

# Spindle Position Displays

Hollow shaft max.  $\varnothing 14$  mm, with infrared interface

Format alignment by power tool, interface RS485

N 153



N 153 with cable output

## Features

- Infrared interface for format alignment by power tool
- Absolute multiturn measuring system
- Display: LCD backlit, two lines
- Actual value and target display
- LED status display
- Interface RS485
- Resolution: 1440 steps/revolution  $\pm 4096$  revolutions
- Two operating keys for format alignment touch by touch

## Technical data - electrical ratings

Voltage supply	24 VDC $\pm 10$ %
Current consumption	$\leq 40$ 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	$\leq 14$ 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 Counting direction Spindle pitch Spindle tolerance Positioning direction Direction arrows Tolerance window Round up/down
Motive positioning	Two softkeys for format alignment Connected to power tool by infrared interface
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	$\leq 600$ 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	- Male/female connector M8, 4-pin - Cable output (30/15 cm) with male/female connector M8, 4-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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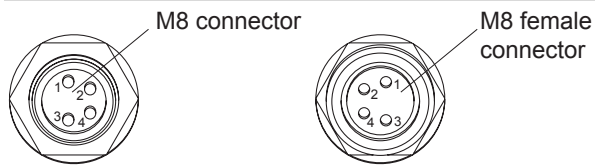
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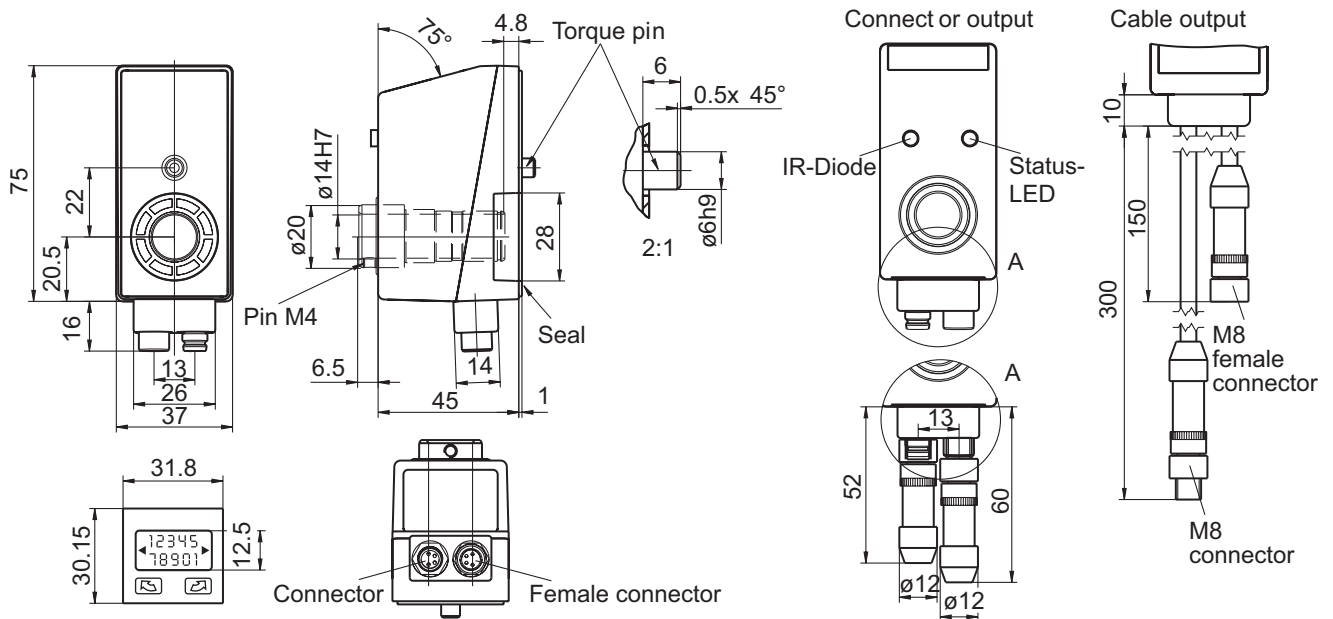
## Terminal assignment

### SPA – connector and female connector, 4-pin

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



## Dimensions



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