

# DETECT 1 - 2002

## Innovations in Optical Sensors



visit:

[www.eltrotec.com](http://www.eltrotec.com)



Colour sensor WLCS - M - 4

- 4-channel colour sensor with fibre optic
- "Teach In" + multiple teach function
- no limit in life time, white LED illumination
- > 1500 **FASOP** - fibre optic's adaptable
- 1 - 100 mm sensing distance with additional optic
- RS 232 interface & 4x PNP/NPN
- external trigger
- highly selective. Better than the human eye!
- 9/10 bit colour- and intensity-resolution

The latest standard in colour sensors

## ELTROTEC sensor & camera system integrator



Long distance colour sensor WLCS - LD - 800

- range from 40 - 800 mm
- 3, 5, 10 kHz switching frequency
- laptop software for adjustment
- RS 232 + 4 BCD coded switching outputs (PNP / NPN)
- 10 colour memories, white LED illumination
- colour monitoring in RGB- and XY coordinates, bar graphic for mounting purposes in: car industry, bottle filling-, lac- and printing industry, paper-, glass recycling, colour coding- and packaging industry



Colour line camera series 3150

- "All-In-One" colour line camera
- "Teach In" via WINDOWS® Cam-Software
- edge-, failure-, colour control on running materials
- 24 bit colour resolution, 3 x 3700 pixel
- RS 232 / 422 (20 M Byte's) interface
- digital switching outputs
- up to 64 edges in one scan detectable
- full service with illumination, optic, software installation on request
- **2-D cameras** for dimensions, colour, OCV, OCR and Data-Matrix-Codes available on request

# Detection and measuring practices - ELTROTEC's strength



**Fork- light barriers series GSI**

- visible red, laser forks
- fork width: 2 - 220 mm
- repeatability  $\geq$  typ. 0,01 mm
- 2,5 / 4 kHz switching frequency
- for positioning and counting tasks
- aluminium housing
- PNP/NPN, sensivity adjustment
- dark- / light switching
- no mechanical adjustment problems

**inhousing  
mechanical  
adjustment**



**Analogue measurement through beam- & fork sensors**

- analogue laser shadow- and fork sensors for dimension-, position- and edge control purposes
- A / D evaluation boxes with one or two inputs, inside processing, switching outputs **in  $\mu$ m accuracy**
- 100 kHz band width, 6 or 25 kHz switching frequency
- programming via software or poti, OEM version
- results within two tolerances, dirty environment adjustment
- 0 - 10 VDC, 0 - 20 mA, 4 - 20 mA, PNP/NPN  
RS 232 interfaces

sensors: LLS, LBS, LDS, CLS-K, IFA  
evaluation EL-AUS 34, EL-AUS 11  
boxes: EL-AUS 4, ECON 4

**multi purpose, fast sensor  
evaluation concept for  
various sensors**



**Laser-reflex-proximities RT series**

- precise position / distance detection with series RT- laser proximities
- 55 - 300, 80  $\pm$  1, 45  $\pm$  1.5, 500  $\pm$  20, 20 - 100, 115 - 125, 50 - 200, 300 - 1300 mm, other ranges on request!
- frequency 1, 1.5, 3, 5 kHz
- PNP/NPN or RS 232 interfaces
- background suppression
- focus adjustment
- accuracy  $\geq$  0,1 mm
- customer versions on request! e.g. driller brake detection

Laser reflex light barriers up to 20 meters available!



**Laser-displacement-sensors**

- triangulation principle - highest precision (PSD & CCD types)
- 4 - 2000 mm measuring ranges
- accuracy  $\geq$  2  $\mu$ m, repeatability  $\geq$  4  $\mu$ m
- 0 - 10 VDC, 4 - 20 mA, RS 232 interfaces
- detection of 3 - 98 % surface reflections
- frequency up to 25 kHz
- 5 sensor series (see: [www.eltrotec.com](http://www.eltrotec.com))
- evaluation boxes on request!