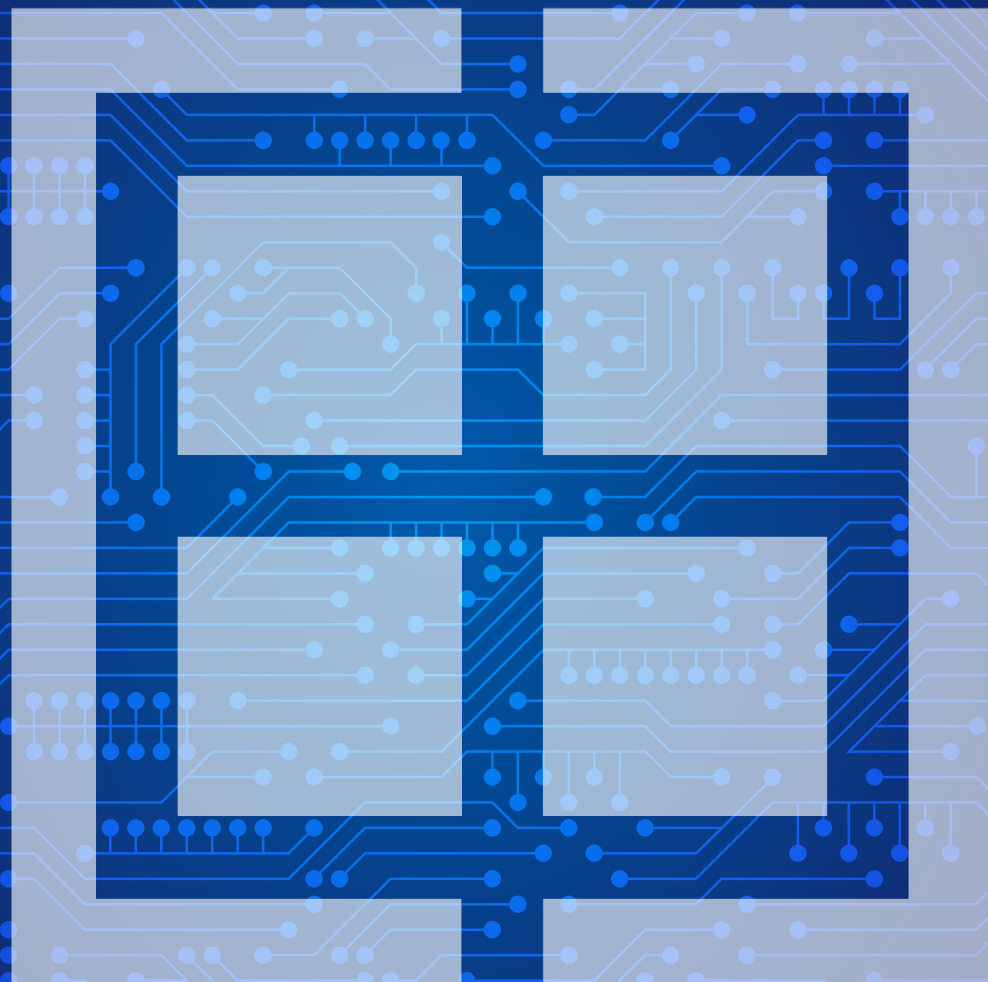


Committed to excellence



**RUTRONIK**  
ELECTRONICS WORLDWIDE



# CORPORATE IDENTITY MANUAL

BASIC GUIDE THROUGH RUTRONIK'S COMMON COMMUNICATIONS CHANNELS

V2.0.1

# MAIN Logo – Description

The brand Rutronik with its claim visualizes the philosophy of the owner Helmut Rudel associated with modern structures of a worldwide operating distribution company, well-positioned for the future.

**1** Company Name

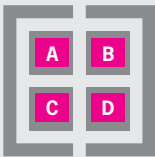


**2** Global Distribution

Worldwide shipping and support according to German quality standards

**3**

## Rutronik's Core Competences



**A** Consult – Know-how. Built-in.

**The Technical Competence from RUTRONIK**

Worldwide and individual consulting on the spot: by competent sales staff, application engineers and product specialists.

**B** Components – Variety. Built-in.

**The Product Portfolio from RUTRONIK**

Wide product range of semiconductors, passive and electromechanical components, displays & monitors, boards & systems, storage and wireless technologies for optimum coverage of your needs.

**C** Logistics – Reliability. Built-in.

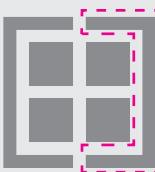
**The Delivery Service from RUTRONIK**

Innovative and flexible solutions: from supply chain management to individual logistics systems.

**D** Quality – Security. Built-in.

**Quality Management without Compromise**

The integrated management system (IMS) encompasses quality control, environmental protection and occupational health and safety.



The brackets combine Rutroniks core competences:  
**All from one single source**

Committed to excellence

This entire slogan coined by founder Helmut Rudel remains the guiding principle for Rutronik. This performance contributes to the maximal satisfaction of customers – day by day.

## Color Definition

100c 20m 0y 0k  
HKS 47 K  
Pantone 3005U  
RAL 5015 Sky blue  
RGB: 0R 139G 210B

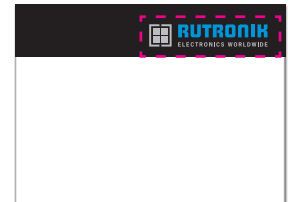


0c 0m 0y 30k  
HKS 91  
Pantone Cool Gray 6  
RAL 7035 Fenstergrau  
RGB 178R 178G 178 B

Usage: **Primary of homogen black backgrounds !**  
Further possible: in almost homogen backgrounds  
placed at dark areas of colour gradients



Main Position: **Preferred, on top right side of a page**



## Logo Variants and their Use

Alternative of White and Bright Backgrounds

100c 20m 0y 0k  
HKS 44  
Pantone 3005U  
RAL 5015 Sky Blue



0c 0m 0y 55  
HKS 92  
Pantone Cool Gray 9  
RAL 9007 Window grey

0c 0m 0y 65  
HKS 92  
Pantone Cool Gray 9  
RAL 9007 Window grey

Logo: Monochrome Black



Logo: Negative



## Don'ts & Exceptions

### Incorrect Usage

Our corporate logo is an important asset of our brand and must never be altered or misused in any way.



### Exceptions:

Exceptions are only permitted after consultation and extra approval: e.g.

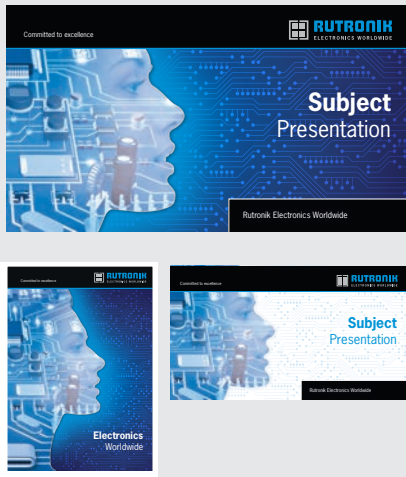
- Small areas not larger as  $l=15\text{mm}$ ;  $w=7\text{ mm}$   
(like USB Sticks, engravings of not straight surfaces...)
- If other solutions would be in relation too expensive
- If other solutions result in bad quality



# Picture Pool

## Logos & Visuals

Available by Markom Department | T:\vorlagen\Picture Pool\Corporate Logo and Visuals



Boards & Systems



Storage



Displays



Wireless

## Rutronik Products & Boards

> Focus Key Components of our Divisions (Semiconductors, Passive, Electromechanical Components, Boards, Storage Products etc.)

## Rutronik Applications

> Focus Technology and End Applications -



CAR-054\_CMYK...



CAR-186\_CMYK...



OFFICE-070\_C...



OFFICE-091\_C...



Sources:

T:\vorlagen\Picture Pool\Electronic Boards Images and Components\06-2020\PCB-Boards with selected areas - jpg

T:\vorlagen\Picture Pool\Electronic Boards Images

T:\vorlagen\Picture Pool\Application-specific Images

## Supplier Logos



Sources:

<http://intranet/haupt.php?gruppe=321&mid=25692>

# Picture Pool

## Stock Photo Agencies

**Please note: copyrights, usage rights and/or license conditions might apply**

- Shutterstock [https://www.shutterstock.com/support/article/Standard-License-vs-Enhanced-License?q=standard+license&l=en\\_US&fs=Search&pn=1](https://www.shutterstock.com/support/article/Standard-License-vs-Enhanced-License?q=standard+license&l=en_US&fs=Search&pn=1)
- Depositphotos <http://de.depositphotos.com/license-comparison.html>
- Bigstock <http://www.bigstockphoto.com/de/usage.html>
- Dolar Photo Club <https://www.dollarphotoclub.com/Info/RoyaltyFreeLicense>
- 123RF [http://de.123rf.com/license\\_summary.php](http://de.123rf.com/license_summary.php)

### Licences our Stock Photo Agencies:

- Standard Licence: Nearly **all** of our available stock images belong to this category.  
general usage: Presentation & flyers
- Extended Licence: for press releases in editorial publication & in social networks

T:\vorlagen\Picture Pool\Images with license terms

### Rutronik Image & Applications: > Stockphotos: Focus Image, Lifestyle, People



!Fotolia\_3213011...



Auto cockpit Foto...



Fotolia\_2565308...



Fotolia\_2791509...



Fotolia\_2841829...



Fotolia\_3225213...



fotolia\_38393558...



Fotolia\_4244400...



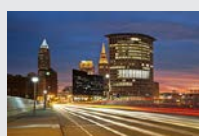
fotolia\_47783336...



123RF\_2078957...



Fotolia\_3880651...



Fotolia\_4597769...



Fotolia\_8666791...

Please consider the licence requirements and copyright laws of the respective stock companies.

# Key Colours

## Basic Colours



### Rutronik Blue

CMYK: 100, 20, 0, 0  
 RGB: RGB: OR 139G 210B  
 Rut\_Code: !rutCyan



### Rutronik Black

CMYK: 20, 0, 0, 100  
 RGB: 0, 0, 0  
 Rut\_Code: !rutBlack

## Application-specific Colours



### Rutronik SMART

CMYK: 60, 0, 100, 0  
 RGB: 102, 255, 0  
 Rut\_Code: !rutSmart



### Rutronik EMBEDDED

CMYK: 0, 60, 100, 0  
 RGB: 255, 102, 0  
 Rut\_Code: !rutEmbedded



### Rutronik AUTOMOTIVE

CMYK: 0, 0, 100, 10  
 RGB: 230, 230, 0  
 Pantone C: 3955  
 HKS: 69  
 Rut\_Code: !rutAutomotive



### Rutronik Power

CMYK: 0, 100, 100, 0  
 RGB: 255, 0, 0  
 Pantone Solid 485  
 Rut\_Code: !rutPower

## Background Colours

in relation to text & graphic Elements

Amusciunt. Rovid ut  
 ium di temolo omnis si  
 simporis est intur aut  
 volestecea nobist, ea sam,  
 sinullis dolor sitatem



### Light Gray

CMYK: 0, 0, 0, 10  
 RGB: 230, 230, 230  
 Rut\_Code: !rutLightGray

Amusciunt. Rovid ut  
 ium di temolo omnis si  
 simporis est intur aut  
 volestecea nobist, ea sam,  
 sinullis dolor sitatem



### Dark Gray

CMYK: 0, 0, 0, 60  
 RGB: 102, 102, 102  
 Rut\_Code: !rut  
 DarkGrayGround

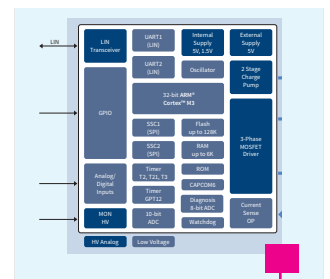
### Table Head

CMYK: 35, 10, 0, 0  
 RGB: 166, 230, 255  
 Rut\_Code: !rutTable\_Head

Product Name	Freq. [MHz]	Interface
9871QXA20	24	PWM
9877QXA20	24	PWM + LIN
9877QXA40	40	
9879QXA20	24	PWM + LIN
9879QXA40	40	PWM + LIN

### Table Body

CMYK: 18, 5, 0, 10  
 RGB: 188, 218, 230  
 Rut\_Code: !rutTable\_Body



### Light Blue

CMYK: 9, 0, 0, 0  
 RGB: 232, 255, 255  
 Rut\_Code: !rutLightBlue

# Standard Terms & Corporate Typeface

## Standard Terms

### Correct Notation of the Full Company Name\*:

**Rutronik Elektronische Bauelemente GmbH**

~~Rutronik GmbH, Rutronik Inc. etc~~

> to particularize in all official documents such as in contract management, financial accounting and insurance.

\* Subsidiaries use their own legal company name

### Correct Shortform in all languages: "RUTRONIK"

~~RUTRONIK~~

### Shortform/Wording:

**"RUTRONIK" or "Rutronik"**

applied in incontinuous text phrases, presentations, brochures, advertisements.

With this award, Diodes honors Rutronik for the highest growth figures among distributors throughout Europe as well as for the highest percentage of design-in products in relationship to overall revenue. Rutronik generated year-on-year growth of 27 per-



### Hyphenation is not permitted:

**Mr. Hantsche, what exactly is behind Rutronik EMBEDDED and Rutronik SMART?**

With EMBEDDED, we are targeting customers developing their applications on a board. For them we have combined wireless compo-

## Corporate Typeface:

### News Gothic Std

(Adobe font):

#### Used as

- 1 Headlines
- 2 Subheadlines
- 3 Bodytext

1 Riosantionet odi aut

2 Em a expenam quia nostio volut la eiciisciti aturia

3 Ipsunt omnis natem nossuntius esto to blamusam quam aut eaqui cuptati re lita volupta ssincitat que coris et maximust liquo quunt, sinturibus, se cum cor arcioptur? Ebit moloreprat.

### Minion Pro

(Adobe Font):

#### Used as

- 1 Bodytext
- 2 Subheadlines - [Bold]
- 3 Features with bullet points

1 Ipsunt omnis natem nossuntius esto to blamusam quam aut eaqui cuptati re lita volupta ssincitat que coris et maximust liquo quunt, sinturibus, se cum cor arcioptur? Ebit moloreprat.

#### Feature

- 2 ■ blamusam quam aut eaqui
- 3 ■ volupta ssincitat que
  - liquo quunt, sinturibus, se

**For Office Area:**  
(Presentations, Word, Excel...)

**Font: Arial, Calibri**

**further Fonts > to be defined**








# Logos & Icons in their Rutronik Environment



**RUTRONIK**  
ELECTRONICS WORLDWIDE

## Product Portfolio

-  Semiconductors
-  Passive Components
-  Electromechanical Components
-  Displays & Monitors
-  Boards & Systems
-  Storage Technologies
-  Wireless Technologies

## Initiatives



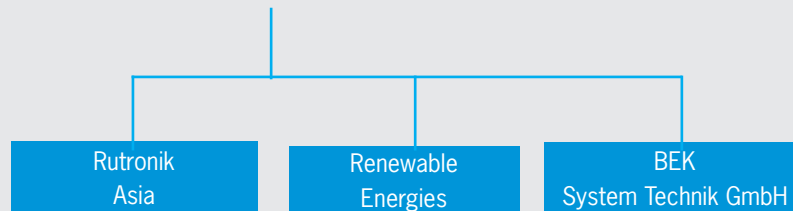
## Internet, e-commerce & Social Media



Used forms social media elements



## Subsidiaries & Particular Divisions



# Key Visuals in Rutronik's Public Appearance

## Corporate Visual

### Main Visual:

- 1 **Black Header:**
- Rutronik Worldwide Logo

### Further Elements:

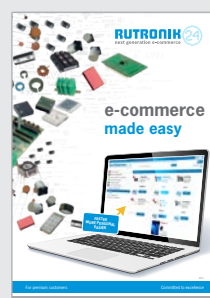
- 2 **Key Image**  
The selection of the image is depending on the subject of the brochure.  
Colour tone: dark blue and light blue background (both Layouts are possible)
- 3 **Main title**
- 4 **Sub title (more subject information)**
- 5 **Technical Data**



## E-Commerce Visual

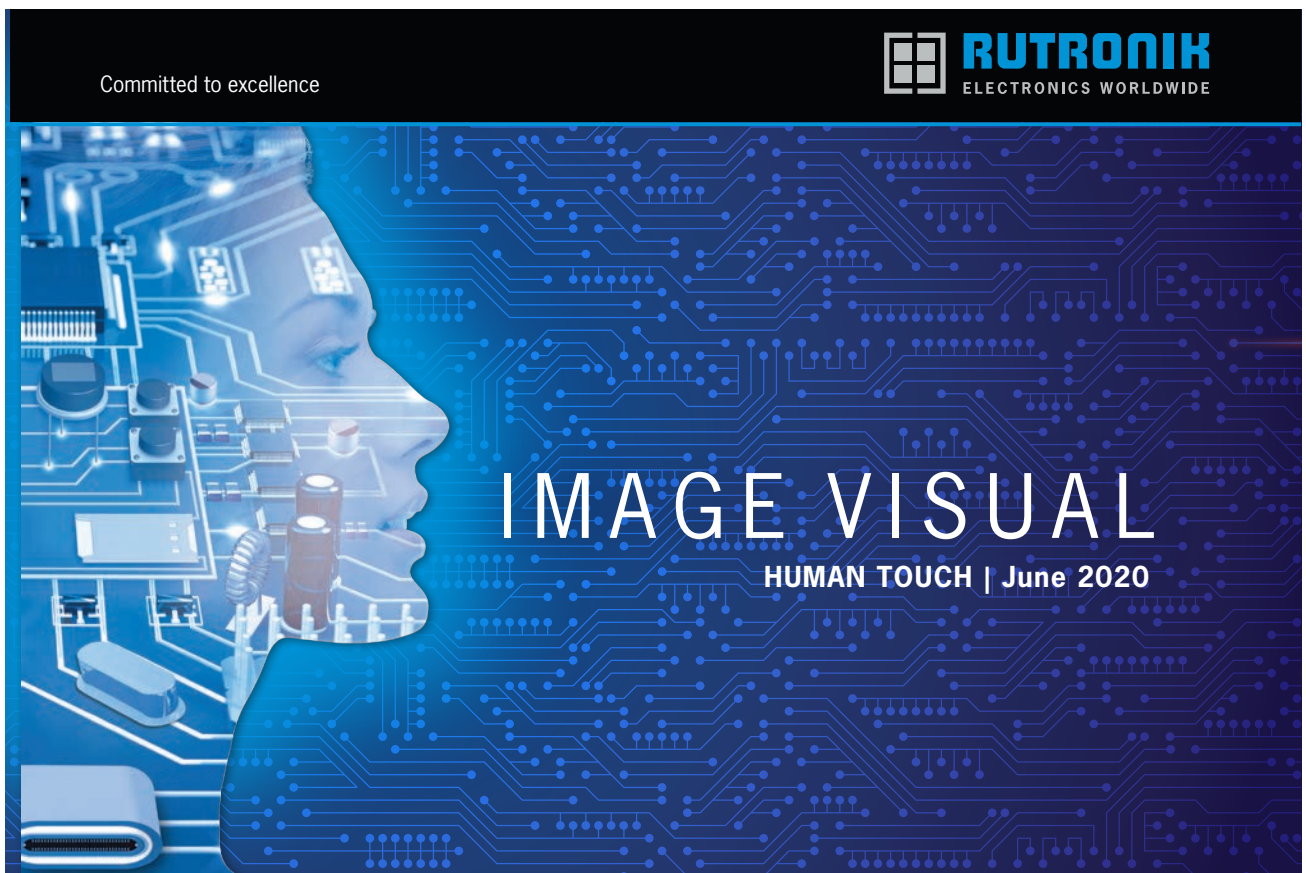
### Basic Visual:

- Rutronik24 Logo (right)
- Notebook with explosions graphic of components and suppliers
- Cyan line (horizontal on bottom)



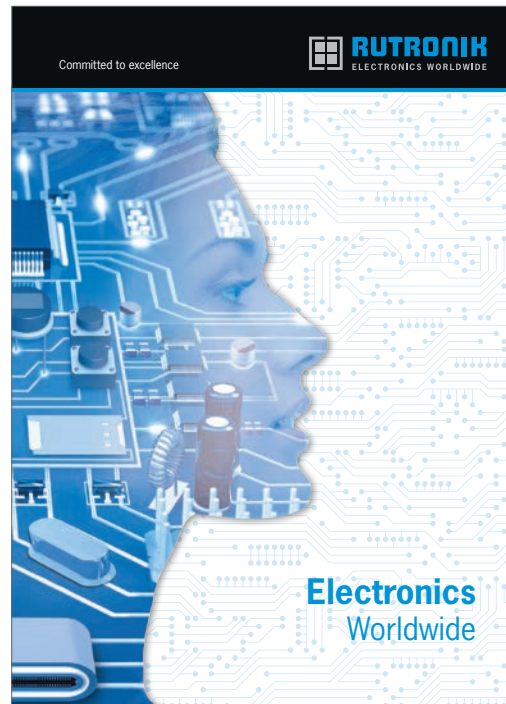
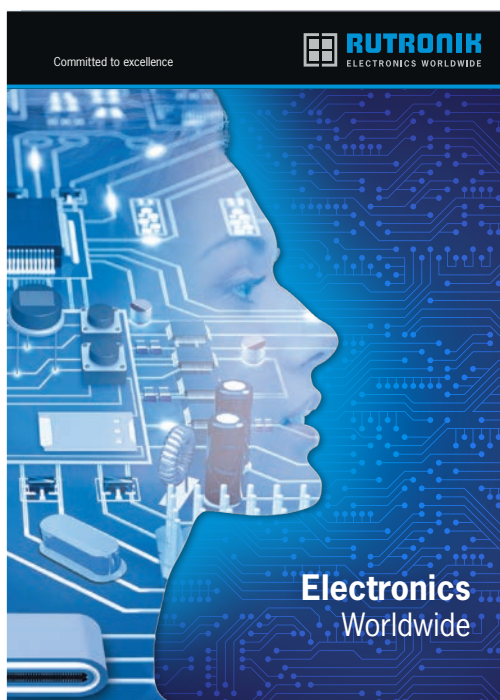
# Key Visuals in Rutronik's Public Appearance

New | June 2020



## HUMAN TOUCH | IMAGE VISUAL

A FACE WITH DIFFERENT VISUAL EFFECTS : DARK BLUE AND LIGHT BLUE BACKGROUNDS



# Key Visuals in Rutronik's Public Appearance

New | June 2020

## HUMAN TOUCH | IMAGE VISUAL

EXAMPLE FOR ADVERTISEMENTS IN MAGAZINES

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**HIGHTECH-BAUELEMENTE**  
für Ihre Innovationen

Als einer der führenden Distributoren für elektronische Bauelemente bieten wir Ihnen weltweit ein breites Produktportfolio, kompetente technische Unterstützung bei Produktentwicklung und Design, individuelle Logistik-Lösungen sowie umfangreiche Serviceleistungen.

- Semiconductors
- Passive Components
- Electromechanical Components
- Displays & Monitors
- Boards & Systems
- Storage Technologies
- Wireless Technologies

Informationen zu RUTRONIK:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

**RUTRONIK**  
ELECTRONICS WORLDWIDE

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Consult | Components | Logistics | Quality

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**VISHAY.**

**POWER-METAL-STRIP® - WIDERSTAND WSL0612**  
im kompakten 0612-Gehäuse

**VORTEILE:**

- AEC-Q200
- Längsgerichtete Anschlüsse
- Hohe Nenbelastbarkeit von 1W
- Extrem kleine Widerstandswerte bis hinab zu 0,001Ω
- Enge Toleranzen (1% oder 5%)
- Geringe Thermospannung (<math>-3 \mu\text{V}/^\circ\text{C}</math>)
- Vollgeschweiß
- Temperaturbereich: <math>-65^\circ\text{C}</math> bis <math>+170^\circ\text{C}</math>
- Bleifrei, RoHS-konform

**APPLIKATIONEN:**

- Schalt- und Linearregler-Stromversorgungen
- Messgeräte und Leistungswandler
- Shunts in Automobilelektronik (z.B. in Motorsteuerungen)
- Antriebsleistungs- und Klimaanlagensteuerungen
- Batterienagementsysteme
- Industrielle Steuerungssysteme
- Wechselrichter für Heizungs-/Klimaanlagen

Informationen zu WSL0612:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

**RUTRONIK**  
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Informationen zu WSL0612:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

## HUMAN TOUCH | IMAGE VISUAL

EXAMPLE FOR BROCHURES

Committed to excellence

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**Our Portfolio**  
Unique

- Semiconductors
- Passive Components
- Electromechanical Components
- Displays & Boards
- Storage Technologies
- Wireless Technologies

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

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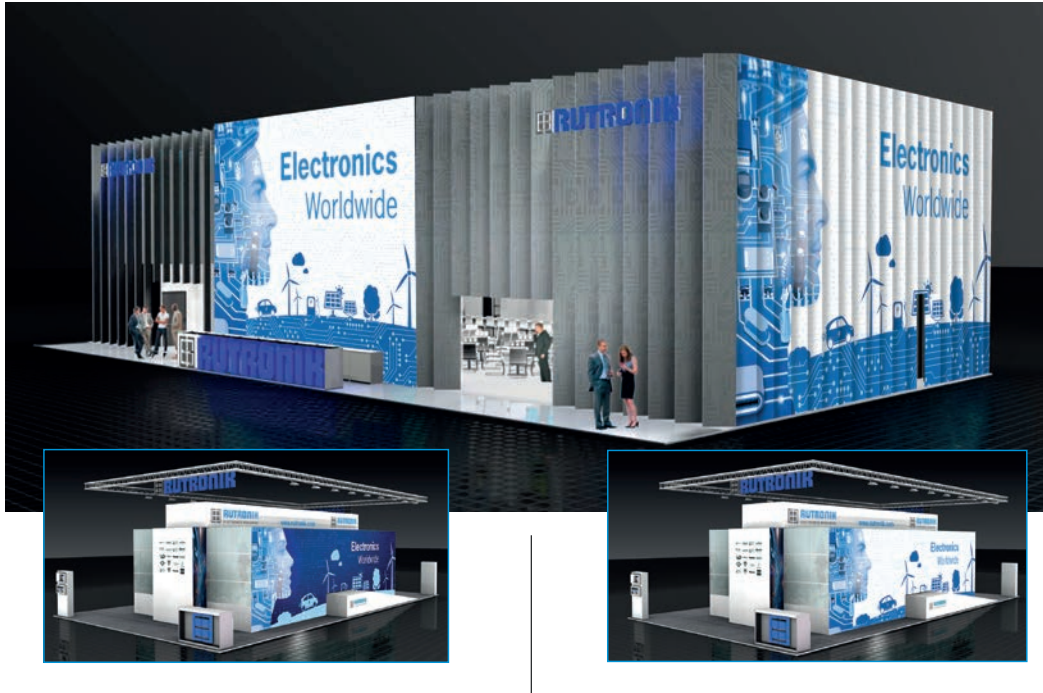
[www.rutronik.com](http://www.rutronik.com)

# Key Visuals in Rutronik's Public Appearance

New | June 2020

## HUMAN TOUCH | IMAGE VISUAL

EXEAMPLE FOR FAIR DESIGNS



## HUMAN TOUCH | IMAGE VISUAL

EXEAMPLE FOR BANNER ON HOMEPAGE



# Visual distinction of Rutronik Publications

## Product & Technical Publications

### Product & Technical Publications

#### Product-based & Supplier Material



#### Features:

- Hoher Seitenpreis für Hersteller
- Hersteller hat das Recht eigene Corporate Elemente wie Visuals, Ikonen und Diagramme zu verwenden.

#### Applications-specific & KeyKey Markets



#### Product Publications Coop 50% > Rutronik Layout



#### Supplier Publications - Only Branding of cover & back cover.

#### Features:

- Coop 50%
- Low cost variant
- Fast Completion



#### Powerpoint Presentation (ppt), of Suppliers & Product Marketing

#### Features:

- Branded with Rutronik Frames
- For Sales



#### Further Links:

Printmedia Portal: <http://www.rutronik.com/downloads/brochures.html>

# Layout Process

1 Preparation - Terms of Outline Data	
<b>Determining the outline data</b>	
<ul style="list-style-type: none"> <li>Headline of the brochure ?</li> <li>Usage Sales, Internal, Customers</li> <li>Structure of a page, Version</li> <li>Coop - Clearance of supplier needed?</li> </ul>	<ul style="list-style-type: none"> <li>Determining of the content (concept)</li> <li>Is support for the writing of the texts needed?</li> <li>Do we have to use a translation agency?</li> </ul>
PM, LM, special field	Determining the outline data => a form is in progress
Marcom Designer	<ul style="list-style-type: none"> <li>First briefing: determining the volume, calculating the effort</li> <li>Preparing the order</li> </ul>
Marcom Management	Clearance of the project

2 Concept by PM, LM, Special Field	
<b>Concept in Word or Powerpoint:</b>	
<ul style="list-style-type: none"> <li>Rough Layout text and pictures, structure of the pages =&gt; helps the designer team to understand the links between the graphics</li> <li>Determining the structure of the pages in Excel (&gt;8 pages)</li> <li>Filing of the content based on themes not based on pages</li> <li>Considering of the guidelines for texts, file format, formatting of symbols and so on =&gt; shown on the following pages</li> </ul>	Support from the Marcom special fields: <ul style="list-style-type: none"> <li>Questions to the layout &amp; graphical material =&gt; Marcom department for graphics</li> <li>Questions to the texts and writing =&gt; Marcom communications-team</li> <li>Questions to the translation =&gt; Marcom communications-team</li> </ul>

3 1. Layout - >Marcom Graphic-Department
<ul style="list-style-type: none"> <li>Realication of the rough layout</li> <li>=&gt; Under consideration of the ISO standards and Rutronik regulations</li> <li>1 PDF with comments to PM, LM</li> </ul>

4 Checking: 1. Layout-PDF > to PM, LM, Special Field
<ul style="list-style-type: none"> <li>Content: Correct? Complete?</li> <li>Supplying of missing material</li> <li>Corrections with comments back</li> </ul>

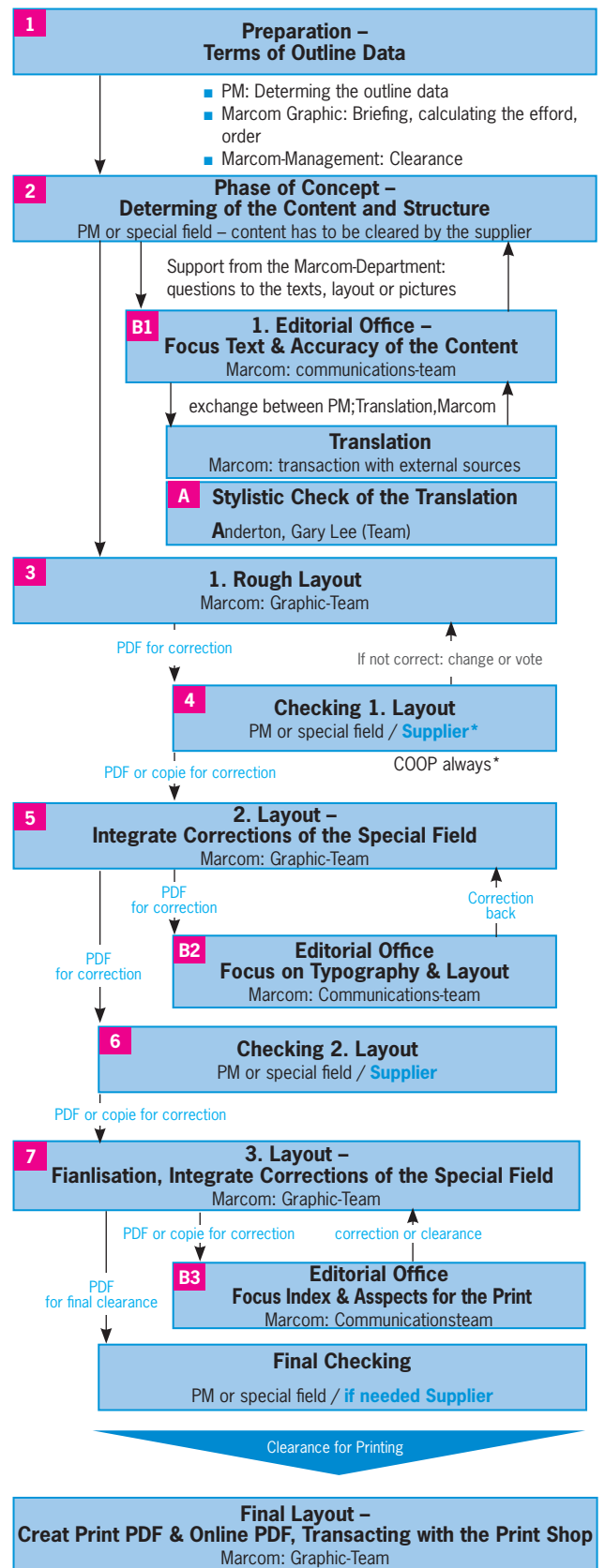
5 2. Layout >Graphic-Department
<ul style="list-style-type: none"> <li>Realication of the 1. PM-Correction</li> <li>Working on typical finesses</li> <li>2. PDF with corrections to PM, LM</li> </ul>

6 Checking: 2. Layout-PDF > PM, LM, Special Field, Supplier
<ul style="list-style-type: none"> <li>2. Corrections realiced correctly??</li> <li>Checking: typography, layout, consideration of the ISO standards and Rutronik regulations</li> <li>Headlines generally start with capital letters</li> <li>Blank space between units and so on.</li> <li>High and low positioning of symbols</li> </ul>

7 3. Layout Finalization Graphic-Department
<ul style="list-style-type: none"> <li>Realication of the 2. PM-Correction &amp; Supplier-Correction</li> <li>Adding of the finishing touches</li> <li>Preparation of the Index</li> <li>Final PDF to PMs for clearance</li> </ul>

A Translations - Anderton, Gary Lee (Team) <-> Marcom	
<ul style="list-style-type: none"> <li>Checking by Rutronik (self written texts)</li> <li>Clarifying of textual uncertaintys</li> <li>Sampling of supplier pages</li> </ul>	<ul style="list-style-type: none"> <li>Expertise of the electronic and sales department</li> <li>Native speaker</li> <li>Short intern ways</li> </ul>

B1 Editorial Office (Marcom) Focus Text & Accuracy of the Content	
Text- and Content	<ul style="list-style-type: none"> <li>Accuracy of the language</li> <li>Understandability</li> <li>Accuracy of the structur and the layout</li> </ul>
Style of writing	Corrections of 1:1 supplier texts for example if the name of the supplier repeats to often or they promise the best support -> like Rutronik does
Considering typografphical points	<ul style="list-style-type: none"> <li>Considering the ISO standards and Rutronik regulations of writing</li> <li>Headlines generally start with capital letters</li> <li>Blank space between units and so on.</li> <li>High and low positioning of symbols</li> <li>At Bullet Points: first letter always as capital letter</li> </ul>
Checking of terms of saying	Rhight terms for departments, products, same advertising massages
Spell check	Checking of spelling, grammer and punctuation



B2 Editorial Office (Marcom) Focus Typographie & Layout	
Considering typografphical points	<ul style="list-style-type: none"> <li>Hyphenation, paragraph and so on</li> <li>High and low positioning, special characters</li> <li>Text sections</li> </ul>

B3 Editorial Office (Marcom) Focus Index, Asspects for the Print	
<ul style="list-style-type: none"> <li>Index &amp; Number of pages</li> <li>Section of the document</li> <li>Quality of the pictures</li> </ul>	

# Product & Technical Publications

## Structure of a Brochure

- 1 Cover Pages
- 2 Content & Introduction  
Page 2+3
- 3 Content  
Pages 4-X
- 4 Back Cover  
Adresses and Issue





## Structure of a Page

- Entry Area
- Detailed Area

### Basic Font:

- Minion Pro,
- Fontsize 9.5 pt,
- Line space 13 pt
- Left-aligned

Entry Area

Detailed Area

**1** Main Image as entry of first impression

**2** **BCR4xxU Linear LED Drivers**

**3** **And the Lights Go On - Subline**

**4** The BCR4xxU family offers a simple means of driving multiple low power LEDs in single strings focused on 12V, 24V and 48V systems. Supporting adjustable currents from 10 to 350mA, which allows an optimized LED current to be set giving a uniform brightness and extend the LED longevity. Available in SOT26 (SC-74) package for pin-compatibility with other sources and also DFN2020 for low profile edge lighting strips.

**5** **Features & Benefits**

- **1.4 to 40V Supply Voltage**
- Low voltage overhead to increase efficiency with sufficient headroom for over-voltage conditions such as LEDs failing short
- **10mA to 350mA**
- Adjustable CCR enables platform designs based on a single device to used across multiple LED strips – easing manufacturer's qualification
- **Negative Temperature Coefficient**
- Self-protects and allows current sharing between parallel CCRs
- **BCR421U with PWM**
- PWM directly from MCU with up to 25kHz to adjust light output

**6** **Applications**  
Diodes Incorporated's LED driving solutions are not only recognised for their high efficiency and simplicity; they are also renowned for their incredible versatility and are well suited to tackle a wide range of applications, such as:

- LED strip lights
- General and retail lighting
- Automotive
- Architectural
- Signage and display

**7** **Packages**

SOT26 (SC-74) Industry standard ground and footprint

DFN2020 Thinner package for edge lighting

**8** **Specifications**

Part Number	Configuration	PWM from MCU	Max. Input Voltage	Fixed Current	Adjustable Current	Package
BCR420LWS/Q	NPN Lowside	No	40V	10mA	10 to 200mA	SOT26 (SC74)
BCR421LWS/Q	NPN Lowside	Yes	40V	10mA	10 to 350mA	SOT26 (SC74)
BCR401LWS/Q	PNP Highside	No	40V	10mA	10 to 65mA	SOT26 (SC74)
BCR402LWS/Q	PNP Highside	No	40V	20mA	20 to 65mA	SOT26 (SC74)
BCR405LWS/Q	PNP Highside	No	40V	50mA	50 to 65mA	SOT26 (SC74)
BCR420LFS/Q	NPN Lowside	No	40V	10mA	10 to 200mA	DFN2020
BCR421LFS/Q	NPN Lowside	Yes	40V	10mA	10 to 350mA	DFN2020

Automotive Compliant products with a Q suffix are AECQ qualified and supported with a PFPW.

**8a** **8b**

**9** **Diodes**

**10** **Block Diagram**

Pos.	Type	Files	Description	Font&Size Info for Designers
1	Main Image as entry of first impression	.psd .jpg .tif .png	<ul style="list-style-type: none"> <li>■ Application Pictures, Stockphotos, Promotion Pictures</li> <li>■ 300 dpi resolution and higher</li> <li>■ Image Sizes:</li> </ul>	
2,3	Headline & Subline		<ul style="list-style-type: none"> <li>■ Capitalization in Titles</li> <li>■ Headline: Main Message – max. 45 Characters,</li> <li>■ Subline: Sub Message or Supplement of the Main Message</li> </ul>	<ul style="list-style-type: none"> <li>■ News Gothic Std</li> <li>■ Headline 22 Pt</li> <li>■ Suglyne 22 Pt</li> </ul>
4	Introduction		Text: 510 – 560 Characters (4 Lines)	■ Basic Font
5	Header of Bullet Points		■ Capitalization,	■ Basic Font + Bold
6	Bullet Points		<ul style="list-style-type: none"> <li>■ Blue Squares</li> <li>■ ...</li> </ul>	■ Basic Font
7	Packages		Transparent Images, 300 dpi, 6 cm width	
8	Table	.xls	Table Head, Table body, if necessary: footnotes	<ul style="list-style-type: none"> <li>■ News Gothic Std</li> <li>■ 6.5 Pt Std Version, 7,5 Pt possible</li> </ul>
9	Supplier logo	.eps	Fix position	
10	Block diagrams, schematic graphics	.PDF, .ai	Background transparent, placed of hellblue background	
2,3, 5, 8a	Head & sublines, tablehead, captions and further headings above text or bullet points		<ul style="list-style-type: none"> <li>■ Capitalization in Titles</li> <li>■ When in doubt, here is one general rule recommended by the U.S. Government Printing Office Style Manual: "Capitalize all words in titles of publications and documents, except a, an, the, at, by, for, in, of, on, to, up, and, as, but, or, and nor." Link: <a href="http://capitalizemytitle.com/">http://capitalizemytitle.com/</a></li> <li>■ Exeptions: vollständiger grammatikalischer Satz</li> </ul>	
Text	Hyperlinks		Hyperlinks to other web pages and social media platforms as Rutronik is directly not possible. There are possibilities about Rutronik links.	

# Product & Technical Publications

## Table Designs

1

Part Number	$V_{DS}$ (V)	$I_D$ max (A) (@ 25 °C)	$R_{DS(on)}$ max ( $\Omega$ ) (@ $V_{GS} = 20$ V)	Total gate charge $Q_g$ typ (nC)	$T_J$ max (°C)	Package
SCT10N120	1200	12	0.69	22	200	HiP247™
SCT20N120	1200	25	0.239	45	200	HiP247™
SCT30N120	1200	45	0.069	105	200	HiP247™
SCT50N120	1200	65	0.069	122	200	HiP247™
SCTWA50N120	1200	65	0.069	122	200	HiP247™ long leads

Type	Supplier 1	Supplier 2	Supplier 3	Supplier 4	Supplier 5
Single		x	x	x	x
High-Side / Low-Side	x	x		x	x
Dual	x	x	x	x	
Half Bridge	x	x	x	x	x
H-Bridge					x
3-Phase	x	x	x	x	x
Non-Isolated		x	x	x	x
Isolated	x	x			x
Automotive (AECQ)	x		x	x	x
Industrial		x		x	

Orderable Part Number	Integrated Bootstrap Diode	Offset Voltage Max (V)	Inputs	Output Current lo+ Typ (mA)	Output Current lo- Typ (mA)	ton / toff Typ (ns)	tr / tf Typ (ns)	Package	Status
<b>6 High-side / Low-side Gate Drivers</b>									
DGD0507FN-7	Y	50	HIN, LIN, EN	1400	2200	20 / 23	17 / 13	DFN3030-10	Production
DGD2110S16-13	N	500	HIN, LIN, SD	2500	2500	105 / 94	25 / 17	S016	Production
DGD21904MS14-13	N	600	HIN, LIN	4500	4500	140 / 140	25 / 20	S014	Production
<b>Half-Bridge Gate Drivers</b>									
DGD0506FN-7	Y	50	IN, DT, EN	1500	2500	96 / 463	14 / 12	DFN3030-10	Production
DGD0503FN-7	N	100	HIN, LIN*	290	600	680 / 150	70 / 35	DFN3030-10	Production
DGD21844S14-13	N	600	IN, SD^	1900	2300	680 / 270	40 / 20	S014	Production
<b>Single Channel Gate Drivers</b>									
DGD2117S8-13	N	600	IN	290	600	125 / 105	75 / 35	S08	Production
DGD2118S8-13	N	600	IN*	290	600	125 / 105	75 / 35	S08	Production
<b>3-phase Gate Drivers</b>									
DGD2136S28-13	N	600	HIN*1,2,3, LIN*1,2,3, EN, ITRIP	200	350	330 / 330	90 / 35	S028	Production

5 \* = out of phase with output

### Tables:

- Excel file as basis of tables
- General Style:
  - Lightblue with white lines > table head colour darker
  - :
  - 6 3th header inside a table is possible and save space

- 1 Please take note about our "Typographical Standards" on further pages
- 2 Vertical alignment in all cells
- 3 Blue Fields, or "Yes" cells must be marked with lower case "x" in Excel - its not necessary to format the cell.
- 4 Dezimal points, instead commas 100.00
- 5 Please note of asterisk characters and footnotes

## Measurement Units of Rutronik

Based on International Standards (ISO) / DIN Standards

### In Essence – The Following Features:

- The symbol of the unit shall be placed after the numerical value in the expression for a quantity, leaving a space between the numerical value and the unit symbol. It should be noted that, in accordance with this rule, the symbol °C for degree Celsius shall be preceded by a space when expressing a Celsius temperature.

Example: 10 V, 100 mm<sup>2</sup>, 50 °C,

### Links

- [https://en.wikipedia.org/wiki/ISO\\_80000-1](https://en.wikipedia.org/wiki/ISO_80000-1)
- Hier ist der Verlauf der Entwicklung dieser ISO <https://www.iso.org/standard/30669.html>
- <http://www.archiv-digital.de/word/DIN5008/din5008.htm#anker2.9.1>
- <http://www.cabeweb.de/html/din5008.htm>
- [https://de.m.wikipedia.org/wiki/Schmales\\_Leerzeichen](https://de.m.wikipedia.org/wiki/Schmales_Leerzeichen)
- <http://www.tastschreiben.de/p0400090.htm>
- [http://www.tw-h.de/wiki/index.php?title=Leerzeichen\\_zwischen\\_Zahl\\_und\\_Ma%C3%9Ffeinheit\\_%E2%80%93\\_Quellen\\_und\\_Belege\\_\(E%2BD\)](http://www.tw-h.de/wiki/index.php?title=Leerzeichen_zwischen_Zahl_und_Ma%C3%9Ffeinheit_%E2%80%93_Quellen_und_Belege_(E%2BD))
- [http://www.public.iastate.edu/~bkh/teaching/518/metric\\_practice.pdf](http://www.public.iastate.edu/~bkh/teaching/518/metric_practice.pdf)

## Reference Table for Formatting of Symbols and Characters

### Basic Characters

Appearance	Often unformatted	Type Word (Office)	To do in Adobe Indesign	Bemerkung
999 mm <sup>2</sup>	999 mm2	999 mm[ALT+2]	–	
999 mm <sup>3</sup>	999 mm3	999 mm[ALT+3]	–	
999 Ω	999 Ohm	999 [ALT+0937]	–	
±99 %	+ - oder - +	[ALT+0177]999 %	–	
Registered®	Registered@		> hochstellen	
Trademark™	TrademarkTM	Trademark[ALT+0153]	–	
µF	uF	[AltGr+m]	–	
€	E oder Euro	[AltGr+E]	–	
100 to 120 also possible: 100–120 (in tables)	100-120, 100–120, 100...120	100 [ALT+0150]	> Glyphen/Mathematical Symbols >Minus-Sign	without Blanks
Power Supply – The Heart of the System	Power Supply - The Heart of the System	Power Supply [ALT+0150]	–	EN Dash
–10 to 150 °C	-10 to +150°C		>Glyphen Mathematical	Minus Symbol (+ Sign at 150 °C is not necessary)
5.0 x 8.5 x 4.35 mm	5x8.5x4.35mm			

### Technical Characters

Appearance	Often unformatted	Type Word (Office)	To do in Adobe Indesign	Bemerkung
I <sup>2</sup> C	I2C	I[ALT+2]C	–	
V <sub>DC</sub> / V <sub>AC</sub>	VDC / VAC		manually formatting	
R <sub>DS(on)</sub>	RDS(on), RDS(ON)		manually formatting	
V <sub>DSS</sub>	VDSS		manually formatting	
Q <sub>s</sub>	QG		manually formatting	
further Terms in process				

Exceptions: If there are problems with space, could blanks be removed.

### Wordings – Do's & Don'ts

Appearance	Not
e-Commerce	von E-Commerce/e-Commerce/e-commerce
RUTRONIK Campaigns (AUTOMOTIVE, SMART, EMBEDDED, POWER)	Innovation Centers, Competence Centers...

## Required Material for preparation layouts – File Formats

Rough Draft as Powerpoint (PPT) or Word (Doc) file

Additional:

For creating an Layout is it necessary to have tables and images as separed files (Original)

Draft in .PPT or .DOC

**BCR4xxU Linear LED Drivers**  
And the Lights Go On - Subline

The BCR4xxU family offers a simple means of driving multiple low power LEDs in single strings focussed on 12V, 24V and 48V systems. Supporting adjustable currents from 10 to 350mA, which allows an optimized LED current to be set giving a uniform brightness and extend the LED longevity. Available in SOT26 (SC-74) package for pin-compatibility with other sources and also DFN2020 for low profile edge lighting strips.

**Features & Benefits**

- **1.4 to 40V Supply Voltage**  
Low voltage overhead to increase efficiency with sufficient headroom for over-voltage conditions such as LEDs failing short
- **10mA to 350mA**  
Adjustable CCR enables platform designs based on a single device to used across multiple LED strips – easing manufacturer's qualification
- **Negative Temperature Coefficient**  
Self-protects and allows current sharing between parallel CCRs
- **BCR421U with PWM**  
PWM directly from MCU with up to 25kHz to adjust light output

**Applications**

Diodes Incorporated's LED driving solutions are not only recognised for their high efficiency and simplicity they are also renowned for their incredible versatility and are well suited to tackle a wide range of applications, such as:

- LED strip lights
- General and retail lighting
- Automotive
- Architectural
- Signage and display

**Packages**

SOT26 (SC-74) Industry standard pinout and footprint

DFN2020 Thinner package for edge lighting

**Block Diagram**

**Specifications**

Part Number	Configuration	Input Voltage	Max. Input Voltage	Fixed Current	Adjustable Current	Package
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## File Formats

Pos.	Type	Files	Description
1	Text & drafts	.doc .ppt	Word, Powerpoint (also Open Office)
2	Tables	.xls	Excel
3	Graphics; block diagrams; charts logos, icons, symbols,	.ai .eps .pdf	Adobe Illustrator, Encapsulated Postscript, PDF in high resolution, printable, vektorized (freely scalable)
4	Images of components / packages	.psd .jpg .tif .png	300 dpi resolution and higher Image width min. 6 cm If possible: Cropped or masked Images (transparent background)
5	<ul style="list-style-type: none"> <li>Application, Product, Livestyle Images, Stockphotos,</li> <li>Supplier Visuals</li> <li>Backgrounds</li> <li>Photoshop composings</li> </ul>	.psd .jpg .tif .png	300 dpi resolution and higher Image size mind. 15 cm – optimal: 21 cm

# Product & Technical Publications – Cover Pages

## Product-based & Technical

### 1 Basic Visual

Black Head as common Rutronik visual

### 2 Headline – Short subject about product group or division name

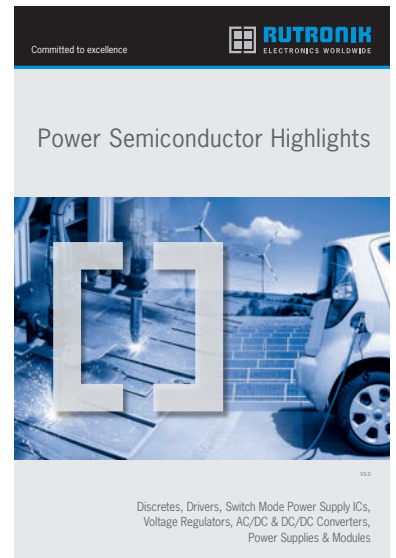
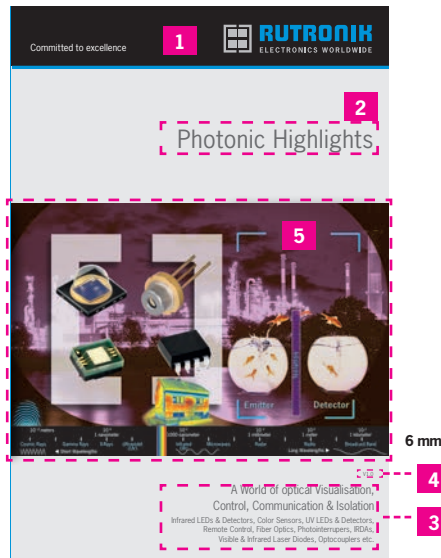
### 3 Sub Description

Possible Subject: Short Description of document or also promotion character

### 4 Version Number (obligatory)

### 5 Image

- Main picture: size 135x202 mm
- Product pictures
- Bracket (preferably with focus of components)

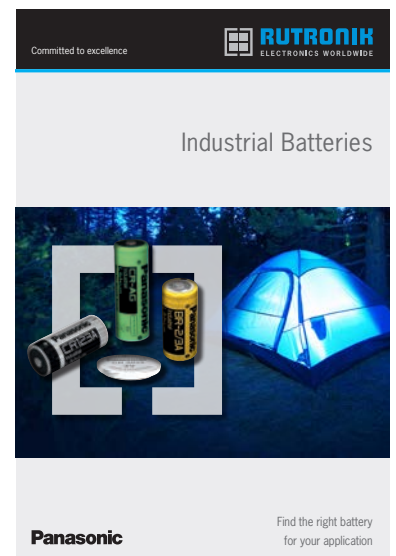
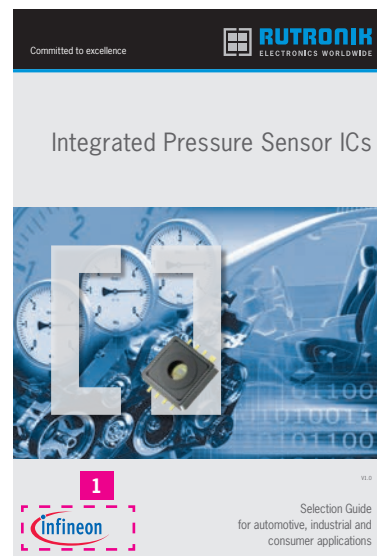


## Supplier-specific

### 1 Supplier Logo

### Basic Layout:

as rubric "Product-based & Technical"



## Applications-specific & Key Markets

### Consistent Key Visuals

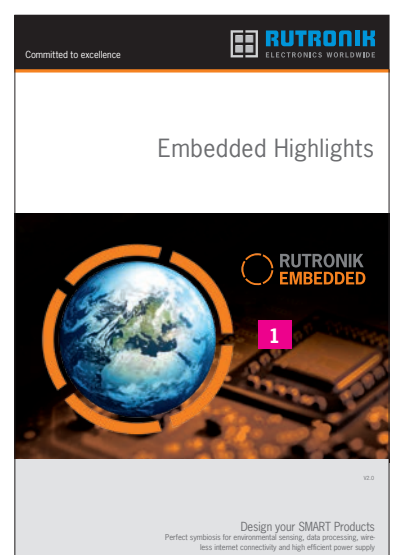
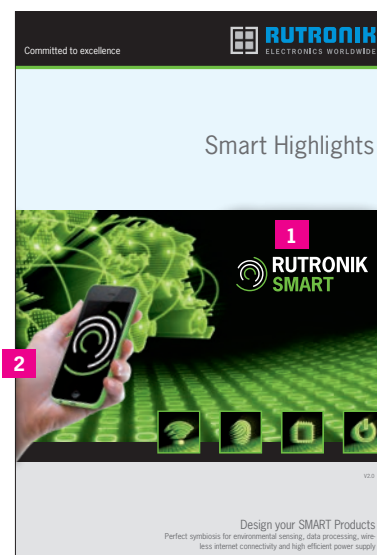
Used throughout all possible Marketing Channels (print, fairs, seminars, internet etc.)

### 1 Branded Rutronik Logo

### 2 Branded Visual, with Image & Key Color

### Basic Layout:

as rubric "product-based & technical"



# DIN Lang Flyers

## Essential Elements

### 1 Image

- Main picture: sources from supplier, stock photos and isolated product images
- Bracket

### 2 Headline

### 3 Subtext (not necessary)

### 4 Supplier Logo (by cooperation)



## Examples

**Smart Metering**  
With Smart Metering becoming the de facto choice for more and more energy companies worldwide the requirement for robust assembled connectors has increased. Whether the requirement is to facilitate the communication between the gas/ electricity meter and the "Smart Module", the internal GSM push, display or internal B-B connections JAE has a suitable solution.

0.5mm contact spacing connector. SF10 series connectors are extremely high density, low profile connectors for PCB to FPC applications. The design utilizes a slider for easy, yet reliable, engagement of the flex cable to the contacts. Suitable for display connections in a range from 6 to 50way

MM60 series is a socket compatible with specifications standardized by the PCI-SIG. Compatible with the PCI Express Mini Card Electromechanical spec and can be used for connecting with modules with PCI Express and USB transmission. E.g. for Wi-Fi modules

TX24/25 series. Connection between parallel boards spaced 12 to 24mm (2mm increment). Rugged with mating guide suitable for mounting on rack or panel. Ribbon type contacts ensure reliable electrical continuity, resisting twisting force of coupling. Sure click feeling when coupling

The SF10 series are one-piece type external connectors for the microSD card. They are high-density, SMT, push-push, standard mounting, low profile connectors compatible with the microSD card, standardized by SDMA (SD Card Association) as a compact card for various portable devices.

SMB3 series compatible with PCI-SIG PCI Express M.2 Specification, and transmission of high-speed signals such as PCIe, Gen 3, USB 3.0, Display Port, SATA, and more are possible. 0.5mm pitch (1 row back and front), 60 position, compact card edge connector. Card edge connector supports multiple modules and conforms with 4 types of plating keys through mold changing.

The SF11 series is a tray type connector compatible with GSM 11.11 standard Plug-in SIM Card for GSM applications. Plug-in SIM card connector compatible with GSM 11.11 standard. Low profile, 1.9mm height. Available with and without card detection switch

MX44 series compact waterproof connector. It has been made more compact by adopting a structure that closely presses the rubber seals to mating surfaces. Each contact is individually waterproof, making the connector suitable for use in harsh environments. 3.5mm side pitch, 1row, compact waterproof

ES9 series board to wire solution with improved operability through upside-side mating. Original locking design structure achieves high retention strength in the cable fitting direction (15N min.). Improved contact reliability with a 2-point contact structure. AWC22-26 as 2- and 4-way version

DX4 series USB2.0 micro-B compact waterproof connector solution. The enclosed gasket and the pointed contact structure secure a complete waterproof microUSB connector solution suitable for harsh environments. Including two contact points to fix the connector with screws to the housing of PCB.

**Smart Metering**  
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**OS-CON**

OS-CON™ is an advanced solid capacitor with high conductivity polymer electrolyte material. In addition, OS-CON™ has a long life span and its low ESR. Its low leakage rate also helps improve the efficiency of a circuit.

**Technical Information**  
Voltage Range: 2 to 50VDC  
Capacitance Range: 0.1 to 1000µF  
ESR: 10mΩ to 100mΩ  
ESL: 10nH to 100nH  
Temperature Range: -55 to 125°C  
Qualification: MIL-PRF-55459

**Features**  
• High ripple current  
• High capacitance range  
• High voltage  
• No dry out  
• No aging  
• No self heat

**Main Applications**  
• Power supply  
• Industrial  
• PFC and motor drive equipment

**POSCAP**

The POSCAP™ series advanced Tantalum for the Auto which offers the capacity density, a very low profile. Furthermore, the POSCAP™ has high conductivity Polymer electrolyte which has low ESR. Other than that, the POSCAP™ series has an excellent reliability by applied LC.

**Technical Information**  
Voltage Range: 2 to 15VDC  
Capacitance Range: 0.1 to 100µF  
ESR: 10mΩ to 100mΩ  
ESL: 10nH to 100nH  
Temperature Range: -55 to 125°C  
Qualification: MIL-PRF-55459

**Features**  
• No voltage derating above 85°C  
• High ripple current  
• High voltage  
• No dry out  
• No aging

**Main Applications**  
• Telecommunication  
• Automotive electronic  
• Power supply  
• Industrial  
• Embedded Systems

**SP-Cap**

The SP-Cap is a Polymer Electrolyte Aluminum Capacitor that offers excellent performance from moderate to high capacitance up to the low leakage current of an electrolytic capacitor. It can be used for early space or "volume" at an average capacitance range of 100µF to 1000µF. The technology has a long life span.

**Technical Information**  
Voltage Range: 2 to 50VDC  
Capacitance Range: 0.1 to 1000µF  
ESR: 10mΩ to 100mΩ  
ESL: 10nH to 100nH  
Temperature Range: -55 to 125°C  
Qualification: MIL-PRF-55459

**Features**  
• Ultra low ESR & high ripple current  
• High frequency response  
• Excellent voltage tolerance  
• Low inductance  
• No voltage derating above 85°C  
• No self heat  
• No aging

**Main Applications**  
• Power supply  
• Industrial  
• PFC and motor drive equipment

**Polymer Hybrid**

Panasonic's Conductive Polymer Hybrid capacitor combines the low ESR characteristics of polymer capacitor with the low leakage current of an electrolytic capacitor. It can be used for early space or "volume" at an average capacitance range of 100µF to 1000µF. The technology has a long life span.

**Technical Information**  
Voltage Range: 2 to 50VDC  
Capacitance Range: 0.1 to 1000µF  
ESR: 10mΩ to 100mΩ  
ESL: 10nH to 100nH  
Temperature Range: -55 to 125°C  
Qualification: MIL-PRF-55459

**Features**  
• High reliability  
• Excellent voltage tolerance  
• Stable electrical characteristics  
• High temperature  
• Low leakage current  
• No self heat  
• No aging

**Main Applications**  
• Automotive (Body, Chassis, Powertrain)  
• Industrial (Power, Motor)  
• Power supply

**Further Information**

**Why a Polymer Capacitor?**  
Are you looking for a solution which offers stabilization with high capacitance, a small size, longer lifetime and low leakage?

**More Information:**  
www.panasonic.com  
www.industrial.panasonic.com

**Product Marketing:**  
Tel: +81 (0)3 4684 1484 | Fax: +81 (0)3 4684 1444  
E-Mail: sales.us@panasonic.com

**Global Marketing:**  
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E-Mail: sales.us@panasonic.com

**Product Support:**  
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E-Mail: sales.us@panasonic.com

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ELECTRONICS WORLDWIDE

**Panasonic**

**Committed to excellence**

**Polymer Capacitors**  
POSCAP™  
Polymer Tantalum Solid Capacitors  
OS-CON™  
Polymer Aluminium Solid Capacitors  
SP-Cap  
Polymer Aluminium Capacitor Chip  
Hybrid  
Conductive Polymer Hybrid

Consult | Components | Logistics | Support  
www.rutronik.com

**Additional Informations**

**Approved Information:**  
Our products are certified to ISO 9001, Open Market Customer Policy, Conflict-free and high level of environmental responsibility and the responsible handling of products and materials. We are also ISO 14001 certified and being the first to use advanced technology in our production process.

**ISO Cert. Technology:**  
• Customer Reliability Technology  
• Component Reliability Technology  
• Environmental Technology

**High Speed Technology:**  
• High Speed Transmission & Reception Technology  
• High Speed Processing Technology such as SMT/Assembly  
• Surface Mount Technology

**Websites**

**www.rutronik.com**

**www.jae.com**

**www.panasonic.com**

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# Brochures

## Introduction: Pages 2+3

### 1

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### Our Product Portfolio

Semiconductors	Boards & Systems
Passive Components	Storage Technologies
Electromechanical Components	Wireless Technologies
Displays & Monitors	

### Our Innovation Centers

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	<a href="http://www.rutronik.com">www.rutronik.com</a>

## 6

## Analog & Sensor Highlights

### Your Reliable Source for Analog & Sensor Solutions



### Rutronik Analog

**Rutronik Analog Connects the World Between Analog & Digital**  
Operational Amplifier & Comparators, Logic ICs, Converter & Digital Potentiometer, Voltage References & Supervisor as well as Timer IC and Interfaces – this is our comprehensive Analog offer.

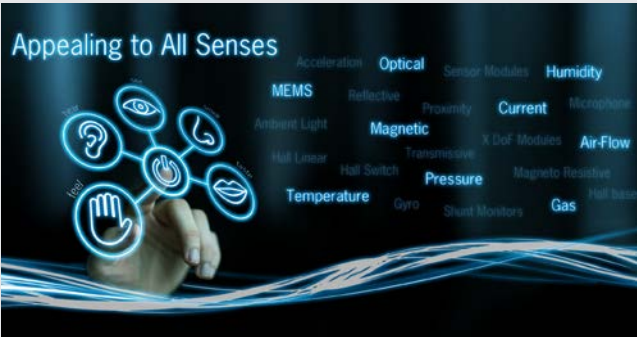
Analog products connect the physical and the digital worlds by translating sensor signals into 1s and 0s to be used in electronics.

A broad selection of devices that are characterized by small footprint, high level of integration and low power consumption will help you to solve design challenges.

### Rutronik Sensors

**Rutronik – THE SENSOR DISTRIBUTOR**  
This is our self-conception when it comes to sensors. An industry leading sensor portfolio combined by state of the art products and an exemplified solution selling approach makes it easy for you to realise your sensing application. Let's go and appeal to all senses.

### Appealing to All Senses



## Introduction Pages

**Brochures with more than 4 Product pages have to include an introduction:**

### Page 2

- 1** Content
- 2** Core Competencies
- 3** Product Portfolio
- 4** Social Media Area
- 5** Image Motif:
  - subject of brochure
  - repeated from cover page

### Page 3

- 6** Editorial


possible content:


- General market of subject
- Rutronik on market place
- Technology overview
- Benefits with our supplier

Further:  
Linecards, supplier logos

## Examples


### 5






<h4>Our Product Portfolio</h4> <table border="0"> <tr><td> Semiconductors</td><td> Boards &amp; Systems</td></tr> <tr><td> Passive Components</td><td> Storage Technologies</td></tr> <tr><td> Electromechanical Components</td><td> Wireless Technologies</td></tr> <tr><td> Displays &amp; Monitors</td><td></td></tr> </table>	Semiconductors	Boards & Systems	Passive Components	Storage Technologies	Electromechanical Components	Wireless Technologies	Displays & Monitors		<h4>Committed to Excellence</h4> <p><b>Consult – Know-how. Built-in.</b> The Technical Competence from RUTRONIK</p> <p>Worldwide and individual consulting on the spot by competent sales staff, application engineers and product specialists.</p> <p><b>Components – Variety. Built-in.</b> The Product Portfolio from RUTRONIK</p> <p>Wide product range of semiconductors, passive and electro-mechanical components, displays &amp; monitors, boards &amp; systems, storage and wireless technologies for optimum coverage of your needs.</p> <p><b>Logistics – Reliability. Built-in.</b> The Delivery Service from RUTRONIK</p> <p>Innovative and flexible solutions: from supply chain management to individual logistics systems.</p> <p><b>Quality – Security. Built-in.</b> Quality Management without Compromise</p> <p>The integrated management system (IMS) encompasses quality control, environmental protection and occupational health and safety.</p>
Semiconductors	Boards & Systems								
Passive Components	Storage Technologies								
Electromechanical Components	Wireless Technologies								
Displays & Monitors									

### 5





<h4>Our Product Portfolio</h4> <table border="0"> <tr><td> Semiconductors</td><td> Boards &amp; Systems</td></tr> <tr><td> Passive Components</td><td> Storage Technologies</td></tr> <tr><td> Electromechanical Components</td><td> Wireless Technologies</td></tr> <tr><td> Displays &amp; Monitors</td><td></td></tr> </table>	Semiconductors	Boards & Systems	Passive Components	Storage Technologies	Electromechanical Components	Wireless Technologies	Displays & Monitors		<h4>Committed to Excellence</h4> <p><b>Consult – Know-how. Built-in.</b> The Technical Competence from RUTRONIK</p> <p>Worldwide and individual consulting on the spot by competent sales staff, application engineers and product specialists.</p> <p><b>Components – Variety. Built-in.</b> The Product Portfolio from RUTRONIK</p> <p>Wide product range of semiconductors, passive and electro-mechanical components, displays &amp; monitors, boards &amp; systems, storage and wireless technologies for optimum coverage of your needs.</p> <p><b>Logistics – Reliability. Built-in.</b> The Delivery Service from RUTRONIK</p> <p>Innovative and flexible solutions: from supply chain management to individual logistics systems.</p> <p><b>Quality – Security. Built-in.</b> Quality Management without Compromise</p> <p>The integrated management system (IMS) encompasses quality control, environmental protection and occupational health and safety.</p>
Semiconductors	Boards & Systems								
Passive Components	Storage Technologies								
Electromechanical Components	Wireless Technologies								
Displays & Monitors									

# Brochures

## Product Brochures: Basic Structure of Pages



**1** Main area of images

### GSM Wireless Modules

**2** Headline

**3** Supplier Logo

**4** Product Area

**2a** In relation with subtitle

**2b** and short description

**3** Supplier Logo

**4** Product Area

- Technical description
- Isolated components or diagrams

**2b** Sources & Info:

- Templates & bibliothek elements of Indesign
- Layout grid

**GE866 – the smallest GSM / GPRS module in the market**

**Key Benefits**

- The GE866-QUAD is the miniature generation in Telit's 2G module portfolio. With its ultra-compact 15 x 19 mm LGA footprint, it is designed to be the smallest GSM / GPRS module in the market
- It is a quad-band 850/900/1800/1900 MHz GSM / GPRS communication product based on the market's latest 2G core which allows integrators to plan on availability for even the longest lifecycle applications, highly recommended for new designs specific for 2G coverage worldwide
- Its LGA package implies easy integration and low impact on final application size and costs
- The product is fully voice capable, the analog and digital audio interfaces make it suitable for applications such as voice enabled alarm panels, medical health patient monitors and specialty phones
- For prototyping and testing, an interface board is also available

**Key Features**

- GE866-QUAD: Quad-band GSM 850/900/1800/1900 MHz
- GSM/GPRS protocol stack 3GPP Release 4 compliant
- Output power:
  - Class 4 (2W) @ 850/900 MHz
  - Class 1 (1W) @ 1800/1900 MHz
- Extended Supply voltage range: 3.10 – 4.50 V
- TCP/IP stack access via AT commands
- Sensitivity:
  - 108 dBm (typ.) @ 850/900 MHz
  - 107 dBm (typ.) @ 1800/1900 MHz
- Dimensions: 15 x 19 x 2.2mm
- Weight: 1.5g
- Storage and operating temperature range: -40°C to +85°C

**Application Fields**

- Battery powered, wearable devices
- Automated Meter Reading (AMR)
- Security alarms and non-video surveillance

**GE 866-QUAD**

GSM | GPRS Embedded

**8** | www.rutronik.com/wireless

## Examples



**Ambient Light Sensors**

**ALS-PD/C Series (Digital)**

The ALS-PD/C Series is a digital ambient light sensor with a true white PCB and interface that is compatible with 300lux when working at 1000Hz serial clock frequency. It contains a photo-diode and an analog-to-digital converter (ADC) on a single CMOS integrated circuit to provide high measurement error an effective dynamic range up to 15.5k. The integrated conversion software effectively minimizes the effect of non-linearities of the sensor.

**ALS Series**

The ALS Series consists of a 4-pin 8-bit digital output sensor with a 1000Hz serial clock frequency. It contains a photo-diode and an analog-to-digital converter (ADC) on a single CMOS integrated circuit to provide high measurement error an effective dynamic range up to 15.5k. The integrated conversion software effectively minimizes the effect of non-linearities of the sensor.


**IR Protected Mosfets**

**Automotive Intelligent High Side Power Switch (HPS)**

Before refers with IR protected logic qualified power MOSFET high side switches in drive any kind of load connected to the motor.

**25MPB-01-01 – New Absolute Pressure Sensor**

A new high-precision absolute pressure sensor from Omron Electronic Component Group can detect high fluctuations in barometric pressure. Based on Omron MEMS technology, the new pressure sensor has an absolute pressure range from 0 to 110kPa and a resolution of 0.1kPa. The sensor can be used in a wide range of applications, including automotive, industrial and medical applications. The sensor is available in two packages: a 4-pin package for surface mount and a 6-pin package for through-hole mounting.



### Global Navigation Satellite Systems (GNSS)

A Global Navigation Satellite System (GNSS) is a system of satellites providing autonomous geospatial positioning with global coverage. It allows small electronic receivers to determine their location to a high precision by using time signals transmitted along a line of sight by radio from satellites.

#### Operational Navigation Constellations:

- GPS (24 satellite constellation + 6 backup SVs)
- Galileo (currently 6 SVs launched)
- GLONASS (24 satellite constellation + 6 backup SVs)

#### Navigation Constellations in Development:

- Beidou (currently 16 SVs launched)

System	USA	Russia	EU	China	Japan
SVs	31	24	30	30	31
Operational SVs	31	24	30	30	31
Backup SVs	0	0	0	0	0

**GNSS Technologies**

System	USA	Russia	EU	China	Japan
System	GPS	GLONASS	Galileo	BeiDou	QZSS
Date Deployed	1995	1995-2011	Future (see 2018)	Future (see 2018)	Future (see 2020)
Frequency	1575.42 (L1), 1227.6 (L2), 1176.45 (L5)	1602 (L1), 1270 (L2), 1207.14 (SBS), 1268.52 (L5)	1575.42 (E1), 1277.12 (E2), 1191.79 (E5A), 1207.14 (E5B), 1278.75 (E6)	1561.08 (B1), 1207.14 (B2), 1287.6 (B3)	1575.42 (L1), 1227.6 (L2), 1176.45 (L5)
Each SV is identified by its own ID	Yes	Yes	Yes	Yes	Yes

**GNSS Technologies**

System	USA	Russia	EU	China	Japan
System	GPS	GLONASS	Galileo	BeiDou	QZSS
Date Deployed	1995	1995-2011	Future (see 2018)	Future (see 2018)	Future (see 2020)
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Each SV is identified by its own ID	Yes	Yes	Yes	Yes	Yes

**16** | www.rutronik.com/wireless



## Product Brochures: Back Cover

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**RUTRONIK**  
ELECTRONICS WORLDWIDE

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Fix element available as PDF  
Continuously updated by Markom  
department.

Please check for new updates  
**before printing**

**1 Notification about:**

- Issue of brochure

Year 2016 Month April

**2020 = "U"**

- Language
- Remarks of technical modifications and possible restrictions

# Branded Promotion & Info Sheets

## Please note:

Promotion material of our suppliers for print & online media should be **Rutronik branded**

With using the **Basic Rutronik Frame 1** is it possible to give an supplier sheet quickly an Rutronik face.

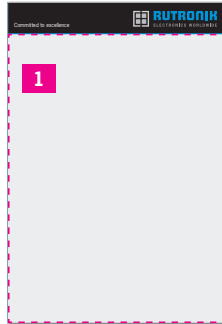
E.g. an original supplier pdf placed in an Adobe Indesign document **2**.

### 1 Elementary Elements

Basic visual with Rutronik Worldwide logo, claim

### Preferable Elements:

- 3** Key Image & Headline
- 4** Supplier Logo
- 5** Rutronik Adress



## Examples

Committed to excellence **RUTRONIK** ELECTRONICS WORLDWIDE

### 50 A SCR: TN5050H-12WY AC/DC converter applications

**3**

This 1200 V, 50 A automotive-grade thyristor makes AC/DC converters safe by limiting the inrush current and providing insulation against AC line overvoltages

**4**

Available in a TO-247, high power package, the TN5050H-12WY automotive-grade SCR is suitable for automotive / stationary battery chargers, renewable energy generators, uninterruptible power supplies, solid state relays, welding equipment and motor drive applications.

**5**

**KEY FEATURES**

- On-state RMS current: 50 A
- Blocking voltage: 1200 V
- High commutation: 200 A/µs
- High off-state immunity: 1000 V/µs
- Gate trigger current: 50 mA
- AEC-Q101 compliant
- ECOPACK™2 compliant

**KEY BENEFITS**

- Automotive grade reliability, quality and AEC-Q101 compliance
- Reduce BOM: extra power device no longer needed in the rectifier bridge
- Some efficiency/dissipation and cooling size as diode bridge
- High PCB creepage distance above 4mm
- Control peak current at charger power up

**TARGETED APPLICATIONS**

- EV/HEV (on board, off board battery chargers)
- Industrial battery chargers
- Renewable energy inverters
- Uninterruptible power supplies (UPS)
- Motor drive (inrush current limiter, soft start)
- Insulated wireless system

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### Broadline Distributor Rutronik finds US-American Subsidiary

**4**

Rutronik Electronics Worldwide is delighted to announce the founding of its new subsidiary, Rutronik Inc. in North America. With its headquarters in Cleveland, Ohio, and with future expansion planned in key markets throughout the US, Canada and Mexico, it is pleased to serve the North American market. Under the expert supervision of Vice President Jeff Shafer, Rutronik Inc. operates independently and flexibly within the global Rutronik Group.

The internal sales and product management staff along with the technically oriented field sales engineers, that are positioned in key markets across the United States, will support both the global and North American customers.

Jeff Shafer, Vice President of Rutronik Inc., is an expert in the electronic distribution industry. Mr. Shafer has been working in the electronic distribution industry for over 30 years, holding various managerial positions in which he was responsible for both the American market and international business.

You want to learn more about Rutronik and our product portfolio? Please contact us or visit [www.rutronik.com](http://www.rutronik.com). We are looking forward to meeting you!

**RUTRONIK WORLDWIDE**  
Rutronik is the world's largest distributor in the world (more: 8200 with over 75 branches in more than 30 countries in North America, Asia and Europe)

Jeff Shafer  
Vice President North America

Rutronik Inc.  
3 Summit Park Drive Suite 555  
Cleveland, OH 44131

Phone:  
+1 216.326.8900 (office)  
+1 216.373.0595 (sales)  
+1 216.373.0593 (fax)  
+1 216.373.0550 (fax)

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

For Quotes or Customer Service, please contact us at: [sales@rutronik.com](mailto:sales@rutronik.com)

**Our Product Portfolio**

- Automotives
- Power Components
- Electromechanical Components
- Displays & Boards
- Storage Technologies
- Wireless Technologies

Committed to excellence **RUTRONIK** ELECTRONICS WORLDWIDE

## Why DIODES? Protection Products

**2**

**Worry-Free System-Level ESD Protection**

**First-Time, Right-System Design**

**Leading-Edge Performance**

**Rugged Quality**

**Wide Application Fields**

- High-Speed Data-line Protection
- Automotive Protection
- Lightning Surge Protection
- Battery Protection
- General Interface Protection

**Innovative Package Solutions**

- DFN1006 with Side-Wall Plating for Optical Inspection Capabilities
- DFN2020 Package Surge Solution
- DFN0603 High-Quality and Reliability Package Available

**Ultra High-Speed Protections**

- Line Capacitance Down to 2000F
- Fallsafe IEC61000-4-2 Protection with Low Clamp Voltage
- Space-Saving Packages

**Innovative Silicon Solutions**

- Low Noise Diodes for GSM and Antenna Protection
- Ultra Low Dynamic Resistance Down to 0.1Ω

FOR MORE INFORMATION E-MAIL: [info@diodes.com](mailto:info@diodes.com) | [www.diodes.com](http://www.diodes.com)

RUTRONIK Elektronische Bauelemente GmbH | Industriestraße 2 | 75228 Ispringen | Germany | Phone +49 7231 801-0 | [www.rutronik.com](http://www.rutronik.com)

**5**

Committed to excellence **RUTRONIK** ELECTRONICS WORLDWIDE

### 50 A SCR: TN5050H-12WY AC/DC converter applications

**3**

**4** **ST** illo.augmented

This 1200 V, 50 A automotive-grade thyristor makes AC/DC converters safe by limiting the inrush current and providing insulation against AC line overvoltages.

Available in a TO-247, high power package, the TN5050H-12WY automotive-grade SCR is suitable for automotive / stationary battery chargers, renewable energy generators, uninterruptible power supplies, solid state relays, welding equipment and motor drive applications.

The TN5050H-12WY offers superior performance in surge current handling (ITSM = 200 A at 10ms), thermal cooling capabilities (Rth(j-c) = 0.3 °C/W) and high surge voltage withstanding capability (VDSM/VRSM = 1300 V).

**Key Features**

- On-state RMS current: 50 A
- Blocking voltage: 1200 V
- High commutation: 200 A/µs
- High off-state immunity: 1000 V/µs
- Gate trigger current: 50 mA
- AEC-Q101 compliant
- ECOPACK™2 compliant

**Key Benefits**

- Automotive grade reliability, quality and AEC-Q101 compliance
- Reduce BOM: extra power device no longer needed in the rectifier bridge
- Some efficiency/dissipation and cooling size as diode bridge
- High PCB creepage distance above 4mm
- Control peak current at charger power up

**Target Applications**

- EV/HEV (on board, off board battery chargers)
- Industrial battery chargers
- Renewable energy inverters
- Solid state relays
- Uninterruptible power supplies (bypass)
- Motor drive (inrush current limiter, soft start)
- Industrial welding system

**4**

Committed to excellence **RUTRONIK** ELECTRONICS WORLDWIDE

**infineon**

**4**

### 1EDI EiceDRIVER™ Compact 1200V galvanically isolated single-channel driver IC family

The new 1EDI EiceDRIVER™ Compact family supports efficiently a broad range of applications with MOSFETs as well as IGBTs up to 6A output current. The used Coreless Transformer technology with 1200V galvanically isolated is tailored for all 600V, 650V and 1200V IGBT, Power Modules and 650V CoolMOS™.

With its bench mark in common mode transient immunity (CMTI) of 100kV/µs 1EDI driver ICs are extremely robust and tailored for the latest generations of CoolMOS™ C7 with 3- and 4-pins, CoolMOS™ CP and IGBT TRENCHSTOP™ 5. 1EDI Compact is available in five variants with separate source and sink output for MOSFET and IGBT and three different output current variants with a Miller Clamp for IGBT. All variants are offered in a compact DSO-8 with a green mounting-free package width of 15mm (RoHS compliant).

1EDI60N12AF and 1EDI20N12AF for MOSFETs supply six and two amperes of output current. They have a separate output for charging and discharging the gate. With the propagation delay below 105ns and the input filter time of only 40ns customer benefits is the ideal use up to 4MHz for high switching frequency applications as SMPS. Both are optimized for use with power semiconductor that are based on CoolMOSTM technology. Due to lower induction loss, the EiceDRIVER™ thus enables an additional gain in efficiency of 0.5 percent with the new C7. Beside SMPS these drivers are recommended for applications as PFC, server, telecom, solar, buck/boost converter and PC power. 1EDI60N12AF, 1EDI40N12AF, 1EDI20N12AF and 1EDI05N12AF for IGBTs supply 0.5 up to 6 amperes of output current. These four variants have also a separate output for charging and discharging the gate.

Additional three variants 1EDI03N2MF, 1EDI20N2MF and 1EDI01N12MF are structured to limit the gate voltage (active Miller clamp) and provide 3, 2 and 1 amperes of output current.

All IGBT driver variants support general purpose inverter (IGP), general purpose drives & servo, welding, induction heating for industrial as well as cooking, solar inverter and UPS.

[www.infineon.com/eicedrivercompact](http://www.infineon.com/eicedrivercompact)

**Main Features**

- Single channel Isolated Driver
- Input to output isolation voltage up to 1200 V
- For high voltage power MOSFETs and IGBTs
- Up to 6 A minimum peak rail-to-rail output
- Separate source and sink outputs or active Miller Clamp

**Applications**

for MOSFET:

- SMPS
- PFC
- Server
- Solar
- Buck/boost converter

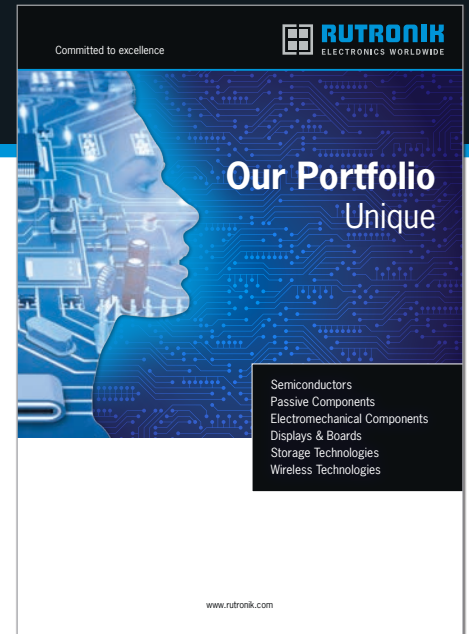
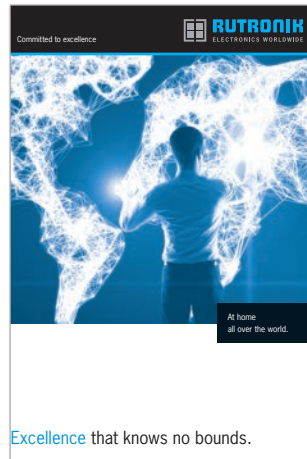
for IGBT:

- General purpose inverter (IGP)
- Drives
- Welding
- W industrial and cooking
- Solar inverter
- UPS

**RoHS**

RUTRONIK Elektronische Bauelemente GmbH | Industriestraße 2 | 75228 Ispringen | Germany | Phone +49 7231

# Corporate Image & Value Added Publications



**8**

**Claim**  
14 Pts / News Gothic;  
Font Color: white

**Line Horizontal**  
5 Pts line width  
Position: y:32 mm  
Color: rutBlue

**Key Image**  
Size 202x175mm

**Sub Title**  
Font Size: 15 Pts  
(depends on text)  
Color: white  
Frame:  
Size: 88x31 mm black

**9**

10 mm

6 mm

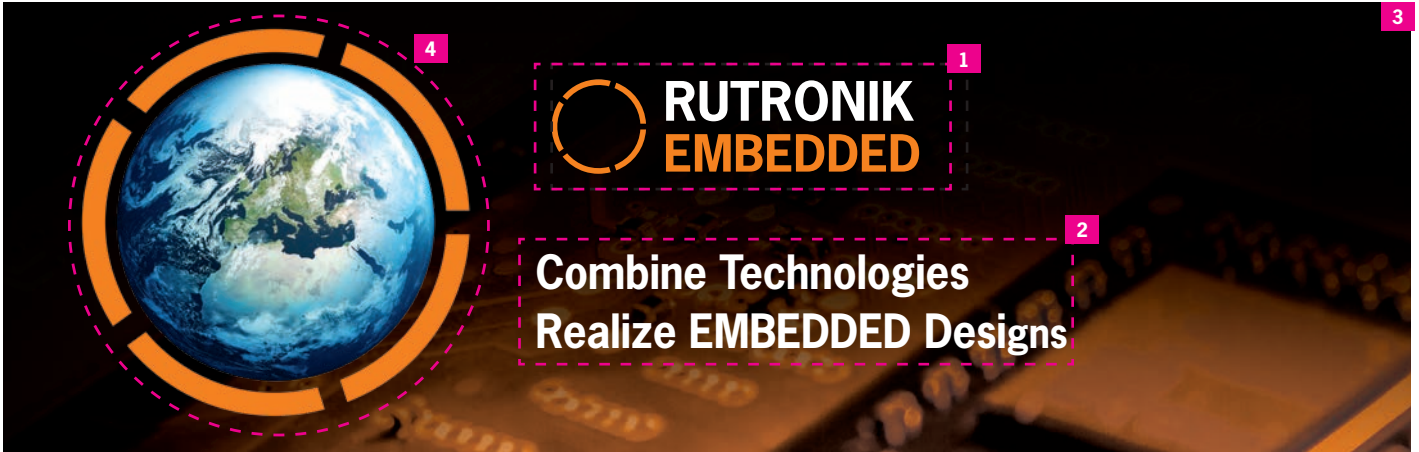
**1 + 2 Main Title**  
Font Size: 32 Pts  
Font: News Gothic Medium  
Color: black + rutBlue

**1**

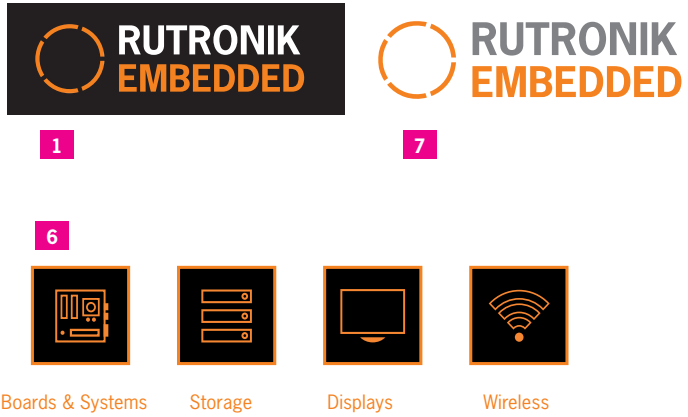
**2**

# Initiatives

Rutronik Key-Visuals: e.g. RUTRONIK EMBEDDED

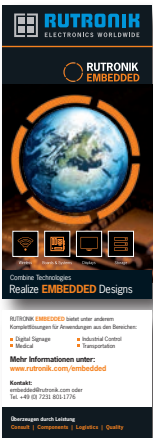


**RUTRONIK EMBEDDED**  
 RUTRONIK EMBEDDED is a new range of bundled hardware, software and services, bringing together entire solutions, consisting of selected Wireless Components, Displays, Boards and Storage solutions for industrial machines on the Internet of Things. The featured products are optimized for the typical requirements like robustness, longevity and offer a high level of integration.

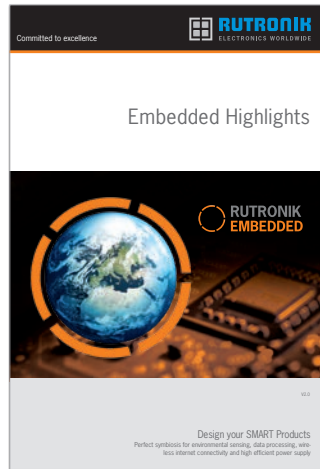


## Examples

Advertisement



Highlights Catalogue



1. Logo – Main use
2. Claim
3. Background visual
4. Key element
5. Description text
6. Icon
7. Logo variants – if main logo not possible

### Sources:

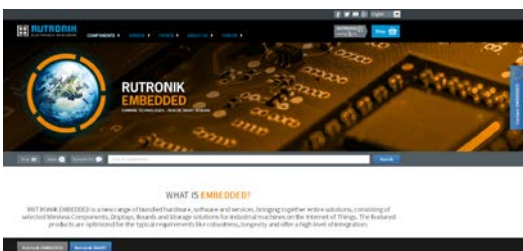
Logos & visuals  
 Examples  
 Templates

### Key Colour:



(further color definitions in Indesign-Templates)

Internet



Notepads



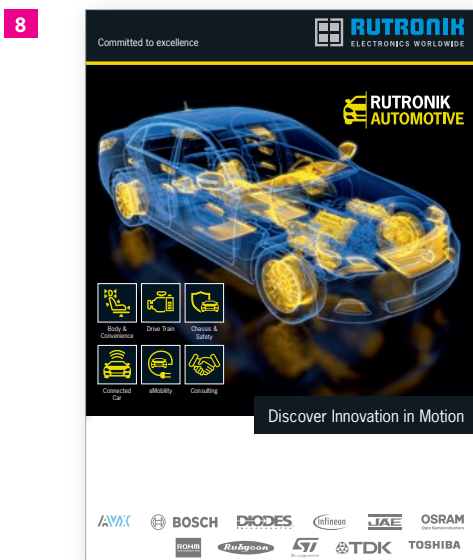
# Initiatives

## Rutronik Key-Visuals: RUTRONIK AUTOMOTIVE



- 5 RUTRONIK **AUTOMOTIVE** offers innovative products of leading manufacturers for the automotive industry. RUTRONIK **AUTOMOTIVE** brings together entire solutions for the following topics:
- Body & Convenience
  - Chassis & Safety
  - eMobility
  - Drive Train
  - Connected Car
  - Consulting

- 6 RUTRONIK **AUTOMOTIVE** bietet innovative Produkte führender Hersteller für die Automotive Industrie. RUTRONIK **AUTOMOTIVE** bringt komplette Lösungen für folgende Themenbereiche:
- Body & Convenience
  - Chassis & Safety
  - eMobility
  - Drive Train
  - Connected Car
  - Consulting



- 7
- Body & Convenience
  - Drive Train
  - Chassis & Safety
  - Connected Car
  - eMobility
  - Consulting

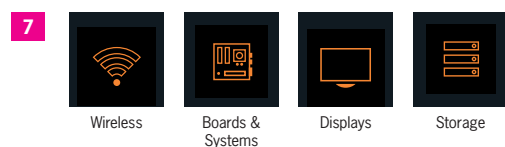
- How to use:**
1. Logo (Main use)
  2. Claim
  3. Black background
  4. Key element
  5. Description text (in English an German)
  6. Logo variants (If main logo not possible)
  7. Icons
  8. Examples
- Key Colour:**  
C0 M0 Y100 K10  
  
(further color definitions in InDesign-Templates)

# Initiatives

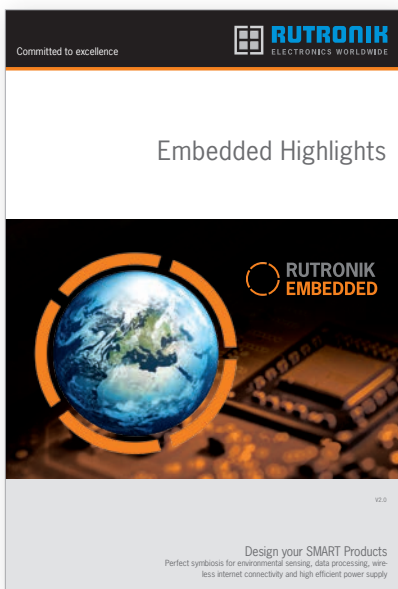
## Rutronik Key-Visuals: RUTRONIK EMBEDDED



**5** RUTRONIK EMBEDDED is a new range of bundled hardware, software and services, bringing together entire solutions, consisting of selected Wireless Components, Displays, Boards and Storage solutions for industrial machines on the Internet of Things. The featured products are optimized for the typical requirements like robustness, longevity and offer a high level of integration.



### Examples



### How to use:

1. Logo (Main use)
2. Claim
3. Key Visual background
4. Key element
5. Description text
6. Logo variants (If main logo not possible)
7. Icons

### Sources:

Logos & Visuals  
Examples  
Templates

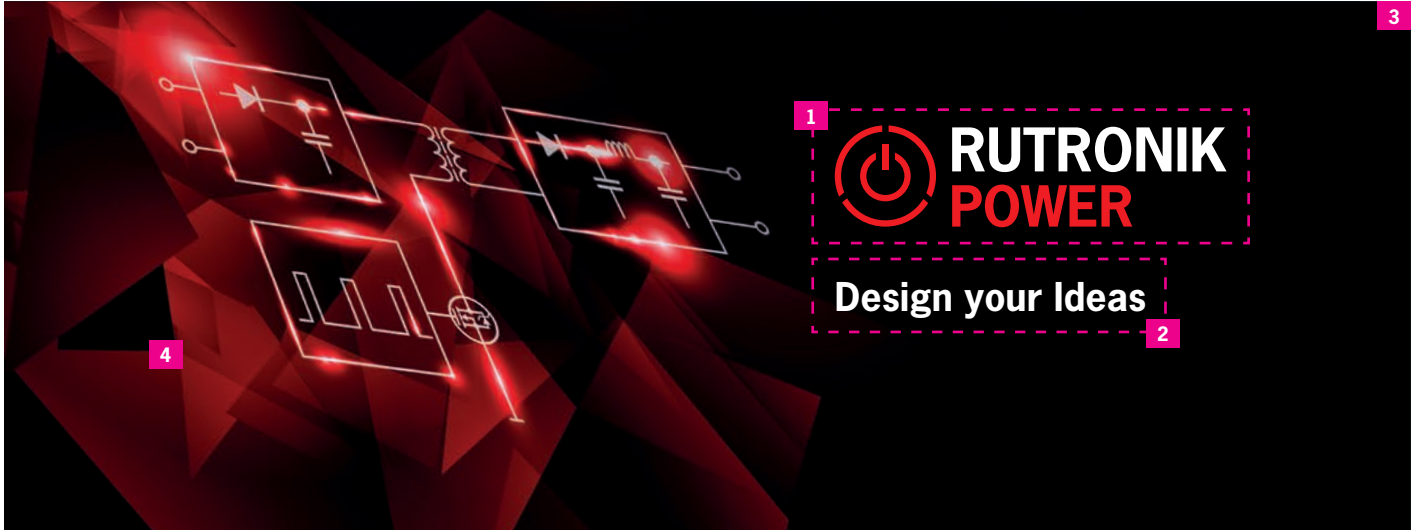
### Key Colour:

C0 M60 Y100 K0

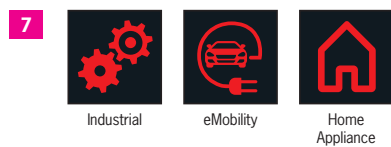
(further color definitions in InDesign-Templates)

# Initiatives

## Rutronik Key-Visuals: RUTRONIK POWER



**5** RUTRONIK POWER stands for scalable solutions to convert energy, to switch, to drive or to connect resistive, capacitive or inductive loads. RUTRONIK POWER offers dedicated know-how from specially trained FAEs and Product Marketing Managers. Throw in state-of-the-art product portfolios from leading suppliers around the globe.



### Examples



### How to use:

1. Logo (Main use)
2. Claim
3. Black background
4. Key element
5. Description text
6. Logo variants (If main logo not possible)
7. Icons

### Sources:

Logos & Visuals  
Examples  
Templates

### Key Colour:

C0 M100 Y100 K0



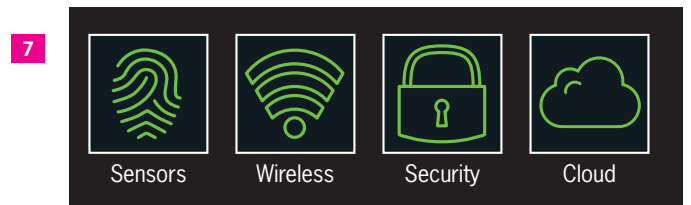
(further color definitions in InDesign-Templates)

# Initiatives

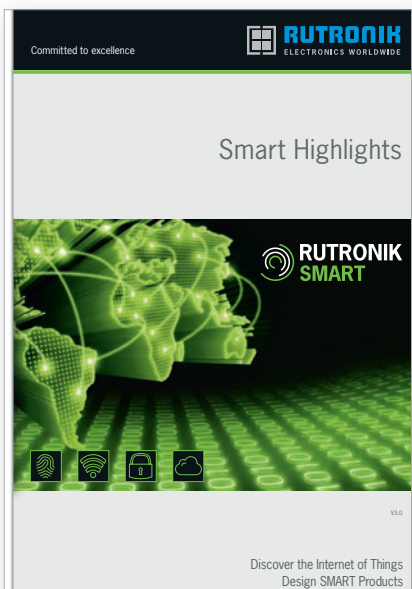
## Rutronik Key-Visuals: RUTRONIK SMART



**5** RUTRONIK SMART is a new range of bundled hardware, software and services, bringing together entire solutions, consisting of selected Sensors, Wireless Components, Security Solutions and Cloud Services for devices on the Internet of Things. The featured products are optimized for the typical requirements like space limitations, ultra-low power and offer a high level of integration.



### Examples



### How to use:

1. Logo (Main use)
2. Claim
3. Black background
4. Key element
5. Description text
6. Logo variants (If main logo not possible)
7. Icons

### Sources:

Logos & Visuals  
Examples  
Templates

### Key Colour:

C60 M0 Y100 K0



(further color definitions in InDesign-Templates)



## Rutronik Key-Visuals: RUTRONIK24



Please be careful. There are different shades of grey in the typo. Use the right Logo. For bright background 65% black, for dark background 30% black.



**5** Rutronik24 is a modular online shop selling around one million articles across the full spectrum of electronic components. Customers are able to get everything they need, quickly and easily, on a single platform, as well as enjoying support from the Rutronik24 sales team. Highlights include the Mass Quotation Tool, with which customers can upload and get a quote for a complete parts list, as well as an extensive PCN database.

**7** English: **Faster. Easier. Just more personal.**  
 German: **Schneller. Individueller. Komfortabler.**  
 Polish: **Szybciej. Wygodniej. Bardziej Indywidualnie.**  
 French: **Plus rapide. Plus individuel. Plus confortable.**

### 8 Examples

Print



Online



#### How to use:

1. Logo (Main use)
2. Slogan and URL
3. Background  
Print: Supplier-logos in soft grey  
Online: Grey-white gradient
4. Key element
5. Description text
6. Logo variants  
(If main logo not possible)
7. Slogan in different languages
8. Examples

#### Key Colour:

C100 M20 Y0 K0

C0 M0 Y0 K65

(further color definitions in InDesign-Templates)

# Advertisements in Magazines

## Image Advert

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**HIGHTECH-BAUELEMENTE**  
für Ihre Innovationen

Als einer der führenden Distributoren für elektronische Bauelemente bieten wir Ihnen weltweit ein breites Produktportfolio, kompetente technische Unterstützung bei Produktentwicklung und Design, individuelle Logistik-Lösungen sowie umfangreiche Serviceleistungen.

- Semiconductors
- Passive Components
- Electromechanical Components
- Displays & Monitors
- Boards & Systems
- Storage Technologies
- Wireless Technologies

Informationen zu RUTRONIK:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

## Supplier Coop Adverts

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**VISHAY**

**POWER-METAL-STRIP® - WIDERSTAND WSL0612**  
im kompakten 0612-Gehäuse

**VORTEILE:**

- AEC-Q200
- Längsseitige Anschlüsse
- Hohe Nennbelastbarkeit von 1W
- Extrem kleine Widerstandswerte bis hinab zu 0,001Ω
- Enge Toleranzen (1% oder 5%)
- Geringe Thermospannung (<3 μV/°C)
- Vollgeschweißt
- Temperaturbereich -65°C bis +170°C
- Bleifrei, RoHS-konform

**APPLIKATIONEN:**

- Schalt- und Linearregler-Stromversorgungen
- Messgeräte und Leistungsverstärker
- Shunts in Automobilelektronik (z.B. in Motorsteuerungen)
- Antiblockiersystem- und Klimaanlagesteuerungen
- Batteriemanagementsysteme
- Industrielle Steuerungssysteme
- Wechselrichter für Heizungs-/Klimaanlagen

Informationen zu WSL0612:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

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Informationen zu WSL0612:  
Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

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### Image Advert

**Fix Elements**  
Rutronik brand,  
Logo & vertical line

**Header Subject**

- Subheadline (blue)
- Copy text (description)
- Product portfolio

**Contact Info**

**Fix Elements**  
Core Competences, claim, web address

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**HIGHTECH-BAUELEMENTE**  
für Ihre Innovationen

Als einer der führenden Distributoren für elektronische Bauelemente bieten wir Ihnen weltweit ein breites Produktportfolio, kompetente technische Unterstützung bei Produktentwicklung und Design, individuelle Logistik-Lösungen sowie umfangreiche Serviceleistungen.

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- Wireless Technologies

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Tel. +49 (0) 7231 801-0 | [rutronik@rutronik.com](mailto:rutronik@rutronik.com)  
[www.rutronik.com](http://www.rutronik.com)

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

### Supplier Coop Advert

**Main Image**

- Products
- Logo
- Background with white or dark blue pcb graphic

**Header**

- Headline (blue)
- Subline (white)

**Subject**

- Article description
- Key features, Benefits & applications in bullet points

**Contact info**

**RUTRONIK**  
ELECTRONICS WORLDWIDE

**VISHAY**

**POWER-METAL-STRIP® - WIDERSTAND WSL0612**  
im kompakten 0612-Gehäuse

**VORTEILE:**

- AEC-Q200
- Längsseitige Anschlüsse
- Hohe Nennbelastbarkeit von 1W
- Extrem kleine Widerstandswerte bis hinab zu 0,001Ω
- Enge Toleranzen (1% oder 5%)
- Geringe Thermospannung (<3 μV/°C)
- Vollgeschweißt
- Temperaturbereich -65°C bis +170°C
- Bleifrei, RoHS-konform

**APPLIKATIONEN:**

- Schalt- und Linearregler-Stromversorgungen
- Messgeräte und Leistungsverstärker
- Shunts in Automobilelektronik (z.B. in Motorsteuerungen)
- Antiblockiersystem- und Klimaanlagesteuerungen
- Batteriemanagementsysteme
- Industrielle Steuerungssysteme
- Wechselrichter für Heizungs-/Klimaanlagen

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

COMMITTED TO EXCELLENCE  
Consult | Components | Logistics | Quality

# Rutronik Corporate Profile

Sources:

- Intranet



## OUR BENEFITS

<b>COMPANY</b> completely independent	<b>&gt; 40 YEARS</b> commercial success	<b>NR. 3 IN EUROPE</b> in distribution market <small>(Source: Eurpartners)</small>	<b>NR. 10 WORLDWIDE</b> in global distribution market <small>(Source: Source Today)</small>
--	--	---	--

**> 30,000 CUSTOMERS**  
worldwide

**> 100,000,000,000 PIECES**  
are shipped every year

**SECOND SOURCE**  
entire portfolio with alternative productsources

**LINECARD**  
with leading suppliers



## 82 OFFICES WORLDWIDE



**WORLDWIDE SHIPPING AND SUPPORT**  
according to german quality standards



**1** rutronik-careers.com Überzeugen durch Leistung **RUTRONIK** ELECTRONICS WORLDWIDE

**2** **make it work**

**3** **Entdecken Sie die Welt der elektronischen Bauelemente!**

**Starten Sie als Teamplayer bei Rutronik!** Die Welt der Elektronik ist unser zuhause. Als eines der weltweit führenden Unternehmen für den Vertrieb elektronischer Bauteile mit mehr als 1.850 Mitarbeitern an über 82 Standorten rund um den Globus suchen wir laufend Verstärkung. Entdecken Sie jetzt die Perspektiven und Chancen, die Ihnen Ihr Job bei Rutronik bietet und werden Sie Teil unseres Erfolges!

**Unser Angebot an Sie:**

- Einen zukunftssicheren, unbefristeten Arbeitsplatz mit tollen Gestaltungs- und Entwicklungsmöglichkeiten
- Eine dynamische Arbeitsumgebung: flache Hierarchien, direkte Kommunikation vom Praktikanten bis hin zur Geschäftsführung, offene Türen, kurze Wege, hilfsbereite, engagierte Kollegen und gleitende Arbeitszeiten im Rahmen einer 40h-Woche
- Eine Arbeitsumgebung mit moderner Ausstattung
- Betriebliche Sozialleistungen (z.B. Zuschuss zur Altersvorsorge, Betriebssportgruppen, Fort- und Weiterbildungsprogramme)

Interessiert? Dann kommen Sie für ein unverbindliches Gespräch an unserem Messestand vorbei.

**4** RUTRONIK Elektronische Bauelemente GmbH Industriestrasse 2 75228 Ispringen Tel. 07231 801-1273 rutronik.com rutronik-careers.com

**Key Visual**

**Headline**

**Job Description**

**HR Contact**

**Footer**

*optional*

*variable*

## PDF Options for Newspaper Printing:

### PDF Standard:

- [PDF/X-3:2002]
- PDF compatibility levels: Acrobat 4 (PDF 1.3)

### Output (Color management)

- Color Conversion: Convert to Destination
- Destination: ISOnewsaper26v4

### Advanced

- Transparency Flattener Presets: PDFX-ready\_2400Strich\_600Verlauf

# Stationery Paper

## Letter Paper DIN A4 for Promotion Mailings

### Essential Elements

1. Fix Elements:
  - German: Überzeugen durch Leistung
  - International: Committed to excellence
2. Claim
  - German: Überzeugen durch Leistung
  - International: Committed to excellence
3. Body Text
  - with variable\* Fontsize
  - Body: 7-9 Pkt
  - Headline: 20 | 24 | 28 Pkt.

#### Sources:

- Stationery Paper: T:\vorlagen\Stationery Paper

RUTRONIK Elektronische Bauelemente GmbH | Industriestr. 2 | 75228 Ispringen | Germany

Musterfirma GmbH  
Mr. Mustermann  
Industriestraße 123  
00000 Musterhausen  
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### Die perfekte Komplettlösung für Ihr medizinisches Gerät

Sehr geehrte Damen und Herren,

ob Dialysegerät, Ultraschallgerät oder Apparate zur Patientenüberwachung - medizinischen Anwendungen und Applikationen sind sehr vielfältig, sie stellen jedoch alle die gleichen Hauptanforderungen. In dieser Broschüre haben wir für Sie Komponenten aus dem Bereich Storage, Displays & Boards zusammen

gestellt, die diese Anforderungen optimal erfüllen. Eine der wichtigsten ist die Langzeitverfügbarkeit sowie eine gleichbleibende BOM (Bill of Material). Denn medizinische Geräte werden vor ihrer Zulassung gründlich geprüft und durchlaufen aufwendige und meist langwierige Freigabe- und Zertifizierungsprozesse

se. Nahezu jede Änderung an der Applikation verlangt eine neue Freigabe bzw. Zertifizierung. Deshalb vermeiden die hier vorgestellten Hersteller Produktänderungen und -wechsel solange wie möglich. Hohe Qualität und damit geringe Ausfallraten verstehen sich als Kriterium für Medizinanwendungen von selbst – schließlich hängen nicht selten Menschenleben vom Gerät ab.

Viele Grüße  
Ihr Rutronik Team

### Letter Paper

### Compliment Card

### Business Card

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COMMITTED TO EXCELLENCE  
CONSULT | COMPONENTS | LOGISTICS | SUPPORT

Labels

Committed to excellence

Mit freundlicher Empfehlung | With Compliments | Sincères Salutations

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# Events, Seminars, Workshops

For organizing professional events a lot of things have to be considered: From invitations, adverts, customer registration, presentation equipment, print materials to the seminar rooms –

**All items should adhere to CD- / CI guidelines**

Our Event-Team will support you for successful organization

Further Links:

"How to"-Guide - Organization of IoT Seminars

A comprehensive Guideline includes the following topics:



1. Preparing the venue
2. Check-in
3. Packing lists
4. Coffee breaks / lunch break
5. USB sticks for participants/seminar feedback
6. Seminar certificat for participants
7. Billing
8. After the seminar

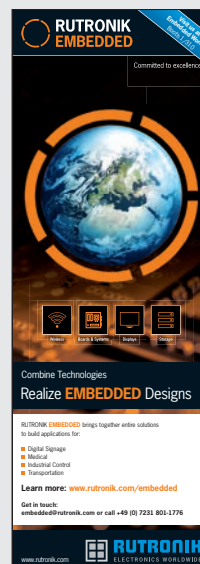


**Example: IoT Seminars (RUTRONIK SMART and RUTRONIK EMBEDDED)**

## Preparation of seminar rooms



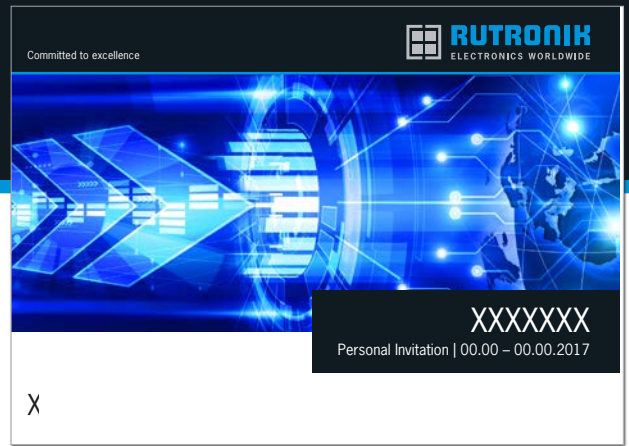
## Adverts



## Name Badges



# Events, Seminars, Workshops



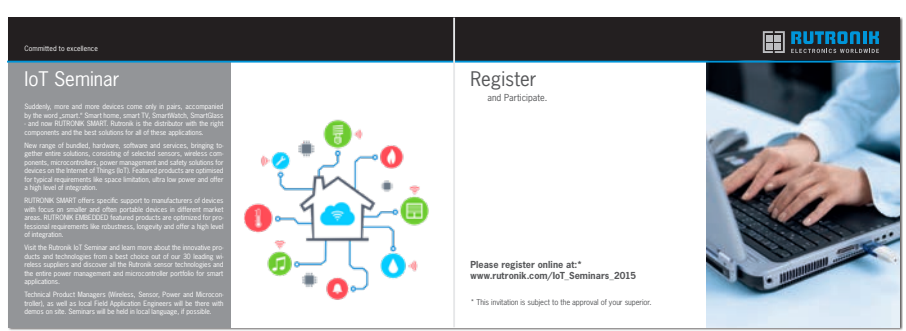
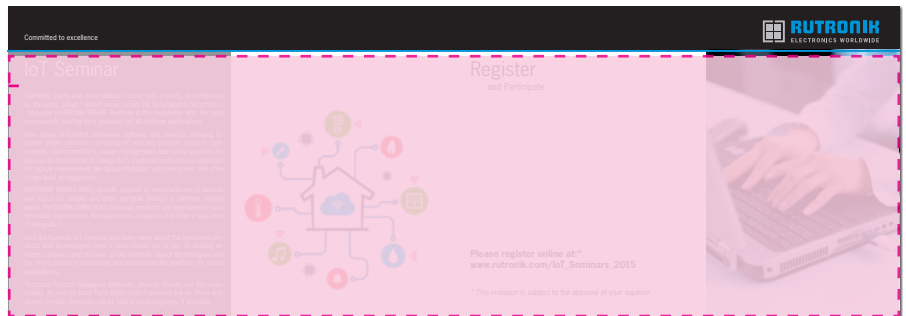
## Seminar Invitations

### Elements

- Header**  
- Seminar Name  
- Event Date & Location
- Main Image**
- Contact Address**
- Tax notification** (fix element)

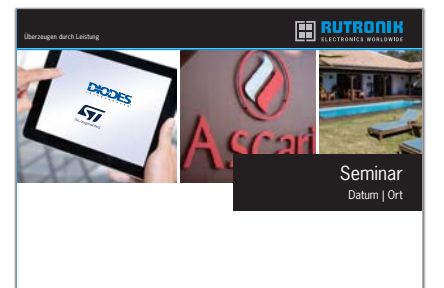
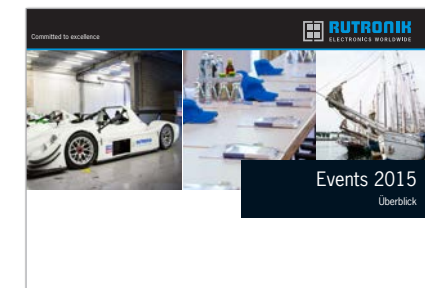
### Design Area

### Examples



Sources:

- Templates
- Link:  
N:\Events\2015\14\_Einladungen\_Vorlage\Vorlagen\_div





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