



LED- SIGNAL LIGHTS

And when do you see the light?



IPF ELECTRONIC

High-End in High-Tech.



←
*SCAN QR CODE
AND READ FLYER DIGITALLY*

CLEARLY UAND WITH GREAT EFFECT

What works with traffic lights in road traffic also works in industry, albeit often far more complex. LED display lights indicate machine, system or process statuses and thus visually transmit very specific information, sometimes accompanied by an acoustic signal.

But the well-known, classic signal lights are not always in demand. Of course, ipf electronic also has these in its product range, but there are also a number of other designs and rather unusual designs that ensure optimum signal transducers in all conceivable applications and are individually adapted to the respective situation and customer specifications.

Whether compact and round, particularly flat, rather short or elongated, freely configurable, with touch function, as a strip light, with or without signal transducer, etc., we have the right LED signal light with great effect for almost all tasks, installation situations and environments.

And if you still have not found a solution for your own application after looking through this flyer, then give us a call, because what you will find here is partly the result of very individual customer requests.

HOW LED SIGNAL LIGHTS WORK

SENSOR SOLUTIONS FROM IPF ELECTRONIC

ipf electronic provides a wide range of solutions with different technologies for visual and acoustic signal transducers.

Basically, LEDs in signal lights offer the following advantages: very high energy efficiency, an extremely long life, no emission of UV or IR components and, last but not least, flicker-free operation, which is important when used in machines with fast rotating tools and workpieces (avoidance of stroboscopic effects).

The ipf electronic portfolio includes signal towers with fixed colors, which are divided into three or four light segments and also have an acoustic signal transducer (95dB). Thanks to the option of controlling several color segments, these signal towers can be used to display different machine statuses simultaneously.

The freely parameterizable LED signal towers with signal transducer (90dB) open up even more application flexibility. Five light segments are clearly visible on each side. The sieve colors of the light segments can be selected as desired on each side and even the light area can be flexibly divided.

The LED signal lights and combined machine/signal lights with multi-color LEDs in very different and e.g. particularly flat designs with just one signal segment, whose basic colors red, green and blue are already preconfigured, are extremely versatile.

The mixed colors are created by controlling several device connection pins. The interconnection of all pins results in the light color white, e.g. for the combined machine/signal lights as basic lighting. And here too, different statuses can be displayed in color- with just a single light up.

Another unusual solution is the LED light strip with multi-colored LEDs that can be controlled individually or in groups. The light strip can be parameterized via IO-Link and therefore opens up previously unimagined freedom for individual, application-specific signal settings (more on this on pages 12 and 13).

DOME LIGHTS

EZ360330 AND EZ360331

- / Multicolor LED with M12 connector
- / 360° design- clearly visible all round
- / Diameter 50mm (**EZ360330**) and 90mm (**EZ360331**)
- / Break-resistant and splinter-free coverage
- / Adjustable flashing mode (2Hz)
- / Installation thread in M30, e.g. for integration in control panels
- / Plastic housing (degree of protection IP67)
- / Accessories: Mounting flange (**AE000032**), extension (**AE000033**) and mounting bracket (**AE000034**)



EZ650520

- / Multicolor LED with M12 connector
- / Very flat design (height only 25mm)
- / 360° design- clearly visible all round
- / Diameter 65mm
- / Aluminum housing (degree of protection IP67)
Acrylic glass coverage



EZ550320

- / Multicolor LED (red, green, yellow) with M12 connector
- / Touch function for triggering a switching signal (e.g. acknowledgement function)
- / Integrated signal transducer(85dB)
- / Adjustable flashing mode (2Hz)
- / Compact recessed light (diameter 55mm)
- / 360° design- clearly visible all round
- / Installation thread in M30 (integration in control panels, on control cabinets, machine housings, etc.)
- / Plastic housing (ABS) (IP65/IP69k), Polycarbonate coverage
- / Accessories: Mounting bracket (**AE000034**)



DOME LIGHTS

ADVANTAGES AND HIGHLIGHTS

- | Large selection in a robust industrial design*
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- | Large selection in a robust industrial design*
- | A single light up for various status displays*
- | Adjustable flashing mode (EZ36, EZ55)*
- | Touch function e.g. for acknowledgement (EZ55)*
- | Integrated, easily perceptible signal transducer (EZ55)*
- | Clearly visible from all sides (360° design)*
- | High protection classes up to IP69k (EZ55)*
- | Easy integration e.g. in control panels (M30 installation thread, EZ36, EZ55)*
- | Easy connection (M12 connector, 5- and 8-pin)*
- | Versatile mounting accessories*
- | Ideal for retrofitting*



CYLINDRICAL SIGNAL LIGHTS

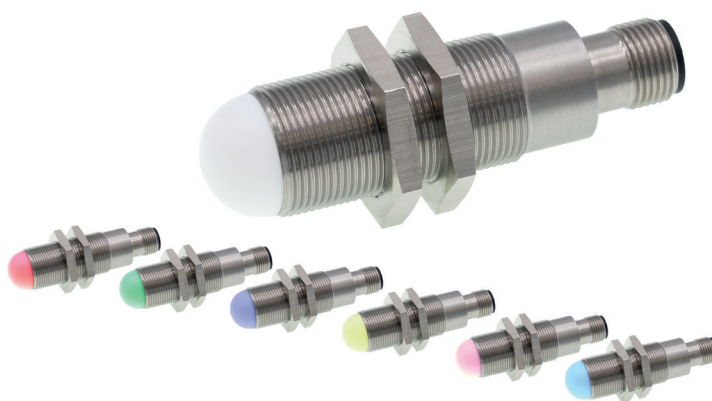
AO000461 AND AO000486

- / Bi-color LED (red, green)
- / Compact design (M12 threaded housing)
- / For particularly harsh environments (stainless steel housing, IP67)
- / Two lengths: 76mm (AO000461), 47mm (AO000486)
- / Connection with M12 plug connector
- / Accessories: including flexibly adjustable mounting plates with ball joint, mounting forks, etc.



EZ180320

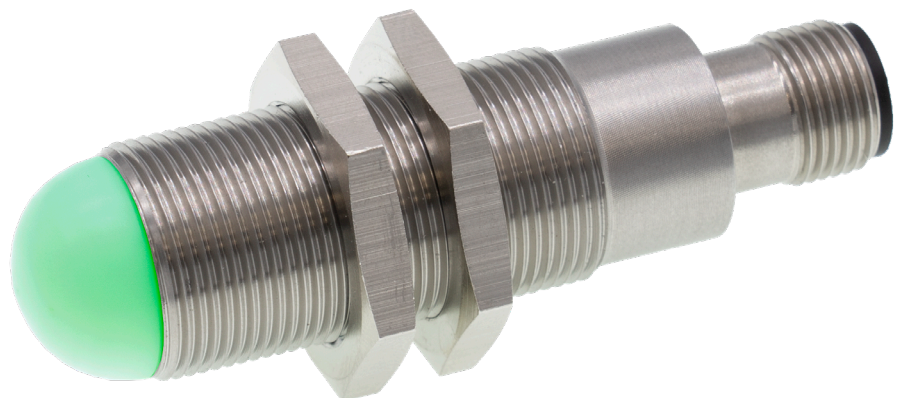
- / Multicolor LED light
- / Compact design (M18 threaded housing)
- / Dome-shaped front cover
- / 360° design- clearly visible all round
- / Length 69mm
- / Very robust (stainless steel housing, IP65)
- / Connection with M12 plug connector
- / Accessories: including adjustable mounting plates ball joint, clamp holders, etc.



CYLINDRICAL SIGNAL LIGHTS

ADVANTAGES AND HIGHLIGHTS

- | Choice of bi-color or multi-color LED signal lights*
- | A single light up for various status displays*
- | Flexible choice of light color (EZ18)*
- | Compact designs: M12 or M18 threaded housing*
- | 360° design with dome-shaped front cover that is clearly visible from all sides (EZ18)*
- | Various degrees of protection: IP67 (AO000461, AO000486) and IP65 (EZ180320)*
- | Simple connection with M12 connector*
- | Wide range of mounting accessories*
- | Ideal for retrofitting, e.g. as indicator lights on containers*



COMBINED MACHINE AND SIGNAL LIGHTS

EM45

- / 5 different lengths (210mm to 1,000mm)
- / Diameter 45mm
- / High luminosity (3,900lm), Color temperature 5.000K
- / Large angle of beam spread (80°)
- / Robust, shatterproof front screen (borosilicate glass)
- / Degree of protection IP67
- / M12 plug connector
- / Accessories: Mounting sets with stainless steel-mounting brackets and protective rubbers (**AO000306**, **AO000616**)



EZ15

- / Extremely flat light up (height only 8mm)
- / 3 different lengths (140mm, 240mm and 340mm)
- / Degree of protection IP67
- / 2m open cable tail
- / Accessories: Rubberized, magnetic mounting brackets (M4 inside thread)



EZ30

- / Power from 5.6W to 47.7W
- / 7 different lengths (206mm to 1,546mm)
- / Compact design (width 30mm, height 25mm)
- / Aluminum housing (IP54)
- / M12 plug connector
- / Accessories: Mounting bracket (**AE000024/25**) made of steel (optionally with magnetic) or made of plastic (**AE000026**)



EZ38

- / Extremely flat light up (height only 8mm)
- / 4 different lengths (140mm to 440mm)
- / Degree of protection IP67
- / M12 plug connector
- / Accessories: Rubberized, magnetic mounting holders (M4 inside thread)



COMBINED MACHINE AND SIGNAL LIGHTS

ADVANTAGES AND HIGHLIGHTS

- | One light, several functions (ambient lighting, LED signal light)*
- | Multi-color LED for highly flexible signal transducer*
- | High luminosity for perfect illumination in continuous operation (e.g. EM45)*
- | Wide range of designs for different installation situations*
- | Extremely flat lights up for space-saving use (EZ38 and EZ15)*
- | High degree of protection up to IP67*
- | Particularly robust, e.g. with front screen made of borosilicate glass (shatterproof) (EM45)*
- | Easy installation and integration into existing systems with M12 connector*
- | Wide range of mounting accessories*
- | Ideal for retrofitting*

If standard off-the-shelf solutions don't fit your needs, that is no reason to settle for conventional lighting. If there are special requirements in terms of robustness, mechanical version, stable coverage or control options, we can draw on a wealth of experience to provide you with the optimum illumination for your needs. Just get in touch with us!



SIGNAL TOWERS

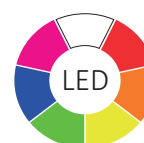
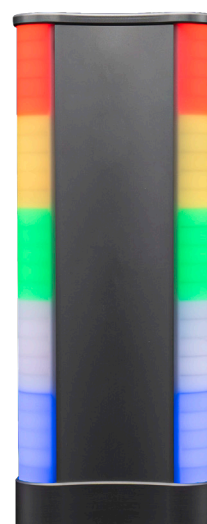
EZ500320 AND EZ500330

- / 3 segments (**EZ500320**) (red, green, yellow) or 4 segments (**EZ500330**) (red, green, yellow, blue)
- / Acoustic signal transducer (95dB)
- / Simultaneous control of several segments
- / Highly visible all round
- / Diameter 50mm, height 184mm (**EZ500320**) and 231mm (**EZ500330**)
- / M12 plug connector 5-pin (**EZ500320**) or 8-pin (**EZ500330**)
- / Accessories: mounting flange (**AE000032**), extension (**AE000033**), mounting bracket (**AE000034**), acrylic plates (**AE000043**, **AE000044**) and clamp holders for labeling



EZ250320

- / Parameterizable signal light
- / Acoustic signal transducer (90dB)
- / Multicolor LED
- / 5 separately controllable light segments on each side
- / Arbitrary selection of colors per segment and page
- / Individual division of the lighting areas on each side (five, four, three, two segments, one continuous signal segment)
- / Dimensions: 279 x 110 x 40mm (height, length, width)
- / Simple mounting with magnetic holder



SIGNAL TOWERS

THE EYE-CATCHERS

ADVANTAGES AND HIGHLIGHTS

- | Signal towers with 3, 4 or 5 segments
- | Multicolor LED
- | Very good visibility all round
- | Simultaneous control of several segments (EZ50 and EZ25)
- | Integrated, highly perceptible signal transducer (90dB and 95dB)
- | Freely parameterizable signal tower (EZ25)
- | 5 separately controllable light segments per side (EZ25)
- | Individual division of the lighting areas per side (EZ25)
- | Easy mounting with flange or magnetic holder
- | Accessories for extension and labeling (EZ50)
- | Ideal for retrofitting existing machines and systems (M12 connectors)



LED STRIP LIGHT

ADVANTAGES AND HIGHLIGHTS

- | System consisting of LED strip / LED profile light and controller with IO-Link interface*
- | LED strip (length 2500mm) or profile light (lengths: 1000mm and 500mm) with M12 cable connector*
- | LED strips can be shortened individually - spacing 16.7 mm each*
- | Simple, demand-specific parameterization via IO-Link*
- | Manual parameters or automatic recognition of the number of LEDs connected*
- | Individual color selection: 8 selectable standard colors + self-definable color*
- | Flash or strobe mode selectable*
- | Demand-oriented adjustment of light intensity/brightness (dimmable)*
- | Flexible control via 5 digital / 1 analog input or via IO-Link*
- | 5 different operational modes: status display, segments, fill level display, count-down, demo*
- | IO link master (VY000005) and a wide range of mounting and fastening accessories*

Individual parameterization and flexible operation

The display function and parameters such as light color, brightness, etc. for the LED strips or profile lights can be flexibly set on the associated controller via the integrated IO-Link interface. The corresponding combinations (LED strips/controller or profile lights/controller) are then either controlled via the digital inputs or an analog signal or integrated into an existing IO-Link environment.



A SINGLE STRIP LIGHT **MULTIFUNCTIONAL USE**

Status display: Light strip lights up with a color, depending on the set hierarchy of the stored status information (colors, flashing/flashing function freely preselectable).

Examples: Access control for safeguarding operating ranges, processes and machines. Classic signal light for systems and processes.

Segments: Light strip with 3 to 5 status segments, individually controllable (colors, flash/flash function freely preselectable). Examples: Use at manual workstations, e.g. to visualize the assembly sequence on components. Classic signal light for systems and processes.

Filling level display: Filling level display: precise display of filling levels visible from afar with the option of defining limit values. The level of the analog signal determines the number of LEDs that light up. Examples: Simple visual level checks via analog input in all conceivable industrial areas with color change e.g. for critical filling levels.

Countdown: LED strips that light up or go out one after the other with the option of defining limit values. Examples: Display of the remaining running time of non-automated machines (e.g. for timely workpiece change), ovens or various processes.

Demo: Visualization of the possible signal options (total duration approx. 1 minute)

LED running light (color: white) in both directions via the entire LED strip:

Total duration 10 seconds.

- ✓ Control of 5 LED segments with change interval of 1 second:
Segment colors red/green/blue/yellow/magenta.
- ✓ 20 seconds countdown with LED color green, at 6 seconds remaining time switchover to yellow LED color, with 2 seconds remaining switchover to orange LED color until all LEDs have gone out. After the time has elapsed completely, the entire strip flashes in the Red LED color
- ✓ 11 color changes via the entire length of the LED strip with 2 seconds duration per color including brightness change from 25% to 100%



MULTIFUNCTIONAL USE

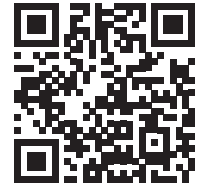
PARTICULARLY UNUSUAL— LOGO BECOMES STATUS DISPLAY

The Austrian company RICO Elastomere Projecting developed several solutions for the automated demolding of silicone parts from injection molds. Shortly afterwards, the idea was born to display the operating status of the demolding handling systems using the company logo integrated in the switching cabinet.

The straightforward challenge was to find a very compact multi-color LED signal light because the space available in the switching cabinets is extremely limited.

After an unsuccessful search on the market, RICO Elastomere Projecting initially developed its own LED panels, but their production proved to be too uneconomical in the long term. As an alternative, ipf electronic initially suggested the round **EZ650520** signal light, but this could not be integrated into the switching cabinets due to the tight installation situation and the cable routing for the electrical connection.

As a result, ipf electronic developed the SlimLine signal lights of the **EZ38**-series with an overall height of just 8 mm based on the LED machine light of the **EM38** series. Following successful tests, all switching cabinets for RICO Elastomere Projecting's special demolding handling systems are now equipped with two of the extremely flat LED signal lights.



Company logo as status display on demolding handling systems for injection molding machines



EFFICIENT ADVICE ON ALL QUESTIONS

PERSONAL SERVICE AND ON-SITE PROBLEM SOLVING

Every call is important! On our technical hotline, you will speak to experienced staff who will answer your questions competently and conscientiously. We want to provide you with comprehensive and individual advice at all times. Our experienced and specially trained team is on hand to help you. You can also contact your personal application specialist in the sales department. We coordinate closely internally so that we can respond specifically to your request- quickly, competently and reliably.

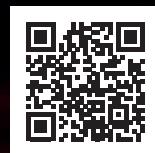
Problems are becoming increasingly complex and diverse in almost all industrial application areas. External expertise is often required to find the right solutions. And you will find this together with a high level of technical and problem-solving expertise at ipf electronic. We will come to you on request. No distance is too far for us to talk to you personally, even if it is a seemingly simple task. Our via 20 application specialists are also close to you. So don't hesitate to give us a call.

You know us as a renowned supplier of industrial sensor technology or will get to know ipf electronic as a reliable partner. No customer inquiry will be neglected, no customer appointment on site will be missed. Our extremely wide-ranging product portfolio will convince you.

Diversity, expertise, advice, flexibility:
This is ipf electronics formula for success

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