Description

The VisiCon *dPP* probe family (**d**ynamic **P**attern **P**rojection) offers measurement sensors for non-contact three-dimensional detection of surfaces. Each probe takes 40 images per second, from which a 3D model of the illuminated tire is generated. This model is used to calculate the relevant chassis parameters, such as toe and camber. In differential mode, high image contrasts are achieved and the influence of extraneous light is compensated.

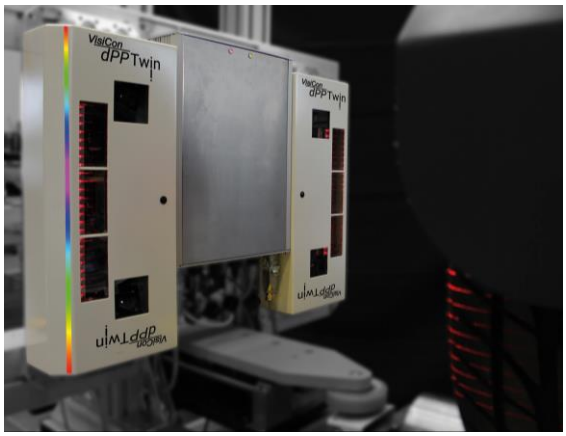
dPP Twin

The *dPP* Twin is a variant of our trusted *dPP* sensor, specifically designed for integration in test benches with confined space conditions and small measurement distances. It is suited to update existing wheel aligners that are equipped with technically outdated 2D measurement technology (e. g. Perceptron).

Benefits for our customers

- Reliable measurement technology and software
- Ideal for small measurement distances
- Broad range of tires measurable
- Insensitive to ambient light

Each *dPP* Twin consists of 2 measurement heads, both equaling an independent 3D measurement probe with 2 cameras and 3 laser blocks each. The electrical supply and mechanical connection of the measurement heads is done via the central unit. The distance between the measurement heads is variable and thus enables the measurement of a broad range of tires.



Operating mode

The measurement object is dynamically illuminated with a large number of laser lines. Two cameras each record the lines from different angles, according to the principle of stereophotogrammetry. The images are related to each other in order to calculate and output the coordinates of numerous 3D points from the sensor on the object surface in real time. From this, the chassis parameters toe and camber can be calculated.

To operate a wheel aligner, the measurement software VisiWheAl ideally combines four *dPP* Twin probes.

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Order number

	Order number
***dPP* Twin**	B275098

Technical Data

	***dPP* Twin**
Dimensions probe (with base plate, H x W x D)	584 mm x 205 mm x 110 mm
Dimensions central unit (H x W x D)	403 mm x 285 mm x 114 mm
Weight measuring head (single)	approx.8 kg
Weight central unit	approx. 7 kg
HS code	90319000
Power supply	24 V DC ± 20 %
Starting current	5 A
Power consumption	31 W (max. 40 W)
Measurement frequency	40 Hz (20 differential images per second)
Reproducibility on measurement standard	Toe ±0,1’ Camber ±0, 2’
Accuracy on measurement standard	Toe ±1’ Camber ±2’
Protection type according to DIN EN	IP 54
Laser class according to DIN EN 60825-1	2M
Wave length diode laser	655 mm
Operating distance	420 mm – 620 mm
Operating area of the cameras (typical)	Height 280 mm, Width 330 mm (at 420 mm operating distance) Height 265, Width 479 mm (at 620 mm operating distance)
Illumination height on tire	288 mm
Interfaces	Ethernet 1 GB/s Communication GBit Interface Industrial connector: Harting
Ambient temperature	10°C .. 45°C
Humidity	20 .. 80 %, not condensing

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Accessories

Image	Name and information	Order number
	Mounting	B275103
	Calibration target	B275099
	Software license VisiWheAl	B293063
	Training	On request

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