



# Multi**con** Spindle positioning multifunctional



## Idea

Complete system for efficient and manual setting of spindle positions consisting of:

- User and memory unit
- Up to 32 spindle position displays

## Solution

**Multi**con**** – Memory controller N 240 and spindle position display N 140. The complete system is capable of Bus network.

## Features

### ▶ **Memory Controller N 240**

- User and memory unit
- Two-line alphanumeric display
- 10 figure keypad with five function keys
- 100 profiles programmable
- Multilingual user software menu

### ▶ **Spindle position display N 140**

- Possible Bus network between 32 displays
- Two-line LCD display, both target and running value
- Absolute multiturn measuring system



# Memory Controller N 240

# Operation/Memory



## Description of Memory Controller N 240

The system as a whole, composed of memory controller N 240 and spindle position display N 140, is supporting manual adjustment of spindle positions. The memory controller is capable of memorizing 100 profiles with 32 spindle position values each. The spindle position values allow polling and being displayed as target by the help of spindle position display N 140.

This means a valuable support to the adjusting engineer during machine setup. The memory controller N 240 is featuring a multilingual user software as well as an alpha-numeric display for comfortable handling.

The high-capacity memory allows memorizing of preset spindle position values. Thus, the dimensions of certain end products can be stored and are available again upon request as target at each individual spindle position display.

## Features

- Store profiles
- Transfer profiles
- Spindle position displays with parameter setting feature
- Display
- Multilingual user software menu

## Electrical data

Operating voltage	85...260 VAC, 50/60 Hz
Power supply N140	24 VDC ±10 %, max. 1 A
Data memory	> 10 years, (EEPROM) operation parameters, profiles
Interface	RS485
Connection	Plug-in screw terminals, pattern 5.08
Core cross-section	Max. 1.5 mm <sup>2</sup>

## Ambient conditions

Ambient temperature	0...+50 °C
Storage temperature	-20...+70 °C
Relative humidity	Max. relative humidity 80 %, at 25 °C not condensing
Protection	IP 65 according to DIN 40050, connector/mating connect. IP40
General rating	EN 61010 Part 1 - Protection class II - Overvoltage protec. category II - Contamination factor 2
Interference immunity	EN 50082-2
Emitted interference	EN 50081-1
Approvals	UL/cUL-approved

## Mechanical data

Display	LCD TFT (2x16), alphanumeric, backlit
Operation, keypad	Front pad with short stroke keys 10 figure keys and 5 function keys
Front dimensions	DIN housing 72 x 72 mm
Mounting	Front-plate installation
Fastening	Clamping frame
Weight Approx.	Ca. 400 g
Housing material	Polycarbonate black, UL 94V-0
Front membrane	Polyester

## Accessories

Order no.	
N 140	Spindle position display
Z 165.D01	Voltage 24 VDC
Z 165.V01	Data cable, 5 m (Master to 1. SPA)
	Extension cable, 1 m (display to display)
Z 165.AW1	Terminator 150 Ohm

## Order designation

**N 240.102AX01 Memory Controller**

# Spindle position display N 140

## Hollow Smart



### Description of Spindle Position Display N 140

The spindle position display N 140 is featuring an absolute multiturn measuring system that is capable of capturing the position during several spindle turns, even whilst not under supply. The position values do not get lost even in case of power loss. An integrated lithium battery serves as buffer for many years.

Current position values are shown as running values in the two-line display. Together with Memory Controller N 240 the target is shown as well at the same time in the same display. The arrows in the display indicate the sense of rotation that has to be taken to reach the target.

The several spindle position displays allow networking between each other as well as with the Memory Controller by serial interface RS485.

### Parameterizing functions

- Display position horizontal/vertical
- Unit displayed mm/inch
- Spindle thread
- Spindle tolerance
- Counting direction
- Direction arrow
- Tolerance window
- Curve
- Positioning direction

### Electrical data

Operating voltage	24 VDC $\pm$ 20 %
Power consumption	30 mA
Resolution	2304 steps/turn
Pitch	Programmable max. 23 mm
Measuring range	-999.99...+9999.99 mm (-99.999...+999.999 inch)
Data memory	> 10 years, buffer for running value and parameters by integrated 3 V Lithium battery
Interface	RS485
Connection	Two 5-core cables of 30 cm length, with connector and mating connector

### Ambient conditions

Ambient temperature	0...+50 °C
Storage temperature	-20...+70 °C
Relative humidity	Max. relative humidity 80 %, at 25 °C not condensing
Protection	IP 65 according to DIN 40050, connector/mating connect. IP40
General rating	EN 61010 Part 1 - Protection class II - Overvoltage protec. category II - Contamination factor 2
Interference immunity	EN 50082-2
Emitted interference	EN 50081-1
Approvals	UL/cUL-approved

### Mechanical data

RPM number	Max. 600 rev./min. (short-term)
Hollow Shaft	25 mm
Display	Two-line backlit 7-segment LCD display for running value and target
Mounting	Directly at the end of the shaft by stud screw.
Weight	Ca. 200 g
Housing material	Polycarbonate black, UL 94V-0

### Accessories

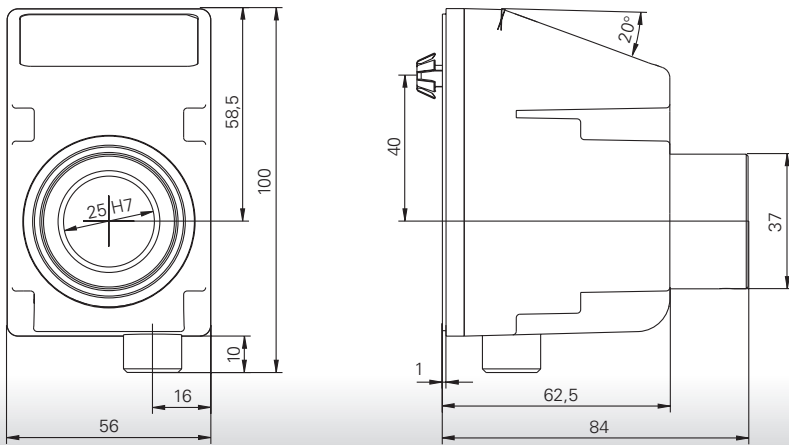
Order no. N 240	Memory Controller Front dimensions 72 x 72 mm 10 figure keypad Voltage 85...260 VAC
Z 165.D01	Data cable, 5 m (Master to 1. SPA)
Z 165.V01	Extension cable, 1 m (display to display)
Z 165.AW1	Terminator 150 Ohm

### Order designation

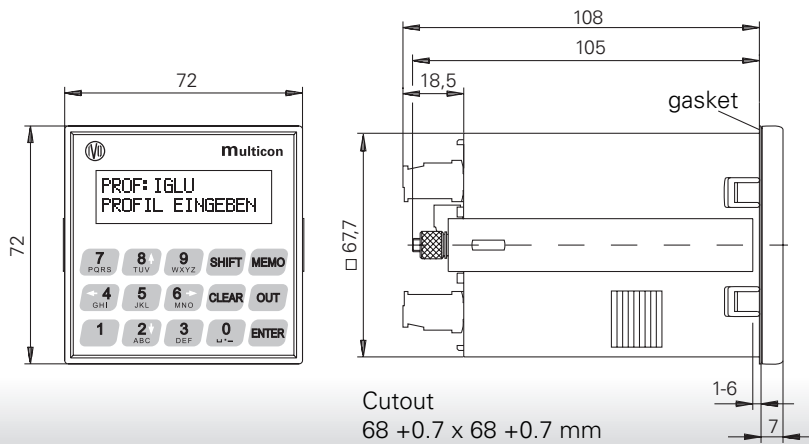
**N 140.103AA01 Spindle position display**



**Dimensions N 240**



**Dimensions N 140**



**Fax request • Fax request • Fax request • Fax request • Fax request • Fax request • Fax request**

**Send us further information about:**

- Absolute and incremental encoders
- Electronic and mechanical counters
- Mechanical and electro-mechanical counters
- Spindle position display, Memory Controller
  
- Counseling desired
- Please call us
- Please send us an offer for

\_\_\_\_\_

\_\_\_\_\_

- Other wishes and suggestions

\_\_\_\_\_

\_\_\_\_\_

**Sender**

Company \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_

P.O. Box, town \_\_\_\_\_

Phone, Fax \_\_\_\_\_



**IVO GmbH & Co.**

P.O. Box 3360  
 78022 VS-Schwenningen  
 Phone +49 (0)7720 942-0  
 Fax +49 (0)7720 942-999  
 e-mail: info@ivo.de  
 www.ivo.de

A Member of the Baumer Group