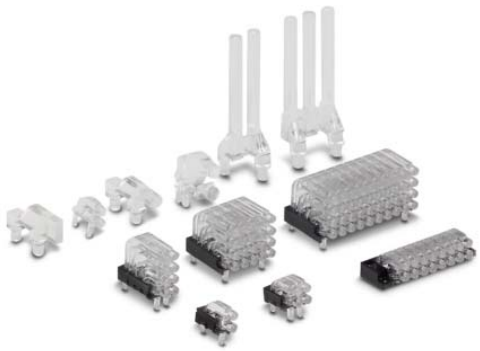
HS LC...

Light guides



Data sheet
106383_en_03

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1 Description

HS LC... light guides are suitable for use with the following housing ranges from Phoenix Contact: ME, ME MAX, ME-IO, ME PLC, BC and EH.

All of the light guides presented here are protected against ESD. The ESD protection levels of the individual products are specified in the product descriptions.

After the soldering process, the light guides are pressed into assembly boreholes and by this means secured in place. To ensure that the light guides are integrated into the housing with perfect fit, we offer machining services.

For each product, we recommend specific SMD LEDs from OSRAM. These LEDs are suitable for fully automated fitting.

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For additional 2D and 3D CAD drawings, visit the address phoenixcontact.net/products.

Make sure you always use the latest documentation.
It can be downloaded at phoenixcontact.net/products.

This data sheet is valid for the products listed on the following page:

2 Ordering data

Light guides for housing

Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Vertical	Ø 3 mm	2 rows x 1 column	5.08	HS LC-V-D3/ R2xC1-5,08	2202311	200
Vertical	Ø 3 mm	3 rows x 1 column	5.08	HS LC-V-D3/ R3xC1-5,08	2202312	200
Horizontal	Ø 3 mm	1 row x 1 column	–	HS LC-H-D3/ R1xC1	2202313	100
Horizontal	5 x 2 mm	1 row x 1 column	–	HS LC-H-5x2/ R1xC1	2202314	100
Horizontal	Ø 3 mm	2 rows x 1 column	5.08	HS LC-H-D3/ R2xC1-5,08	2202315	100
Horizontal	Ø 2 mm	2 rows x 1 column	2.54	HS LC-H-D2/ R2xC1-2,54	2202316	100
Horizontal	Ø 2 mm	2 rows x 2 columns	2.54	HS LC-H-D2/ R2xC2-2,54	2202317	100
Horizontal	Ø 2 mm	2 rows x 5 columns	2.54	HS LC-H-D2/ R2xC5-2,54	2202318	100
Horizontal	Ø 2 mm	2 rows x 10 columns	2.54	HS LC-H-D2/ R2xC10-2,54	2202319	100
Horizontal	Ø 2 mm	4 rows x 2 columns	2.54	HS LC-H-D2/ R4xC2-2,54	2202320	100
Horizontal	Ø 2 mm	4 rows x 5 columns	2.54	HS LC-H-D2/ R4xC5-2,54	2202321	100
Horizontal	Ø 2 mm	4 rows x 9 columns	2.54	HS LC-H-D2/ R4xC9-2,54	2202322	100
Horizontal	Ø 2 mm	4 rows x 10 columns	2.54	HS LC-H-D2/ R4xC10-2,54	2202323	100

3 HS LC-V-D3/R... light guides

This light guide system with a vertical design provides a 3 mm circle of light on the front panel by means of an LED. Press-in pegs secure the light guides on the PCB.

The light guides are suitable for use with the BC housing range from Phoenix Contact.





Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Vertical	Ø 3 mm	2 rows x 1 column	5.08	HS LC-V-D3/ R2xC1-5,08	2202311	200
Vertical	Ø 3 mm	3 rows x 1 column	5.08	HS LC-V-D3/ R3xC1-5,08	2202312	200

General data	
Material of the light guide	PC clear UL94
Ambient temperature	-40 °C ... +85 °C
ESD protection	<12 kV

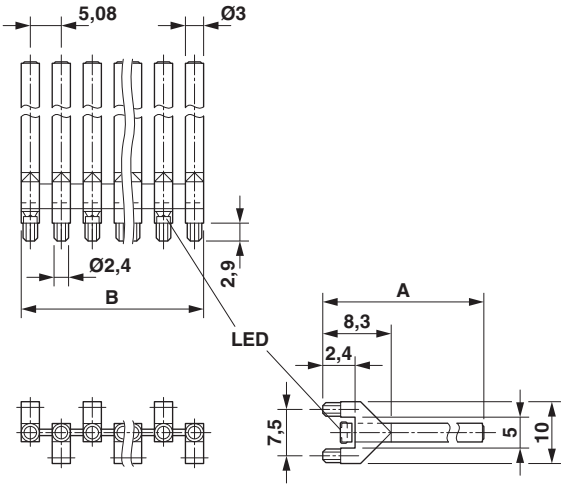


Figure 1 Dimensional drawing of HS LC-V-D3/...-5,08

Dimensions for	A	B
2202311	32 mm	8.08
2202312	32 mm	13.16

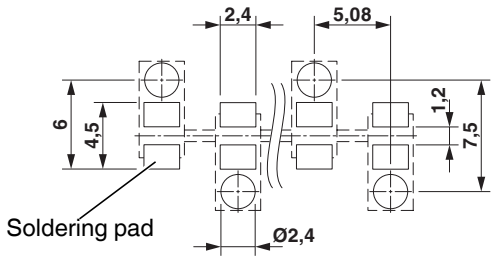


Figure 2 Recommended layout for HS LC-V-D3/...-5,08

We recommend the use of the TOPLED design, an SMD LED with integrated reflector from OSRAM.

LS T670	LS T679	LS T676	LT T673
LY T670	LY T679	LO T676	LW T673
LG T670	LG T679	LY T676	
LSG T670			

4 HS LC-H-D3/R1... and HS LC-H-5X2/R1... light guides



The light is guided to the front panel in the form of a 2 x 5 mm rectangular light guide or Ø 3 mm circular light guide, parallel to the PCB. This light guide is secured on the PCB by two press-in pegs.

The light guides are suitable for use with the housing ranges ME, ME MAX, ME-IO, ME-PLC, BC 17,8 and EH from Phoenix Contact.

Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Horizontal	Ø 3 mm	1 row x 1 column	–	HS LC-H-D3/ R1xC1	2202313	100
Horizontal	5 x 2 mm	1 row x 1 column	–	HS LC-H-5x2/ R1xC1	2202314	100

General data	
Material of the light guide	PMMA clear UL94
Ambient temperature	-40 °C ... +85 °C
ESD protection	<12 kV

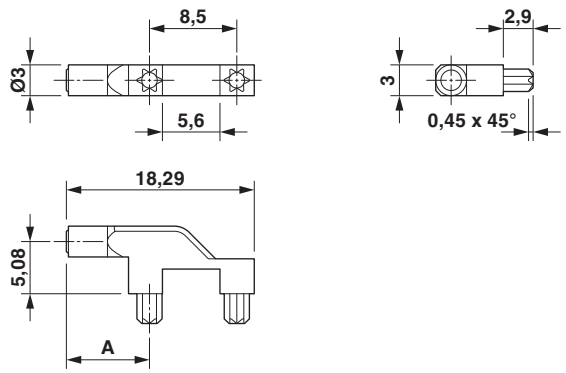


Figure 3 Dimensional drawing of HS LC-H-D3/ R1xC1

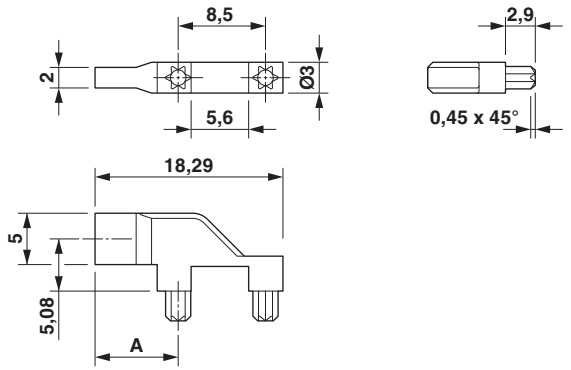


Figure 4 Dimensional drawing of HS LC-H-5x2/ R1xC1

Dimensions for	A
2202313 + 2202314	8.1 mm

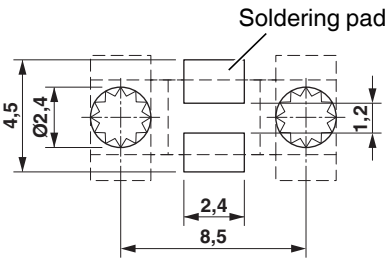


Figure 5 Recommended layout for HS LC-H-D3/...

We recommend the use of the TOPLED design, an SMD LED with integrated reflector from OSRAM.

LS T670	LS T679	LS T676	LT T673
LY T670	LY T679	LO T676	LW T673
LG T670	LG T679	LY T676	
LSG T670			

5 HS LC-V-D3/R1... light guides 5,08



The double display has a spherical illumination surface with a 3 mm diameter. Press-in pegs secure the light guides on the PCB.

The light guides are suitable for use with the housing ranges ME, ME MAX, ME-IO, ME-PLC, BC 17,8 and EH from Phoenix Contact.

Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Horizontal	Ø 3 mm	2 rows x 1 column	5.08	HS LC-H-D3/ R2xC1-5,08	2202315	100

General data	
Material of the light guide	PC clear UL94
Ambient temperature	-40 °C ... +85 °C
ESD protection	6.5 kV

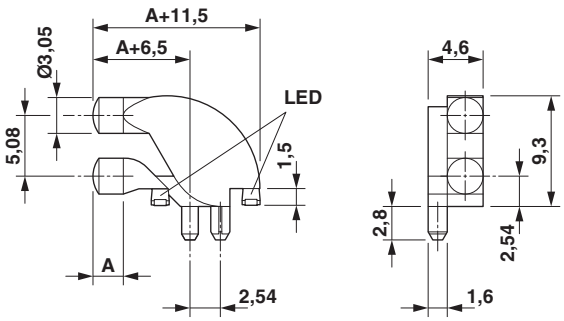


Figure 6 Dimensional drawing of HS LC-H-D3/ R2xC1-5,08

Dimensions for	A
2202315	2.5 mm

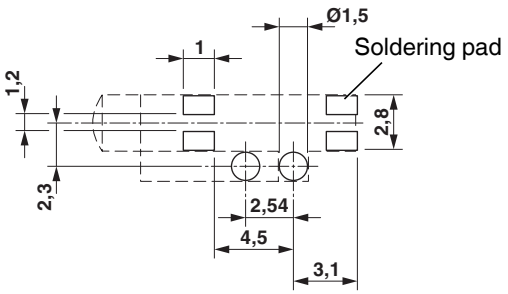


Figure 7 Recommended layout for HS LC-H-D3/ R2xC1-5,08

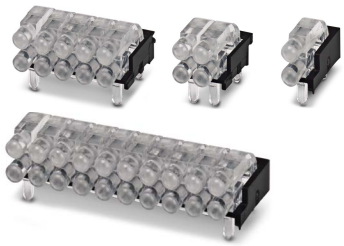
We recommend the use of the Mini-TOPLED design, an SMD LED from OSRAM with white SMT housing.

LS M670	LS M676	LY M676
LG M670	LO M676	LT M673

6 HS LC-V-D2/R2... light guides 2,54

This light guide element with double rows contains up to 20 possible illumination surfaces and is secured in the PCB by press-in pegs. The system features a lens to prevent glare. As a result, mixed colors are also possible.

The light guides are suitable for use with the housing ranges ME, ME MAX, ME-IO, ME-PLC, BC 17,8 and EH from Phoenix Contact.



Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Horizontal	Ø 2 mm	2 rows x 1 column	2.54	HS LC-H-D2/ R2xC1-2,54	2202316	100
Horizontal	Ø 2 mm	2 rows x 2 columns	2.54	HS LC-H-D2/ R2xC2-2,54	2202317	100
Horizontal	Ø 2 mm	2 rows x 5 columns	2.54	HS LC-H-D2/ R2xC5-2,54	2202318	100
Horizontal	Ø 2 mm	2 rows x 10 columns	2.54	HS LC-H-D2/ R2xC10-2,54	2202319	100

General data	
Material of the light guide	PC clear UL94
Material of lens	PC black UL94
Ambient temperature	-40 °C ... +85 °C
ESD protection	<8 kV

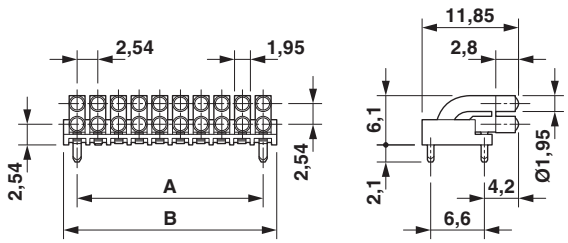


Figure 8 Dimensional drawing of HS LC-H-D2/...-2,54

Dimensions for	A	B
2202316	–	3.16 mm
2202317	2.54 mm	5.70 mm
2202318	10.16 mm	13.32 mm
2202319	22.86 mm	26.20 mm

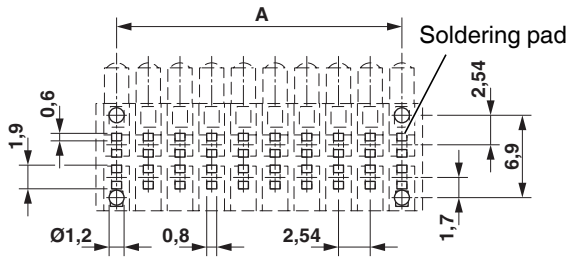


Figure 9 Recommended layout for HS LC-H-D2/...-2,54

The fiber optics block is designed for use with CHIPLEDs, design 0603, from OSRAM.

LG Q971	LS Q976
LY Q971	LY Q976
	LO Q976

7 HS LC-V-D2/R4... light guides 2,54

This light guide element with four rows contains up to 40 possible illumination surfaces and is secured in the PCB by press-in pegs. The system features a lens to prevent glare. As a result, mixed colors are also possible.

The light guides are suitable for use with the housing ranges ME, ME MAX, ME-IO, ME-PLC, BC 17,8 and EH from Phoenix Contact.



Description				Type	Order No.	Pcs./Pkt.
Alignment	Size	Quantity	Pitch			
Horizontal	Ø 2 mm	4 rows x 2 columns	2.54	HS LC-H-D2/ R4xC2-2,54	2202320	100
Horizontal	Ø 2 mm	4 rows x 5 columns	2.54	HS LC-H-D2/ R4xC5-2,54	2202321	100
Horizontal	Ø 2 mm	4 rows x 9 columns	2.54	HS LC-H-D2/ R4xC9-2,54	2202322	100
Horizontal	Ø 2 mm	4 rows x 10 columns	2.54	HS LC-H-D2/ R4xC10-2,54	2202323	100

General data	
Material of the light guide	PC clear UL94
Material of lens	PC black UL94
Ambient temperature	-40 °C ... +85 °C
ESD protection	<8 kV

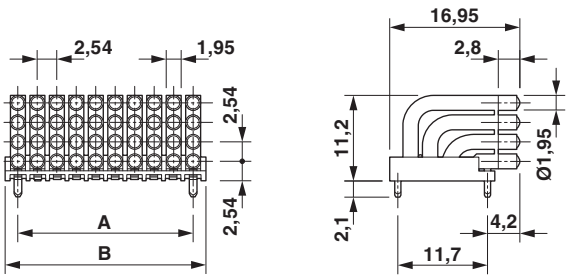


Figure 10 Dimensional drawing of HS LC-H-D2/...-2,54

Dimensions for	A	B
2202320	2.54 mm	5.70 mm
2202321	10.16 mm	13.32 mm
2202322	20.32 mm	23.48 mm
2202323	22.86 mm	26.20 mm

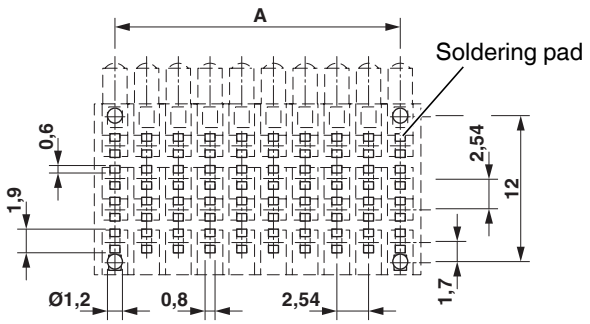


Figure 11 Recommended layout for HS LC-H-D2/...-2,54

The fiber optics block is designed for use with CHIPLEDs, design 0603, from OSRAM.

LG Q971	LS Q976
LY Q971	LY Q976
	LO Q976