

Product Name :
Computerized Cam Analysis

Product Code :
CHINAELABC2610002



Description :

Computerized Cam Analysis

Technical Specification :

The Computerized Cam Analysis unit allows the dynamic investigation of a cam mechanism at various speeds. Four typical cams with corresponding engaging members are compared in terms of their motion behavior. The valve is simulated with a mass and a spring. A recorder synchronized with the cam member records the actual elevation curve of the cam mechanism. A speed-controlled drive motor with a large flywheel generates a speed as constant as possible. The open design means that the motion is clearly visible in every detail. The experimental unit is intended for demonstration in engineering education. A transparent protective cover ensures safe operation. It is not suitable to be used as a test bench in the field of endurance testing/tribology.

FEATURES:

- Comparison of the elevation curves of different cam-member shapes
- Comparison of elevation curves with theory
- Four different cam members, two different engaging members
- Influence of spring stiffness and mass on the dynamic behavior
- Determine the limit speed and compare with theory
- Influence of moving mass on the motion of cam member/plunger
- Influence of return-spring stiffness and preload on the motion of cam member/plunger
- Record elevation curves of cam mechanisms

SPECIFICATION:

Cam-shaped cam members: tangent cam, hollow cam, 2 circular arm cams with different head radius
2 different engaging members: flat receiver with plunger or rolling receiver with plunger
3 interchangeable return springs and spring preload Oscillating mass can be increased with 5 additional weights
Optical speed sensor
Transparent protective cover for safe operation
Recorder: toothed belt drive

Drive motor :
DC asynchronous motor with frequency converter
Power: 250W
Speed: 60...670min⁻¹

Cam-shaped cam member :
Stroke, each: 15mm
Opening angle, each: 140°

Spring stiffness :
Hard: 5,026N/m
Medium: 2,601N/m
Soft: 613N/m

Masses :
Additional masses supplied with different weights

Power required for operation :
230V, 50Hz, 1 phase
230V, 60Hz, 1 phase; 120V, 60Hz, 1 phase



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