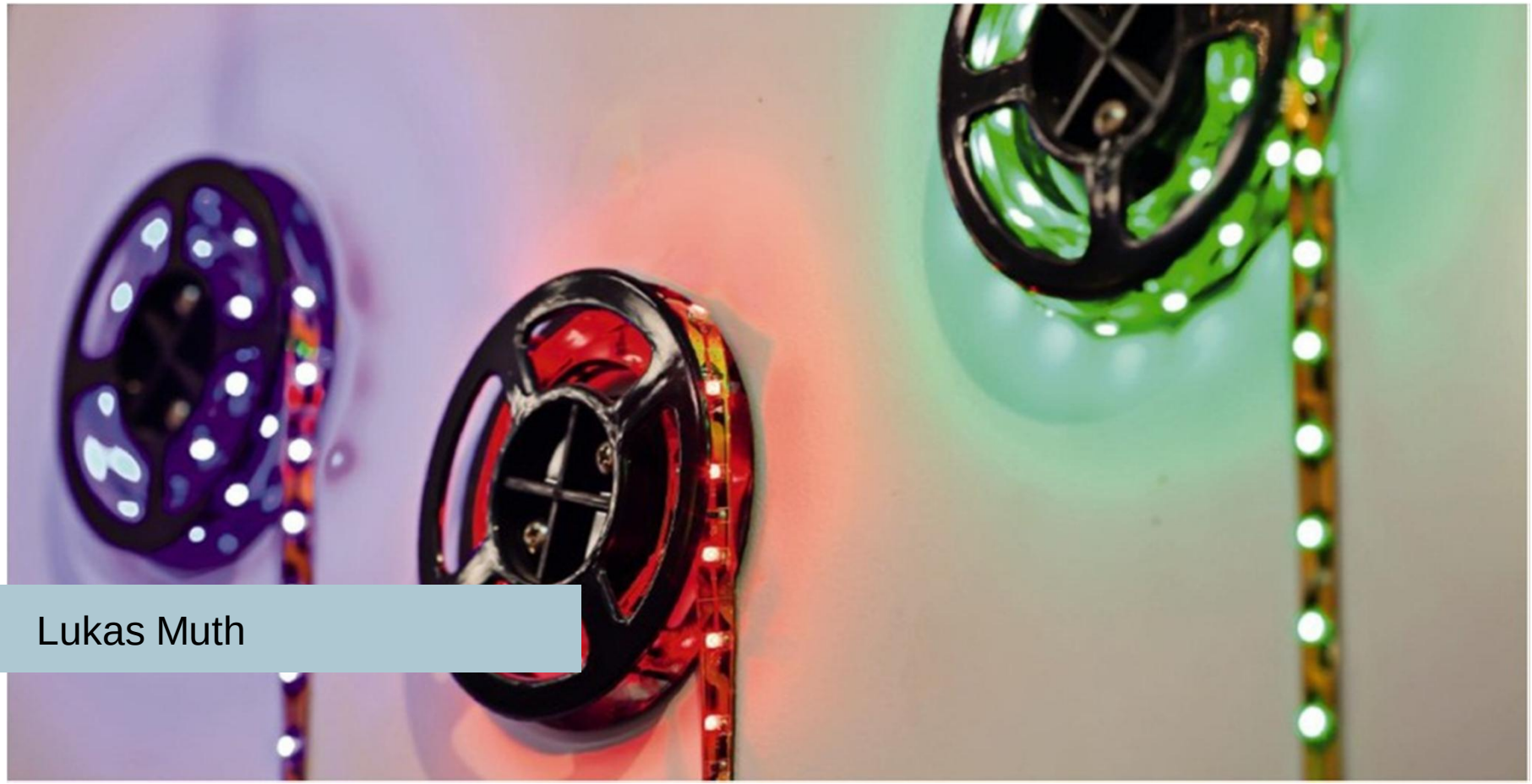
Connection Technology for flexible LED stripes



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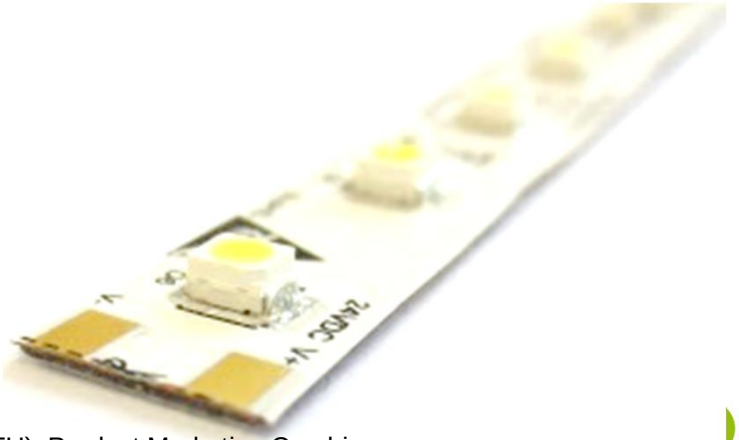
Connecting LED modules



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Working with flexible LED strips

the strips arrive on site packed in reels,

mostly 5 m long or even longer.

They are easy to cut to the length required

Working with flexible LED strips

-spool out from the reel
-cut off the strip
-tear off the tape from the backside
-position the strip in the application

-make the connection!

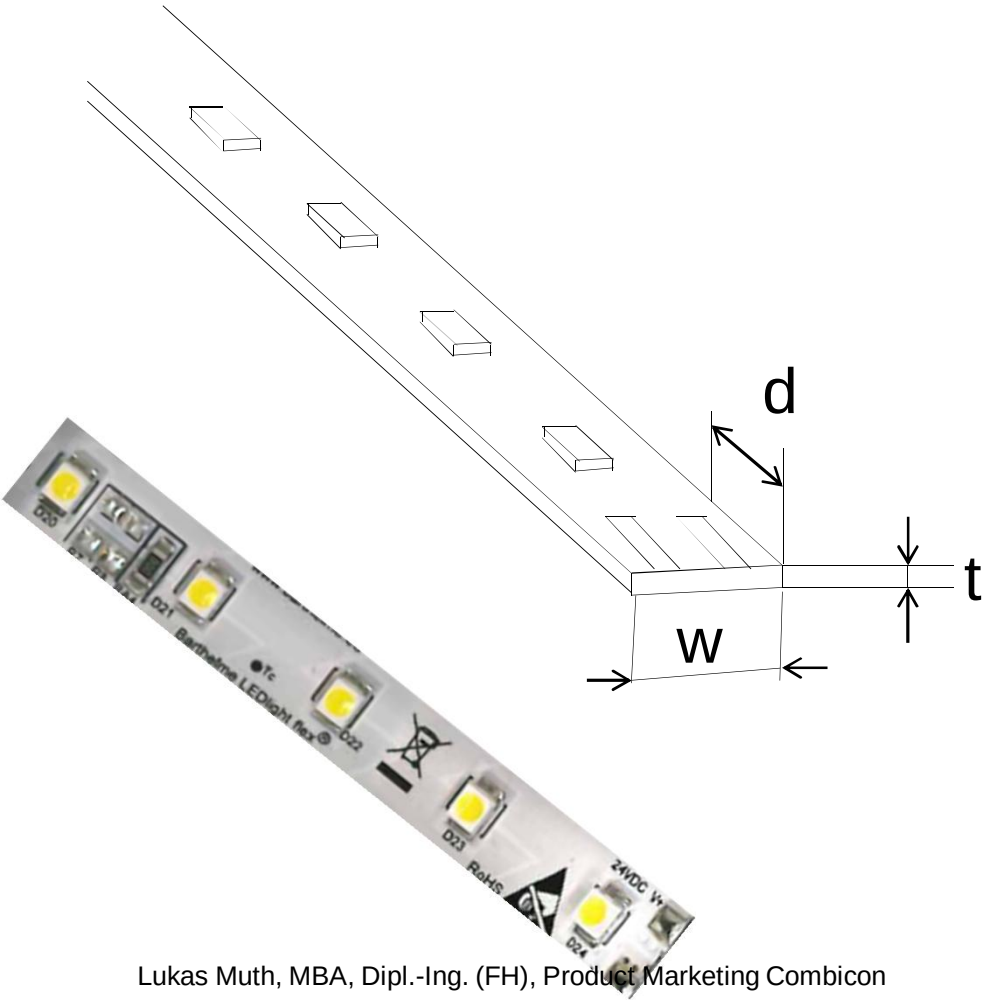
Soldering of the LED strips

-be aware of ESD failure
-keep to the specified temp.
-keep to the specified duration
-only well trained staff
-takes some time

The easy way is a base / socket connection

Applying this principle to the flex LED

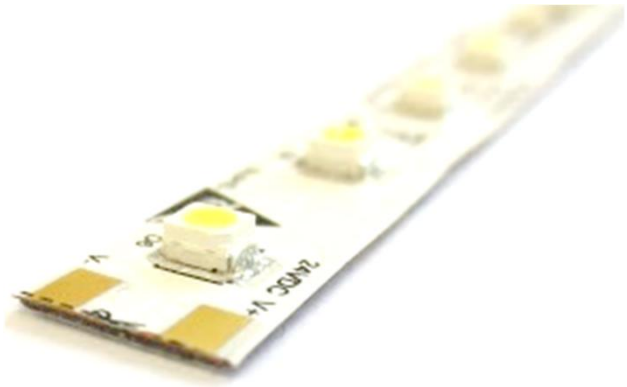
Base section for flex strips



Considerations:
t: thickness of pcb
w: width
d: depth of connection area
-surface,
-pad geometry

electrical: current/voltage

Thickness of flex pcb‘s (base section)



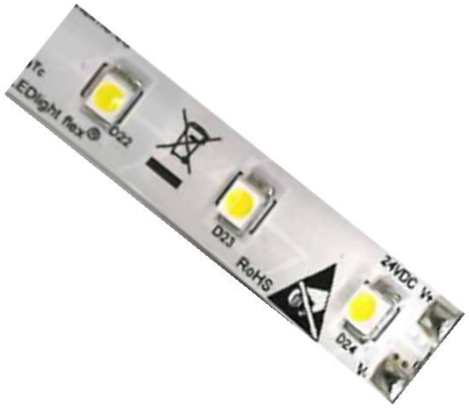
single layer

Connection Area	Solder Mask
Copper	
Adhesive (PI)	
Polyimide (PI)	
Bi adhesive tape	

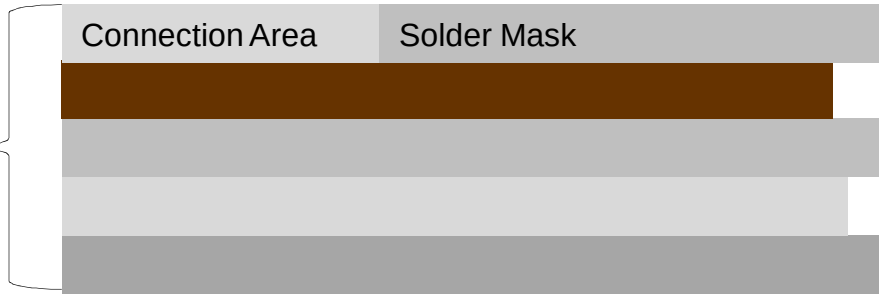
multi layer

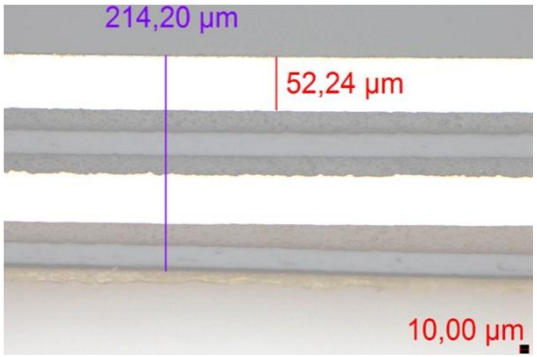
Connection Area	Solder Mask
Copper	
Adhesive (PI)	
Polyimide (PI)	
Adhesive (PI)	
Copper	
Solder Mask	

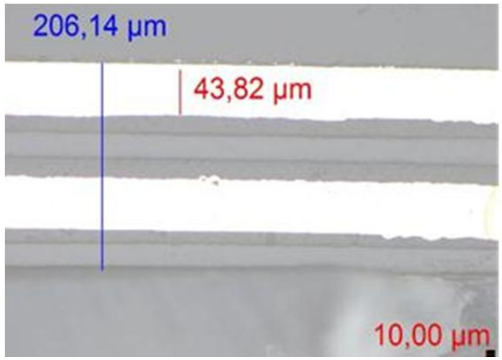
Thickness of flex pcb‘s (base section)

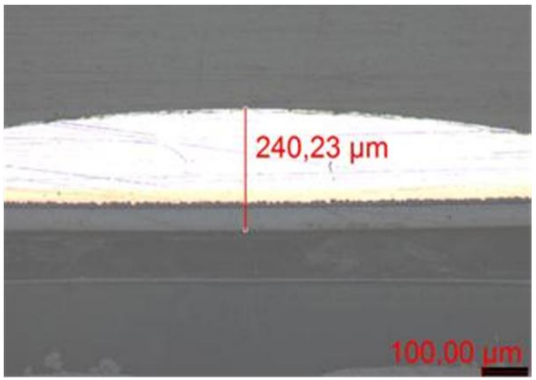


Over all thickness

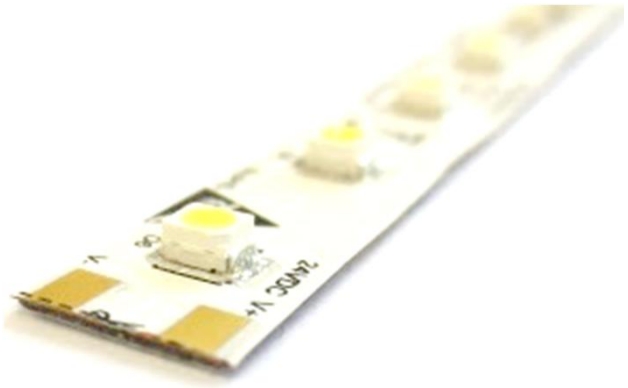


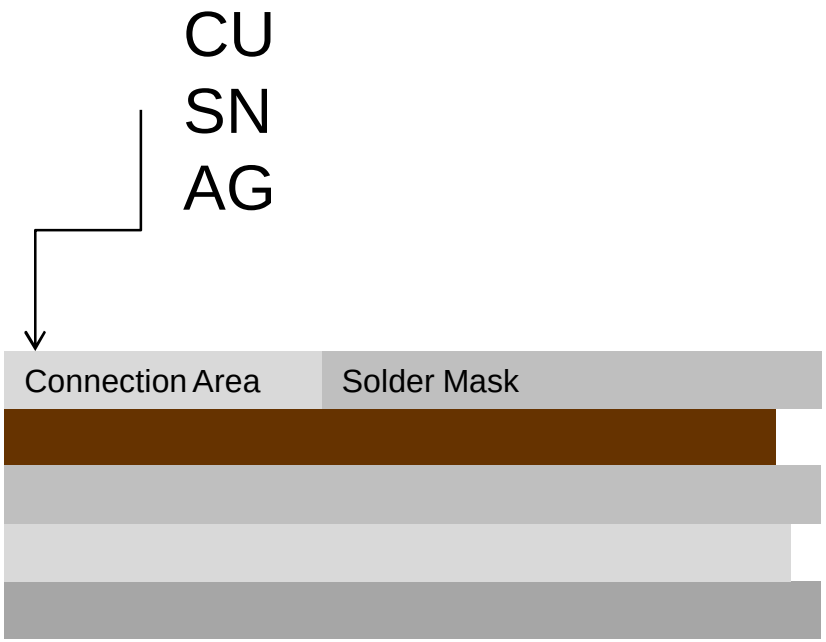




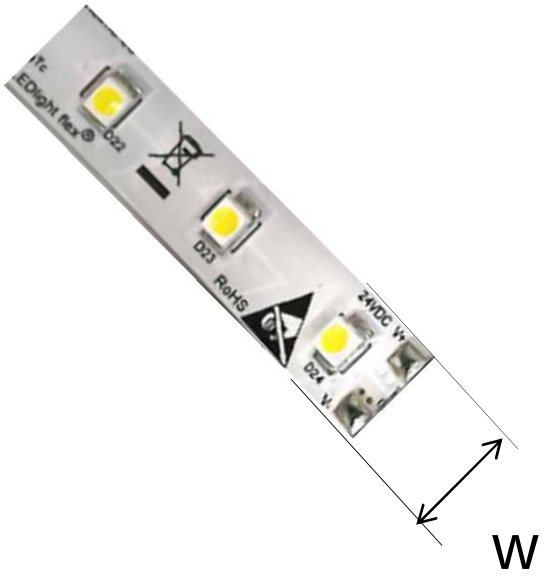


Surface of flex pcb‘s (base section)





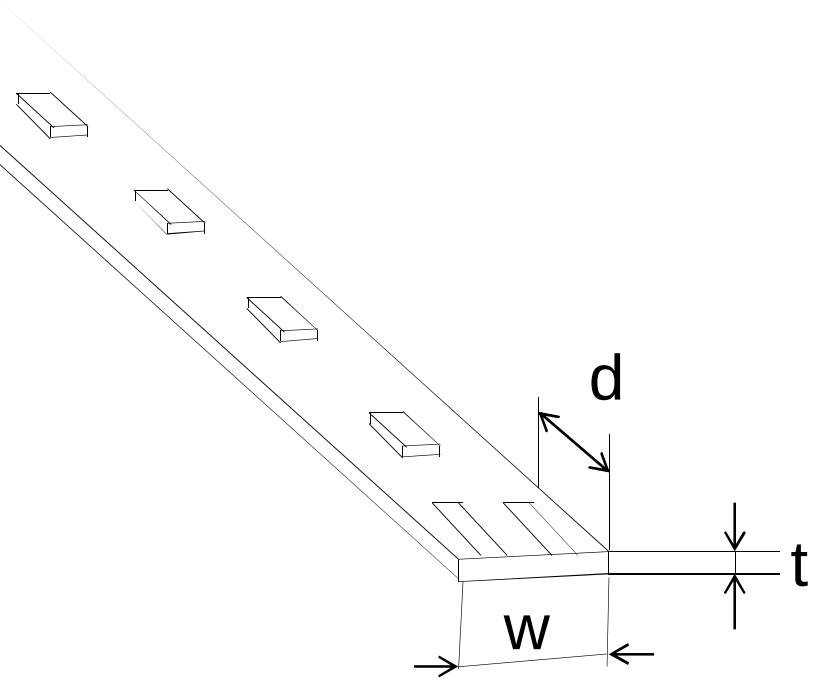
Width of flex pcb‘s (base section)



Depending on used LED type, thermal designs;
the width for the LED-strips is determined.
In the market we find strips within a range from 5-12 mm.

Special forms: e.g double strips are easy up to 32 mm wide

Base section for flex strips (wrap up)



t: thickness (no built up defined)
w: width (5-12mm)
d: depth (the shorter- the better)
-surface, tin, copper, silver
-pads (2,4 poles)

electrical:
current/voltage 24V

Considerations for the socket side

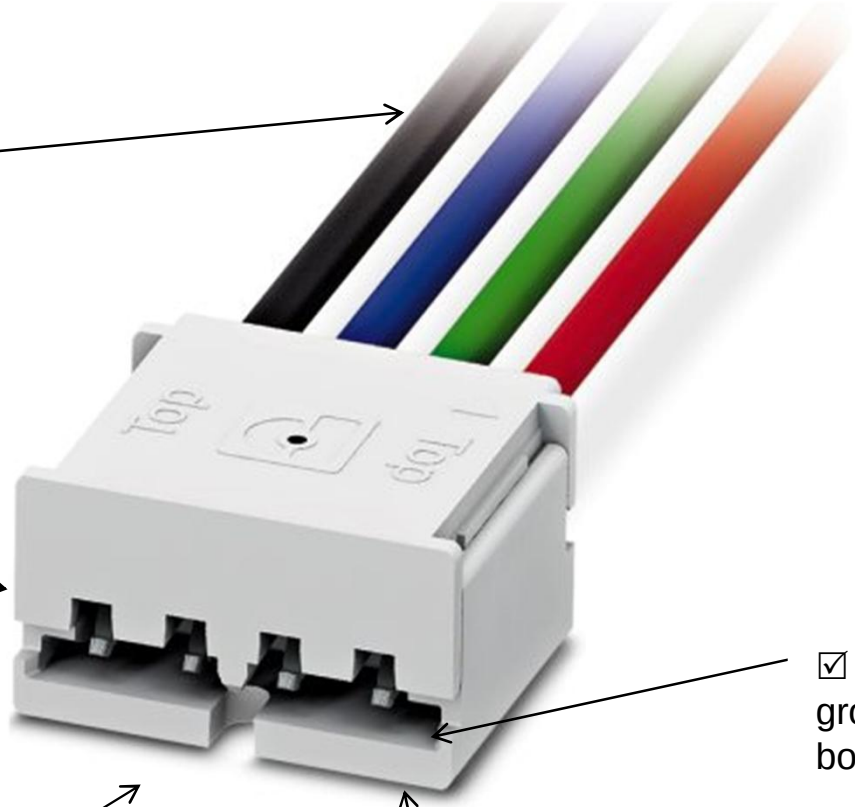
Considerations for the socket side

-small
-easy to operate
-long term connection
-in line with regulations
-must cope with a range of LED strips

Solution for the socket side

Solution for the socket side in Detail

☑ fitted with colour coded wires for the LED-driver



☑ Smallest housing 9,2 mm wide and 4,8 mm high

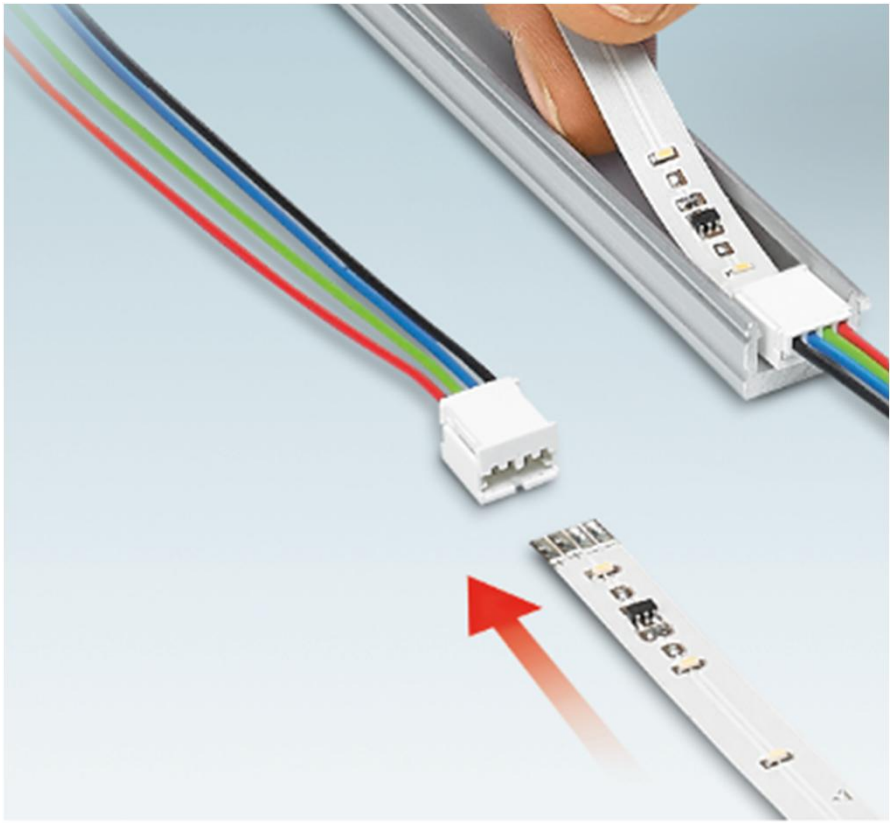
☑ Guiding groove for flex-board

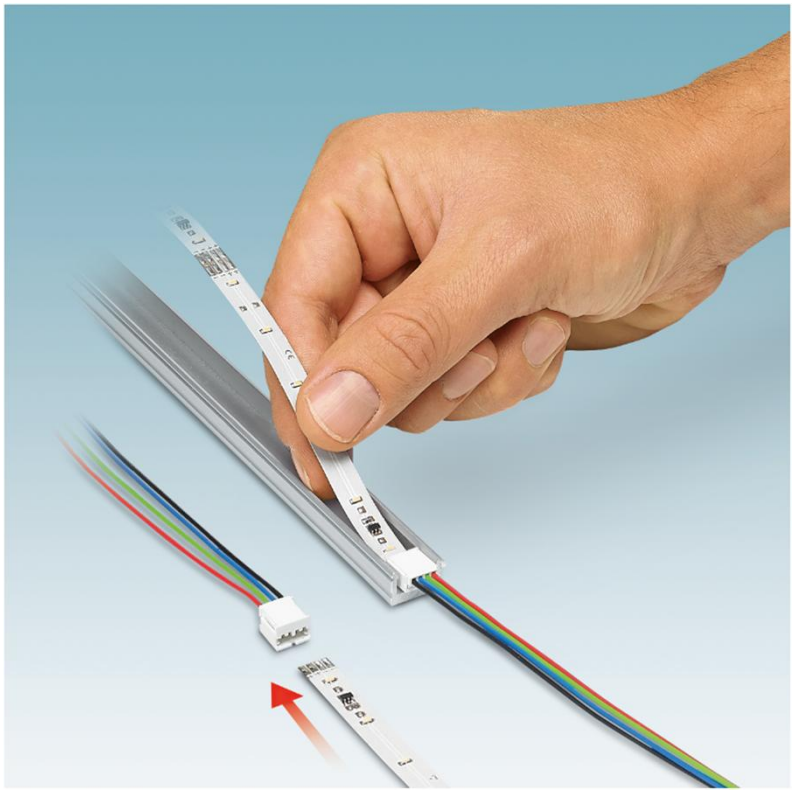
☑ Designed for flex-boards from 0,15 to 0,3mm

☑ Versions for 8mm and also for 10mm flex-boards

Easy operation with base and socket

1) Slide in the strip into the connector
2) Press down the cap
3) Position in your application





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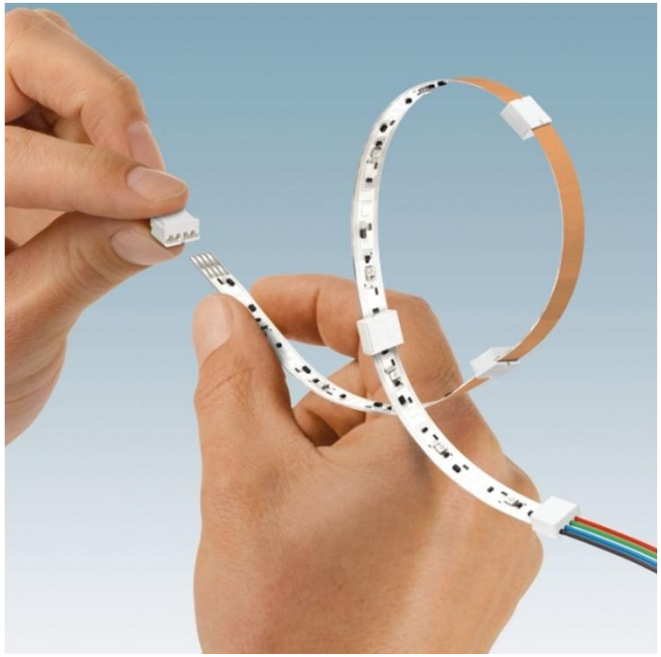
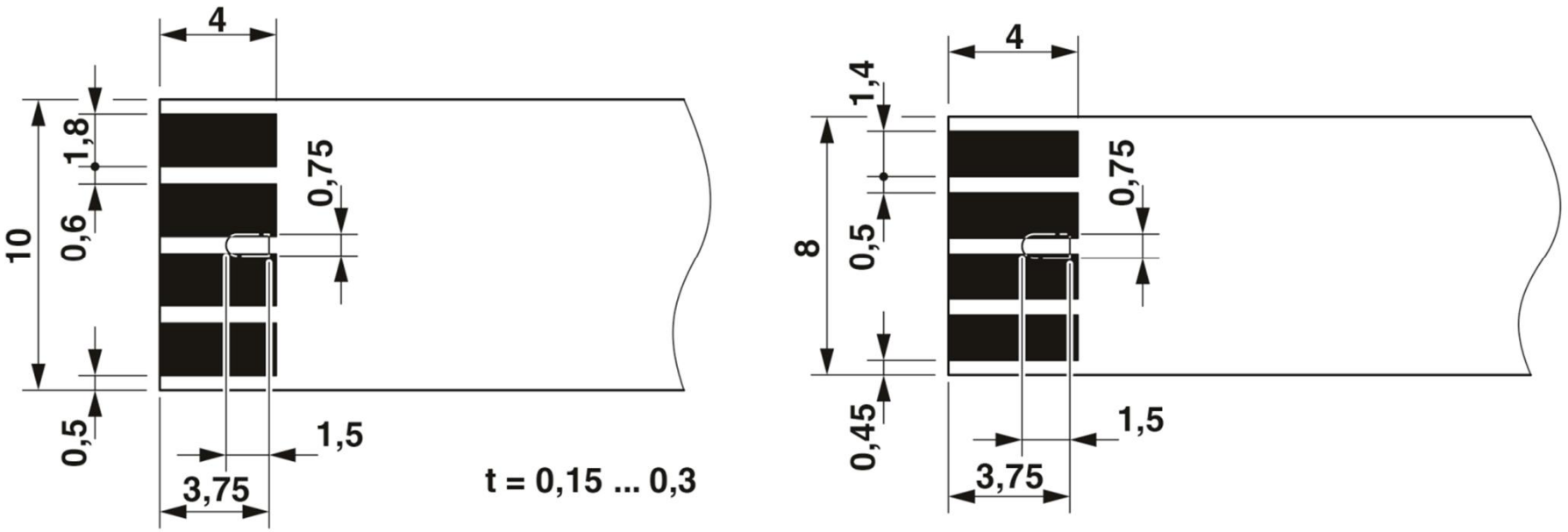
Parameters for the socket side



Main parameters

- Voltage: up to 24 V
- 10 Amps/connector
- Versions for 8 und 10-mm wide LED-stripes
- Feeder and jumper available
- According to IEC and UL

Suitable form factors for the socket side



Connection areas for 10mm and 8mm wide flex LED strips

Overview on existing sockets so far

RGB

Feeder 4-pole

white

Feeder 2-pole

Jumper 4-pole

Versions for **8,0** and **10,0** mm wide LED strips availabel

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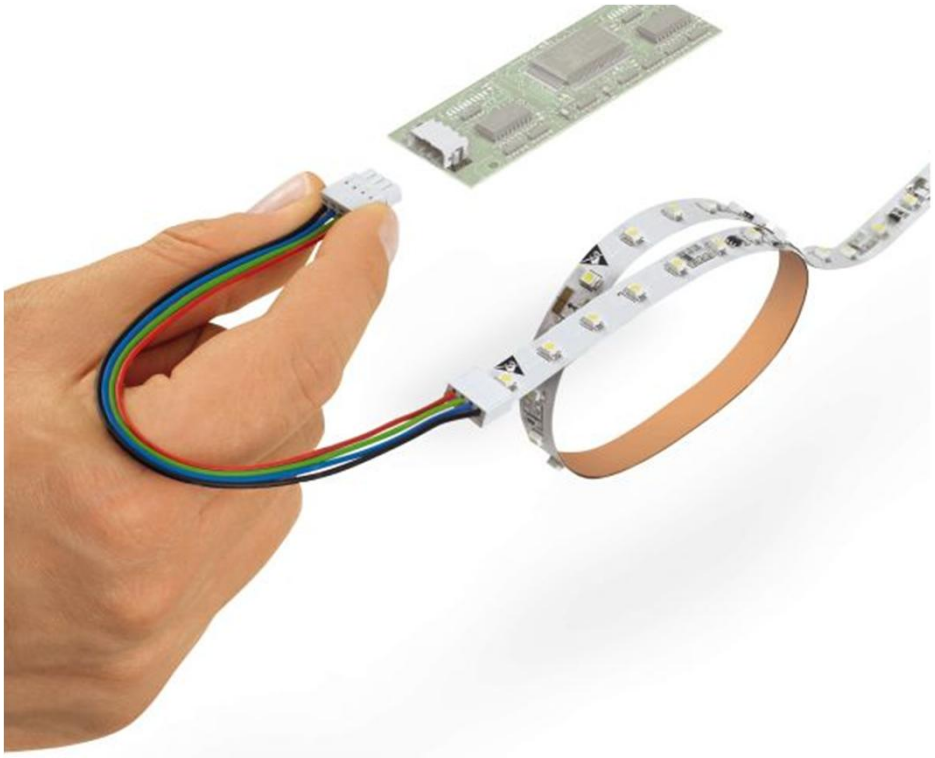
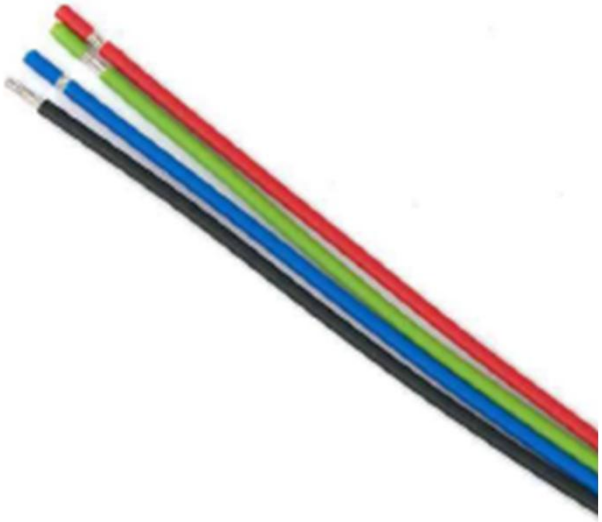
Connecting the socket to the LED-Driver

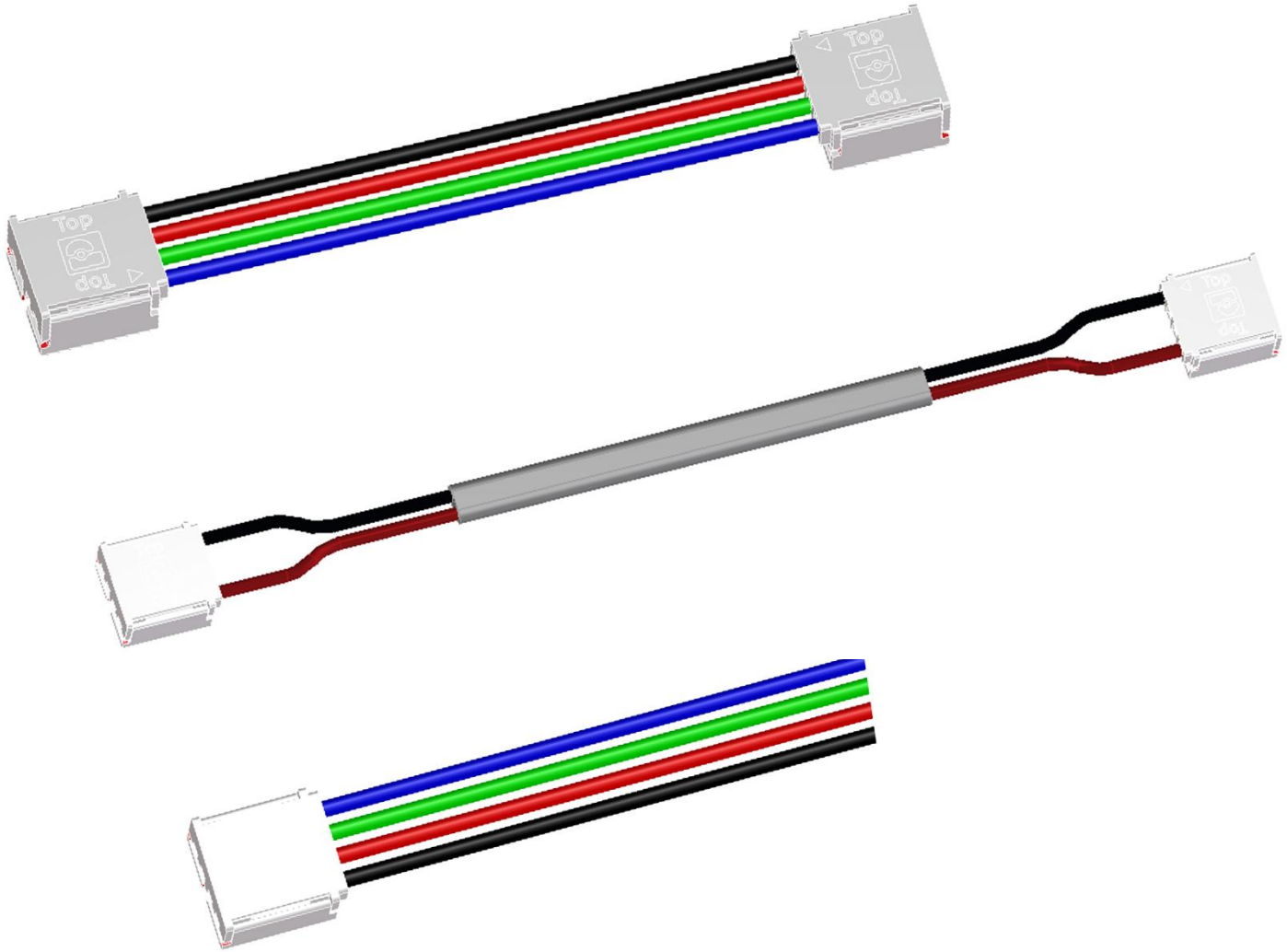
i.e. plug solution



i.e. semi strip



Variations for special LED applications



Summary

-Connectors are a fast, easy and safe way to wire up flexible LED strips

-Base section of flex pcb needs to be in line with the connector system

-Please consider the connection area (base section) of your flex pcb if you want to use connectors

Thankyou

very much

for

your

attention