Frequency to Current Converter **(Microprocessor Based)** **WE M/Ex-FSU-G**

The input pulses entering the frequency to current converter are shaped to a particular amplitude and then integrated. The resultant voltage is directly proportional to the input frequency. A converter changes this voltage into a pre-determined direct current and this analouge output can be read as a 4-20mA signal proportional to 0-100% value of input frequency (Speed of a motor).

FEATURES :

* Manufactured according to European standard EN 50014 and EN 50020.
* Intrinsically Safe circuit is galvanically isolated from both main input and output control circuitry-**1500V, 50Hz**.
* Suitable for connection to 2 wire Proximity Switches of NAMUR type.
* Wide input frequency range from 0.001Hz. upto 999Hz.
* Field programmble to match 0/4-20mA corresponding to different input frequencies (i.e., to match different speeds of motors).

METHOD OF ACTUATION

* N-type Proximity Switches.
* Contact closure.
* Passive Switched Transistors.

APPLICATION :

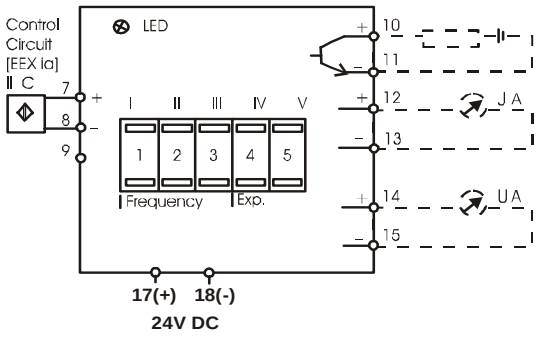
As converter for digital frequency signals to analog current signals, speed indicators, flow rate indicator, display driver.

OPERATION :

INPUT FREQUENCY CALIBRATION IN HERTZ

--It can be done by four thumbwheel switches, which display the actual value in numbers. First three thumbwheel switches set the frequency. Switch IV sets the multiplier and the number itself shows the negative exponent Fifth switch adjust time lag between input signal and output to match process parameters.

* The unit can be a clipped onto 35mm rail as per DIN 46277.
* CMRS for Intrinsic Safety Ex ia IIC conforming to

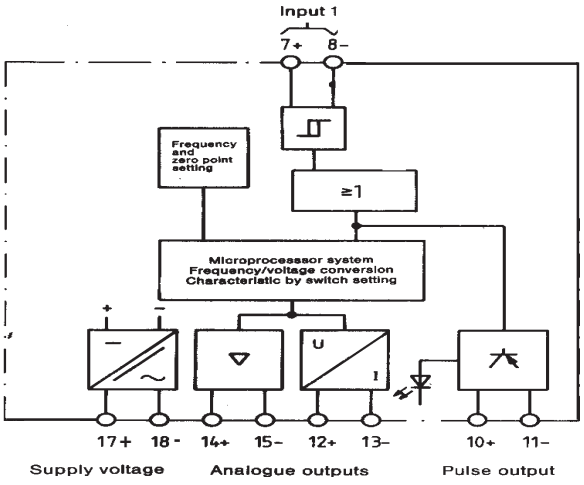


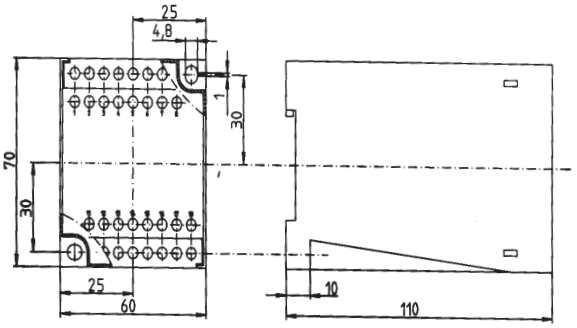
Technical Details

ART. NO.WAA 007

Power Supply

Supply Voltage	24V DC, 17(+), 18(-)
Current Consumption	approx. 4VA
Ripple	≤ 10%
Hazardous Area Section	
Inputs (Intrinsically Safe)	
Nominal data	as per DIN 19234 equipment with suffix **NAMUR**
Open circuit voltage	approx. 8 V.DC
short circuit current	approx. 8 mA
Switching point / Hysteresis	1.2 mA...2.1 mA / ≈ 0.2 mA
Lead breakage monitoring	J ≤ 150uA
Parameters	
Permissible Capacitance	≤ 415nF
Permissible Inductance	≤ 2mH
Safe Area Section	
Output	
Analog Output Current	0-20mA or 4-20mA (Programable)
Analog Output Load	0-1000 Ohm
Pulse Output	U≤ 30V DC & I ≤ 10mA (Short circuit proof current limited to 10mA)
Analog Output Voltage	0-200 mV DC
Input Frequency	≤ 1.5 KHz
Operating Range	0.001 to 999 Hz
Temperature Drift	≤0.1%
Calibration Error	≤ 1%
Linearity Error	≤ 1%
Ambient Temperature	**Max. 55°C**
Housing Material	**NORYL SE O (Self Extinguishing)**





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