



FM260

Frequency and pulse multiplier - for signal processing of incremental encoders & sensors

Product Features:

- Universal input for incremental encoder signals
- For asymmetric or symmetric impulses (A, B, Z or A, /A, B, /B, Z, /Z)
- Suitable for input frequencies with TTL, RS422, or HTL input level
- Maximum frequency of 1 MHz (input and output)
- Also suitable for light barriers, proximity switches or NAMUR switches
- Multiplication adjustable with a proportional and a reciprocal factor, both in a range from 0.0005 up to 9.9999
- Error-free and accurate impulse multiplication without cumulative errors, even not with encoder vibration or frequent change of direction of rotation
- Universal frequency output with 5 ... 30 V output level and channels A, /A, B, /B, Z, /Z
- Four programmable control inputs
- Programmable index pulse output
- 11 to 30 VDC power supply
- 5.2 VDC / 200 mA encoder supply
- Serial interface for communication with remote units and PC

Power supply:	Input voltage: Protection circuit: Ripple: Consumption:	11 ... 30 VDC reverse polarity protection ≤ 10 % at 24 VDC approx. 65 mA at 24 VDC (with an unloaded encoder supply)
Connections:	Connector type:	screw terminal, 1,5 mm ²
Encoder supply:	Output voltage: Output current:	approx. 5.2 V max. 200 mA
Incremental input:	Signal levels: HTL Characteristic: Internal resistance: Channels: Frequency:	RS422, differential voltage > 1 V TTL: LOW 0 ... 0.5 V / HIGH: 2.5 ... 5,3 V HTL: LOW 0 ... 4 V / HIGH: 10 ... 30 V NPN / PNP Ri ≈ 4.75 kOhm A, /A, B, /B, Z, /Z max. 1 MHz at RS422 and TTL symmetrical max. 300 kHz at HTL and TTL asymmetrical
Control inputs:	Number of inputs: Application: Signal levels: Internal resistance: Signal time: 2 msec.Frequenz (Steuer- Eingänge):	4 inductive proximity switches or control commands LOW < 2.5 V, HIGH > 10 V (max.30 V), Ri ≈ 3.9 kOhm dynamic signals: min. 50 μs static signals: min. 2 ms
Frequency output:	Signal levels: Channels: Characteristic: Output current: Protection:	approx. 5 ... 30 VDC (depends on applied voltage at COM+ input) A, /A, B, /B, Z, /Z push-pull max. 30 mA / channel short circuit proof
Serial interface	Format: Baud rate: Connections:	RS232 2400 ... 38400 Baud (selectable) screw terminal, 1.5 mm ²
Display:	Type: Characteristic:	Background lightened LCD 2 lines, each 16 characters, 3,5 mm
Housing:	Material: Mounting: Dimensions: Protection class: Weight:	Plastic mounting rail (DIN, 35 mm C-Profile) 72 x 91 x 76 mm (w x h x d) IP20 approx. 200 g
Temperature range:	Operation: Storage:	0 °C ... +45 °C / +32 ... +113 °F (not condensing) -25 °C ... +70 °C / -13 ... +158 °F (not condensing)
Failure rate:	MTBF in years:	20.9 a (long-term usage at 60 °C / 140 °F)
Conformity & standards:	EMC 2014/30/EU: RoHS (II) 2011/65/EU RoHS (III) 2015/863:	EN 61326-1: 2013 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 Class A EN IEC 63000: 2018