Flowchart Load Situations

NAVIGATION AID FOR MULTICOMPONENT SENSORS
Uniaxial or Multiaxial Load?

Uniaxial

Static or Dynamic

Static

1-A

Dynamic

1-B

Multiaxial

Static or Dynamic

Static

2-A

Dynamic

2-B
1-A
Uniaxial - Static

Does the load exceed the nominal load?
    No
      Sensor is suitable for this load
    Yes
      Does the load exceed the limit load?
        No
          Specifications can not be guaranteed anymore
        Yes
          Does the load exceed the breakage load?
            No
              Permanent damage of the sensor
            Yes
              Risk of breakage! Sensor is not suitable for this load
1-B Uniaxial - Dynamic

- Pulsating
  - Pulsating or Alternating?
    - Alternating
      - Calculate LRS
        - Is the criterion for the fatigue strength range at multiaxial alternating load fulfilled?
          - Yes
            - Sensor is suitable for this load
          - No
            - Risk of breakage! Sensor is not suitable for this load
    - Calculate LRS
      - Is the criterion for the fatigue strength range at multiaxial pulsating load fulfilled?
        - Yes
          - Sensor is suitable for this load
        - No
          - Risk of breakage! Sensor is not suitable for this load
2-A Multiaxial - Static

Calculate LRS

Is the criterion for the nominal measuring range at multiaxial load fulfilled?
- No
  - Sensor is suitable for this load
- Yes
  - Specifications can not be guaranteed anymore

Is the criterion for the static load range at multiaxial load fulfilled?
- No
  - Specifications can not be guaranteed anymore
- Yes
  - Permanent damage of the sensor

Is the criterion for the (static) load range without break at multiaxial load fulfilled?
- No
  - Permanent damage of the sensor
- Yes
  - Risk of breakage! Sensor is not suitable for this load
2-B Multiaxial - Dynamic

Pulsating

Pulsating or Alternating?

Calculate LRS

Is the criterion for the fatigue strength range at multiaxial pulsating load fulfilled?

Yes

Risk of breakage! Sensor is not suitable for this load

No

Sensor is suitable for this load

Alternating

Calculate LRS

Is the criterion for the fatigue strength range at multiaxial alternating load fulfilled?

Yes

Sensor is suitable for this load

No

Risk of breakage! Sensor is not suitable for this load