

dPP probe with 10 laser

Description

The VisiCon dPP probe (**d**ynamic **P**attern **P**rojection) is a measurement sensor for non-contact three-dimensional detection of surfaces. The probe takes 40 images per second, from which a 3D model of the illuminated tire is generated. From this, toe and camber can be calculated. In differential mode, high image contrasts are achieved and the influence of extraneous light is compensated. Optionally an illumination unit can measure the height of the wheel house edge synchronously.

Usually eight laser blocks (2 x 32 laser lines) are used to illuminate the measurement object. For larger tires, a probe with ten (2 x 40 laser lines) or twelve (2 x 48 laser lines) is more suitable.

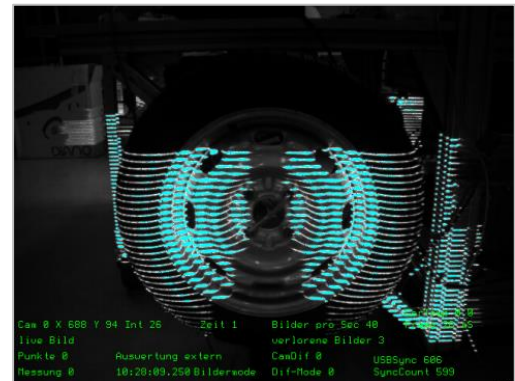
Functionality

The measurement object is dynamically illuminated with a large number of laser lines. Two

cameras 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. To operate a wheel aligner, four probes are ideally combined by the measurement software VisiWheAl.



Laser lines on wheel



Differential image

Benefits for our customers

- Reliable measurement technology and software.
- Large measurement range, one probe per wheel.
- Insensitive to ambient light.

Order numbers

	Order number
dPP 32	B252322
dPP 40	B252576
dPP 48	B252601

Technical Data

The data refer to a probe without illumination unit.

	dPP 32	dPP 40	dPP 48
Size (H x W x D)	744 mm x 300 mm x 125 mm		
Weight	14,5 kg	15 kg	15,5 kg
Dimensions including packaging (H x W x D)	830 mm x 350 mm x 200 mm		
HS code	90319000		
Power supply	24 V DC \pm 20 %		
Starting current	5 A		
Power consumption	31 W (max. 40 W)	36 W (max. 48 W)	41 W (max. 57 W)
Measurement frequency	40 images per second (20 differential images per second)		
Reproducibility on measurement standard	Toe \pm 0,1' Camber \pm 0,2'		
Accuracy on measurement standard	Toe \pm 1' Camber \pm 2'		
Protection type according to DIN EN 60529	IP 54		
Laser class according to DIN EN 60825-1	2M		
Wave length diode laser	655 nm		
Operating distance	1000 mm \pm 200 mm, on request + 400 mm		
Operating area of the camera (typical)	Height 690 mm, width 800 mm (at 800 mm operating distance) Request our calculation program to determine the values for your application		
Illumination height on tire	384 mm	480 mm	576 mm
Interfaces	Ethernet 1 GB/s Communication GBit Interface Industrial connector: Harting		
Temperature range	0°C-45°C		
Humidity	Up to 90 %, not condensing		

Accessories

Image	Name and information	Order number
	Illumination unit V3.0	B274908
	Connector set	B251763
	Calibration target	B271691
	Calibration target with calibration disc for illumination unit	B271699
	Software license VisiWheAl	B293063
	Software license VisiWheAl (incl. height measurement)	B293093
	Training	On request
	Mounting	On request