

# Panel indicator with stepper motor technology

## Datasheet



### Features

- High accuracy through stepper technology
- Multiple input signals
- Free configurable scale design
- Automatic error position pointer when absence of power

### Benefits

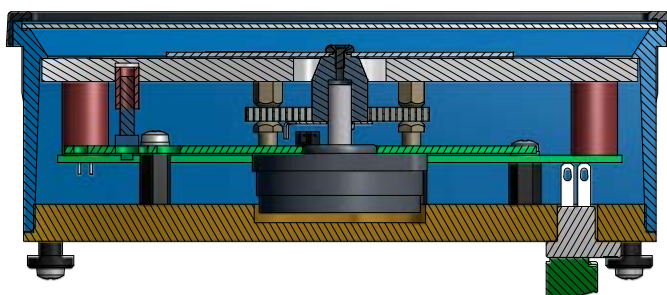
- Proven reliable
- High precision stepper motor 0.1° degrees
- Solid technology making the pointer frame better resistance against shock and vibration
- Self calibrating every start up phase

## Description

The new developed stepper panel indicator is an extension to the analogue panel indicator range of Mors Smitt. This new indicator based on stepper motor technology ensures a solid and very accurate, <math><0,5\%</math>, indication of any requested signal.

The stepper panel indicator is self calibrating at each starting up cycle, during this time the red LED indicates this process. An error contact is opened once any error occurs. If the indicator loses its power the pointer will go to a clearly visible error position and the error contact will open.

The scale can be configured to individual requirements. Additional signaling LED's in the corners can be added upon request.



### Railway compliancy

- EN50155

# Panel indicator with stepper motor technology

## Technical specifications

### General

Power supply Input signal Accuracy	Suitable for 24,36,48,60,72,84,96,110V DC Current: 0..20mA, 4..20mA, 20...0...20mA Accuracy of the motor is 0,1° degrees Accuracy of the total panel indicator is <0,5%
Initialization and error mode	In initialization mode or process error - The position of the pointer will be located by the processor - The error contact will open - The error LED will light up In absence of power - The pointer will go to error position - The error contact will open

### Characteristics

Housing	144x144 mm. housing 96 x 96 mm. housing (without corner LED's) 136 ø mm. round housing (without corner LED's)
Protection	Front IP54 Rear IP50 Terminals IP20
Connections	8 connections : 2 power 2 input 2 illumination 2 error contacts 8 optional connections for signalling LED's in the corners.
Pointer design	Pointer made by rotating plastic disc Printed black with white or yellow pointer
Scale design	Scale design possible over 270° Black scale ground Text, lines, figures in white, yellow, green and/or red. Scale made from plastic Specific white scale grounds possible
Illumination	White illumination Through-scale illumination. Illumination supply possible for 24, 36, 48, 60, 72, 84, 96, 110V DC (Isolated illumination circuit) Illumination dimming possible through voltage adjustment & PWM
Compliant to standards	EN 50155

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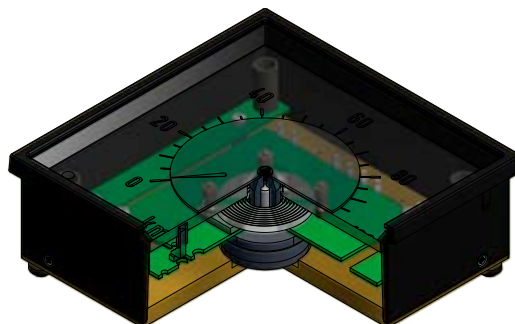


### Additional options

<p>Illumination</p> <p>Other input</p> <p>Signalling LED's</p>	<p>Any other colour illumination</p> <p>Other analogue signals are on request e.g. :                      - Current: min. 0-1mA, max. 0-100mA,                      - Voltage: min. 0-1V, max. 0-50V</p> <p>1, 2, 3, or 4 signalling LED's                      Possible for 24, 36, 48, 60, 72, 84, 96, 110V DC (Isolated circuit for each LED)</p>
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### Future developments

<p>Pointer design</p> <p>Scale design</p> <p>Input signal</p> <p>General</p>	<p>Pointer or illuminated pointer possible</p> <p>Any colour scale possible</p> <p>Digital inputs possible</p> <p>Counter and digital display</p>
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