■ Display SSI 3001 for Absolute Encoders with *SSI* - Interface

Characteristics
- **Input Synchron Serial Interface *SSI***
- **Master/Slave-Mode**
- **LED-Display, red, 6 deacdes, 14 mm**
- **Display range -99999 .. 999999**
- **DIN Standard Case 96 x 48 mm**
- **Free scaling and zero definition**
- **Accessory power suply for the encoder**
- **Plug-In screw Terminals**
- **2 alarm relay, analog output, interfaces**

Parameters of encoder
- Binary or gray code
- Singelturn/Multiturn
- Direction of rotation
- Master/Slave-Mode
  Master: clock for reading data of the encoder is generated internal
  Slave: clock for reading data of the encoder is generated by an external instrument

SSI signal inputs
- Data input, receiver RS 422/485
- Clock output, driver RS 422/485
- Clock input, receiver RS 422/485

Software functions
- Programming of encoder datas
- Scalingfactor
- Zero point adjustment
- Direction of rotation
- Offset value
- Incremental measurement
- Display test and display hold (Latch)
- MIN/MAX value detection
- Auto-Reset for MIN/MAX value
- Setting of alarm points during measurement

Push button at the front
The three push buttons could be programmed to following functions:
- No function
- Displaying Encoder data, MIN or MAX value
- Reseting the MIN/MAX value
- Zero adjustment
- Reset zero adjustment
- Manual alarm reset
- Display test and display hold

Digital input channels
These both input are low active and could be programmed to following functions:
- No function
- Displaying Encoder data, MIN or MAX value
- Reseting the MIN/MAX value
- Zero adjustment
- Reset zero adjustment
- Manual alarm reset
- Display test and display hold

Accessory power supply *(only at AC version)*
Builtin power supply for encoders, 24 V DC/125 mA, isoltaed to the further electronic.

Alarm outputs
Two (Four at option) programmable alarm outputs with free allocation allows the monitoring of production operation. Programmable parameters:
- Alarm point and hysteresis
- Relay function (high or low alarm)
- Alarm response time (fall off and put on time)
- Data source: direct encoder, MIN or MAX value

Option analog output
The option analog output is provides with a current output an a voltage output. Both output are isolated from the further electronic.
- To scale (offset and final value)
- Output 0(2) - 10 V or 0(4) - 20 mA
- Data source: direct encoder-, MIN or MAX value

Option serial interface
Addition to data communication or to a printer.
- RS 485
- RS 232 (analog ouput not possible)
- Current-Loop, TTY (analog output not possible)

Electrical Data

SSI signal input	singleturn or multiturn
Resolution	10 .. 25 bit
Code	binary or gray
Data input	receiver RS 422/485
Clock input	receiver RS 422/485
Clock output	driver RS 422/485
Master mode	
Clock frequency	internal 100 kHz or 200 kHz
Conversion rate	approx. 28 values per sec
Slave mode	
Clock frequency	extern, max. 125 kHz
Conversation rate	approx. 28 values per sec
Digital inputs	2, programmable function
Logic	NPN, max. 30 V
Alarm outputs	2 (4) Relays (programmable as opened contace or closed contact)
Signaling	2 LEDs at the front
Switch voltage	250 V AC / 250 V DC
Switch current	5 A AC / 5 A DC
Switch power	750 VA / 100 W
Analog ouput	resolution 16 bit
Accuracy	± 0,2% of final valuet
Voltage	0(2) - 10 V, max. 10 mA
Current	0(4) - 20 mA; max. 500 Ω
Isolation voltage	3 kV / 1 min
Interfaces	RS 485, RS 232, TTY
Protocol	DIN 66 019 / ISO 1745
Isolation voltage	1,6 kV / 1 min
Power supply voltage AC	95 V to 250 V/AC
Isolation voltage	2,5 kV / 1 min
Power supply voltage DC	18 .. 36 V DC
Isolation voltage	500 V / 1 min
Power consumption	AC 9 VA, DC 70 mA
Accessory power supply	24 V DC / 125 mA (only at AC)
Isolation voltage	500 V / 1 min

Mechanical Datas

Display	6 decades, 14 mm, red Decimal point programmable preliminary zero suppression - sign at negative values
Operation, keyboard design	front membrane with push buttons
Case	swicth board mounting DIN 43700
Dimensions (B x H x T)	96 x 48 x 141 mm
Depth	148 mm incl. screw terminal
Mounting	switch board mounting or mosaic-systems
Weight	ca. 400 g
Connection	Plug-In screw terminal

Environmental conditions

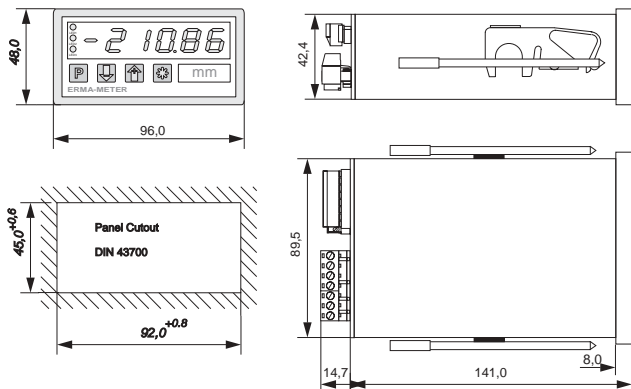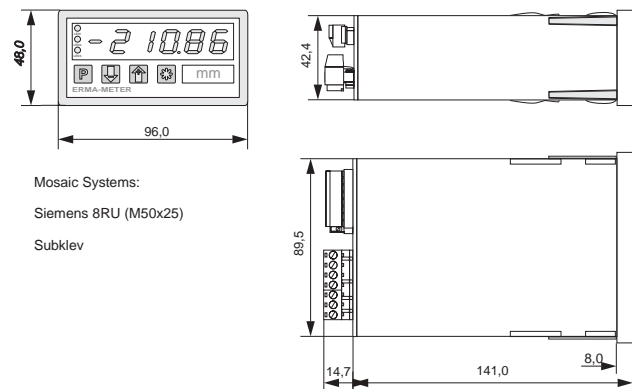|	
Operating temperature	0 .. 50 °C
Storage temperature	-20 .. 70 °C
Humidity	< 80 %, not-condensing
Protection	protective class II
Front protection	IP 54
Field of application	class 2, overvoltage protection II
CE	in conform with 89/336/EWG NSR 73/23/EWG

Ordering information

SSI 3001 -									
							Housing		
							0	Switch board	
							1	Panel clip	
						Front frame color			
						0	Black		
					Front design				
					0	ERMA-Meter logo			
					1	No logo			
					2	Customer defined logo			
				Power supply					
				0	95 .. 250 V/AC				
				1	18 .. 36 V/DC, isolated				
			Option interface						
		0	No interface						
		1	Interface RS 485						
	0	2	Interface RS 232						
	0	3	Interface TTY (Current-Loop)						
Options									
0	No option								
1	With analog output								
4	Additional 2 alarm outputs, relays								

Dimensions and Mounting

Switch board mounting

Panel Cutout
DIN 43700

48,0
45,0 +0,6
92,0 +0,8
96,0
42,4
89,5
14,7
141,0
8,0

Panel clip

Mosaic Systems:

Siemens 8RU (M50x25)

Subklev

48,0
96,0
42,4
89,5
14,7
141,0
8,0

Technical Subjects To Change

SSI301AE.CHP/11.00