



LIGHTING solutions

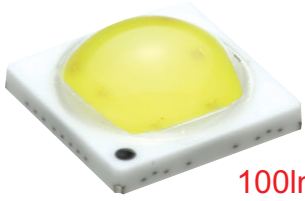
LEDs

LENSES

HEATSINKS

**CUSTOM
SOLUTIONS**





100lm/W
(A4 Series)

FEATURES

- **EFFICIENCY**
 - NO CONVERSION ENERGY LOST
 - HIGH EFFICIENCY
- **LIFETIME**
 - LONG LIFE TIME
 - NO CAPACITOR, NO INDUCTOR
- **SAFETY**
 - NOT FRAGILE
 - RESISTANT TO VIBRATIONS AND SHOCK
- **DESIGN**
 - CONVENIENT DESIGN FOR AC CURRENT APPLICATIONS
- **ENVIRONMENT**
 - ENVIRONMENT FRIENDLY
 - ROHS COMPLIANT
 - PB FREE
- **CIRCUIT**
 - DIRECT AC CONNECTION
 - NO AC-DC CONVERTER
 - SIMPLE CIRCUIT DESIGN

APPLICATIONS

- ARCHITECTURAL LIGHTING
- RESIDENTIAL LIGHTING
- TASK LIGHTING
- DECORATIVE / PATHWAY LIGHTING

ACRICHE SERIES IS DESIGNED FOR AC SOURCE OPERATION AND HIGH FLUX OUTPUT APPLICATIONS.

ACRICHE IS A SEMI-PERMANENT AND ENVIRONMENTAL SEMICONDUCTOR LIGHTING THAT CAN BE USED IN AC WITHOUT ADDITIONAL DEVICE.

ACRICHE'S THERMAL MANAGEMENT PERFORM EXCEEDS OTHER POWER LED SOLUTIONS.

IT INCORPORATES STATE OF THE ART SMD DESIGN AND THERMAL EMISSION MATERIAL. ACRICHE IS IDEAL LIGHT SOURCES FOR GENERAL ILLUMINATION APPLICATIONS.

Electro-Optical Characteristics

A4 series

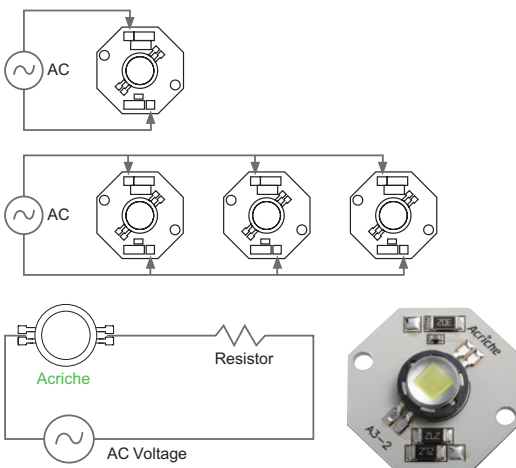
Part No.	Color	Operating Current [mA]	Luminous Flux [lm]	Forward Voltage [V]	Remark
AN4211	Warm White	40	260	110	PCB(70*23mm)
AN4212	Warm White	40	260	110	PCB(30*30mm)
AN4213	Warm White	40	260	110	PCB(120*21mm)
AN4214	Warm White	80	520	110	PCB (φ 48)
AN4221	Warm White	20	260	220	PCB(70*23mm)
AN4222	Warm White	20	260	220	PCB(30*30mm)
AN4223	Warm White	20	260	220	PCB(120*21mm)
AN4224	Warm White	40	520	220	PCB (φ 48)
AN4240	Warm White	20	65	55	Emitter, CRI=85
AN4252	Warm White	40	260	120	PCB(30*30mm)
AN4254	Warm White	80	520	120	PCB (φ 58)

A3 series

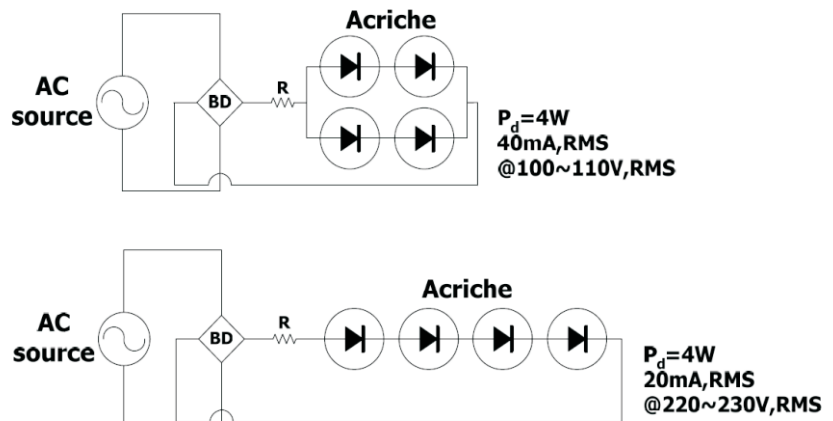
Part No.	Color	Operating Current [mA]	Luminous Flux [lm]	Forward Voltage [V]	Remark
AW3200	Pure White	40	260	100,110,120	Emitter
AW3201	Pure White	40	260	100	PCB
AW3211	Pure White	40	260	110	PCB
AW3220	Pure White	20	260	220,230	Emitter
AW3221	Pure White	20	260	220	PCB
AW3231	Pure White	20	260	230	PCB
AW3241	Pure White	40	260	120	PCB
AN3200	Warm White	40	180	100,110,120	Emitter
AN3201	Warm White	40	180	100	PCB
AN3211	Warm White	40	180	110	PCB
AN3220	Warm White	20	180	220,230	Emitter
AN3221	Warm White	20	180	220	PCB
AN3231	Warm White	20	180	230	PCB
AN3241	Warm White	40	180	120	PCB

BASIC CONNECTIONS

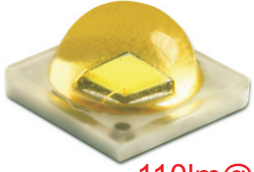
A3 SERIES



A4 SERIES



Z5



110lm@350mA
(Z5 Series)

FEATURES

- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE
- DESIGNED FOR HIGH CURRENT OPERATION
- SMT SOLDERABLE
- LEAD FREE PRODUCT
- ROHS COMPLIANT

APPLICATIONS

- MOBILE PHONE FLASH
- AUTOMOTIVE INTERIOR / EXTERIOR LIGHTING
- AUTOMOTIVE SIGNAL LIGHTING
- AUTOMOTIVE FORWARD LIGHTING
- GENERAL TORCH
- ARCHITECTURAL LIGHTING
- LCD TV / MONITOR BACKLIGHT
- PROJECTOR LIGHT SOURCE
- TRAFFIC SIGNALS
- TASK LIGHTING
- DECORATIVE / PATHWAY LIGHTING
- REMOTE / SOLAR POWERED LIGHTING

THE Z-POWER SERIES IS DESIGNED FOR HIGH CURRENT OPERATION AND HIGH FLUX OUTPUT APPLICATIONS.

IT INCORPORATES STATE OF THE ART SMD DESIGN AND LOW THERMAL RESISTANT MATERIAL.

THE Z POWER LED IS IDEAL LIGHT SOURCES FOR GENERAL ILLUMINATION

APPLICATIONS, CUSTOM DESIGNED SOLUTIONS, AUTOMOTIVE, LARGE LCD BACKLIGHTS AND HIGH PERFORMANCE TORCHES.

Z5 Series

Part No.	Color	Operating Current [mA]	Luminous Flux [lm]	CCT [K] Wavelength[nm]	CRI	Forward Voltage [V]
SZW05A0A	Pure White	350	105	6300	70	3.3
SZWW05A0A	Warm White	350	75	3000	80	3.3
SZR05A0A	Red	350	50	625	-	2.4
SZA05A0A	Amber	350	42	592	-	2.5
SZG05A0A	Green	350	70	525	-	3.5
SZB05A0A	Blue	350	18	460	-	3.5

* : Underdevelopment

Z1 Series

Part No.	Color	Operating Current [mA]	Luminous Flux [lm]	CCT [K]	Forward Voltage [V]
WZ10150	Pure White	400	100	6300	3.6
NZ10150	Warm White	400	76	3000	3.6



STW8Q2PA



THE BEST LM/W AND LM/\$ EFFICIENCY

THIS SURFACE-MOUNT LED COMES IN STANDARD PACKAGE DIMENSION.

IT HAS A SUBSTRATE MADE UP OF A MOLDED PLASTIC REFLECTOR SITTING ON TOP OF A BENT LEAD FRAME.

THE DIE IS ATTACHED WITHIN THE REFLECTOR CAVITY AND THE CAVITY IS ENCAPSULATED BY SILICONE.

THE PACKAGE DESIGN COUPLED WITH CAREFUL SELECTION OF COMPONENT MATERIALS ALLOW THESE PRODUCTS TO PERFORM WITH HIGH RELIABILITY.

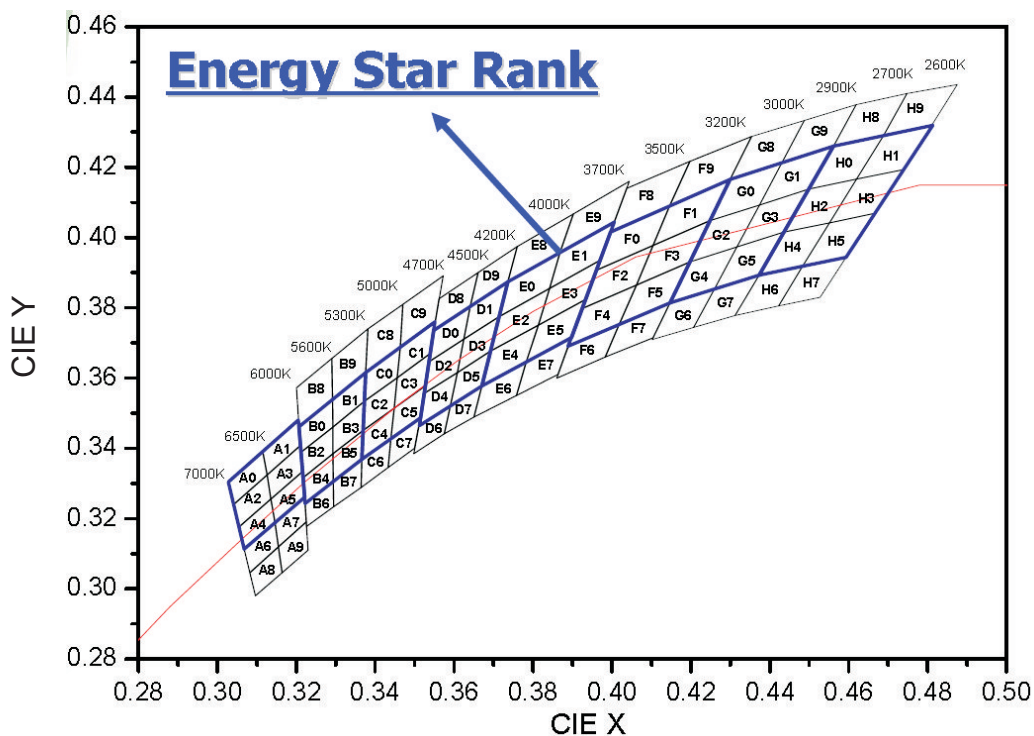
FEATURES

- Pb-FREE REFLOW SOLDERING APPLICATION
- ROHS COMPLIANT
- WHITE COLORED SMT PACKAGE
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDERING METHODS
- HIGH RELIABILITY (SILICONE RESIN)
- HIGH CRI = RA 80

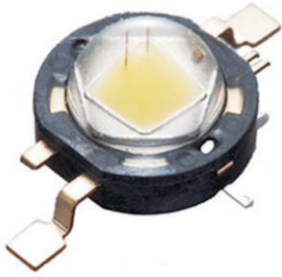
APPLICATIONS

- MOBILE PHONE FLASH
- AUTOMOTIVE INTERIOR / EXTERIOR LIGHTING
- AUTOMOTIVE SIGNAL LIGHTING
- AUTOMOTIVE FORWARD LIGHTING
- GENERAL TORCH
- ARCHITECTURAL LIGHTING
- LCD TV / MONITOR BACKLIGHT
- PROJECTOR LIGHT SOURCE
- TRAFFIC SIGNALS
- TASK LIGHTING
- DECORATIVE / PATHWAY LIGHTING
- REMOTE / SOLAR POWERED LIGHTING

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage * ^[1]	V_F	$I_F=100mA$	2.9	3.2	3.4	V
Reverse Voltage	V_R	$I_R=5mA$	-	0.9	1.2	V
Luminous Intensity* ^[2] (2600~3700K)	I_v	$I_F=100mA$	-	8.5 27.9	-	Cd lm
Luminous Intensity* ^[2] (3700~7000K)	I_v	$I_F=100mA$	-	9.0 29	-	
Color Correlated Temperature	CCT	$I_F=100mA$	2,600	-	7,000	K
Viewing Angle ^[3]	$2\theta_{1/2}$	$I_F=100mA$	-	120	-	deg.
Color Rendering Index*	Ra	$I_F=100mA$	75	80	-	-
			80	-	-	-



P4



FEATURES

- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE
- DESIGNED FOR HIGH CURRENT OPERATION
- SMT SOLDERABLE
- LEAD FREE PRODUCT
- ROHS COMPLIANT

APPLICATIONS

- MOBILE PHONE FLASH
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- REMOTE / SOLAR POWERED LIGHTING

Z-POWER LED P4 SERIES IS DESIGNED WITH SEOUL SEMICONDUCTOR'S OWN PHOSPHOR AND PACKAGING TECHNOLOGY.

THE P4 EMITS 240 LM AT 1 A OF LIGHT AND FEATURES THE INDUSTRY'S HIGHEST LUMINOUS EFFICACY (100 LM/W @ 350 MA AT THE MAXIMUM) WITH ONLY A SINGLE DIE.

LEDS

P4 Series

Part No.	Color	Operating Current [mA]	Luminous Flux[lm]	CCT [K] Wavelength[nm]	CRI	Forward Voltage [V]	Viewing Angle [°]	Type
W42180	Pure White	350	Urank:100	6300	75	3.25	127	Emitter
W42180(New)	Pure White	350	Urank:108	6300	73	3.3	127	Emitter
W42182	Pure White	350	Urank:100	6300	75	3.25	127	Star
W49180	Pure White	350	113	6300	73	3.3	93	Narrow, Emitter
S42180	Natural White	350	72	4000	93	3.25	126	Emitter
S42180(New)	Natural White	350	76	4000	93	3.3	124	Emitter
S42180H	Natural White	350	84	4000	80	3.25	124	Emitter
S42180H(New)	Natural White	350	84	4000	80	3.25	124	Emitter
S42182	Natural White	350	72	4000	93	3.25	124	Star
S42182H	Natural White	350	84	4000	80	3.25	124	Star
N42180	Warm White	350	66	3000	93	3.25	126	Emitter
N42180(New)	Warm White	350	72	3000	93	3.3	124	Emitter
N42180H	Warm White	350	77	3000	80	3.25	124	Emitter
N42180H(New)	Warm White	350	77	3000	80	3.25	124	Emitter
N42182	Warm White	350	66	3000	93	3.25	124	Star
N42182H	Warm White	350	77	3000	80	3.25	124	Star
R42180	Red	350	48	625	-	2.3	130	Emitter
R42182	Red	350	48	625	-	2.3	130	Star
A42180	Amber	350	48	590	-	2.3	130	Emitter
A42182	Amber	350	48	590	-	2.3	130	Star
G42180	Green	350	70	525	-	3.25	130	Emitter
G42182	Green	350	70	525	-	3.25	130	Star
B42180	Blue	350	22	465	-	3.25	130	Emitter
B42180(New)	Blue	350	22	465	-	3.25	130	Emitter
B42182	Blue	350	22	465	-	3.25	130	Star

P5-II



FEATURES

- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE
- DESIGNED FOR HIGH CURRENT OPERATION
- SMT SOLDERABLE
- LEAD FREE PRODUCT
- ROHS COMPLIANT

APPLICATIONS

- MOBILE PHONE FLASH
- AUTOMOTIVE INTERIOR / EXTERIOR LIGHTING
- AUTOMOTIVE SIGNAL LIGHTING
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Z-POWER SERIES IS DESIGNED FOR HIGH CURRENT OPERATION AND HIGH FLUX OUTPUT APPLICATIONS.

Z-POWER LED'S THERMAL MANAGEMENT PERFORM EXCEEDS OTHER POWER LED SOLUTIONS.

IT INCORPORATES STATE OF THE ART SMD DESIGN AND THERMAL EMISSION MATERIAL.

FULL COLOR Z-POWER LED IS USING 3 RGB POWER CHIPS AND ISOLATED THERMAL SLUG.

IN CASE OF THE FULL COLOR PRODUCT USED IN ARCHITECTURAL LIGHTING OR DECORATION, IT EMITS 7 COLORS IN ONE PACKAGE SO THAT IT CAN RENDER A CLEAR MIXED COLOR WHEN IT IS MIXED WITH OTHER COLORS.

P5-II Series

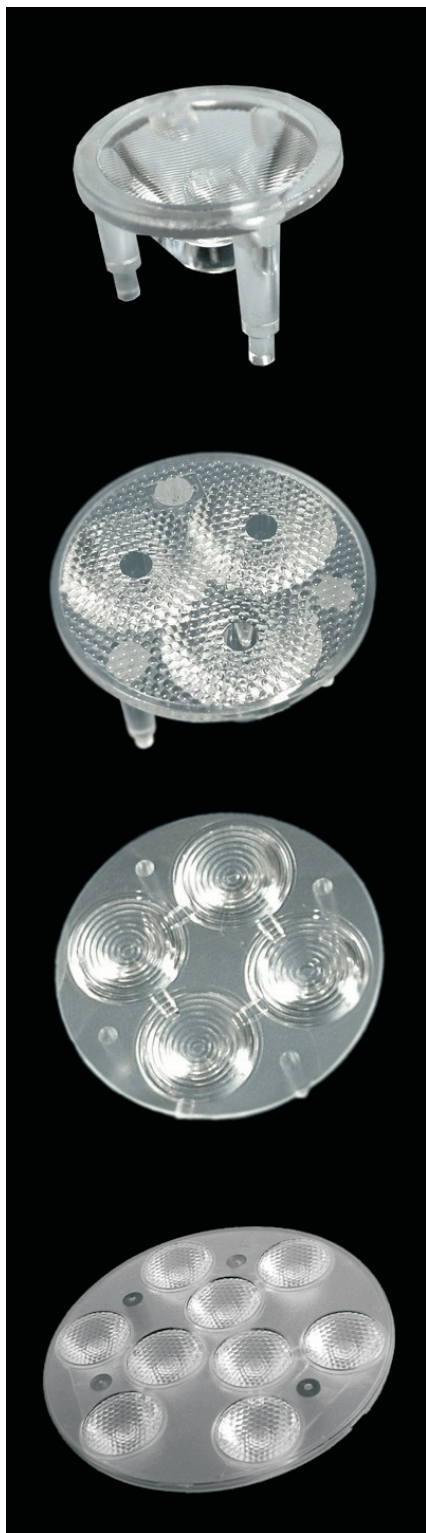
Part No.	Color	Operating Current [mA]	Luminous Flux [lm]	Wavelength [nm]	Forward Voltage [V]	Viewing Angle [°]	Type
F50360	Red	350	35	625	2.5	120	Emitter
	Green		65	525	3.8		
	Blue		13	460	3.6		

SINGLE, TRIPLE, QUAD AND MULTI LENSES FOR SEOUL SEMICONDUCTOR POWER LEDs

LED SERIES:

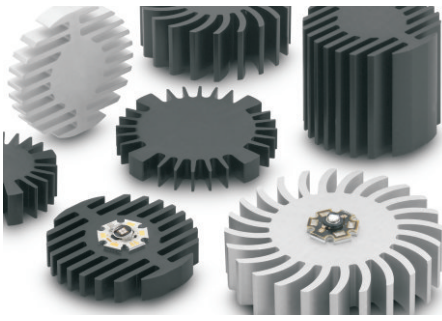
Z-POWER Z5
Z-POWER P3
Z-POWER P4
Z-POWER P5II RGB
Z-POWER P7
Z-POWER P9
ACRICHE

LENSES IN MANY DIAMETERS AND HEIGHTS. REALIZED ALSO IN NJC™ TECHNOLOGY. AVAILABLE IN NARROW, MEDIUM, ELLIPTICAL AND WIDE BEAMS. HOLDERS AVAILABLE IN WHITE, BLACK AND CLEAR COLOR. HIGH EFFICIENCY, NO VIBRATION PROBLEMS.

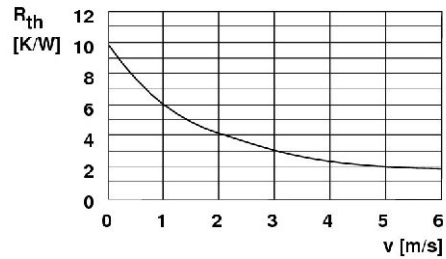
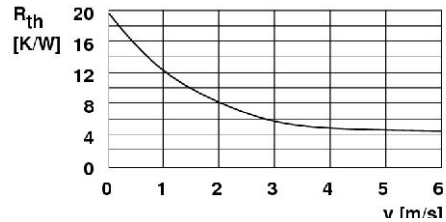
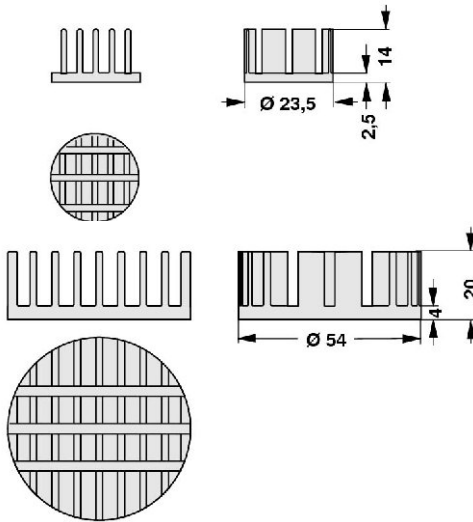


THE SHAPE OF LAMP HOUSINGS OR THE POSITIONS IN WHICH THEY ARE SITUATED IS OFTEN ROTATIONALLY ASYMMETRIC, SO THAT ROUND BODIES ARE REQUIRED FOR HEAT DISSIPATION.

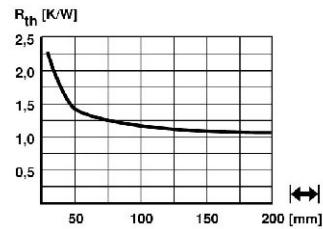
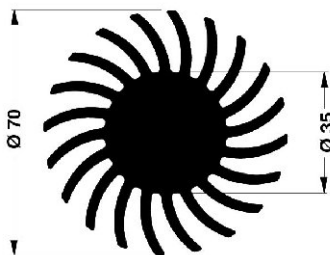
IN ORDER TO DISSIPATE THE HEAT FROM THESE LEDs FISCHER ELEKTRONIK HAVE DEVELOPED A RANGE OF ALUMINIUM HEATSINKS THE DIMENSIONS OF WHICH MATCH THE MAJORITY OF CURRENT ROUND HOUSING DESIGNS. THESE HEAT SINKS, WHICH ARE OFFERED WITH DIFFERENT DIAMETERS AND CONTOURS, ARE AVAILABLE IN DIFFERENT SECTIONS OF DIFFERENT LENGTHS TO SUIT SPECIFIC HEAT DISSIPATION APPLICATIONS. THE LEDs ARE FASTENED ONTO THE HEAT SINK USING THERMALLY CONDUCTIVE, DOUBLE SIDED ADHESIVE TAPE, 2-COMPONENT THERMALLY CONDUCTIVE ADHESIVE OR SCREWS. IN THE STANDARD VERSION, THE SURFACE IS BLACK ANODISED OR OF NATURAL COLOUR. IN ADDITION TO STANDARD HEATSINKS, SPECIALLY MODIFIED AND CUSTOMIZED VERSIONS ARE DEVELOPED AND MANUFACTURED.



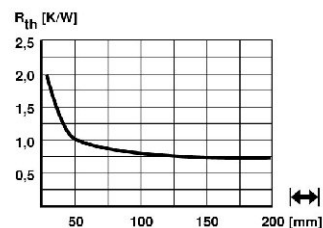
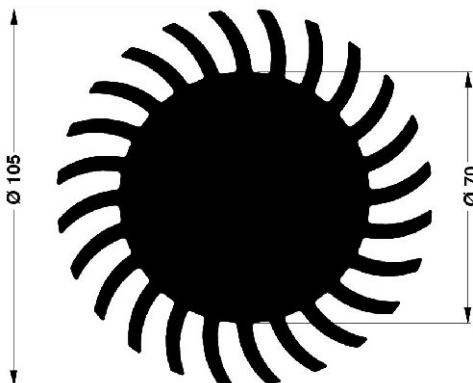
ICK LED R SERIES



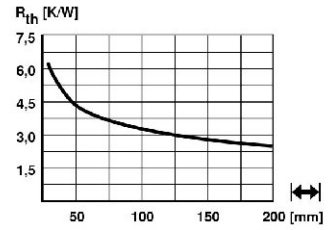
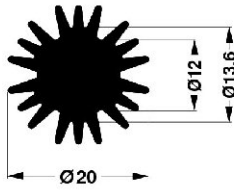
SK 571..



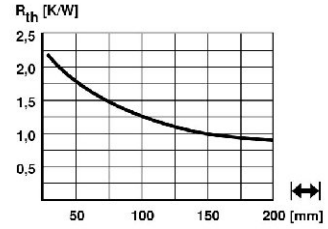
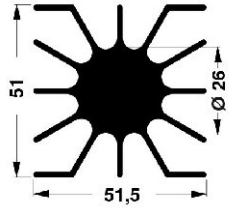
SK 584..



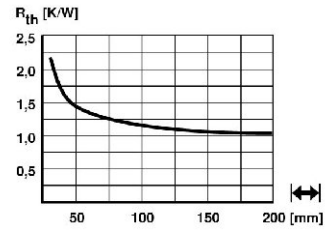
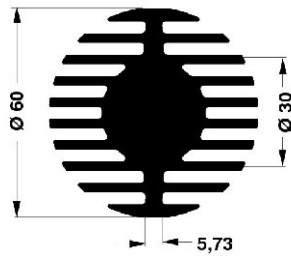
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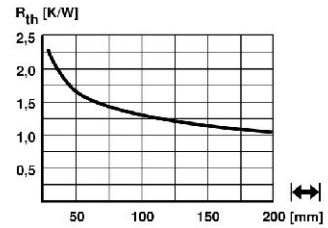
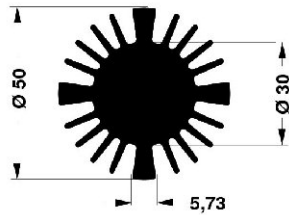
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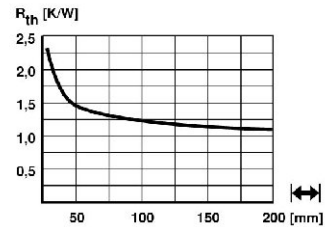
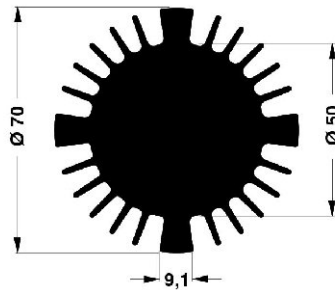
SK 578..



SK 577..



SK 570..

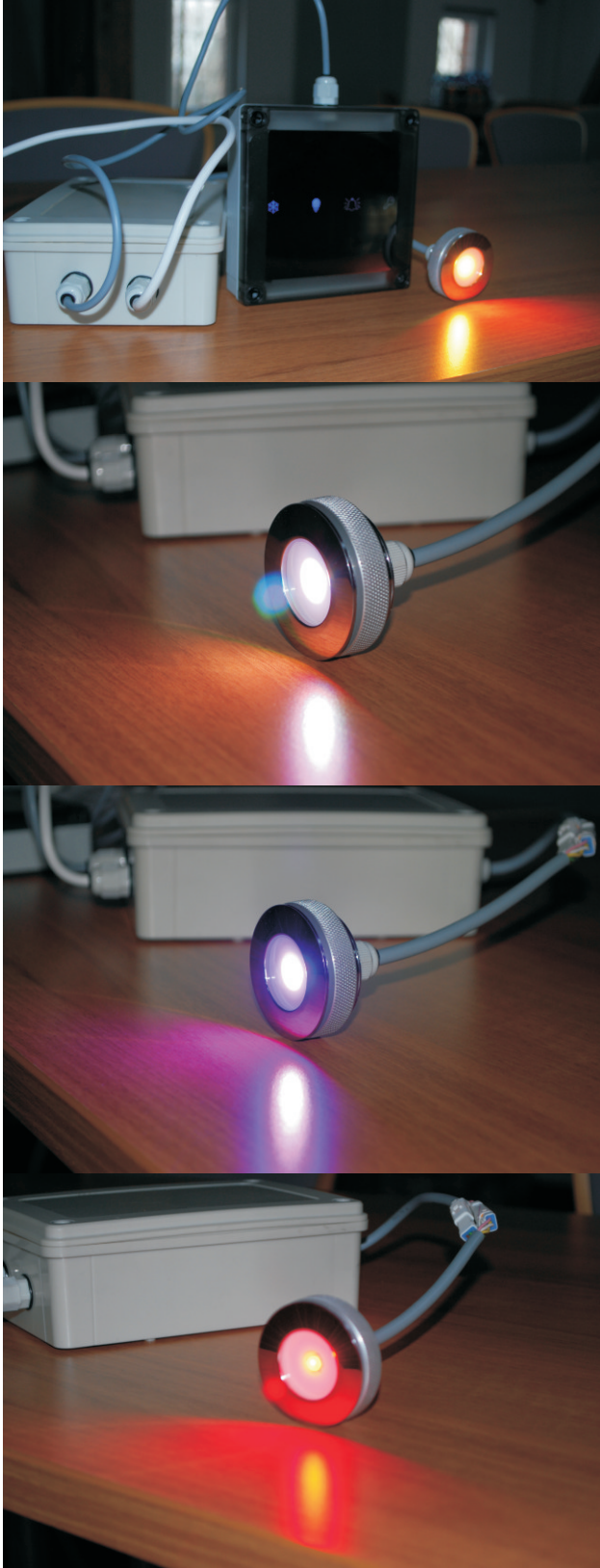


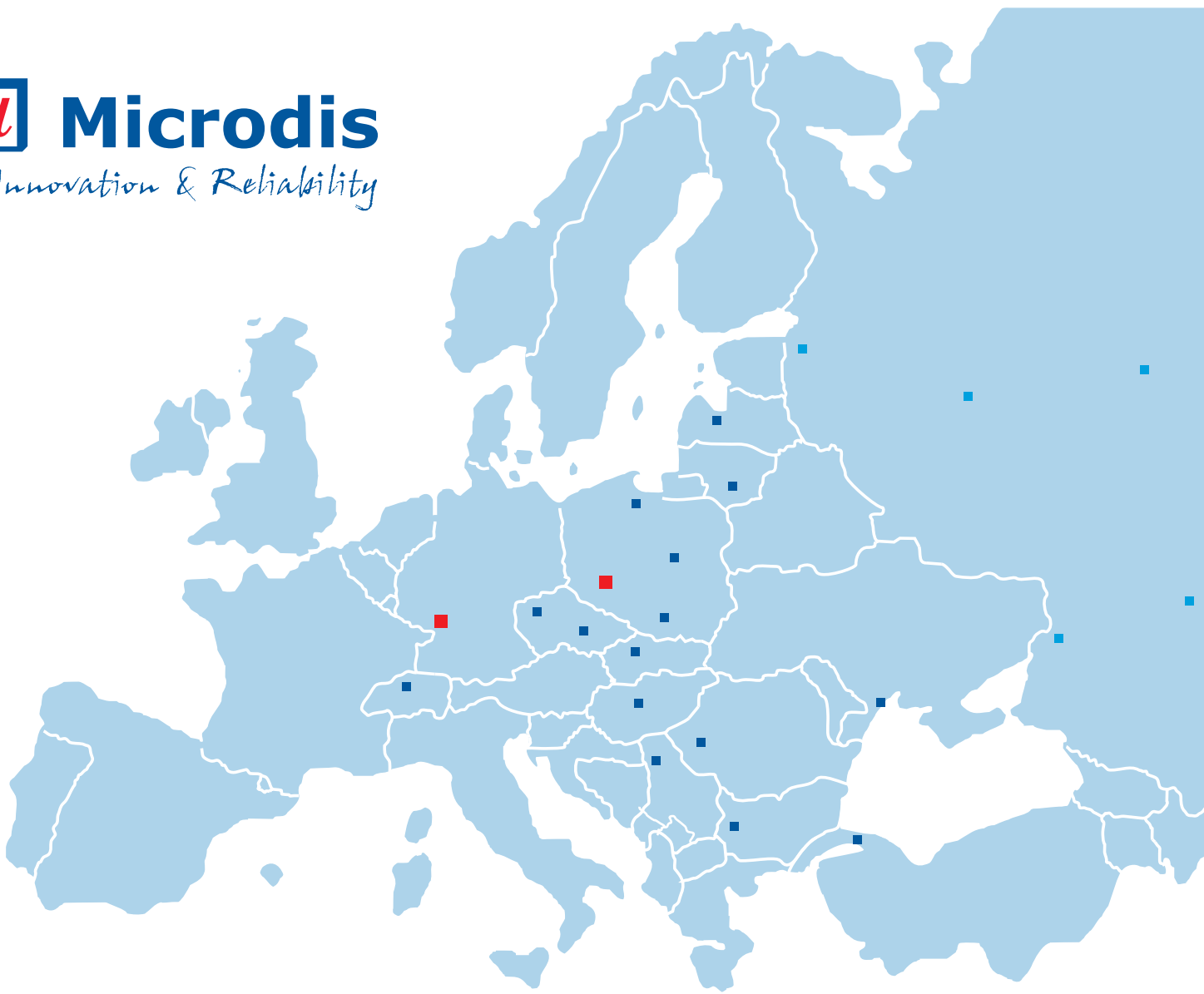
FOR EXACT PART NUMBERS PLEASE REFER TO THE FISCHER ELEKTRONIK F.COOL.D CATALOGUE.



MICRODIS ELECTRONICS ALSO OFFERS CUSTOM DESIGNED SOLUTIONS WITH LED LIGHTING. ALL THE CUSTOMER HAS TO HAVE IS AN IDEA. OUR TEAM OF ENGINEERS WILL PUT THAT IDEA INTO A PRODUCT.

OUR OFFER INCLUDES LED STRIPS, CUSTOM DESIGNED LED LAMPS, WATERPROOF LED LIGHTING FOR BATHTUBS OR SHOWERS, INCLUDING A CAPACITIVE TOUCHPANEL, AND MANY OTHERS.





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Other countries

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GSM/UMTS

GPS

RFID

Embedded

Passive

Semicon

Electromech

