



- **Digital processing of displayed value**
- **Display of tested multimeter on PC screen**
- **Automatic calibration of multimeters without interface**
- **USB port for camera connection**
- **Option for Caliber software**
- **7 segment display, 3...8 digits resolution**

Specification

System requirements

- Control unit (Windows based PC)
- Operation system MS Windows XP / Vista / 7 / 8 / 10
- Caliber software
- CamOcr module (holder for fixing the camera module, shield cover, camera)
- Instruments with test cables

Application limits

CamOcr is designed for scanning 7-segment displays. Number of displayed digits must be at least 3 and no more than 8.

Description

Module „CamOcr“ is designed for scanning of seven-segment display with the digital camera. The module assembly incorporates a camera with the rotary holder retaining the camera attached to the pedestal, enabling the camera to be turned in several directions, setting in that way the optimal light conditions.

The software processes the image information, transferring it into the digital ASCII code. The digits differentiation features a high reliability of the transfer even under worsen light conditions.

The module requires no auxiliary lightning, however, under poor light conditions, an image evaluation may last longer.

Function	Range	Standard	UUT	Deviation	%spec	Allowed	Uncertainty	Symbol	
<input type="checkbox"/>	VDC-2W	200 mV	-180.0 mV	-180.6 mV	-620 uV	-62	1003 uV	65 uV	ok
<input type="checkbox"/>	VDC-2W	2 V	0.200 V	0.200 V	-0.00 mV	0	2.00 mV	0.58 mV	ok
<input type="checkbox"/>	VDC-2W	2 V	1.800 V	1.803 V	2.80 mV	28	10.01 mV	0.64 mV	ok
<input type="checkbox"/>	VDC-2W	2 V	-1.800 V	-1.803 V	-2.90 mV	-29	10.01 mV	0.61 mV	ok
<input type="checkbox"/>	VDC-2W	20 V	2.00 V	2.00 V	0.0 mV	0	20.0 mV	5.8 mV	ok
<input type="checkbox"/>	VDC-2W	20 V	10.00 V	10.03 V	31.0 mV	52	60.2 mV	6.1 mV	ok
<input type="checkbox"/>	VDC-2W	20 V	18.00 V	18.05 V	53.0 mV	53	100.3 mV	6.6 mV	ok
<input type="checkbox"/>	VDC-2W	20 V	-2.00 V	-2.00 V	0.0 mV	0	20.0 mV	5.8 mV	ok
<input checked="" type="checkbox"/>	VDC-2W	20 V	-18 V						

Camera module “CamOcr” is an option of program Caliber. Caliber is software for automated calibrations of measuring instruments. With the camera-scanning module, it features entirely automatic calibration of digital instruments, which have no possibility to be connected to the computer. During the calibration process, the program proceeds similarly as if having been connected to the computer. The camera-scanned image is digitally processed and transferred into digital information. The program is determined for seven-segment display. A set of measurements in each check point is done, then being statistically evaluated and deviation and uncertainty of measurement is stated. This solution benefits from a significant reducing of work quantity for calibration as well as from better repetition and objectivity of measuring. The system entirely eliminates influence of the operator on the uncertainty calibration.

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The program is suitable for the checking of measuring instruments because it enables an elaboration of multiple measurements, calculation of the value dispersion as well as measurement uncertainty.