

NM170

Through hollow shaft up to ø25 mm

Manual format adjustment, CANopen®

Preliminary

Overview

- Manual format adjustment
- Through hollow shaft up to ø25 mm
- Resolution: 2304 steps/revolution ±4096 revolutions
- Display: LCD backlit, two lines
- Absolute multiturn measuring system
- Actual value and target display
- Interface CANopen®



Technical data

Technical data - electrical ratings

Voltage supply	24 VDC ±10 %
Current consumption	≤30 mA
Current load	≤1 A (connection cable)
Display	LCD, 7-segment display, 2-lines, backlit
Number of digits	6-digits
Measuring principle	Absolute multiturn measuring system
Measuring range	-999,99...+9999,99 mm - 99.999...+999.999 inch
Steps per revolution	2304
Number of revolutions	±4096 / ±12 bit
Spindle pitch	≤23 mm (programmable)
Interface	CANopen®
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
Standard DIN EN 61010-1	Protection class II Overvoltage category II Pollution degree 2

Technical data - electrical ratings

Emitted interference	EN 61000-6-4
Interference immunity	EN 61000-6-2
Approval	UL approval / E63076
Technical data - mechanical design	
Shaft type	ø20 mm (through hollow shaft) ø25 mm (through hollow shaft)
Operating speed	≤600 rpm (short-term)
Protection EN 60529	IP 55 (mounted mating connector)
Operating temperature	-10...+50 °C
Storage temperature	-20...+70 °C
Relative humidity	80 % non-condensing
Resistance	EN 60068-2-6 Vibration ±3.5 mm - 5-26.9 Hz 10 g - 26.9- 500 Hz EN 60068-2-27 Shock 5 g, 30 ms
Torque support	Torque pin provided at housing
Connection	Cable with male/female connector 2xM12, 5-pin
Housing type	Surface-mount with hollow shaft
Dimensions	56 x 106 x 84 mm
Mounting type	Directly at shaft end by means of grub screw
Weight approx.	370 g
Material	Polycarbonate black, UL 94V-0

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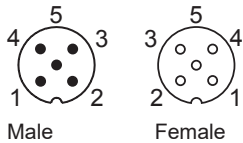
Description

NM170 spindle position display supports the editing engineer in manual spindle positioning operations. The principal benefits of the new electronic spindle position display is saving time in machine setup and editing as well as elimination of errors when aligning formats to new position values. The absolute measuring system captures any change in position even in powerless state. The backlit LCD display provides the editing engineer with all necessary information for efficient editing of new spindle positions. The two-line display shows both current value and target. A little arrow signalizes the editing engineer the direction the spindle must be turned to get to the new position. The CANopen® interface allows the connection of 120 participants to the CAN bus. The maximum number of devices is also limited by the maximum current load of the connecting cables and must be considered separately for each application.

Terminal assignment

Connector 2xM12

Pin	Assignment
1	Shield
2	+Vs
3	GND
4	CAN_H
5	CAN_L



CANopen® features

Bus protocol	CANopen®
Device profile	CiA DS 406
Communication profile	CiA DS 301
Layer Setting Service (LSS)	CiA DS 305
Default	Baud rate 125 kbit/s Node ID 127

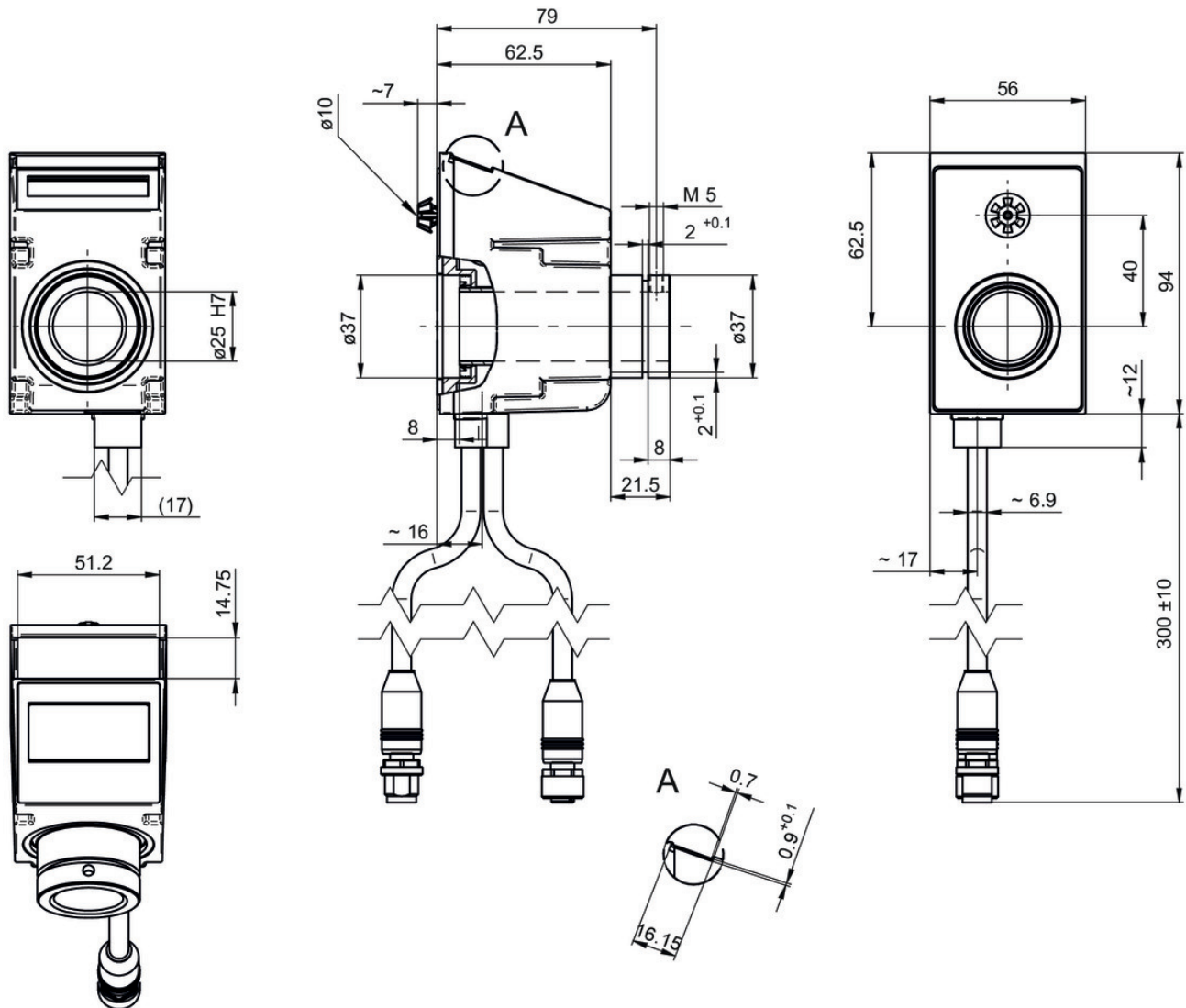
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Dimensions



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Ordering reference

	NM170	.	2	1	3	A	#	01
Product	NM170							
Interface								
CANopen®			2					
Connection								
Cable 0.3 m with male/female connector 2xM12, 5-pins				1				
Voltage supply								
24 VDC					3			
Display								
Inclined						A		
Through hollow shaft								
ø25 mm							A	
ø20 mm							B	
Software								
Standard								01