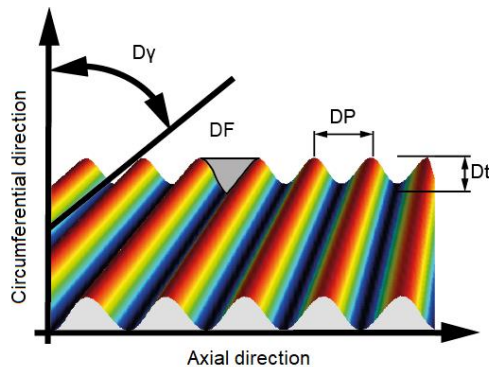
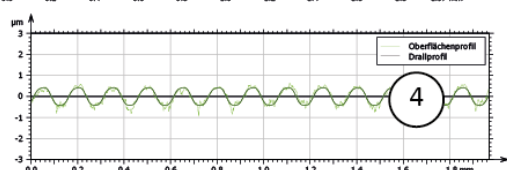
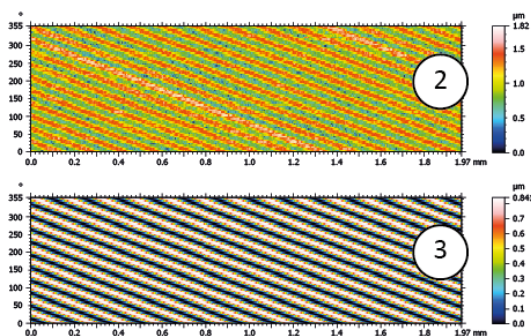


360° and 36° measuring pattern for macro-lead evaluation



Macro-lead characteristics according to MBN31007-7

Parameter	Wert	Einheit	Parameter	Wert	Einheit
Durchmesser	80.0	mm	Periodenlänge	DP	mm
Messstrecke	2.00	mm	Theoretischer Förderquerschnitt	DF	mm ²
Maximale Wellenlänge	0.400	mm	Theoretischer Förderquerschnitt pro Umdrehung	DF	mm ² /U
Gängigkeit	DG	10.0	Prozentuale Auflagelänge	DLA	%
Drahtiefe	Dt	0.041	Drahtwinkel	Dy	°



Exemplary measurement protocol

Description:

The macro-lead evaluation according to Daimler factory standard MBN31007-7 is used to measure revolving periodic macro lead. The measuring method is based on profile measurements, which are uniformly measured 72 times each in a 360° (5° steps) and in a 36° (0.5° steps) grid distributed parallel to the axis. The 72 individual profiles are then assembled into a topography. Periodic macro-lead structures are identified by frequency analysis and then mathematically approximated. From the mathematical approximation, characteristic macro-lead parameters of the sealing surface, such as lead angle and lead pitch or theoretical feed cross-section can be determined.

Protocol Expansion:

1. Macro-lead characteristics
2. Display of the surface, composed of 72 profiles
3. Mathematically approximated lead surface
4. Exemplary roughness profile with superimposed lead profile

Macro-Lead Characteristics:

Dy	... Lead angle	[°]
DF	... Feed cross section	[mm ²]
DP	... Period length	[mm]
Dt	... Lead depth	[μm]
DG	... Numbers of threads	[-]

Available measuring devices:

- Hommel T8000
- Confovis Surface and lead measuring device