New Product Flash

KW 13TRIO

3-axis Surface Fault Detection of a New Generation

Lump & Neckdown Detection of the Highest Level

For continuous quality control, lump & neckdown detectors are as important as diameter gauges and spark testers.

The new line of KW 13TRIO detectors capture with the highest accuracy, reliability and velocity, even the smallest lumps and neck downs in wires, conductors, optical fibres, cables, tubes and hoses.
Thanks to its very compact design, the KW 13TRIO can easily be integrated in any extrusion line or rewinding process. The measuring field is dimensioned in such a way that during the start-up, even extremely big lumps pass smoothly through. Its open design enables quick and easy threading of the product without stopping production.
A powerful micro processor as well as full digital signal processing, makes this lump & neckdown detector an essential tool for faultless quality control.

This detector is, in addition to other versions, also available as a stand alone device. Thanks to a local operating and display unit, the KW 13TRIO can be fully operated and configured at the device.

Versatile use of the KW 13TRIO is guaranteed thanks to multiple interfaces, such as serial RS, Profibus DP or Ethernet EN. Via the RS interface port, connection can be made to one of the well known USYS data acquisition, processing and display systems. The Profibus DP and Ethernet EN versions allow the connection to a higher-level host, such as a PLC or data acquisition system.

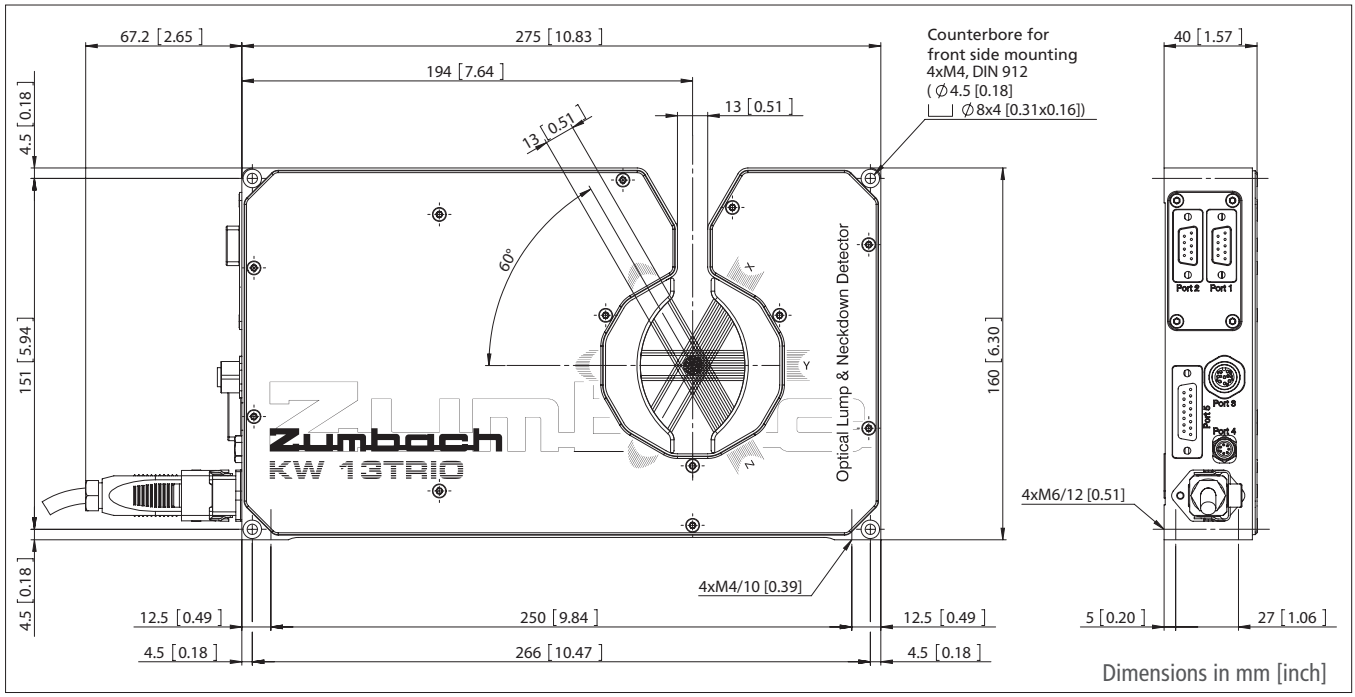
A unique measuring principle and complex optics solution, ensure immunity to stray and intense light whilst providing the highest detection accuracy and identification of lumps and neckdowns in the micrometer range.

The KW 13TRIO models feature an internal fault database to store the last 100 detected faults, including fault characteristics such as fault number, type, height, position and length of fault. This database can either be accessed via the local operating and display unit or via the optional remote interfaces.

Highlights

- Complex optics allows:
  – Min. detectable fault height of 0.01 mm (.0004 in.)
  – Min. fault length of 0.2...0.3 mm (.008... .011 in.)
- Full digital signal processing DSP
- Very compact design

Dimensions



Main Data

Number of measuring axes	3	
Measuring field M [1]	13 mm	(.51 in.)
Minimum product diameter	0.04 mm	(.001 in.)
Tolerance range setting [2]	0.01...3 mm	(.004 ... .118 in.)
Tolerance range resolution	1 µm	(.00004 in.)
Minimum fault length	0.2...0.3 mm	(.007 ... .11 in.)
Maximum line speed	3000 m/min	(9850 ft./min.)
Power supply	85...265 VAC (47...63 Hz)	
Port 1: RS-232	Service port	
Port 2: RS-232/-422/-485 (galvanic) or Profibus DP or Ethernet EN	Host port, printer	
Port 3: RS-422/+24 VDC	Local operating and display unit	
Port 4: Length detector input	0.25 Hz ... 5 kHz, applicable as digital input (proximity switch according EN 60947-5-6 resp. NAMUR)	
Incremental encoder input (A, B)	0.25 Hz ... 200 kHz	
Port 5: Remote tolerance setting	0...10 V (adjustable resolution: 0.1...10 V/mm or inch)	
Analogue output	+/- 10 V (adjustable resolution: 0.1...10 V/mm or inch)	
Digital alarm outputs or optional relays	- General alarm - Lump - Neckdown	
Digital inputs	- Start - Stop - Pause	

[1] M stands for measuring field height. In practice, the largest object diameter corresponds to measuring field height minus instability of position.
[2] The smallest fault tolerance of 10 microns (.0004 in.) may only be selected under ideal environmental conditions., i.e. dust-free, dry and extraneous light-free environment.

Operating Data

Ambient temperature	Operating	0 ... 45° C (32 ... 113° F)
Ambient temperature	Storage	-20 ... +50° C (-4 ... 122° F)
Atmospheric humidity	Operating	Max. 80%, non condensing
Atmospheric humidity	Storage	Max. 95%, non condensing
Power supply		85 ... 264 VAC / 47 ... 63 Hz
Type of protection		Measuring zone: IP 65; Supply zone: IP 40

• Technical specifications are subject to change without notice

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