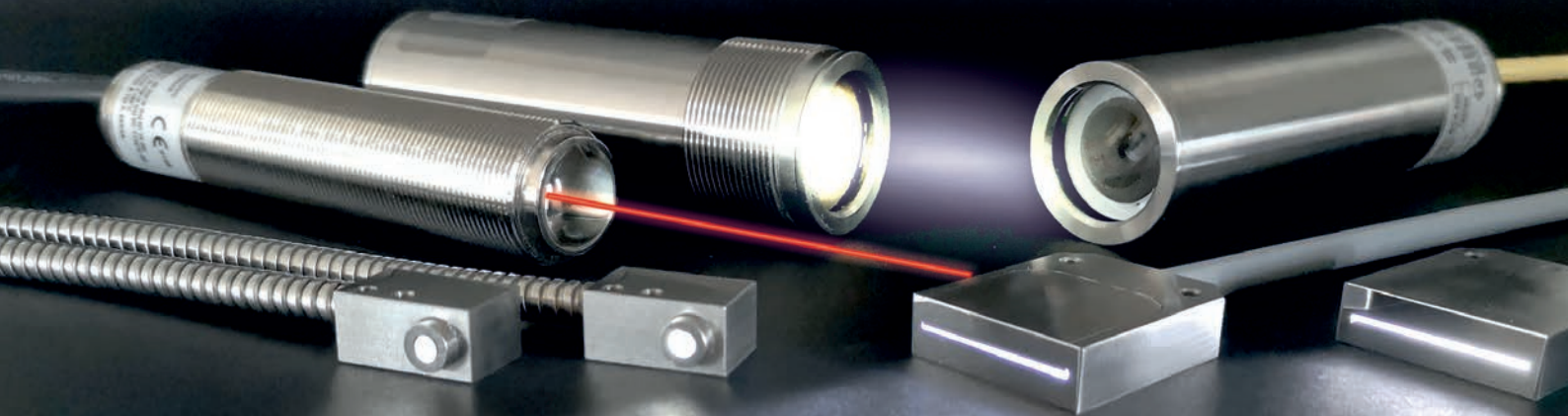


Sensortechnik
Sensor Technology



Laserdistanzsensor
Lichtleiter Kamera
Beleuchtung



Distance measurement

in  Hazardous areas



according to the
time-of-flight
principle

Video: <https://youtu.be/PePARKBpPY>

TDD – Time-of-flight rangefinder

Measuring range	100 mm to 1000 mm
Resolution	± 10%
Output	RS485, 4 - 20mA, switching output
Areas	(0), 1, 2, (20), 21 and 22

Works independently of the reflectance of the measurement object
Explosion-proof, robust and compact M30

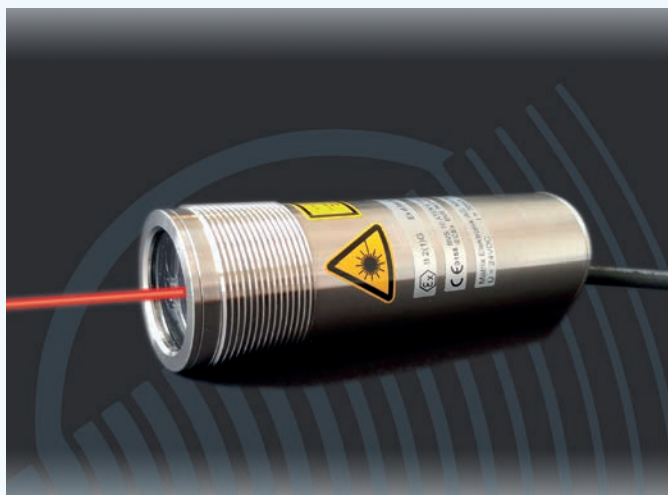
Metal housing in flameproof enclosure Ex„d“

Optical power limitation -

Sensors may radiate in zones 0 and 20

Versions with switching function and analog output 4 - 20 mA

Protection class IP 67



New! Devices with windshield heating and selectable laser timing

Video: <https://youtu.be/AIzknTL5TVw>

LDH, LDG – Laser distance sensors

Measuring range	50 mm to 30.000 mm
Resolution	1 mm
Output	RS485, 4 - 20mA
Areas	(0), 1, 2, (20), 21 and 22

Exact, precise and millimeter-accurate measurement using time-of-flight measurement

Suitable for matt, glossy and different colored - also black - objects

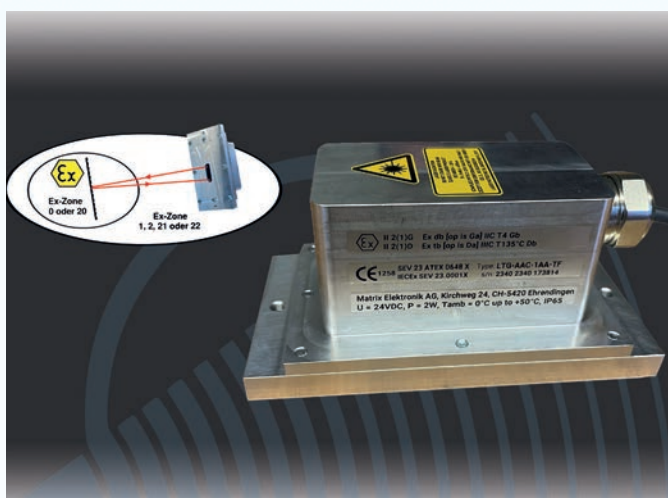
Explosion-proof, robust stainless steel housing

M42 housing in flameproof Ex„d“ enclosure

Optical power limitation -

Sensors may radiate in zones 0 and 20

Protection class IP67



Video: <https://youtu.be/seiO2kTCvu8>

Additional information and data sheets can be found on our website at www.tippkemper-matrix.de

LTG – Laser triangulation sensors

Measuring range	43 mm to 143 mm
Resolution	10 µm
Output	RS422, 4 - 20mA
Areas	(0), 1, 2, (20), 21 and 22

Distance measurements with a reproducibility of < 10 µm

Easy alignment thanks to visible laser light

Stable measured values regardless of the color and brightness of the measured object, measuring rate up to 2 kHz

Analog output signal 4 - 20 mA, data interface RS 422

Explosion-proof, robust housing made of die-cast aluminum in flameproof Ex„d“ encapsulation

Optical power limitation -

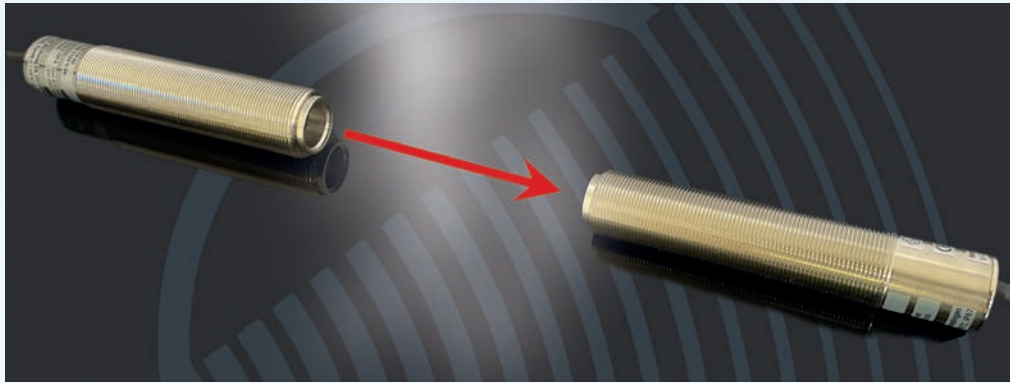
Sensors may radiate in zones 0 and 20

Protection class IP65



High-performance light barriers

High-performance light barrier ILG-260



Infrared, 850nm
Insensitive to ambient light
Use in Ex zones 1, 21
according to ATEX, IECEx
Range: up to at least 30m
Power supply: 24 VDC
Output: pnp
Design: M30
Metal housing
Protection class IP 67



High-performance light barrier ILS-260 – for the most extreme applications



*Penetrates flames as well,
thus particularly suitable for the furnace industry!*

Easy assembly and alignment of
transmitter and receiver
Increased range of up to 600m
Extremely resistant to dirt
Very strong penetration
Insensitive to external light
Sturdy metal housing
Protection class IP 67



Video: <https://youtu.be/PePARKBpPY>

Cameras and light sources

in  Hazardous areas

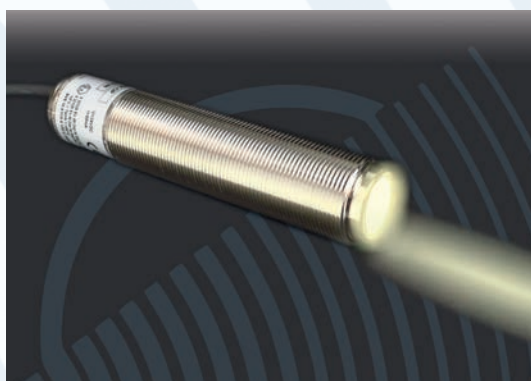
CV – Color cameras, explosion-proof



Video transmission speed of up to 90 FPS
with a resolution of up to 1920x1080 pixels
Photos with up to 3280x2464 pixels
8-megapixel camera
Integrated barcode and QR code capture
Configurable and controllable via Modbus TCP
For Ex Zones (0), 1, 2, (20), 21, 22 (Gas and Dust Ex)
Explosion-proof, robust stainless steel housing
M42 in pressure-proof encapsulation (Ex „d“)
Protection class IP67



LQ – Continuous light sources for all Ex areas



Continuous light sources for all Ex zones
Explosion-proof, robust stainless steel housing in M30 and M42
In pressure-proof encapsulation Ex „d“
Light sources with and without fiber optic adaptation
Daylight white light source color
Optical power limitation –
Light sources may emit in Zone 0 and 20
Protection class IP67

Additional information and datasheets
can be found on our website at
www.tippkemper-matrix.de



Unternehmensgruppe



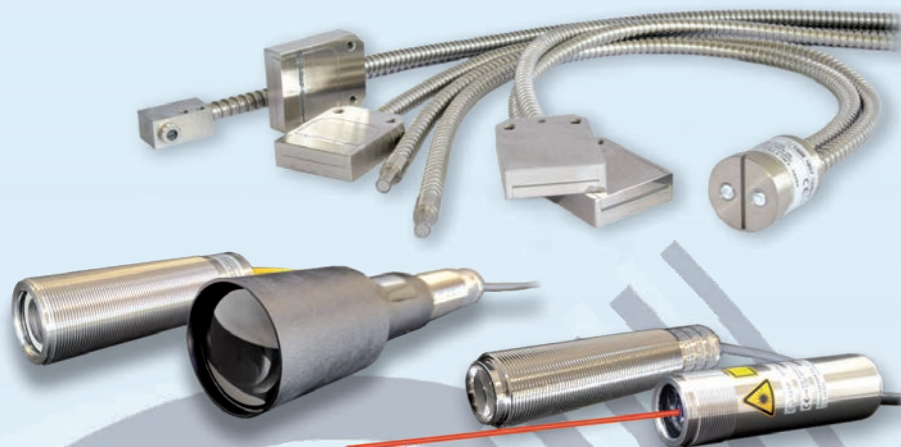
MATRIX
elektronik ag

Tippkemper-Matrix GmbH

Meegener Str. 43
D-51491 Overath-Marialinden
Telefon: 02206 / 9566-0
Telefax: 02206 / 9566-19

Matrix Elektronik AG

Kirchweg 24
CH-5420 Ehrendingen
Tel.: +41 (0) 56 / 2040020
Fax: +41 (0) 56 / 2040029
www.tippkemper-matrix.com
info@tippkemper-matrix.com



Optoelektronische Sensoren

Glasfasersensoren Laserdistanzsensoren ameratechnik
Lichtquellen / Beleuchtungstechnik



Tippkemper-Elektronik GmbH

Borgfeld 12
D-59302 Oelde
Tel.: +49 (0)2529/9301-50
Fax: +49 (0)2529/9301-49
www.tippkemper-elektronik.de
info@tippkemper-elektronik.de



Sonderentwicklungen kapazitive Füllstandssensoren

Heißleim Schmelzkleber Wachs Lack Chemikalien Öl



Norsonic-Tippkemper GmbH

Zum Kreuzweg 12
D-59302 Oelde
Tel.: +49 (0)2529/9301-0
Fax: +49 (0)2529/9301-49
www.norsonic.de
tippkemper@norsonic.de



Schallpegelmesser und Analytoren

Bauakustik Raumakustik Materialprüfung Fahrzeugakustik
Schallimmissionsschutz Lärm am Arbeitsplatz (www.norsonic.de)

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