

Process displays

SSI display with SSI interface for absolute encoders

Display LCD, 8-digits, scalable

NA214



NA214 - SSI display

Features

- Display LCD-TFT, 8 digits, with backlighting
- SSI format 1...31 bit, Gray or Binary code
- Master/Slave operation with max. clock frequency 1 MHz
- Free scaling and zero point definition
- 3 relay outputs and 2 analog outputs
- Interface RS485

Technical data - electrical ratings

| | |
|----------------------------|---|
| Voltage supply | 85...265 VAC (50/60 Hz) 24 VDC $\pm 10\%$ |
| Power consumption | 7 VA, 5 W |
| Sensor supply | 24 VDC $\pm 10\%$ / 150 mA |
| Display | LCD-TFT, 2-lines, backlit, alphanumeric |
| Number of digits | 8-digits |
| Digit height | 10 mm (position value) 5 mm (operator guidance) |
| Function | Position display with relay and analog outputs for an absolute measurand |
| Code | Gray or binary |
| Measuring principle | SSI format 1...31 bits |
| Input logic | NPN / PNP |
| Control inputs | 3 inputs (Start, Stop, Reset) |
| Scaling factor | 0.0000001...9.9999999 |
| Data memory | >10 years in EEPROM |
| Analog output | 0...+10 V, -10...+10 V Resolution 12 bit Temp. coeffic. typ. ± 20 ppm/ $^{\circ}$ C |
| Outputs relay | Change-over contact, floating |
| Interface | RS485 |
| Standard DIN EN 61010-1 | Protection class II Overvoltage category II Pollution degree 2 |
| Emitted interference | DIN EN 61000-6-3 |
| Interference immunity | DIN EN 61000-6-2 |

Description

NA214 SSI displays are recommended in conjunction with absolute encoders as well as measuring systems which provide SSI interface. The display readout can be adapted to the required measuring unit such as mm, inches, degrees, etc. Free parameterization of decimal points and zero point. Configurations with three relay outputs and an analog output are available to master positioning tasks. Communication with master systems is via RS485 interface.

Technical data - mechanical design

| | |
|-------------------------|--|
| Ambient temperature | 0...+50 $^{\circ}$ C |
| Storing temperature | -20...+70 $^{\circ}$ C |
| Relative humidity | 80 % non-condensing |
| Core cross-section | 1.5 mm ² |
| Protection DIN EN 60529 | IP 65 (face with seal) |
| Operation / keypad | Membrane with softkeys |
| Housing type | Built-in housing |
| Dimensions W x H x L | 96 x 48 x 124 mm |
| Cutout dimensions | 92 x 44 mm (-0.6) |
| Installation depth | 124 mm |
| Mounting | Front panel installation by clip frame |
| Weight approx. | 350 g (AC), 250 g (DC) |
| Material | Housing: Makrolon 6485 (PC) |

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Part number

NA214. 1 AX01

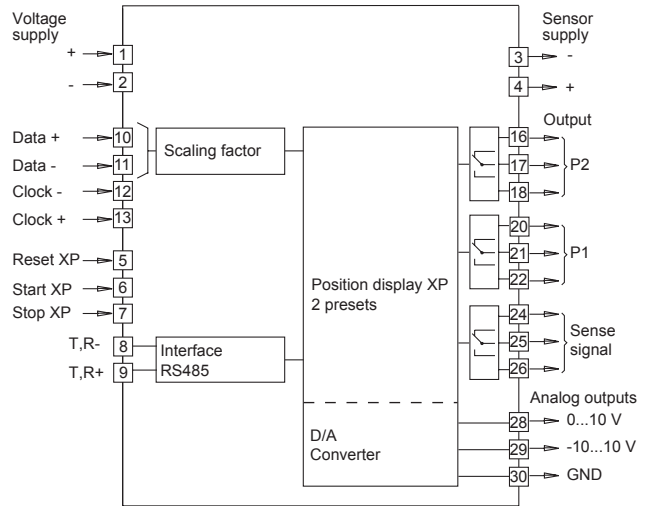
Voltage supply
 2 85...265 VAC
 3 24 VDC

Outputs

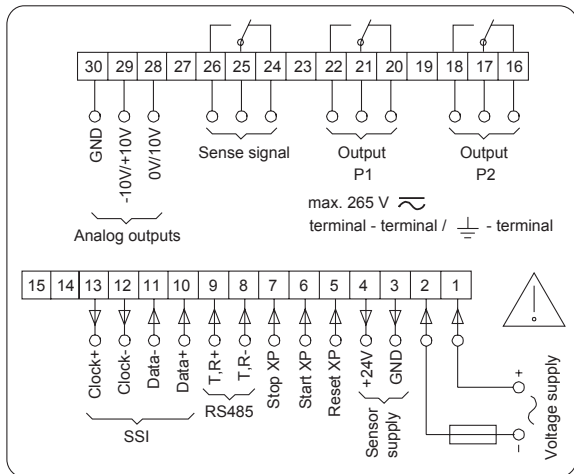
0 Without relay / without control input
 1 Three relay outputs
 2 Three relay outputs and two analog outputs

Interface
 1 RS485

Block circuit diagram



Connection diagram



Trigger level

| SSI | Circuit |
|-------------------------|-------------------|
| SSI-Clock | Optocoupler |
| SSI-Data | Linedriver RS485 |
| Comparator inputs | Input circuit |
| Control inputs | NPN- / PNP-logic |
| Input level | Programmable |
| Input level Low | 0...2 VDC |
| Input level High | 3...40 VDC |
| Input resistance | 3 kΩ |
| Relay outputs | Output circuit |
| Switching voltage max. | 250 VAC / 110 VDC |
| Switching current max. | 1 A |
| Switching capacity max. | 150 VA / 30 W |
| Relay responding time | 5 ms |

Dimensions

