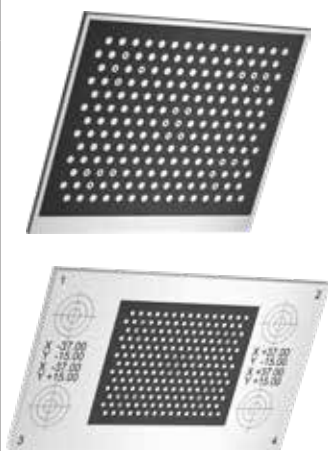
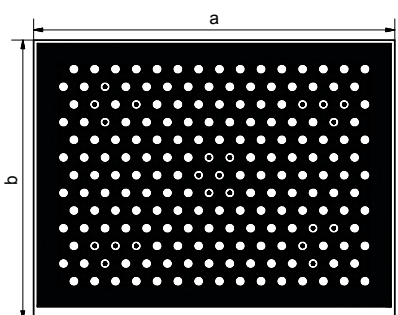


ZCP

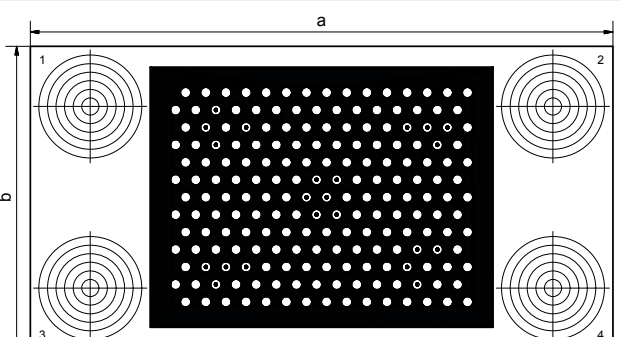
Calibration accessories for SensoPart vision sensors

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	-
	ZTM 38-D2-RF-2x3.3	533-11044	Target Mark, 38 mm, auto-ID, reflective foil, mounting holes, adhesive pads	-
	ZTM 100-D2-RF-4x3.3	533-11045	Target Mark, 100 mm, auto-ID, reflective foil, mounting holes, adhesive pads,	-
	ZTM 38-D2-RF-2x3.3-12	533-11054	Target Mark, 38 mm, auto-ID, reflective foil, mounting holes, adhesive pads, set of 12 pcs.	-
	ZTM 100-D2-RF-4x3.3-12	533-11055	Target Mark, 100 mm, auto-ID, reflective foil, mounting holes, adhesive pads, set of 12 pcs.	-

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.

Dimensional drawing Standard									
	153-13531	a	b	c	d	e Ø	t	Recommended field of view	
		[mm]	[mm]	[mm]	[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	e Ø	t	Recommended field of view	
		[mm]	[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.

Calibration plates (Cont)

Dimensional drawing X02

	153-13528		a	b	c	d	e Ø	Recommended field of view
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
		ZCP 100-13x15-X02	295	215	250	170	7	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

	153-13530		a	b	c	d	e Ø	Recommended field of view
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
		ZCP 50-13x15-X03	298	218	250	170	7	22 - 50
		ZCP 100-13x15-X03	298	218	250	170	7	30 - 100

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

Dimensional drawing ZCP 100-ECC200¹

	153-13529
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Dimensional drawing ZTM XXX-D2-RF-Xx3.3

	153-13679		a	b	c	d	e Ø	Recommended field of view
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
		ZTM 38-D2-RF-2x3.3(-12)	43	58	33	48	3.3 (2x)	40 - 160
		ZTM 100-D2-RF-4x3.3(-12)	105	120	95	110	3.3 (4x)	110 - 440

¹ Calibration plate for ECC200 Codes, sample code in quality grad „A“ according ISO/IEC 15415.