted. Two links must be altered to provide this function. GH broken HI made DE broken EF made a negative supply of -12V must also be connected to the -solder pad. The output range is 0 to -5V. This mode is required if the speed feedback signal must be negative. EG with the 370 type drive.

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Provision has been made to fit an opto isolator. This may be required if a non-isolated drive is to be used and the pulse encoder is not able to float at mains potential. The pulses energise the LED through R11 via T2 and T3. Two solder sae links L1 and L2 are broken to allow the opto isolator to be fitted. NOTE the circuitry will be at a dangerous potential. The input frequency is limited to 10KHZ with the opto isolator fitted. T3 is the pulse input.

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The F2V is a complex component only for professional assemblers. The unit is CE marked according to LVD 73/23/EEC amended 93/68/EEC. Follow these installation guidelines for EMC compatibility. Further measures may be necessary. Installers must have a level of technical competence to correctly install. The EMC behaviour is the responsibility of the manufacturer of the system or installation using this component. The F2V is a linear analogue component and noise emissions are minimal. Use the unit in the same enclosure as the drive unit. Comply with the installation guidelines of the drive unit.

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The drive tacho scaling resistor R2 (470K) must be shorted. It is behind terminal 5 on the drive.

The tacho sensitivity of the 370 must be increased to accommodate the -5V full scale output of the F2V. Refer to the 370 manual.

SET UP PROCEDURE: First set the drive up in armature voltage feedback mode with the output from the F2V unit disconnected. Calculate the full scale frequency and select the appropriate frequency range on the F2V. With the drive at full speed adjust the SCALE preset to obtain 5V at terminal 5 of the F2V. When this has been achieved TURN OFF the power and connect the F2V output to the drive and modify the drive feedback resistors as detailed above. Turn on and fine tune MAX SPEED.