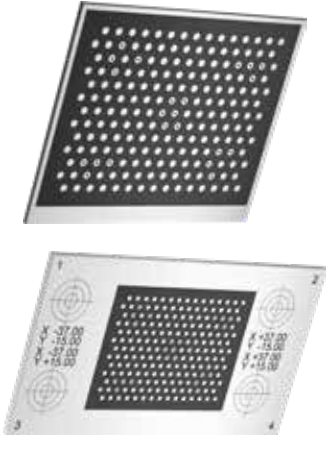
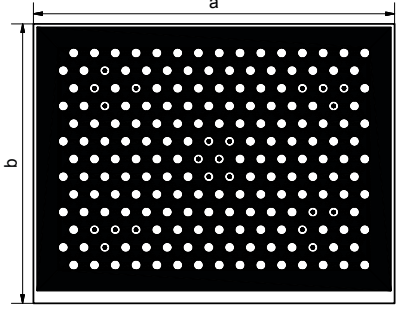


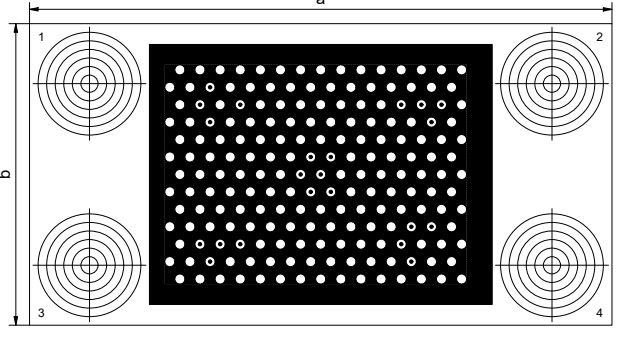
Accessories VISOR® Robotic

Calibration plates for calibrating the VISOR® vision sensor.

Scaling, tilt angle against perpendicular view to the measurement plane or lens distortion are all corrected.

Calibration plates				
	Part number	Article number	Description	Typ
	ZCP 50-13x15	533-11030	15x13 points, 50 mm x 37.9 mm	Standard
	ZCP 100-13x15	533-11031	15x13 points, 100 mm x 75.8 mm	Standard
	ZCP 200-13x15	533-11032	15x13 points, 200 mm x 151.7 mm	Standard
	ZCP 500-13x15	533-11033	15x13 points, 500 mm x 379.2 mm	Standard
	ZCP 50-13x15-X01	533-11037	15x13 points, crosshairs, 50 mm x 37.9 mm	X01
	ZCP 100-13x15-X01	533-11038	15x13 points, crosshairs, 100 mm x 75.8 mm	X01
	ZCP 200-13x15-X01	533-11039	15x13 points, crosshairs, 200 mm x 151.7 mm	X01
	ZCP 500-13x15-X01	533-11040	15x13 points, crosshairs, 500 mm x 379.2 mm	X01
	ZCP 100-13x15-X02	533-11035	15x13 points, fiducials, 100 mm x 75.8 mm	X02
	ZCP 50-13x15-X03	533-11042	15x13 points, fitting holes, 50 mm x 37.9 mm	X03
	ZCP 100-13x15-X03	533-11041	15x13 points, fitting holes, 100 mm x 75.8 mm	X03
	ZCP 100-ECC200	533-11036	Calibration plate for Code Reader ECC200 quality parameters	-

Dimensional drawing Standard						
	153-13531		a	b	t*	Recommended field of view [mm]
			[mm]	[mm]	[mm]	
		ZCP 50-13x15	54	47	2	22 - 50
		ZCP 100-13x15	104	85	2	30 - 100
		ZCP 200-13x15	204	161	4	60 - 200
ZCP 500-13x15	504	389	4	150 - 500		
Supports calibration method „Calibration plate (Measurement)”. Reference marks: none..						

Dimensional drawing X01						
	153-01300		a	b	t*	Recommended field of view [mm]
			[mm]	[mm]	[mm]	
		ZCP 50-13x15-X01	98	54	2	22 - 50
		ZCP 100-13x15-X01	180	100	2	30 - 100
		ZCP 200-13x15-X01	340	176	4	60 - 200
ZCP 500-13x15-X01	820	403	4	150 - 500		
Supports calibration method „Calibration plate (Robotics)”. With the reference marks, a reference to the absolute coordinate system is established. Reference marks: crosshairs.						

*Thickness

Calibration accessories for SensoPart vision sensors

The calibration plates are used for calibrating the VISOR® vision sensor.

Scaling, tilt angle against perpendicular view to the measurement plane or by lens distortion are all corrected.

Calibration plates (Cont)

Dimensional drawing X02

	a [mm]	b [mm]	c [mm]	d [mm]	e Ø [mm]	t* [mm]	Recommended field of view [mm]
ZCP 100-13x15-X02	295	215	250	170	7	4	30 - 100

For establishing an absolute reference, reference marks are available. The transformation is calculated in the robot.
Reference marks: fiducials, crosshairs.

Dimensional drawing X03

	a [mm]	b [mm]	c [mm]	d [mm]	e Ø [mm]	t* [mm]	Recommended field of view [mm]
ZCP 50-13x15-X03	298	218	250	170	7	4	22 - 50
ZCP 100-13x15-X0	298	218	250	170	7	4	30 - 100

See version X02.
Reference marks: fitting holes, crosshairs.

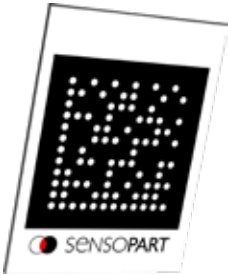
Dimensional drawing ZCP 100-ECC200

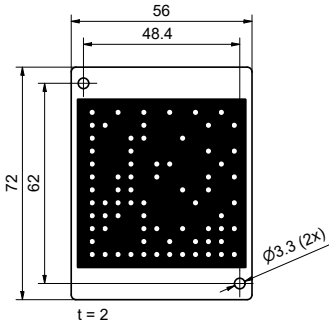
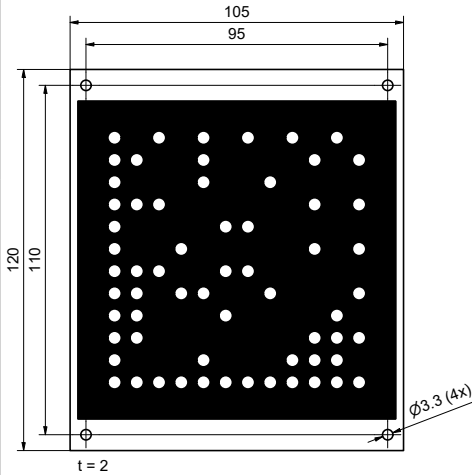
	a [mm]	b [mm]	t* [mm]
ZCP 100-ECC200	100	75	2

Reference Code for quality parameters according ISO/IEC 15415.
All parameters should have quality grade "A".
Make sure that "Module height" and "Module width" > 10 and "Contrast" > 80.
Use frame lines to make sure that code is in center of image.

*Thickness

Target Marks for SensoPart vision sensors

Target marks			
	Part number	Article number	Description
		ZTM 50-D2-2x3.3	533-11046
	ZTM 100-D2-4x3.3	533-11047	Target Mark, 100 mm, auto-ID, mounting holes, adhesive pads,

Dimensional drawing ZTM XXX-D2-Xx3.3			Recommended field of view [mm]
			
	ZTM 50-D2-2x3.3		60 - 240
	ZTM 100-D2-4x3.3		110 - 440

