

# SIMATIC MV230 – for inspecting height contours and profiles



## Highlights

- Ideally suited for use in rough industrial environments
  - Degree of protection IP65
  - Not affected by stray light
- Tests objects which are up to 7 cm wide
- Can detect height differences of up to 100 mm
- Short changeover times through simple model switch
  - 16 inspection models teachable
  - Switching of the inspection models takes place via digital inputs
- Fast commissioning
  - No image processing knowledge required
  - No programming required

# simatic sensors

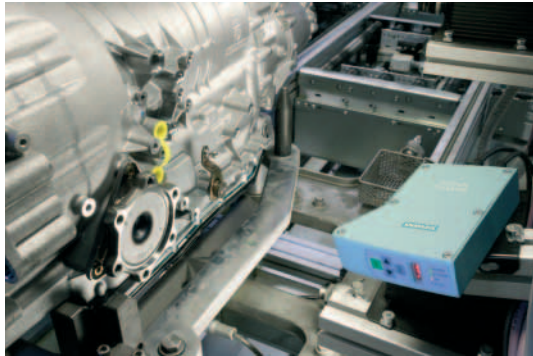
The compact height profile sensor SIMATIC MV230 constitutes a complete image processing system for automatically inspecting objects through their specific height profiles or contours. It is designed for manufacturing industries, packaging industries, and general machine building engineering.



**SIEMENS**

## Applications of the MV230

- Manufacturing and assembly technology in the automotive supply industry and electrical engineering: Checking, parts recognition, position inspection in assembly, etc.
- Packaging machines: Presence check, parts recognition, checking the orientation of objects
- General machine building: Presence check, parts recognition, checking the orientation of objects



## Functions of the MV230

- Teaching in the models using one or more good parts
- Inspecting an object using the features extracted during teach-in
- Inspection can be performed on stationary and moving objects
- Inspection of the object returns a good/bad statement in accordance with the set threshold values
- The results are supplied on two digital outputs:
  - OK: Comparison of the object with the saved model is better or equal to the set threshold value
  - N\_OK: Comparison of the object with the saved model is worse than the set threshold value

## SIMATIC MV230 – Technology overview

Image sensor	CMOS sensor; 750 x 480 pixels
Operating distance	210 mm to 310 mm
Display field size	75 mm x 100 mm (at 310 mm operating distance)
Measuring principle	Contour mapping (laser triangulation)
Inspection mode	Profile evaluation
Accuracy / Physical resolution	Height accuracy: 0.5 mm Width accuracy: 0.2 mm
Image acquisition triggering	Internal free running trigger; external trigger through digital input TRG
Cycle time, max.	50 ms
Activation delay	16 ms
Result output	"OK" and "N_OK", signified by LEDs and over digital outputs
Light source	Laser diode, red light
Laser protection class	2M (IEC825-1, EN60825-1)
Length of laser line	50 mm ... 75 mm
<b>Functions</b>	
Operation	4-digit text display and 4 operation keys
Number of teachable models	16 (with "teach in" at the sensor)
Diagnostic messages	LEDs, text display and digital output
Operational indicators	LEDs and digital output
Keylock	Through digital input
Verification of preset values	Possible with global and model-specific checksums
Statistics function	Available
<b>Interfaces</b>	
Digital inputs	6 inputs for trigger, model selection and keylock
Digital outputs	4 outputs for result, diagnostics and operational status
<b>General data</b>	
Supply voltage	24 V DC (20.4 ... 28.8 V DC; with inverse-polarity protection)
Current consumption, max.	2 A
Material	Housing: plastic, aluminium lens cover: plastic
Dimensions (H x W x D) mm	161 x 35 x 112
Weight	450 g
Degree of protection	IP65 according to DIN EN 60529
Ambient temperature	0 ... 45 °C, no condensation
Vibration/shock	According to IEC61131-2

## Siemens AG

Automation and Drives  
Sensors and Communication  
Postfach 48 48  
90327 NÜRNBERG  
DEUTSCHLAND

[www.siemens.com/simatic-sensors/mv](http://www.siemens.com/simatic-sensors/mv)

*The information provided in this brochure contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.*

*All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.*