

Spindle Position Displays

Hollow shaft max. $\varnothing 14$ mm, automatic format alignment

Display LCD two lines, interface RS485

N 152



N 152 with cable output

Features

- Motive spindle position display
- Absolute multiturn measuring system
- Display: LCD backlit, two lines
- Actual value and target display
- Hollow shaft max. $\varnothing 14$ mm
- Interface RS485
- Resolution: 1440 steps/revolution ± 4096 revolutions
- Two operating keys for format alignment touch by touch

Technical data - electrical ratings

Voltage supply	24 VDC ± 10 %
Current consumption	≤ 40 mA
Display	LCD, 7-segment display, 2-lines, backlit
Measuring principle	Absolute multiturn measuring system
Measuring range	-99.99...+999.99 mm -9.999...+99.999 inch
Steps per turn	1440
Number of turns	4096 / 12 bit
Spindle pitch	≤ 14 mm
Interface	RS485 (ASCII protocol)
Data memory	Parameter buffer: EEPROM Current value buffer: >10 years by integrated 3 V lithium battery
Programmable parameters	Display position horizontal/vertical Measuring unit mm/inch Spindle pitch Counting direction Spindle tolerance Positioning direction Direction arrows Tolerance window Round up/down
Motive positioning	Two softkeys for format alignment Direct motor connection to N 152 by motor cable
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
Approval	UL/cUL

Technical data - mechanical design

Hollow shaft	$\varnothing 14$ mm
Operating speed	≤ 600 rpm (short-term)
Protection DIN EN 60529	IP 65
Operating temperature	-10...+50 °C
Storing temperature	-20...+70 °C
Relative humidity	80 % non-condensing
Torque support	Torque pin provided at housing
E-connection	- Cable output (15 cm) with male connector M8, 4-pin - Motor cable with female connector M16, 12-pin
Operation / keypad	Membrane with two keys
Housing type	Surface-mount with hollow shaft
Dimensions W x H x L	37 x 75 x 45 mm
Mounting	Surface-mount with hollow shaft
Weight approx.	120 g
Material	Polyamide black, UL 94V-0

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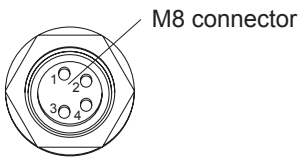
N 152

Terminal assignment

SPA – connector, 4-pin

M8 connector Assignment

Pin 1	Tx/Rx-, RS485
Pin 2	Tx/Rx+, RS485
Pin 3	Sensor supply +24 V
Pin 4	Sensor supply 0 V



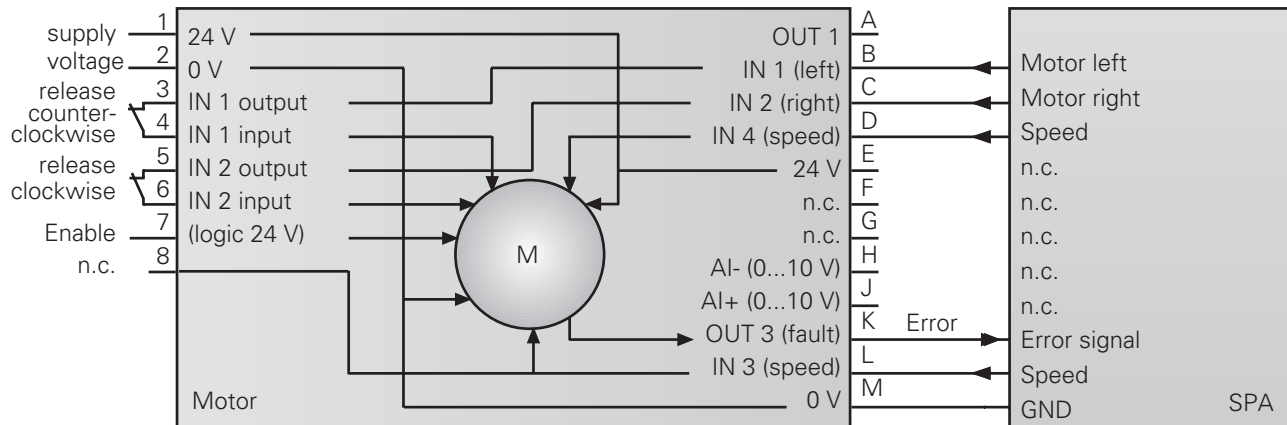
Motor connector, 12-pin

Connector Assignment

Pin A	–
Pin B	Motor left
Pin C	Motor right
Pin D	Speed
Pin E	–
Pin F	–
Pin G	–
Pin H	–
Pin J	–
Pin K	Error signal
Pin L	Speed
Pin M	GND



Circuit diagram



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N 152

Dimensions

