



Signal Converter FU210 / IV210 / ZU210

Frequency (FU210)

SSI absolute value (IV210) →

Pulse counter (ZU210)

Analog (current / voltage)

Serial (RS232 / RS485)

Product Features:

- Multifunctional unit with operating modes for incremental encoder or SSI absolute encoder
- For incremental encoder:
 - Operating modes for frequency converter or position converter (pulse counter)
 - Universal incremental inputs (HTL/TTL/RS422) for encoders or sensors with NPN/PNP/NAMUR characteristic
 - Functions as linking (e.g. A+B), scaling, filtering, start-up suppression, ...
 - Input frequency up to 1 MHz
- For SSI absolute encoder:
 - Operating modes for master or slave with clock frequencies up to 1 MHz
 - For single turn and multi turn encoder with SSI formats of 10... 32 bit
 - Functions as wire breakage monitoring, bit blanking, concentricity functions, scaling, ...
- 16-bit analogue output, configurable for voltage or current operation
- RS232/RS485 interface for configuration and serial read out
- Extremely short conversion times
- Linearization with 24 control points
- 5 and 24 V auxiliary output for encoder supply
- Numerous connection options by 6 control inputs and 6 control outputs
- Snap-on housing for top hat rail (according to EN 60715)
- Intuitive and easy parameterization via user interface OS 6.0 (freeware)

Technical Specifications		
Connections:	Anschlussart:	Schraubklemmen 1,5 mm ² / AWG 16
Power supply DC:	Input voltage:	18 ... 30 VDC
	Protection circuit:	reverse polarity protection
	Consumption:	approx. 50 mA (unloaded)
	Fuse protection:	external fuse T 0,5 A
Encoder supply:	Output voltage:	5 VDC and 24 VDC (approx. 1 V lower than power supply)
	Output current:	max. 250 mA
Incremental inputs:	Channels:	A, /A, B, /B
	Configuration:	RS422, TTL, HTL differential, HTL PNP or HTL NPN
	RS422:	max. 1 MHz (RS422 differential signal > 0,5 V)
	HTL differential:	max. 500 kHz (HTL differential signal > 2 V)
	TTL / HTL (PNP / NPN):	max. 250 kHz
SSI interface	Load:	max. 6 mA / Ri > 5 kOhm / 10 pF
	Channels:	Clock, /Clock, Data, /Data
	Configuration:	Master or slave
	Format:	Binary or gray code
	Frequency:	max. 1 MHz
Control outputs:	Resolution:	10 ... 32 Bit
	Load:	max. 3 mA / Ri > 10 kOhm / 10 pF
	Number of outputs:	6
	Format:	HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V)
Analog output:	Frequency:	max. 10 kHz
	Load:	max. 2 mA / Ri > 15 kOhm / 470 pF
	Configuration:	Current or voltage output
	Voltage output:	-10...+10 V (max. 2 mA)
Control outputs:	Current output:	0/4 ... 20 mA (burden: max. 270 Ohm)
	Resolution / accuracy:	16 Bit / ± 0,1 %
	Reaction time:	< 1 ms
	Number of outputs:	6
Serial interface:	Format / level:	5 ... 30 V (depend on the COM+ voltage). PNP
	Output current:	max. 200 mA
	Reaction time:	< 1 ms
	Format:	RS232 or RS485
Display:	Baud rate:	9600, 19200 or 38400 baud
	LED:	Green status LED
Enclosure:	Material:	plastic
	Mounting:	35 mm top hat rail (according to EN 60715)
	Dimensions (w x h x d):	23 x 102 x 102 mm / 0.9 x 4.02 x 4.02 "
	Protection class:	IP20
	Weight:	ca. 100 g
Ambient temperature:	Operation:	-20 °C ... +60 °C / -4 °F ... +140 °F (without condensation)
	Storage:	-25 °C ... +75 °C / -13 °F ... +161 °F (without condensation)
Conformity and standards:	EMV 2014/30/EU:	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-1
	RoHS (II) 2011/65/EU	
	RoHS (III) 2015/863:	EN IEC 63000