

PKC Vehicle Electronics

1. Catalogue for Flasher Units

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Contents

Flasher Units 12V

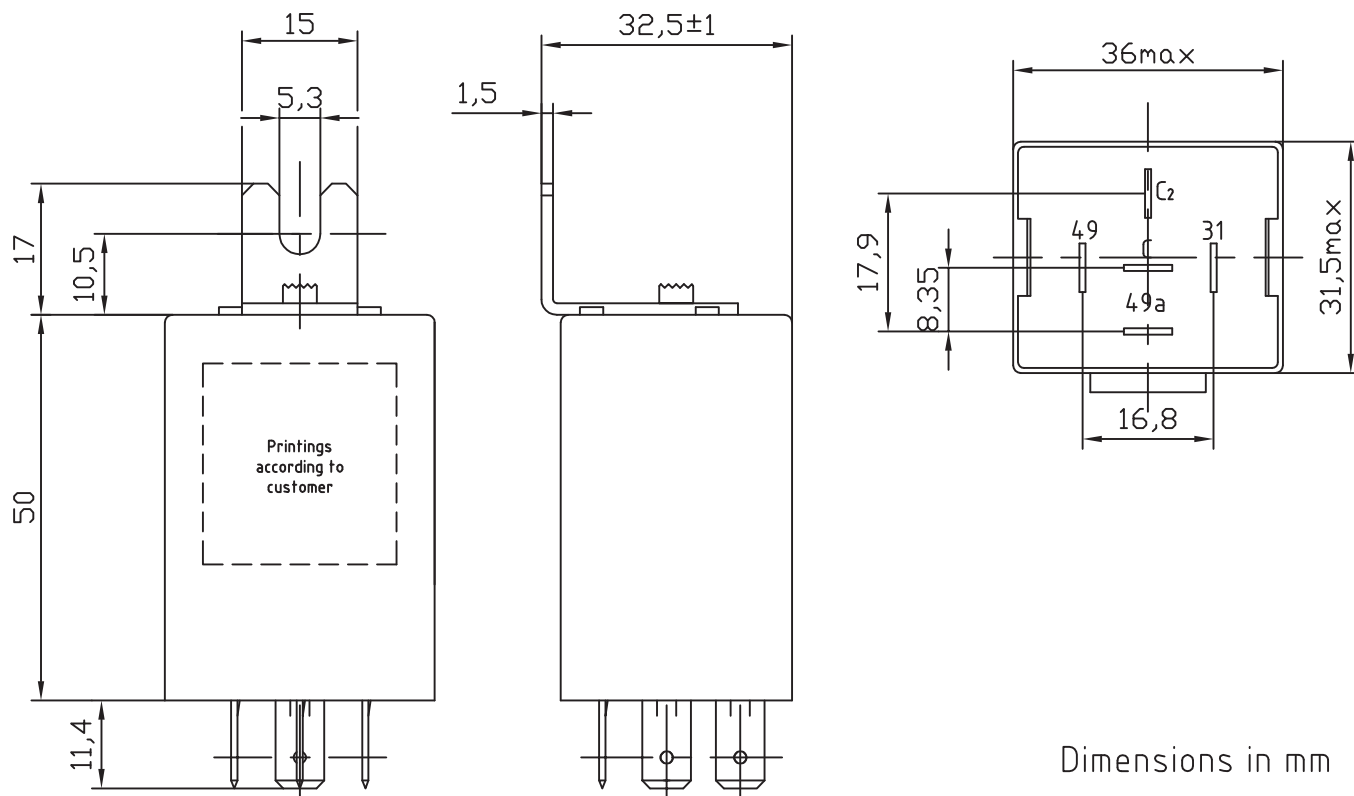
41 9 0019-001	12V (2+1 (6))x21W	*1)
41 9 0021	12V (2+1 (6))x21W	
41 9 0027	12V 2 (4)x21W+0...5(0...10)W	
41 9 0028	12V 2 (4)x10W	
41 9 0029	12V 2 (4)x21W+0...5(0...10W)	
41 9 0030-001	12V 2 (4)x21W+0...5(0...10W)	
41 9 0031-001	12V 2(4)x10W	
41 9 0112-001	12V 2 (4)x21W+0...5(0...10W)	
41 9 0113-001	12V 2 (4)x21W+0...5(0...10W)	
41 9 0123-001	12V 2+1 (6)x21W(+5W)	*1)
41 9 0124-001	12V (2+1(6))x21W(+5W)	*1)
41 9 0125-001	12V (2+1(6))x21W(+5W)	*1)
41 9 0142-001	12V (2+1(6))x21W(+5W)	*1)
41 9 0151-001	12V (2+1(6))x21W +0...5W (0...10W)	*1)
41 9 0159-001	12V (2+1(6))x21W +0...5W (0...10W)	
41 9 0162-001	12V (2+1+1)x21W or LED bulbs*)	*2)
41 9 0163-001	12V (3+1)x21W or LED bulbs *)	*2)
41 9 0169-001	12V Northamerica-variant	
41 9 0170-001	12V (2+1+1(+1))x21W bzw. 10x21W	
41 9 0172-001	12V (1+1+1)(6)x21W	
41 9 0175-001	12V Northamerica-variant	
41 9 0176-001	12V 10W + 16W	
41 9 0177-001	12V 2(4)x10W	*1)
41 9 0178-001	12V (3+1(8))x21W	*1)
41 9 0180-001	12V (2+1(6))x21W	*1)
41 9 0183-001	12V (2+1+1(1))x21W bzw. 10x21W	
41 9 0184-001	12V (2+1+1(1))x21W bzw. 10x21W	

Flasher Units 24V

41 9 0114-001	24V 2(4)x21W+0...5(0...10)W 63	*1)
41 9 0115-001	24V 2(4)x21W+0...5(0...10)W 65	*1)
41 9 0116-001	24V (2+1(6))x21W + 0...5 (10)W 67	
41 9 0117-001	24V (2+1(6))x21W + 0...5 (10)W 69	
41 9 0127-001	24V 2(4)x21W + 2W or 3(6)x21W + 2W 71	
41 9 0147-001	24V 2(4)x21W+(0...5)W 73	
41 9 0164-001	24V (2+1)x21W or LED bulbs*) 75	*2)
41 9 0165-001	24V (3+1)x21W or LED bulbs *) 77	*2)
41 9 0171-001	24V (2+1+1) resp. (3+1)x21W / resp. (8x21W)+5 (10)W 79	
41 9 0174-001	24V 2+1(6)x21W + 0...5(10)W 81	

*1) On request

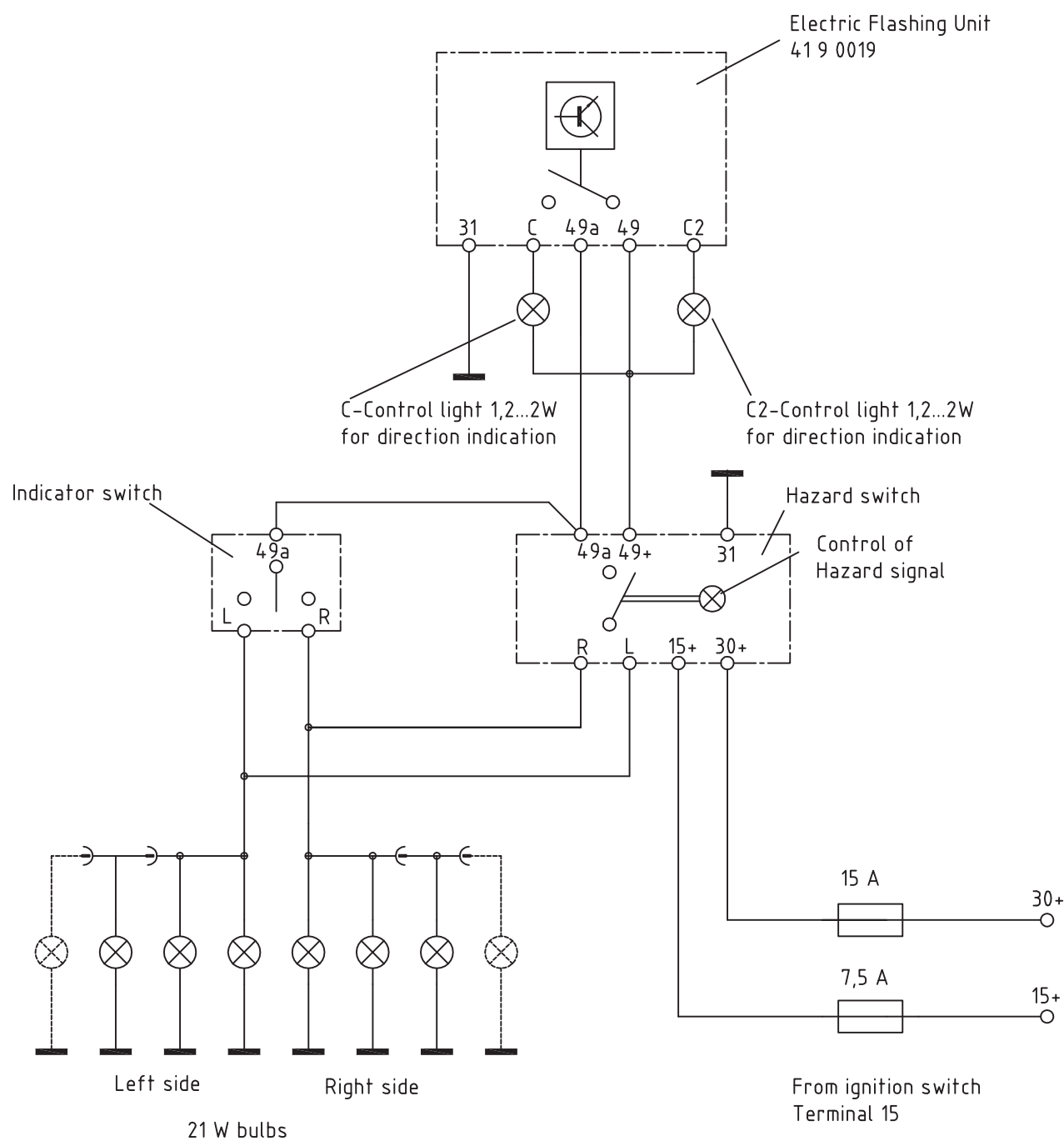
*2) LED lights and LED flasher units have to be technical harmonised to guarantee the control of functions



Order Number.	Nominal Voltage	Note
41 9 0019	12 V	Control Lamps (C and C2) are connected to positive potential

<u>Application:</u>	Suitable for tractor with or without trailer
<u>Functions:</u>	Special feature: Works also without battery connected to the system
	Direction indication (2+1)x21W resp. (2+2)x21W without control function
	Warning flashing 6x21W resp. 8x21W
	Control 1,2...2W
<u>Control functions:</u>	Control without trailer:
	Failure of a flashing light 21W: C-Control remains dark
	Control with trailer:
	Failure of a flashing light 21W: C2-Control remains dark
	Failure of two flashing lights 21W: C- and C2-Controls remain dark
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-EA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH
<u>Degree of protection:</u>	IP 53 DIN 40 050-9
<u>Operation frequency:</u>	90±30 Flashes per minute for direction indication and warning flashing
	90+60/-30 Flashes per minute for direction indication and warning flashing without battery
<u>Duration of light pulse:</u>	40%...70%
<u>Operating voltage:</u>	10,8 VDC...15 VDC
<u>Operating temperature:</u>	-40°C...+55°C
<u>Storage temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	according to 41 9 0019 S Page 2
<u>Installation:</u>	Mounting vertically, with electrical connection downwards

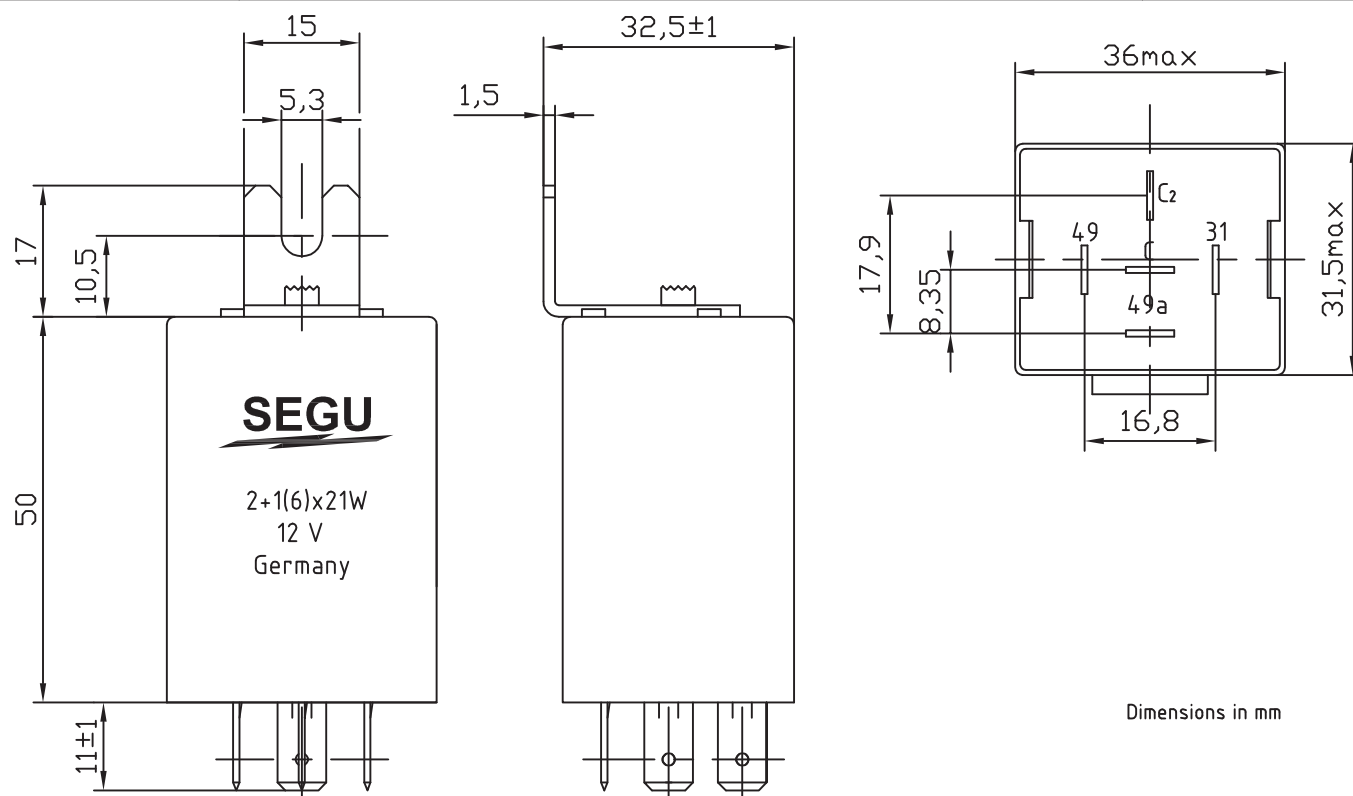
Connections for the single-circuit flasher



Specifications

Flasher Unit

2+1(6)x21W+0...5(0...10)W



Dimensions in mm

Order number

413 29 0021

Nominal voltage

12 VDC

Note

Control lamp C2 is connected to positive potential

Application:

Suitable for passenger cars and commercial vehicles with or without trailer

Functions:

Direction indication (2+1)x21W+(0...5)W
Warning flashing 6x21W+(0...10)W
Control 1,2...2W

Control functions:

Control for passenger car / commercial vehicle with resp. without trailer:
Failure of a flashing light 21W: Frequency increase >100%
Control for passenger cars / commercial vehicles with trailer:
Failure of a flashing light 21W: C2-Control remains dark
Failure of two flashing lights 21W: Frequency increase >100%

Compliance:

The device complies with the ISO 4082 standard, plastic housing with fixation brackets ISO 7588-EA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.

Degree of protection:

IP 00 DIN 40 050-9

Frequency:

90±30 Flashes per minute for direction indication and warning flashing

Duration of light pulse:

40%...75%

Operating voltage:

10 VDC...15 VDC

Operating temperature:

-40°C...+85°C

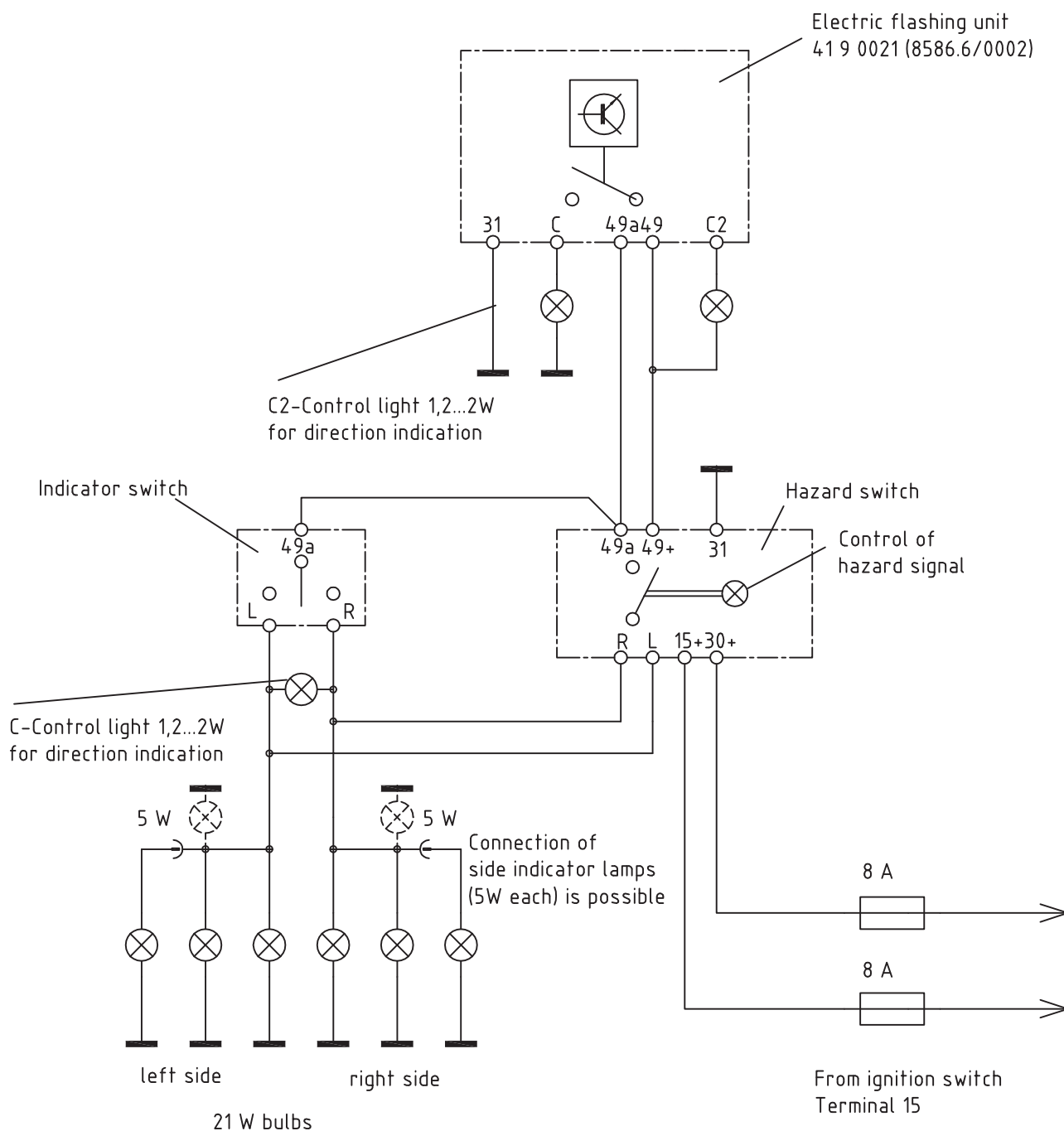
Electrical connection:

according to 41 9 0021 S Page 2

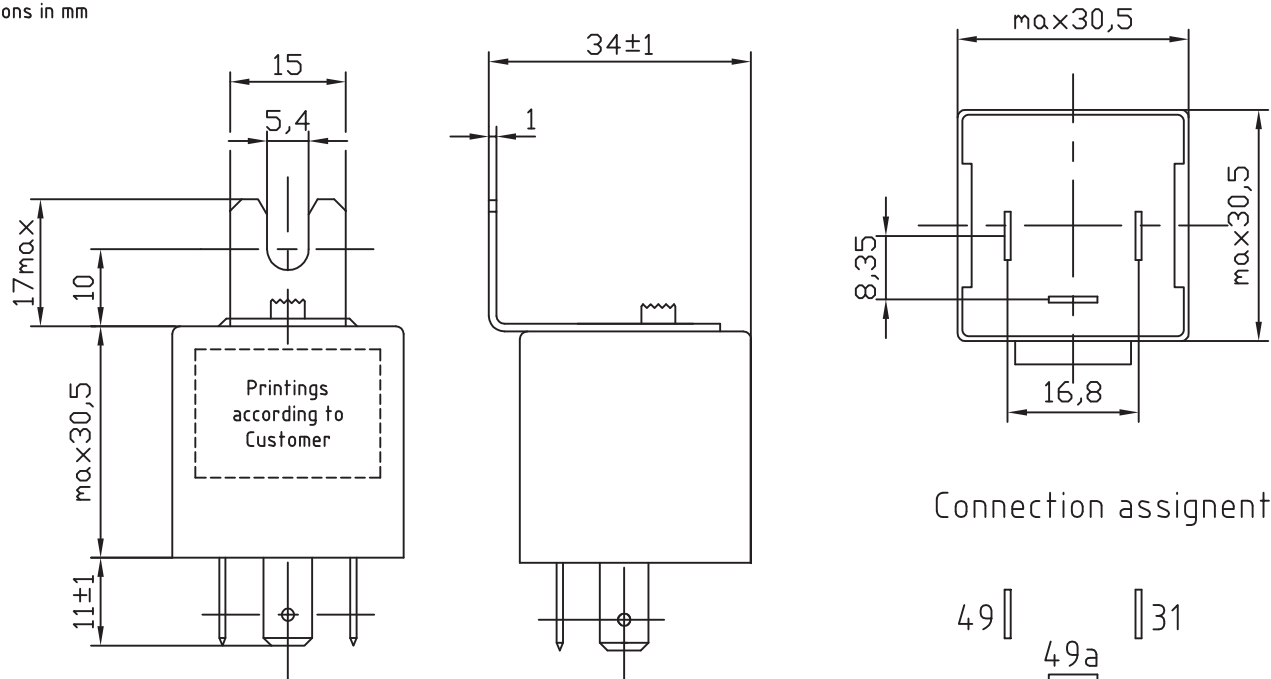
Installation:

Mounting vertically, with electrical connection downwards, protect against moisture and coarse dirt
Special installation: Mounting vertically, with electrical connection upwards for usage in Trabant 601 (no warranty against penetration of moisture in that case)

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W



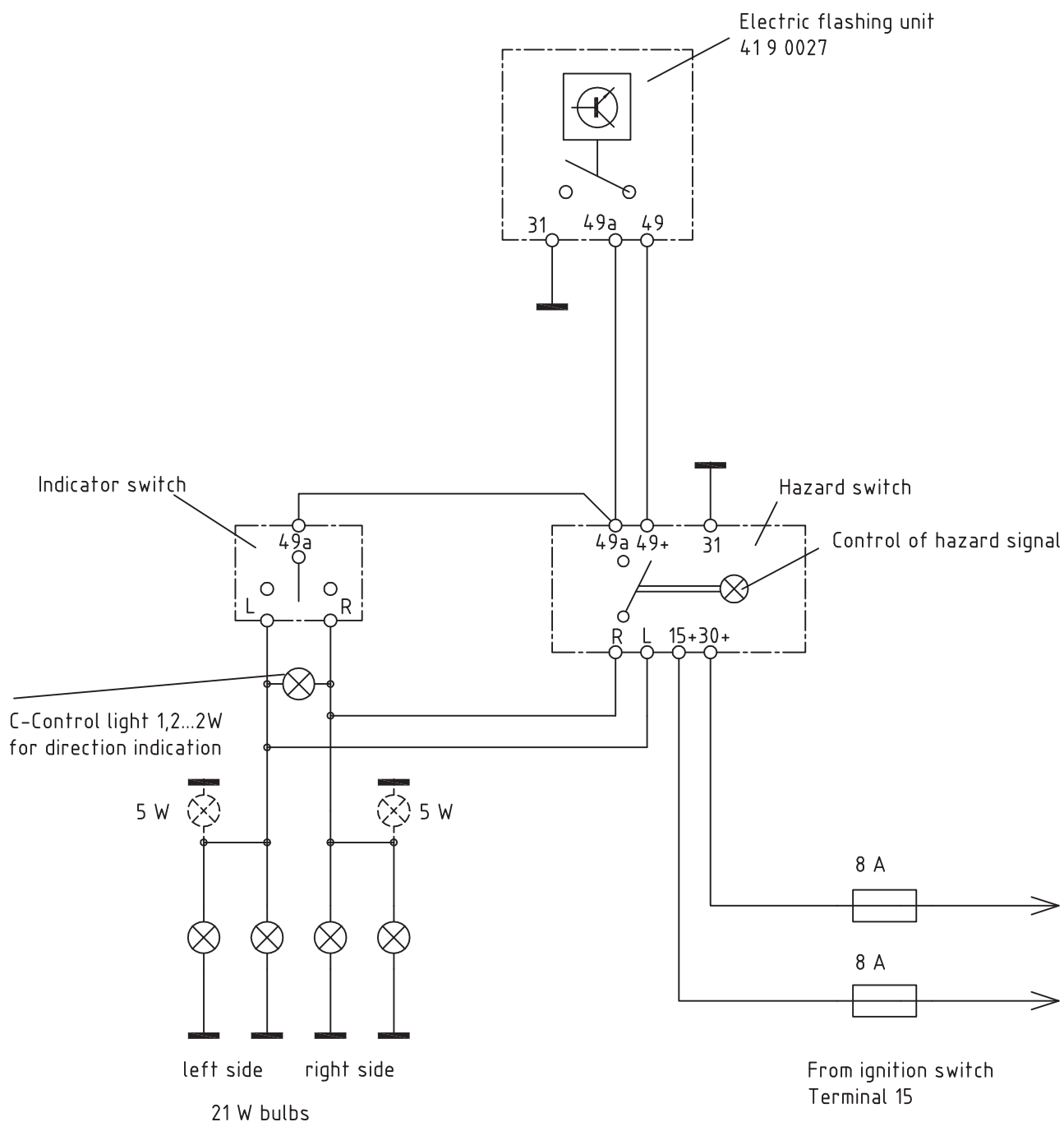
Dimensions in mm



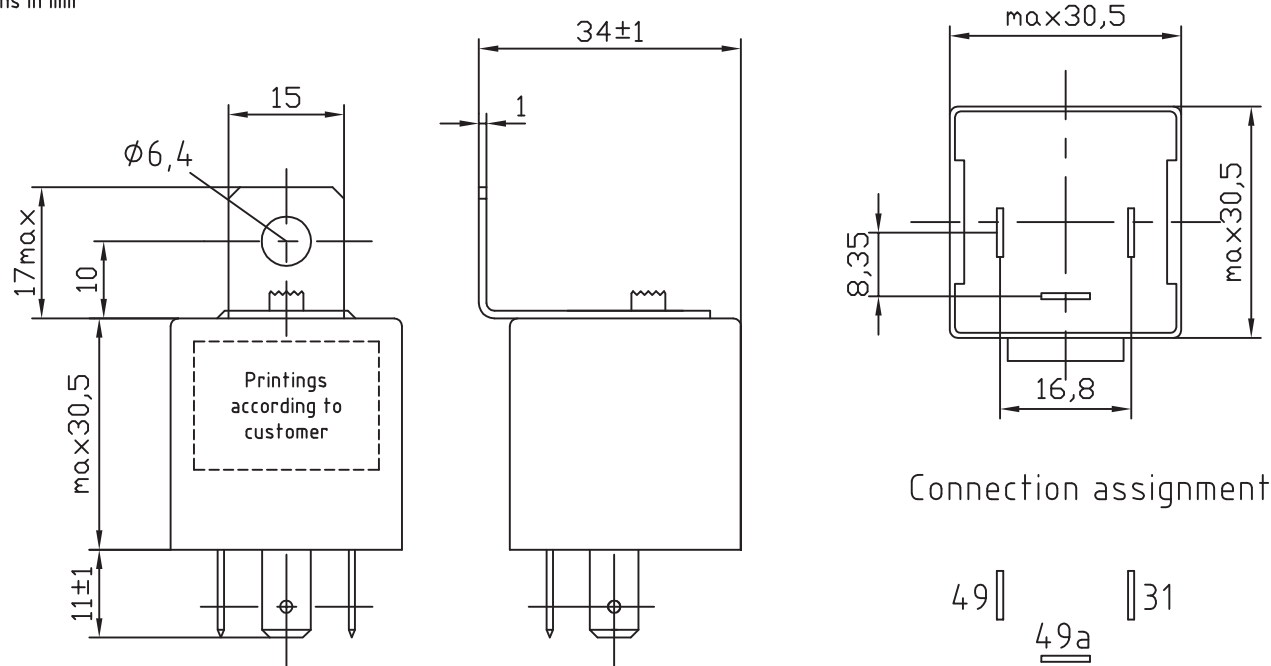
Order number: 41 9 0027

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles
<u>Functions:</u>	Direction indication 2 x 21 W Warning flashing 4 x 21 W
<u>Control of functions:</u>	Failure of a flashing light 21W: Frequency increase >100%
<u>Compliance:</u>	The device comolies with the ISO 4082 standard, plastic housing with fixatiōn brackets according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0027 S Page 2
<u>Installation:</u>	Terminals downwards Protect against moisture and coarse dirt

Connections for the flasher
2(4)x21W+0...5(0...10)W



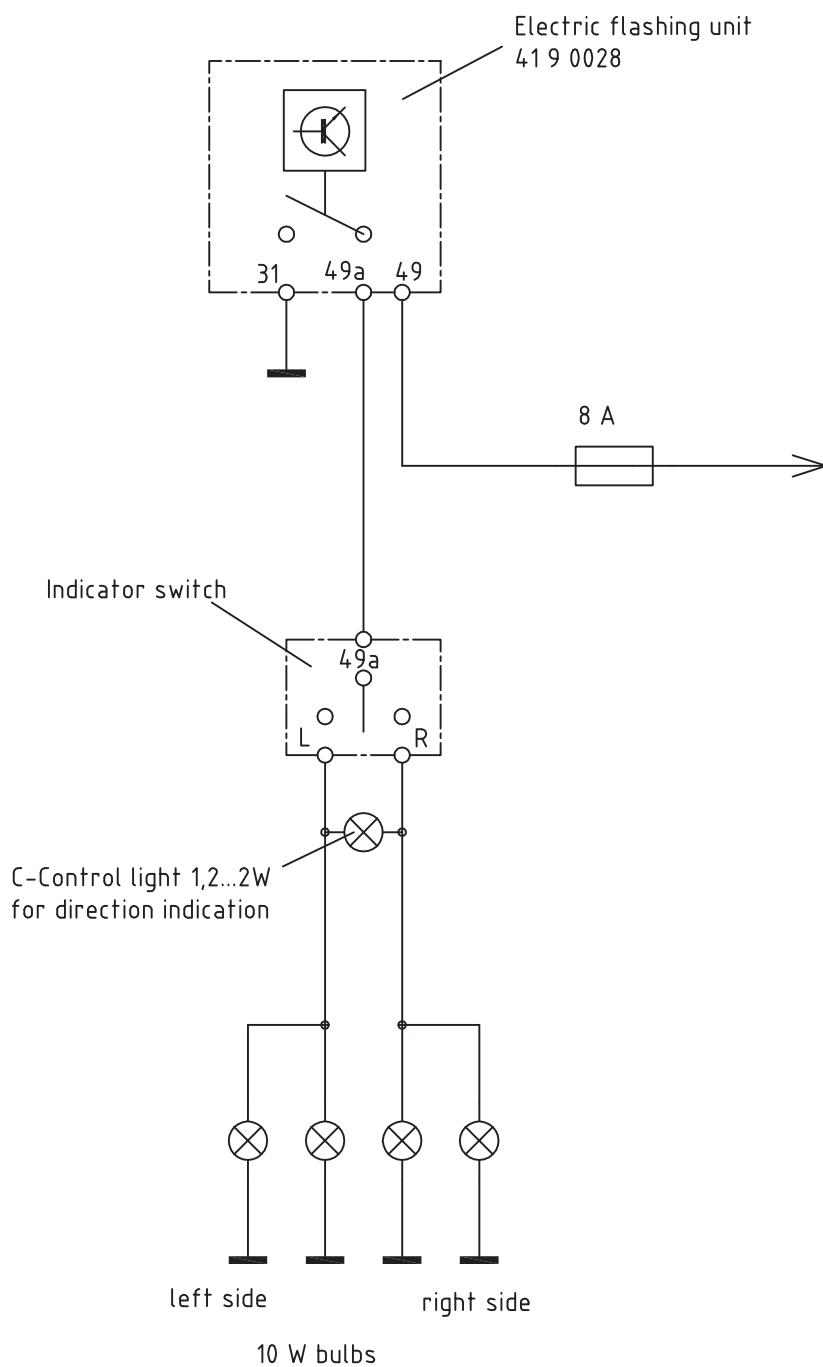
Dimensions in mm



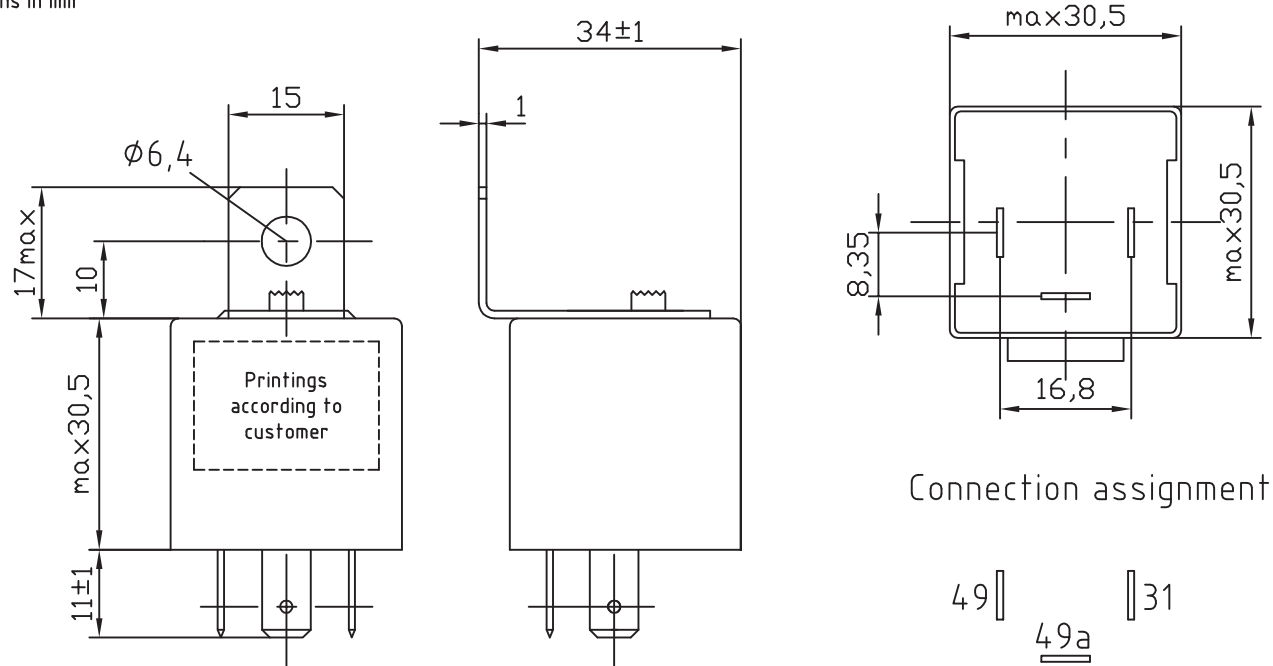
Order number: 41 9 0028

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for motorcycle
<u>Functions:</u>	Direction indication 2 x 10 W Warning flashing 4 x 10 W
<u>Control of functions:</u>	Failure of a flashing light 10W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90 $\pm$ 30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 72/245/EWG standard
<u>Operation temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0028 S Page2
<u>Installation:</u>	Terminals downwards Protect against moisture and coarse dirt

Connection for the flasher 2(4)x10W



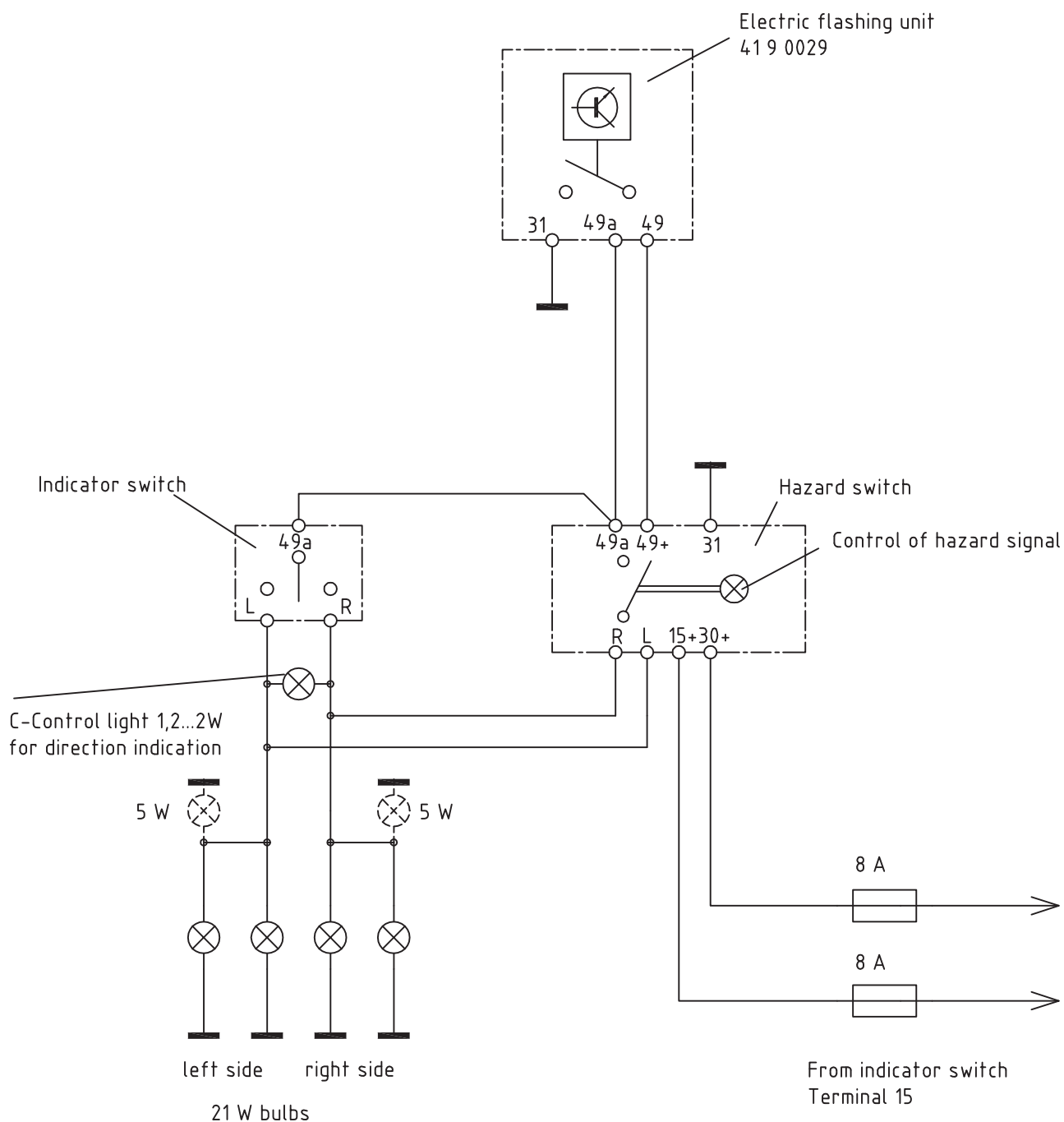
Dimensions in mm

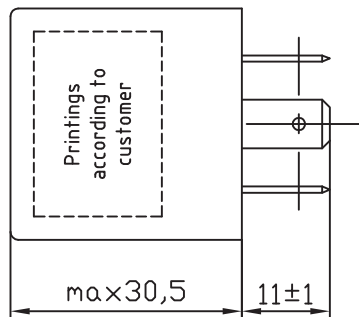
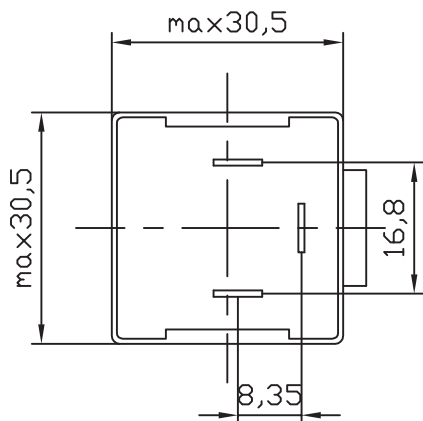


Order number: 41 9 0029

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for Motorcycle, passenger car and commercial vehicle
<u>Functions:</u>	Direction indication 2 x 21 W Warning flashing 4 x 21 W
<u>Control of functions:</u>	Failure of a flashing light 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0029 S Page 2
<u>Installation:</u>	Terminals downwards Protect against moisture and coarse dirt

Connections for the flasher
2(4)x21W+0...5(0...10)W





Connection assignment

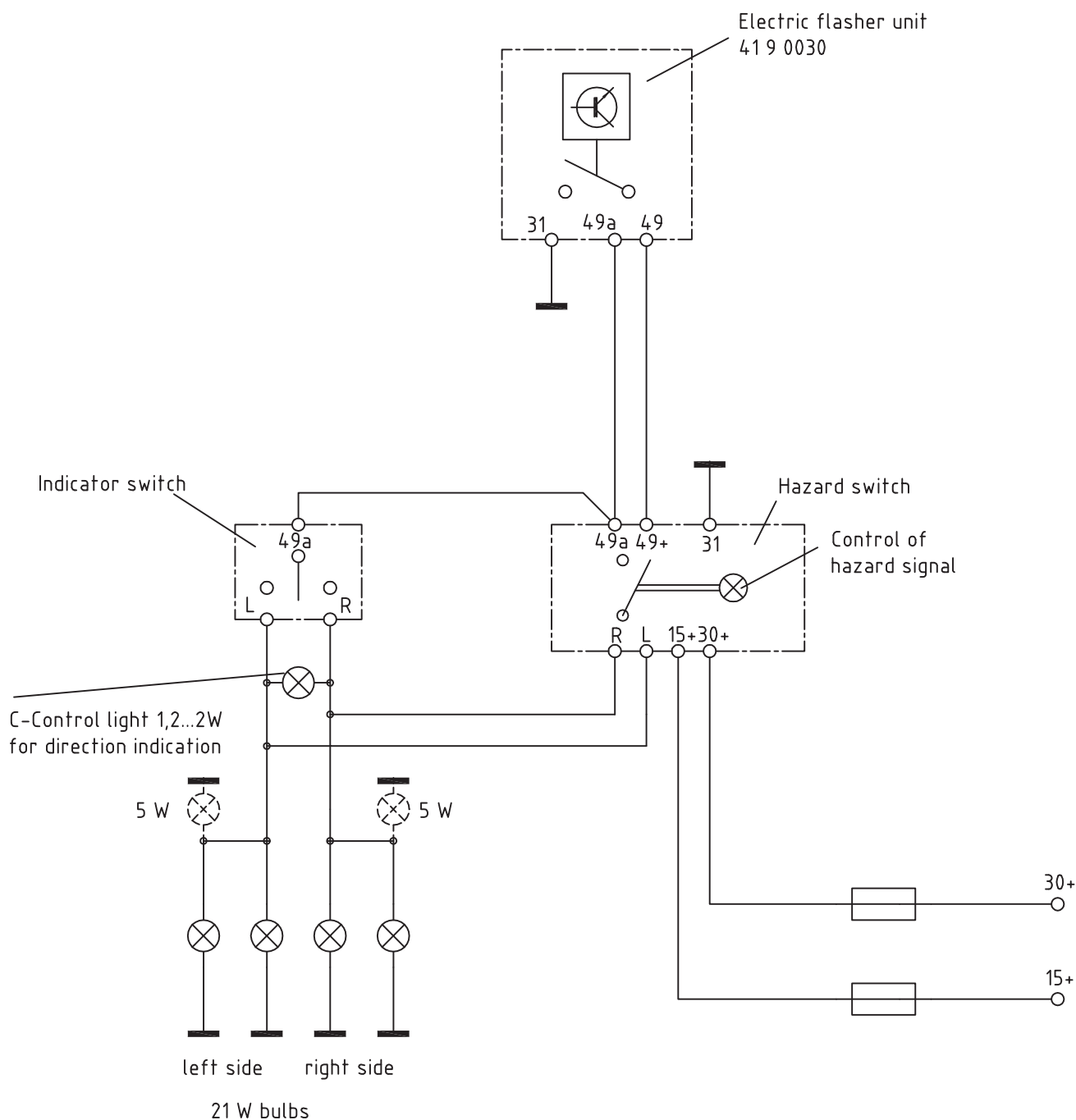
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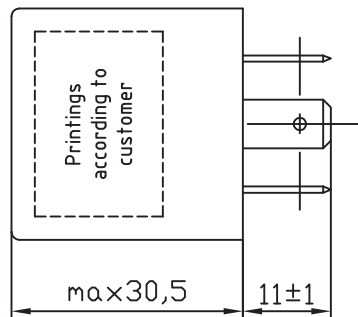
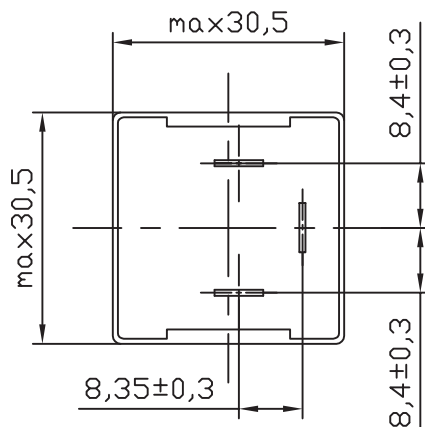
Dimensions in mm

Order number: 41 9 0030

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles
<u>Functions:</u>	Direction indication 2 x 21 W Warning flashing 4 x 21 W
<u>Control of functions:</u>	Failure of a flashing light 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with-fixation bracket according to ISO 7588-CA, Terminals according to DIN EN ISO 8092 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Elektromagnetische Verträglichkeit:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0030 S Page 2
<u>Installation:</u>	on plug base resp. central electronics

Connections for the flasher
2(4)x21W+0...5(0...10)W





Connection assignment

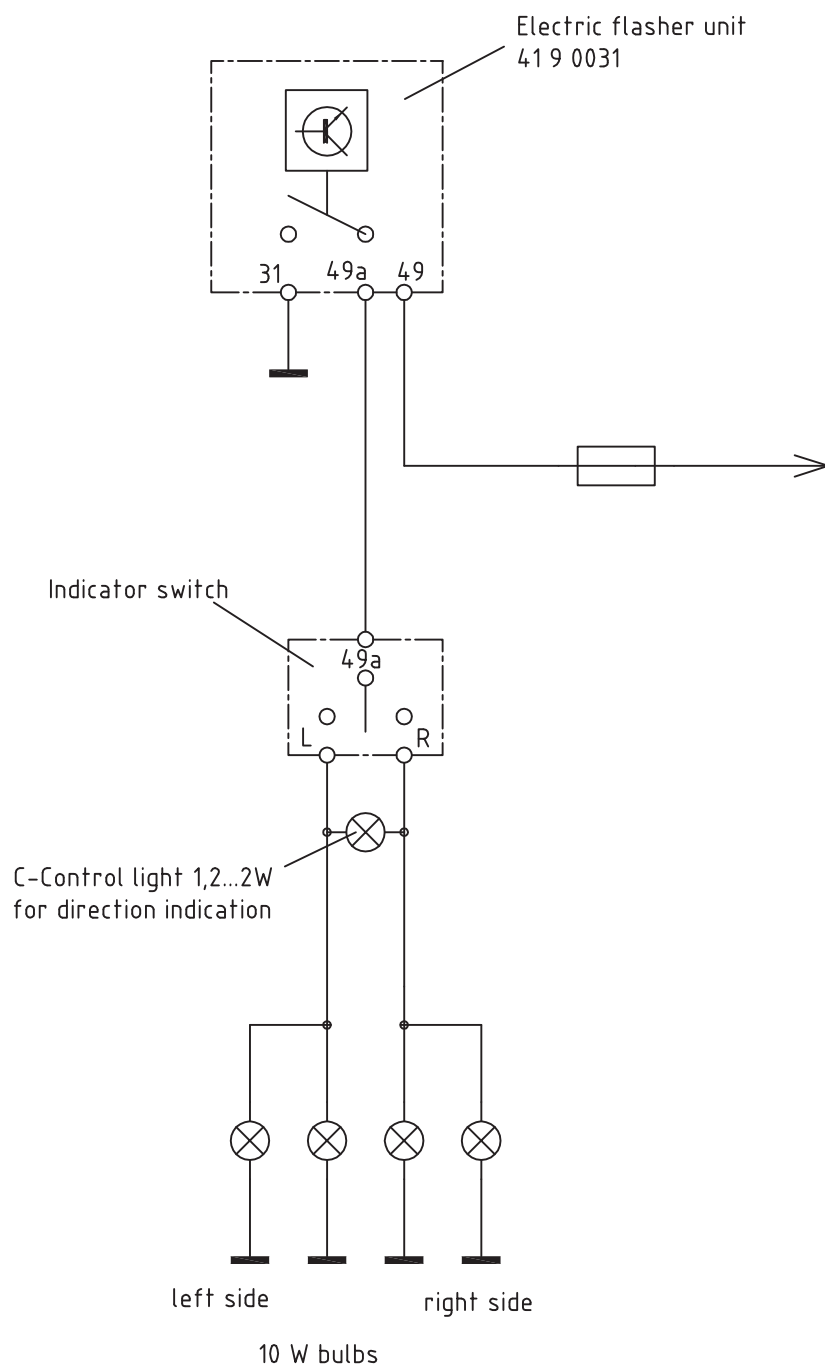
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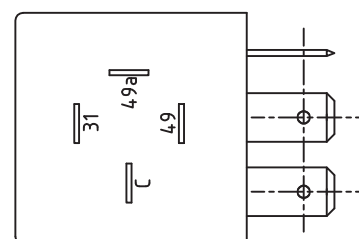
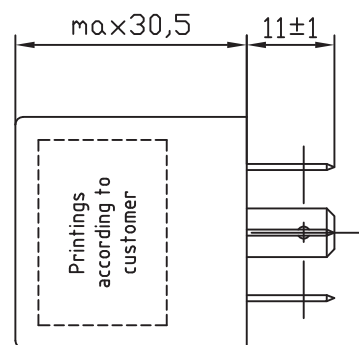
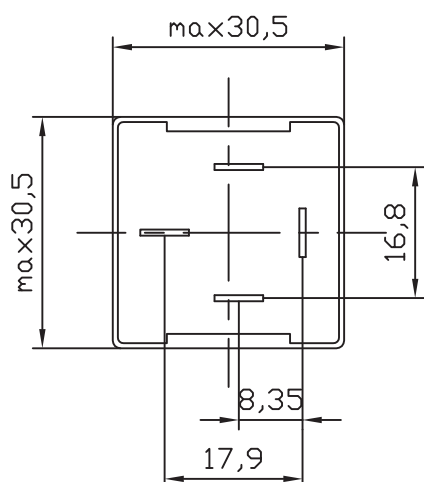
Dimensions in mm

Order number: 41 9 0031

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for Motorcycle
<u>Functions:</u>	Direction indication 2 x 10 W Warning flashing 4 x 10 W
<u>Control functions:</u>	Failure of a flashing light 10W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, Terminal according to DIN EN ISO 8092-1 6,3x0,8 OH
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	9 VDC...16 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0031 S Page 2

Connections for the flasher 2(4)x10W



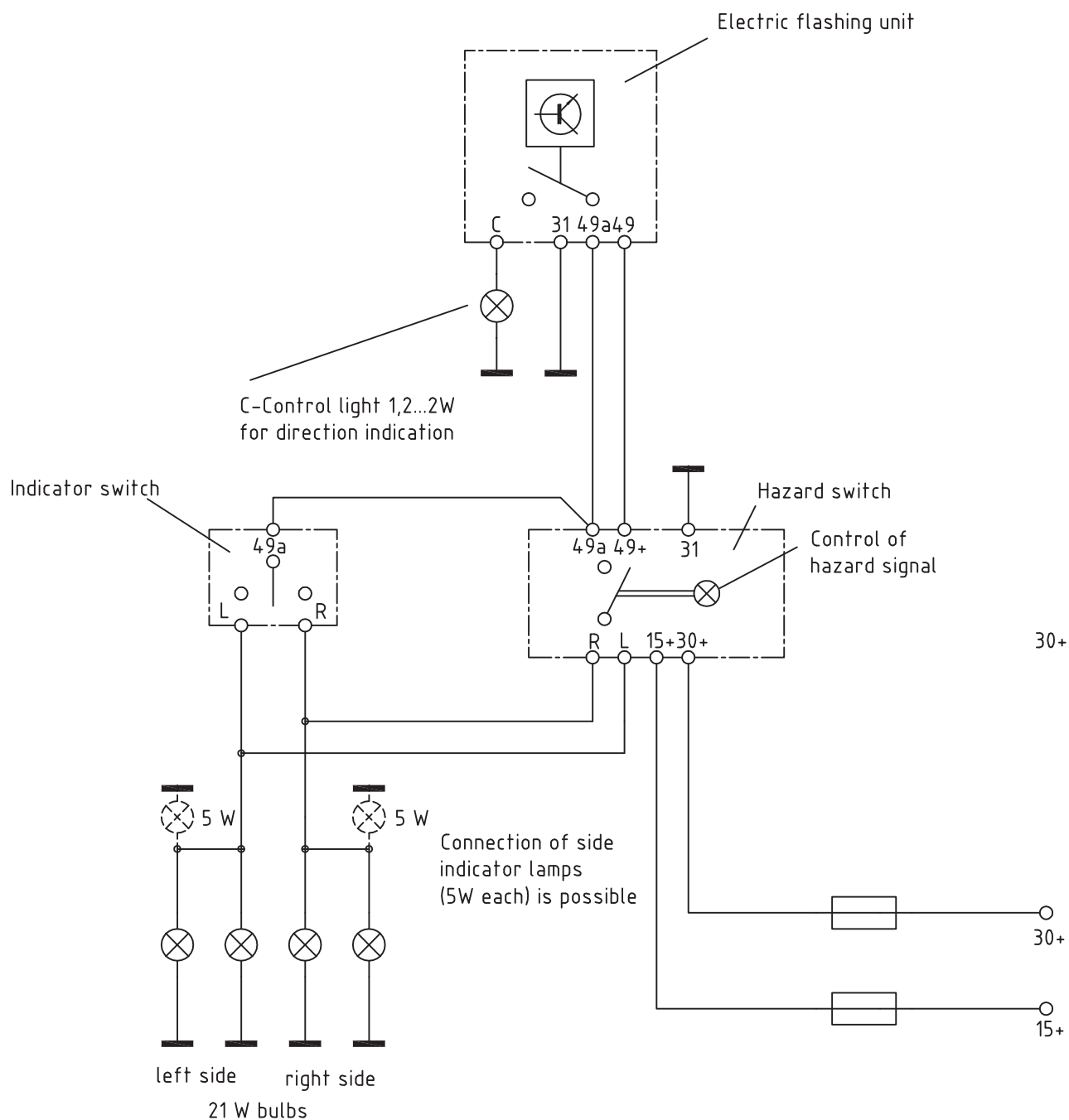


Dimensions in mm

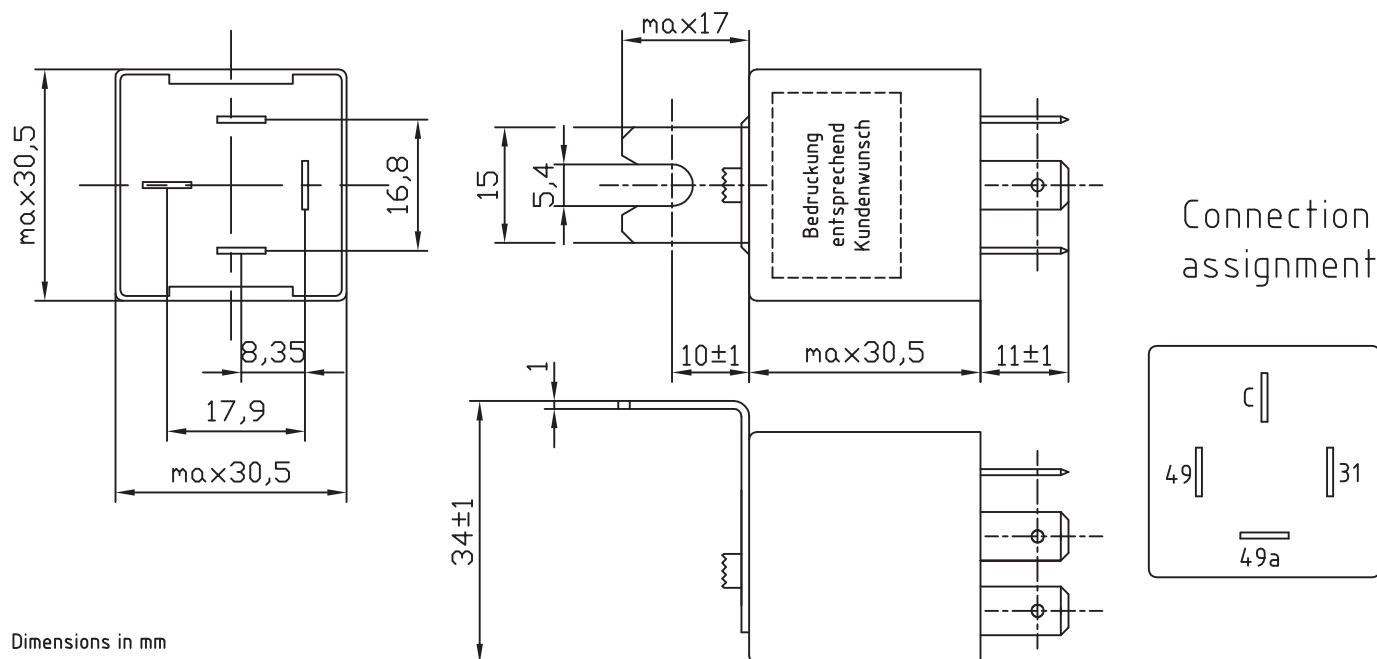
Order number.: 41 9 0112

<u>Nominal voltage:</u>	12 VDC
<u>Usage:</u>	Suitable for passenger cars and commercial vehicles without trailer
<u>Functions:</u>	Direction indication 2 x 21W+(0...5)W Warning flashing 4 x 21W+(0...5)W Control 1,2...2 W
<u>Control of functions:</u>	Failure of a flashing light 21W: C-Control Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Protection degree:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operation voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Immunity and emitted interference according to guideline 72/245/EWG
<u>Operation temperature:</u>	-40°C...+85°C
<u>Connection:</u>	according to 41 9 0113 S page 2
<u>Installation:</u>	Plug base resp. central electronics

Connections for the single circuit flasher 2(4)x21W+0...5(0...10)W



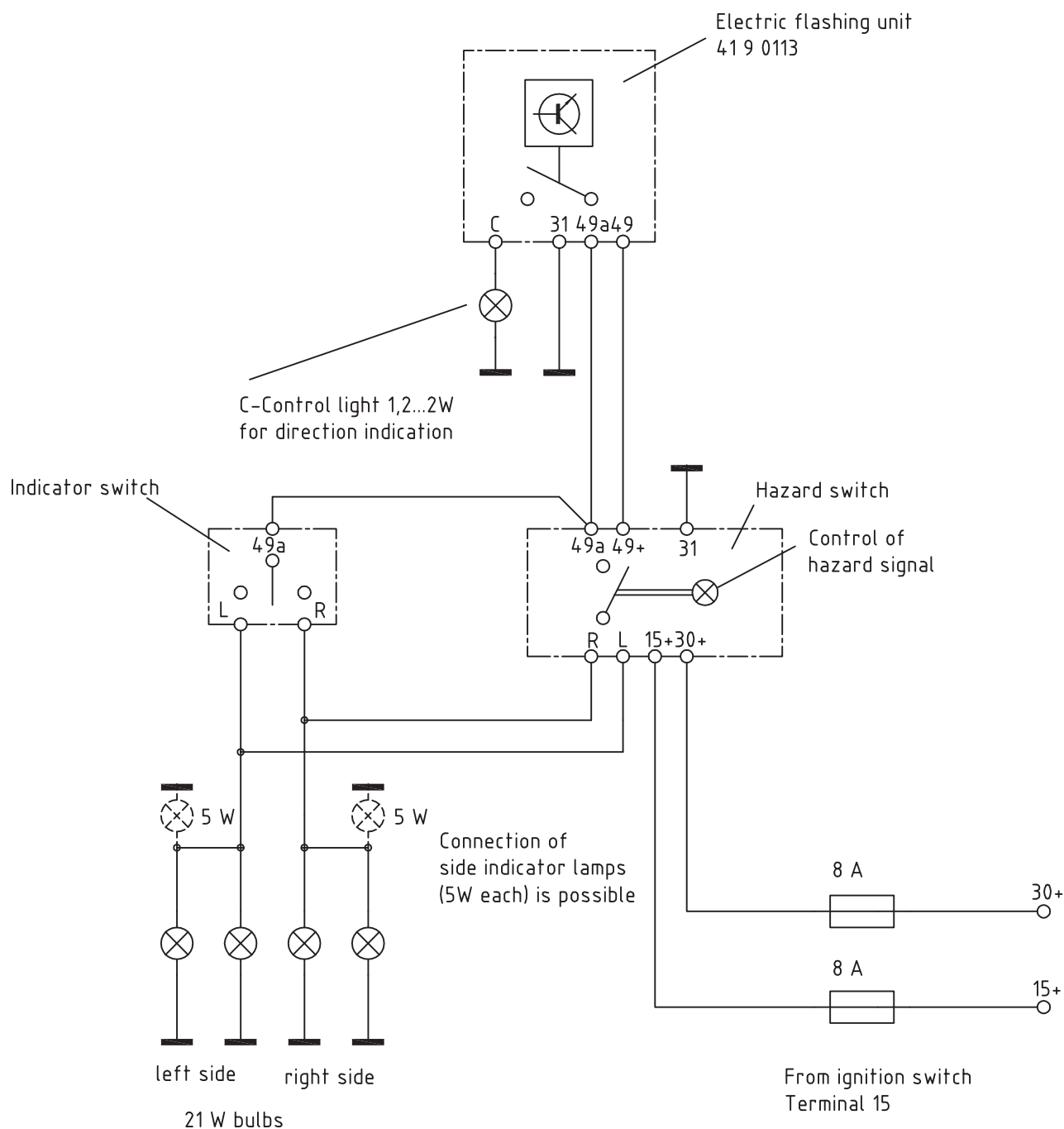
Specification Flasher Unit 12V 2(4)x21W+0...5(0...10)W

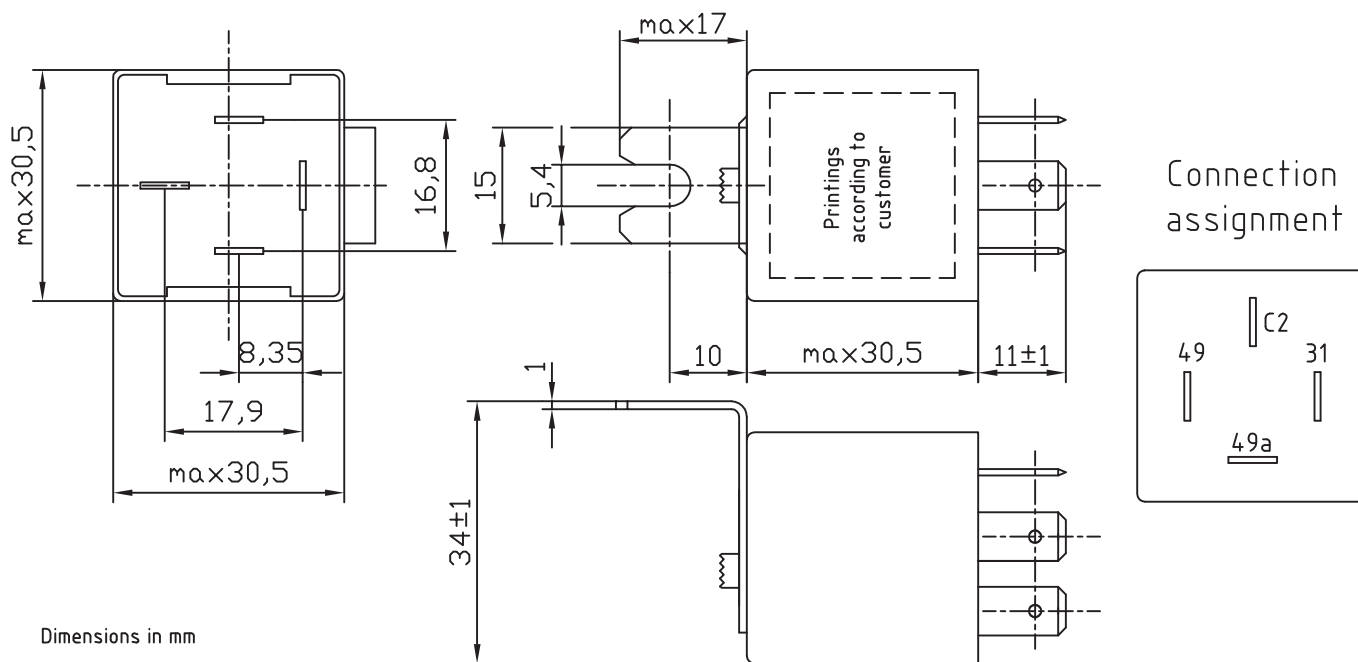


Order number: 41 9 0113

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles without trailer
<u>Functions:</u>	Direction indication 2 x 21W+(0...5)W Warning flashing 4 x 21W+(0...5)W Control 1,2...2 W
<u>Control of functions:</u>	Failure of a flashing light 21W: C-Control frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0113 S Page 2
<u>Installation:</u>	Terminals downwards, protect against moisture and coarse dirt

Connections for the single circuit flasher 2(4)x21W+0...5(0...10)W

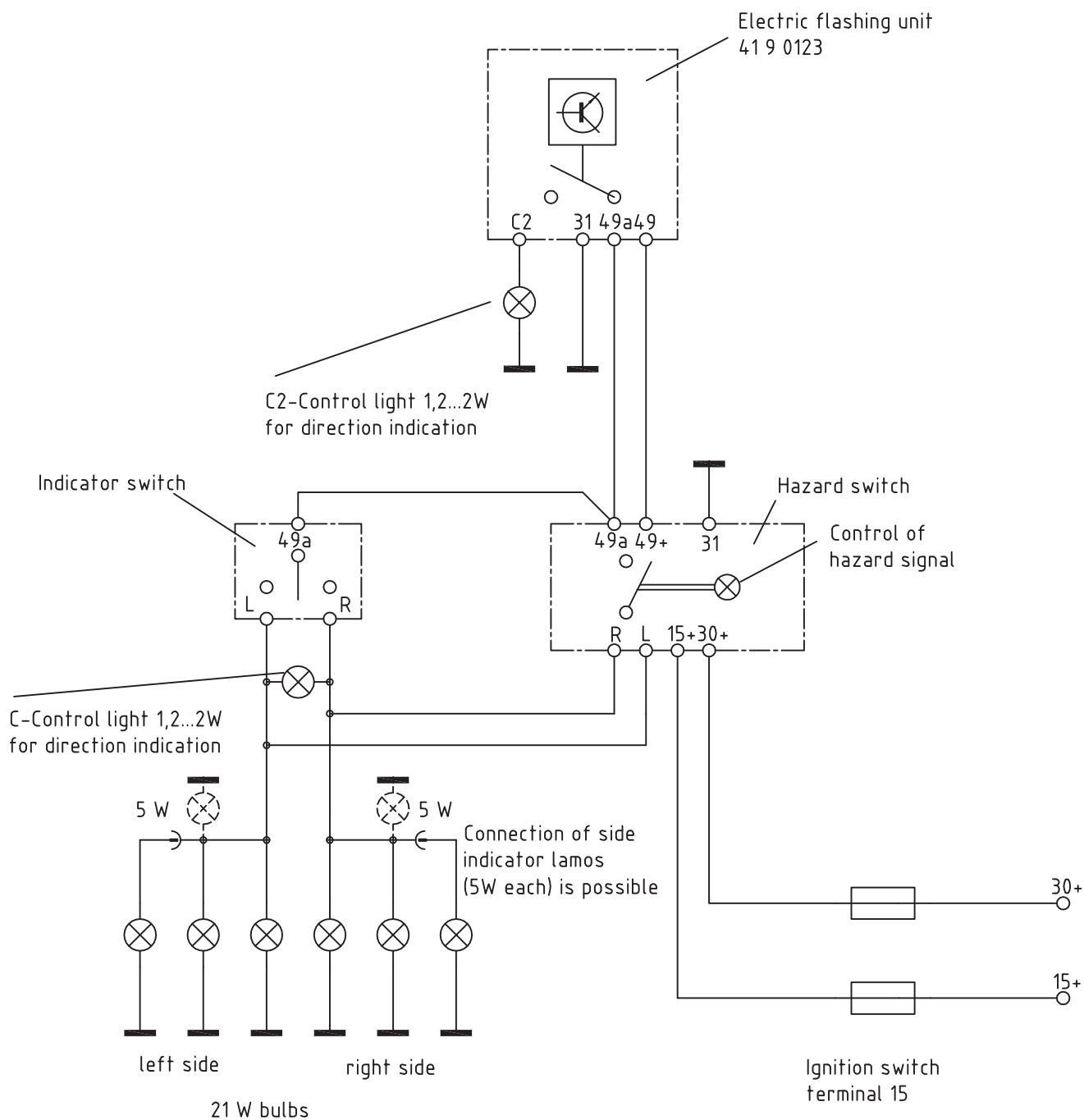


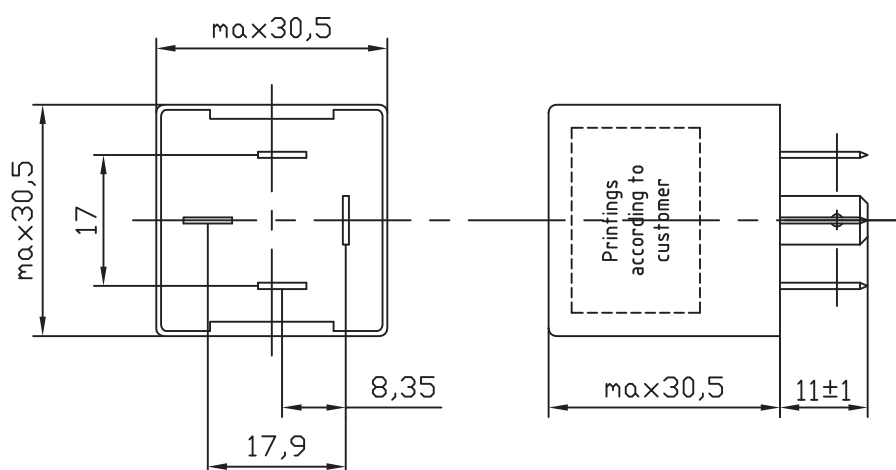


Order number: 41 9 0123

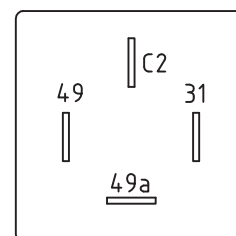
<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control 1,2...2W
<u>Control of functions:</u>	Control for passenger cars or commercial vehicles without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger cars or commercial vehicles with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092 6,3x0,8 OH
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to Page 2
<u>Installation:</u>	On plug base resp. central electronics Protect against wet and dirt

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W





Connection assignment

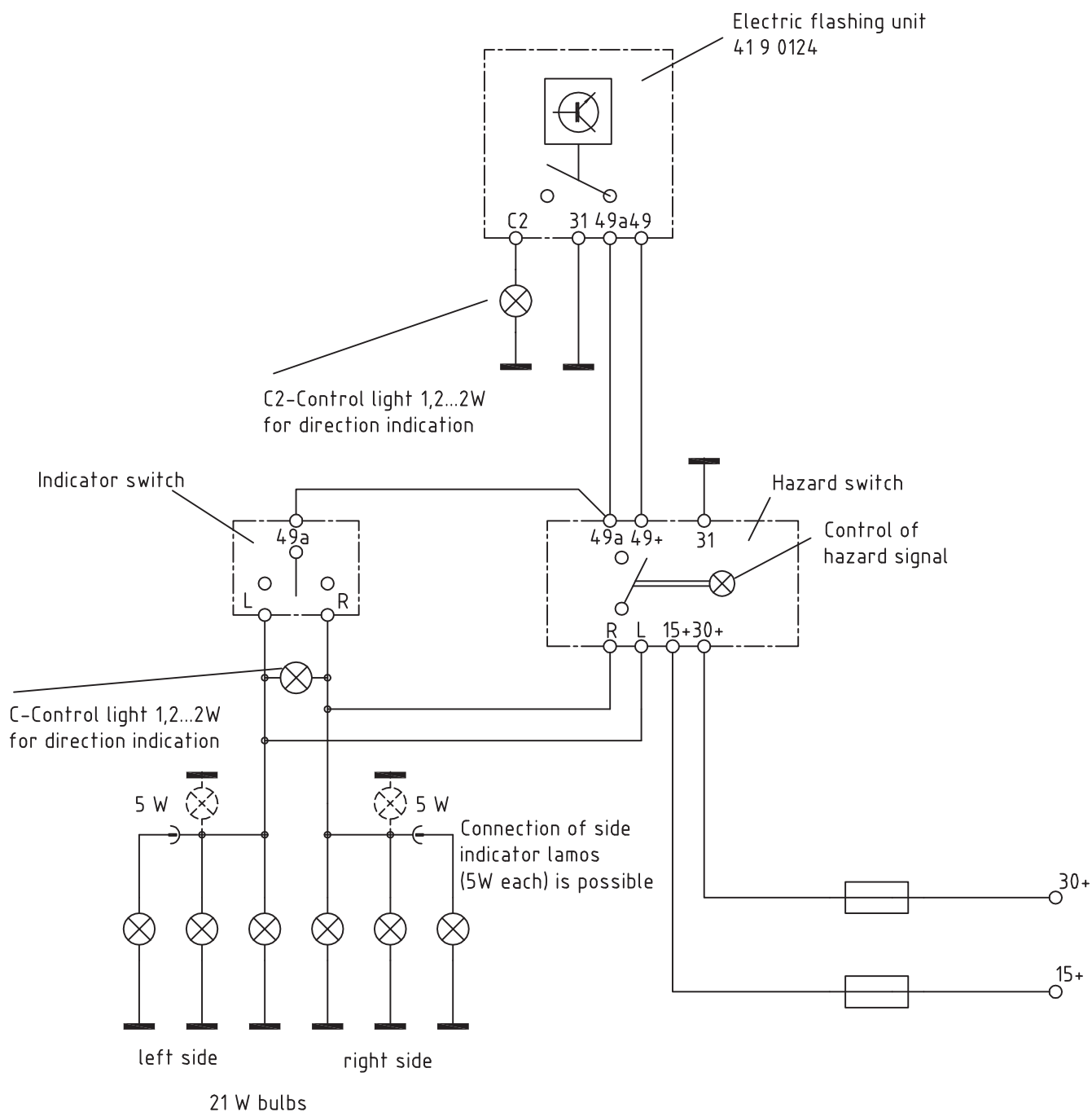


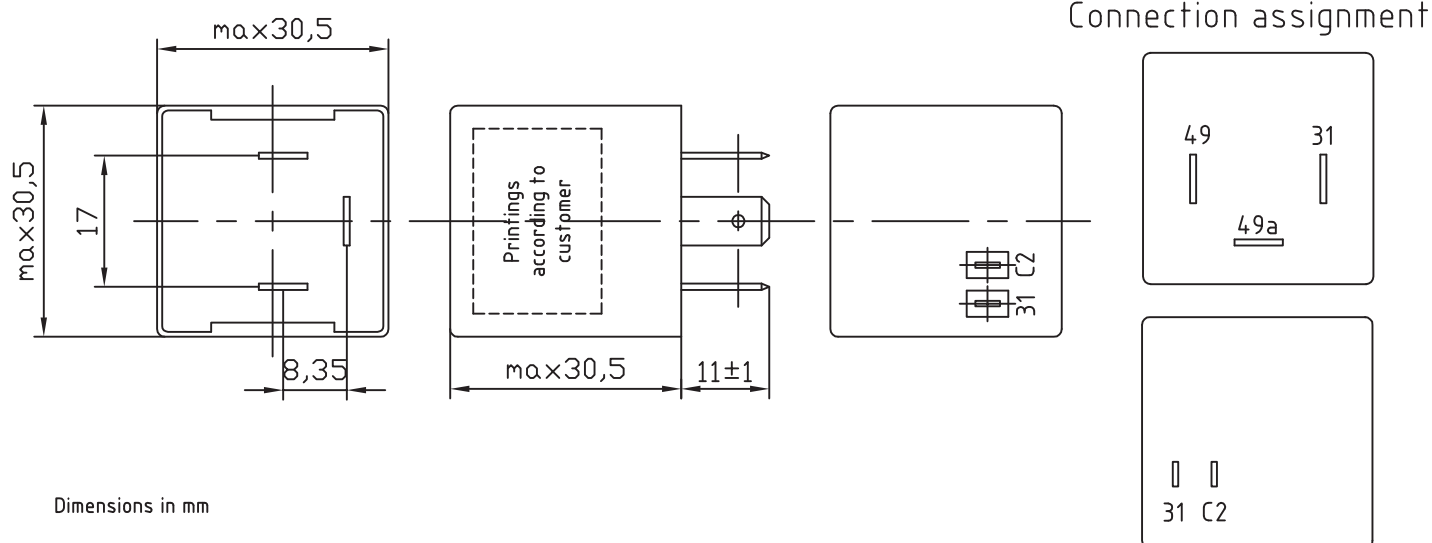
Dimensions in mm

Order number: 41 9 0124

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control 1,2...2W
<u>Control of functions:</u>	Control for passenger cars or commercial vehicles without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger cars or commercial vehicles with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Anschluß:</u>	According to 41 9 0124 S Page 2
<u>Installation:</u>	On plug base resp. central electronics

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W

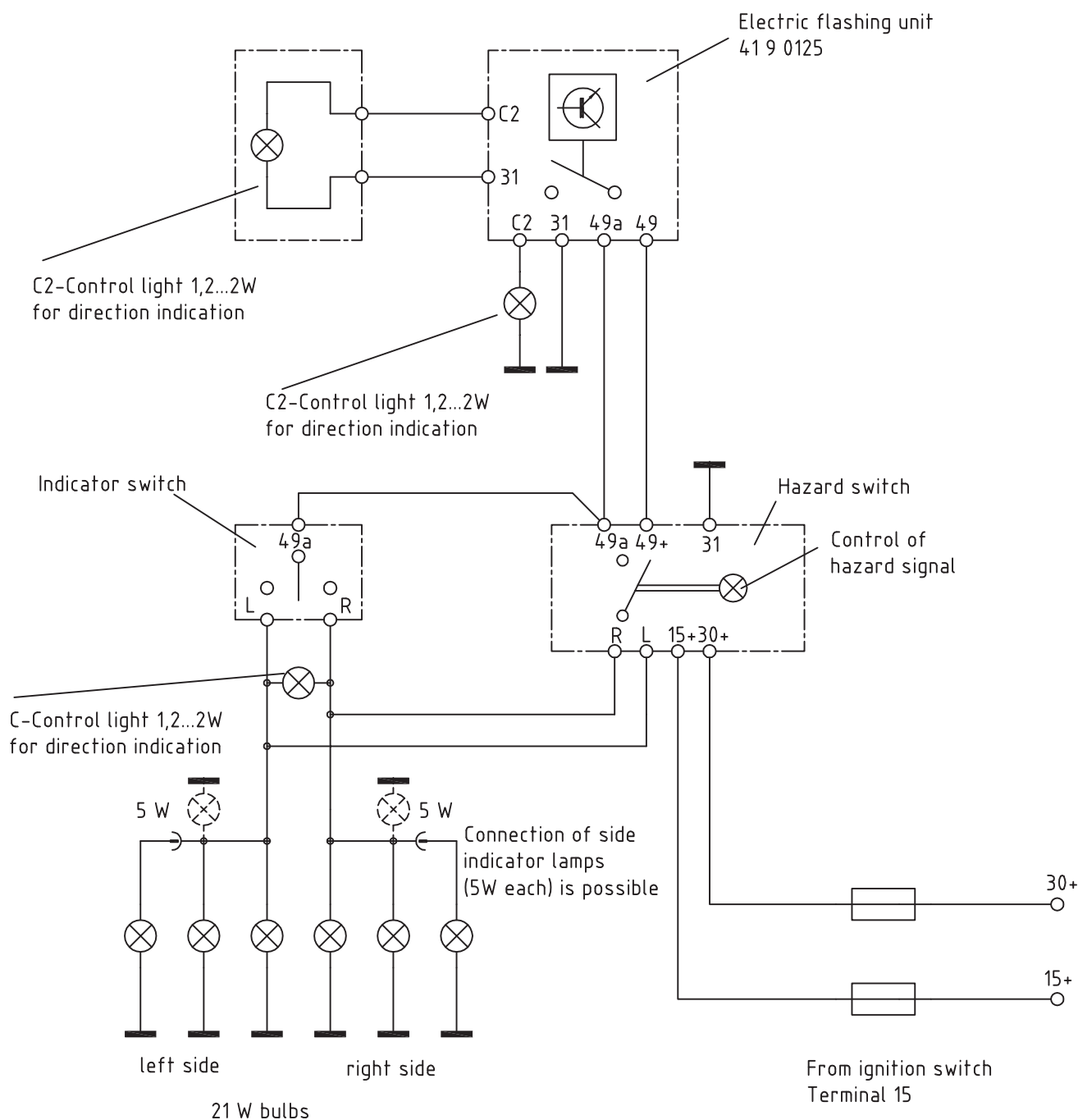


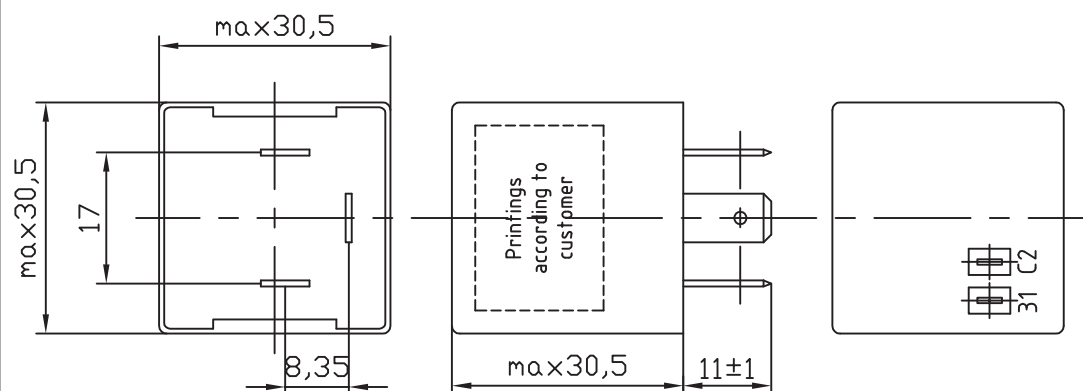


Order number: 41 9 0125

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control 1,2...2W
<u>Control of functions:</u>	Control for passenger cars or commercial vehicles without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger cars or commercial vehicles with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 2,8x0,5 OH / 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0125 S Page 2
<u>Installation:</u>	On plug base resp. central electronics, C2-Control with sleeve 2,8-0,5 according to DIN 46 247-1 at backside of device

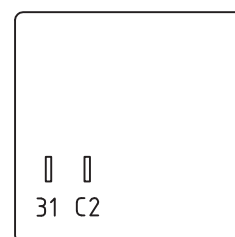
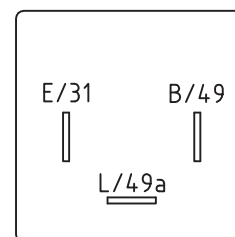
Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W





Dimensions in mm

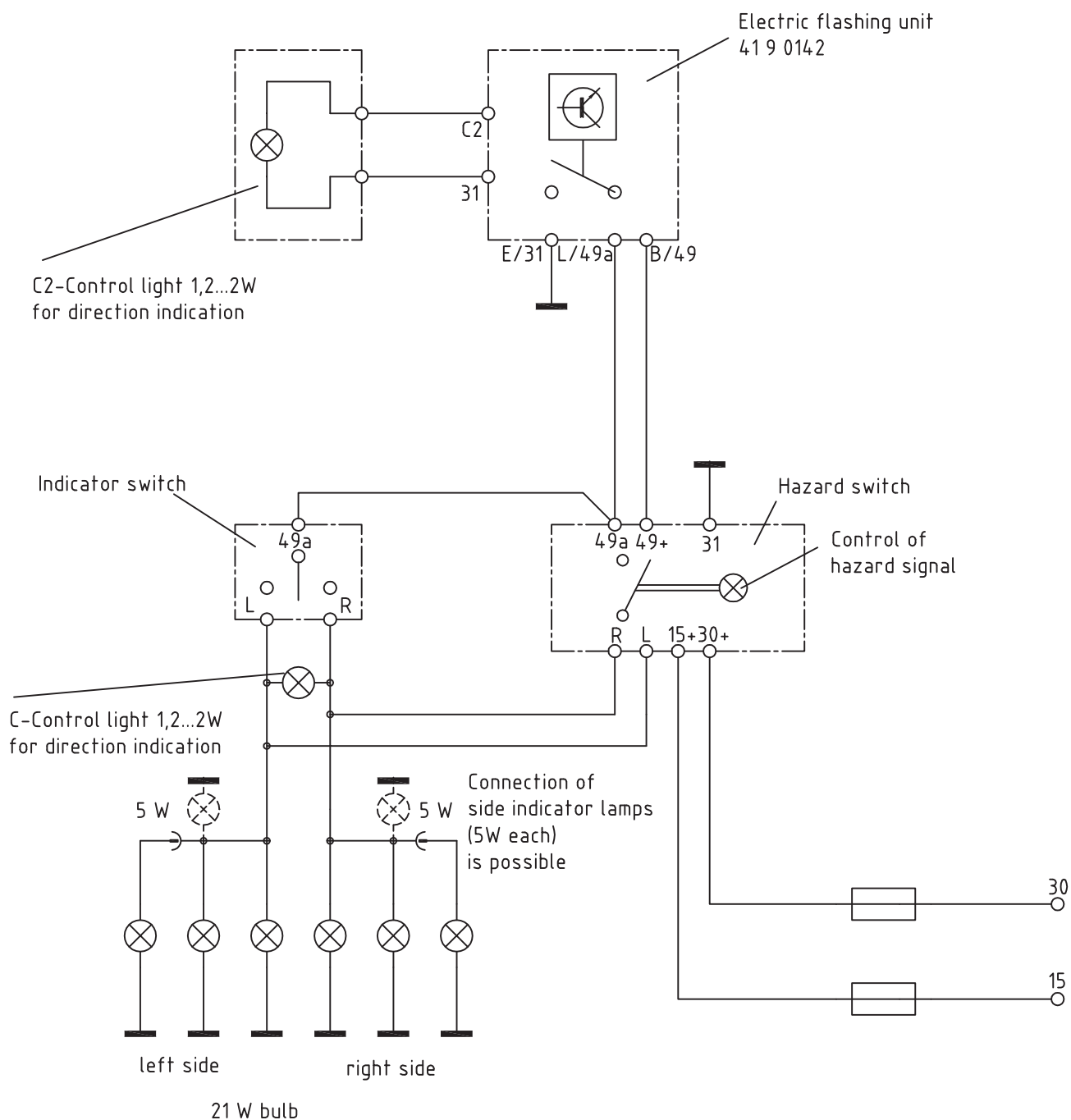
Connection

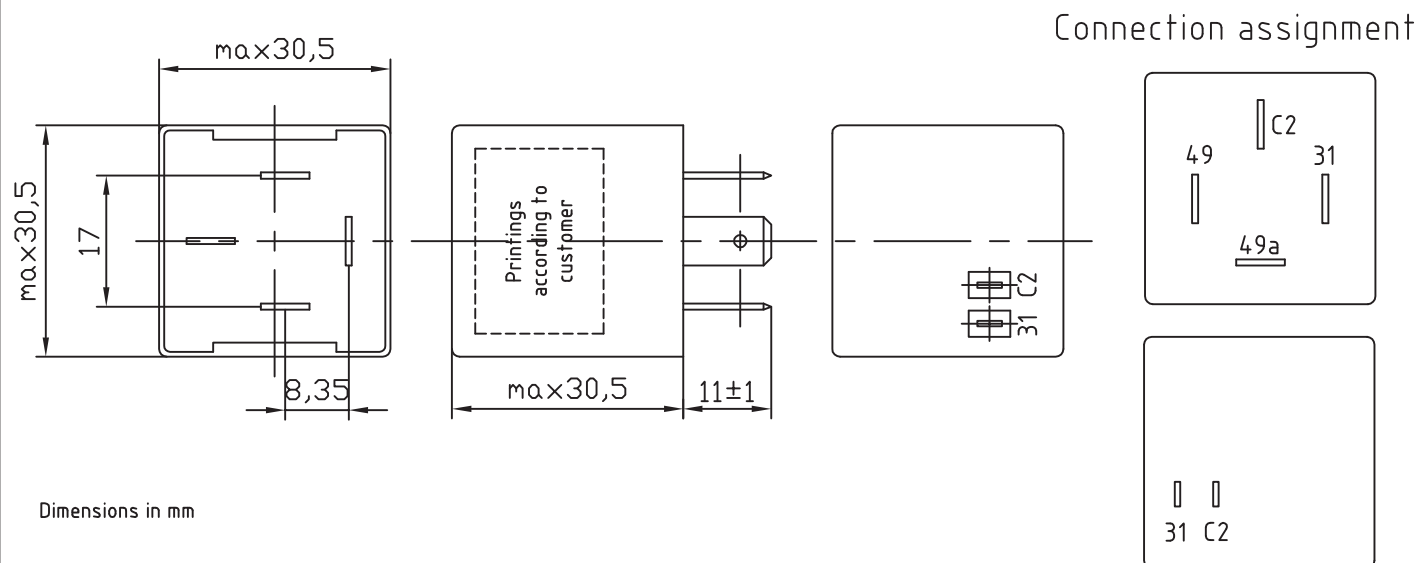


Order number: 41 9 0142

<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Connection values:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control C2 1,2...2W
<u>Control of functions:</u>	Control for passenger cars or commercial vehicles without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger cars or commercial vehicles with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100% Control output C2 is short-circuit-proof.
<u>Compliance:</u>	The device complies with ISO 4082 plastic housing with fixation bracket ISO 7588-Cc, terminals according to DIN EN ISO 8092-1 2,8x0,5 OH/6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±15 flashes per minute for direction flashing and warning flashing
<u>Duration of light pulse:</u>	40%...55%
<u>Operating voltage:</u>	21 VDC...30 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according 72/245/EWG and ISO 7637-2
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to page 2
<u>Installation:</u>	On plug base resp. central electronics, C2-Control with push-on contact 2,8-0,5 according to DIN 46 247-1 on backside of the device

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W

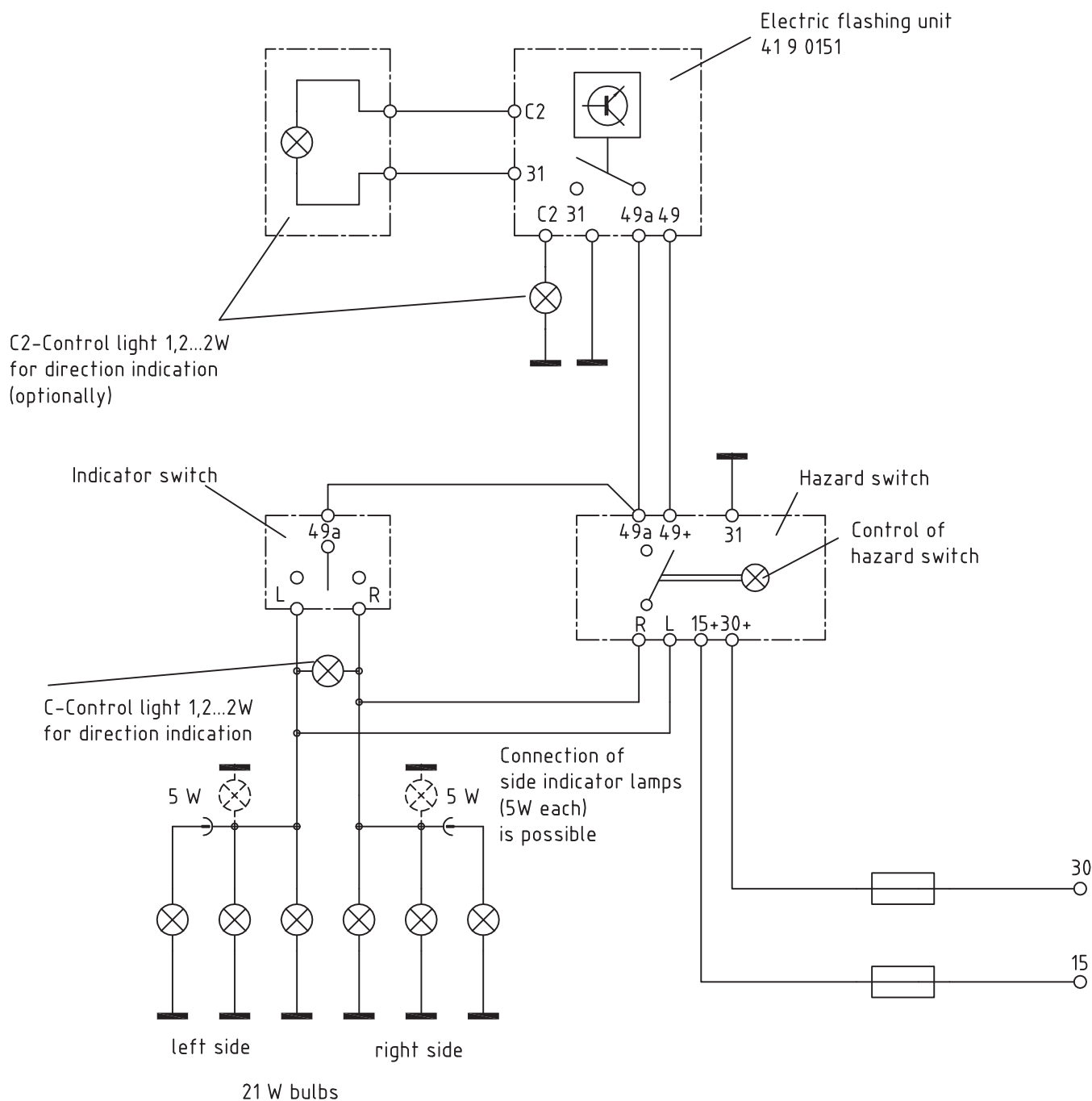


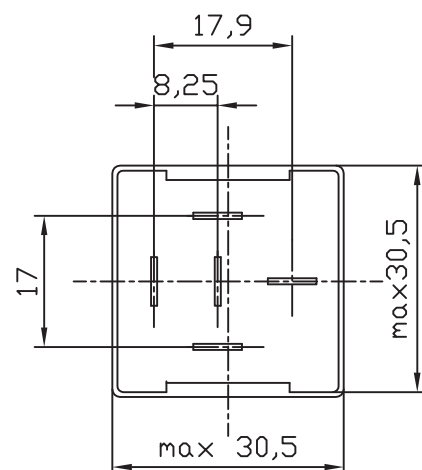
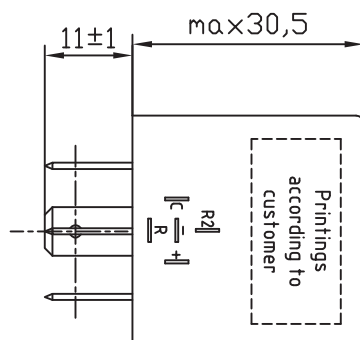
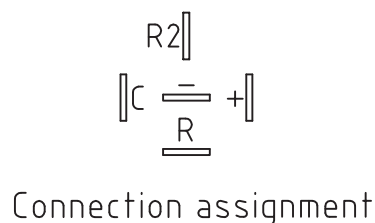


Order number: 41 9 0151

<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control C2 1,2...2W
<u>Control of functions:</u>	Control for passenger car or commercial vehicle without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger car or commercial vehicle with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 2,8x0,5 OH/6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction flashing and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according 72/245/EWG
<u>Operating temperature:</u>	-40°C...+85°C
<u>Connection:</u>	According to page 2
<u>Installation:</u>	On plug base resp. central electronics, optionally C2-control by means of push-on contact 2,8 according to DIN 46 247-1 on backside of the device

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W



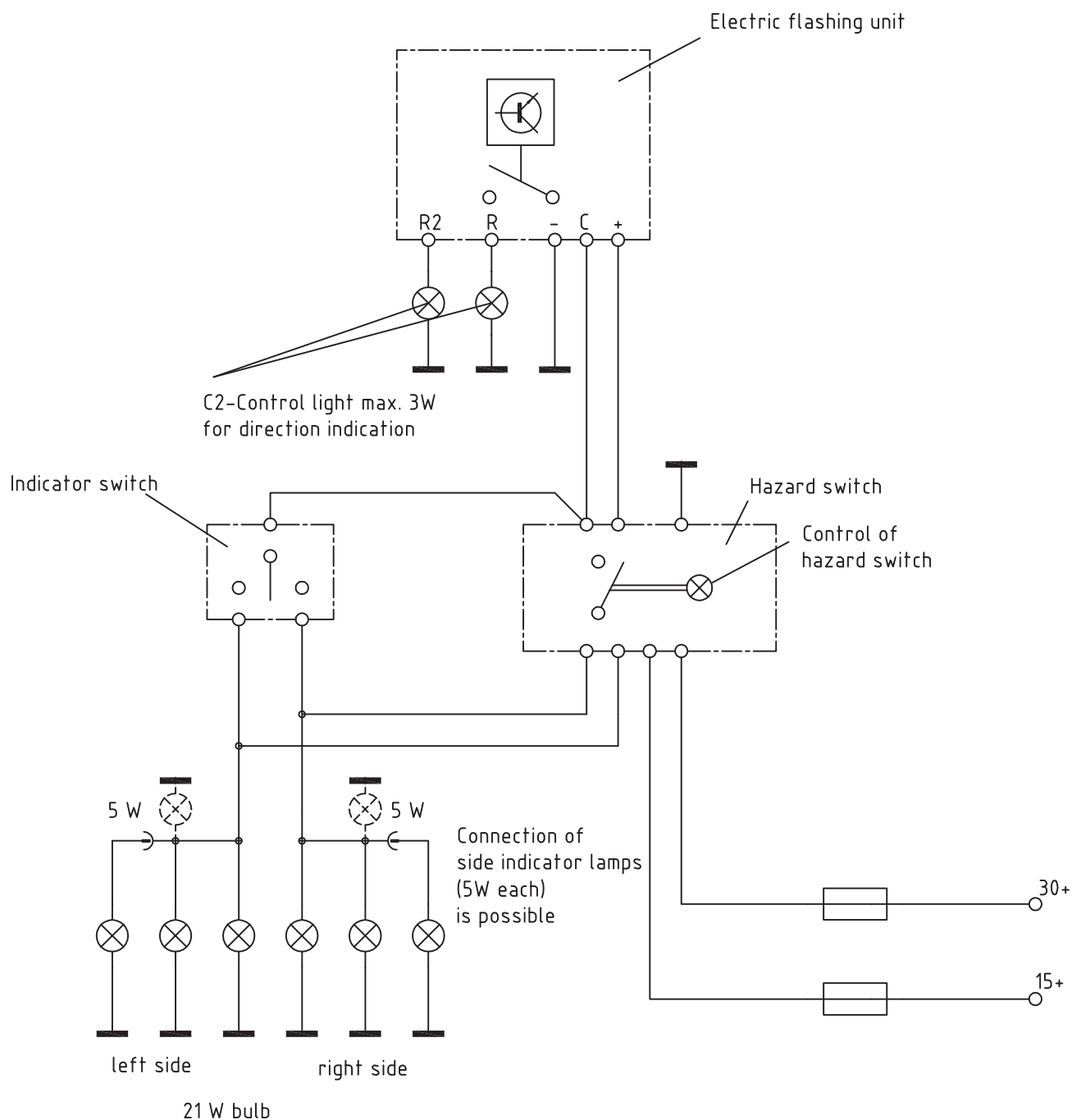


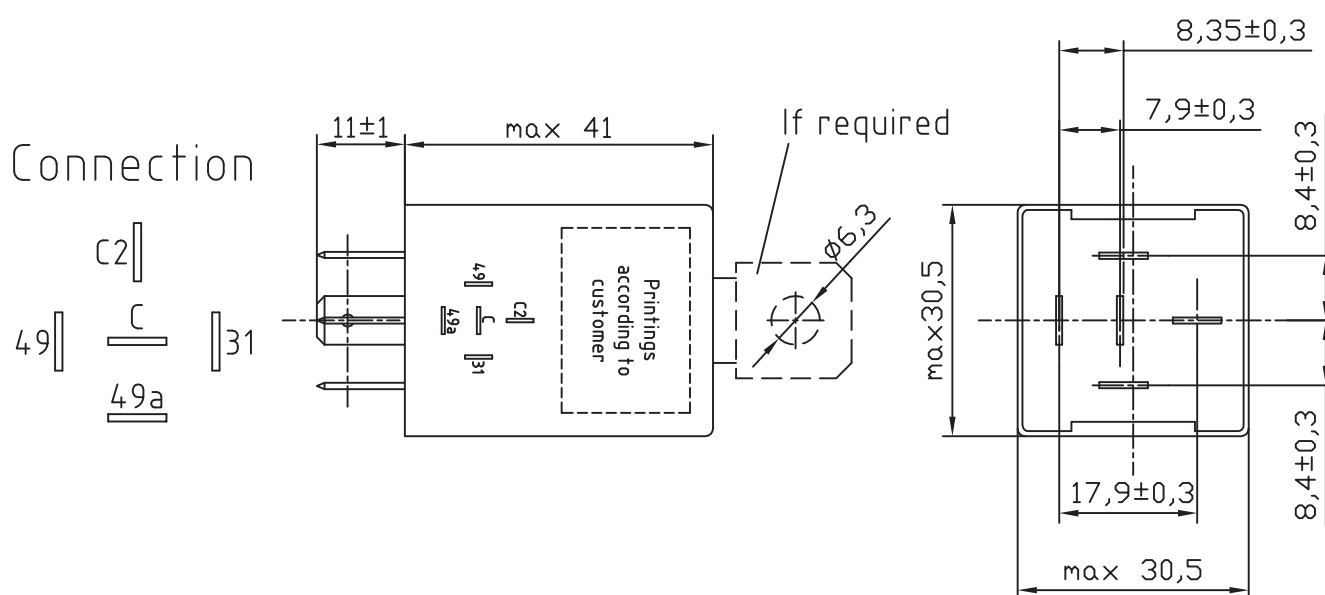
Dimensions in mm

Order number: 41 9 0159

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Connection values:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control max. 3W
<u>Control of functions:</u>	Control for passenger car or commercial vehicle without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger car or commercial vehicle with trailer: Failure of a flashing light 21W: R2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 95/54/EWG
<u>Operating temperature:</u>	-40°C...+85°C
<u>Connection:</u>	According to page 2
<u>Installation:</u>	On plug base resp. central electronics

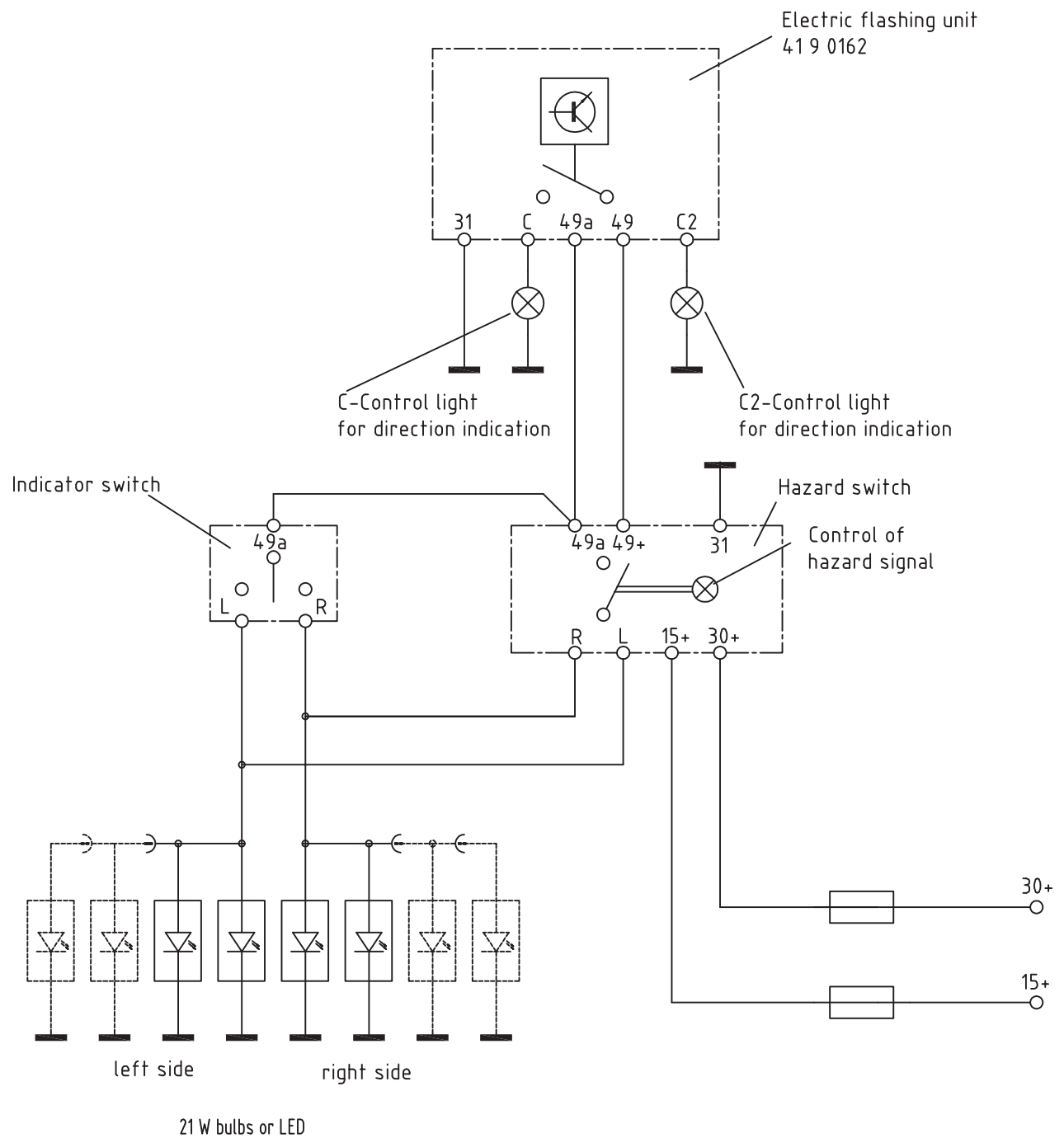
Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W



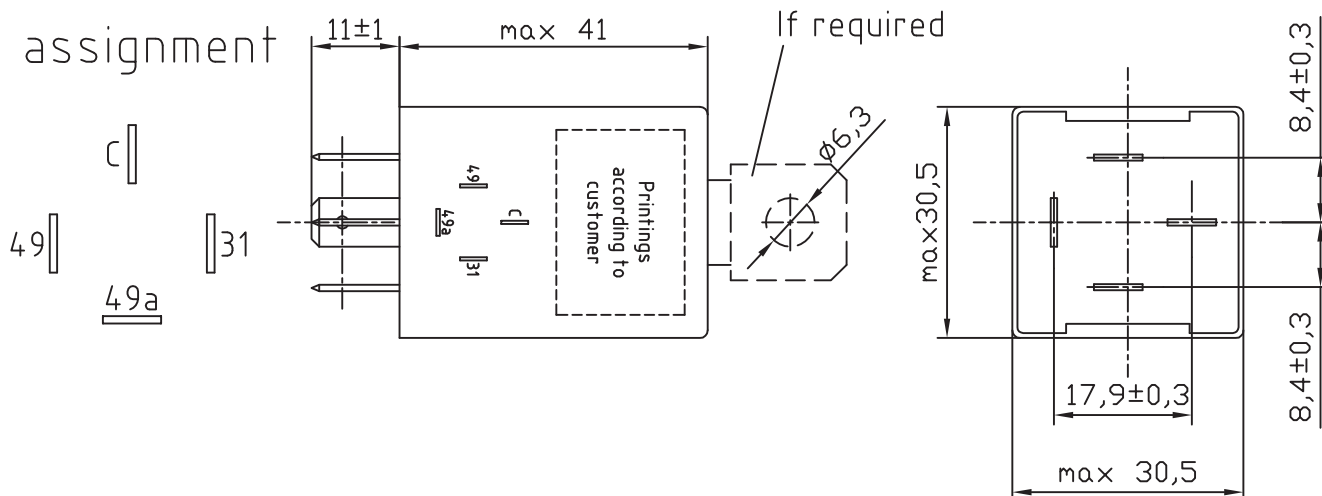


Order number: 41 9 0162

<u>Nominal voltage:</u>	12V
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without one or two trailers
<u>Functions:</u>	Direction indication: (2+1+1)x21W or LED-Lights, freely combinable Warning flashing: 8x21W or LED-Lights Control: max 3W
<u>Control of functions:</u>	Control for passenger car or commercial vehicle without trailer: Failure of a flashing light or LED: Frequency increase = 100% Control for passenger car or commercial vehicle with trailer: Failure of a flashing light or LED: C2-Control remains dark Failure of two flashing lights or LED: C2 and C1-Controls remain dark Failure of three flashing lights or LED: Frequency increase = 100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 53 DIN 40050-9
<u>Frequency:</u>	90 ± 30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40...75%
<u>Operating voltage:</u>	10..15VDC
<u>Function voltage:</u>	11...14VDC
<u>Overvoltage protection:</u>	80V
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG, ISO 7637-2DIS 2000
<u>Operating temperature:</u>	-40...+85°C
<u>Electrical connection:</u>	According to page 2
<u>Installation:</u>	On plug socket

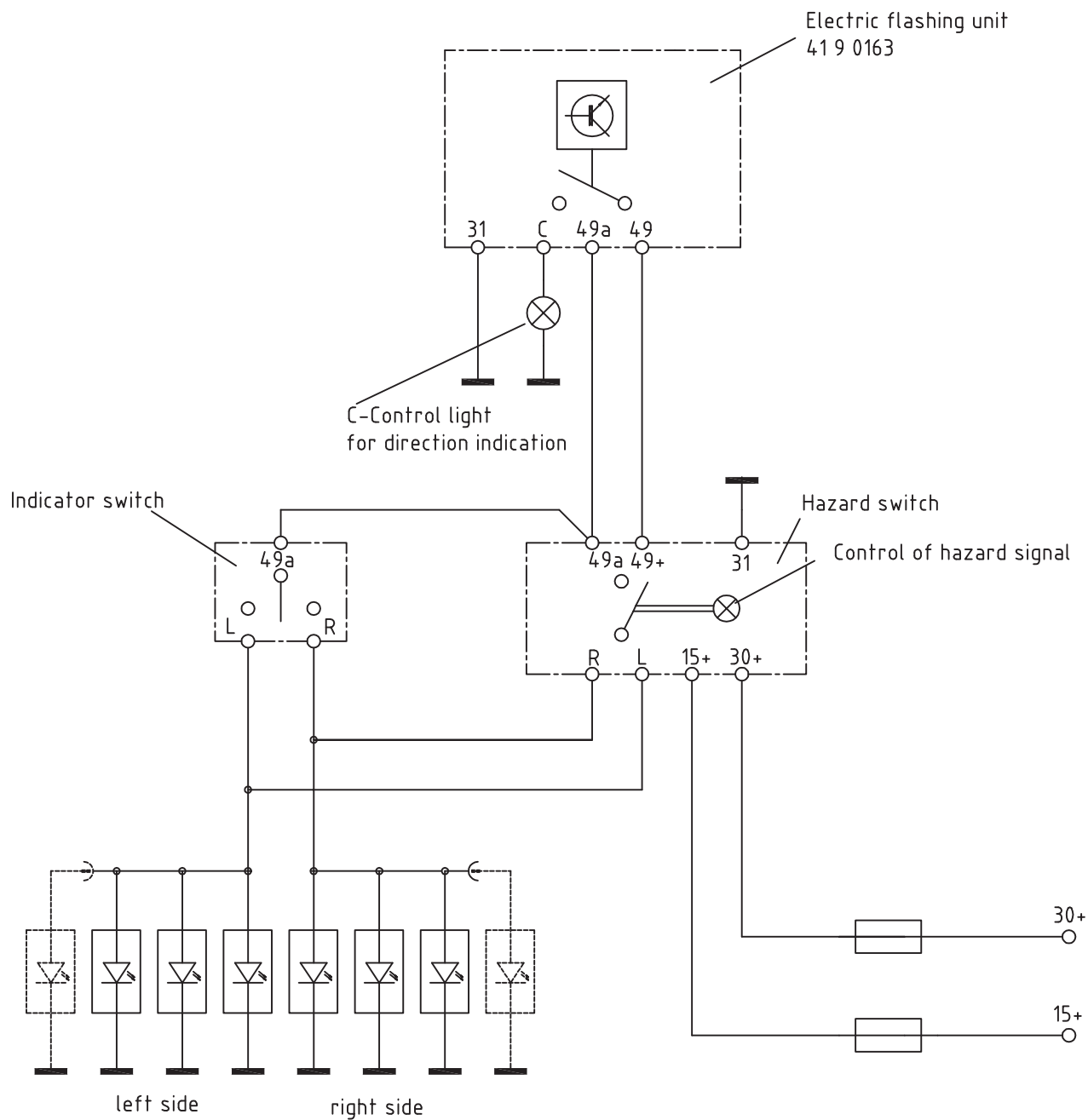


Connection assignment



Order number: 41 9 0163

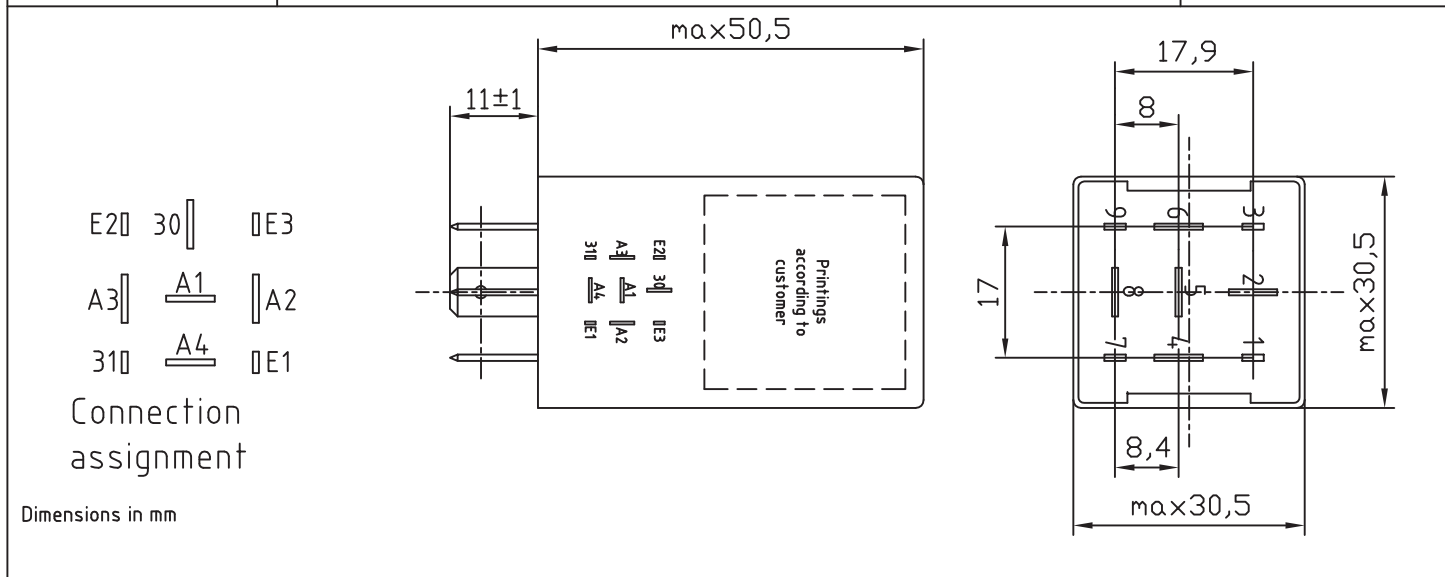
<u>Nominal voltage:</u>	12V
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with or without trailer
<u>Functions:</u>	Direction indication: (3+1) x 21W or LED- Lights, bulbs and LED- Lights freely combinable Warning flashing: 8x21W or LED- Lights Control: max 3W
<u>Control of functions:</u>	Passenger car or commercial vehicle without trailer: Failure of a flashing light or LED: Frequency increase =100% Passenger car or commercial vehicle with trailer: Failure of a flashing light or LED: C-Control remains dark Failure of two flashing lights or LEDs: Frequency increase =100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 53 DIN 40050-9
<u>Frequency:</u>	90 ± 30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40...75%
<u>Operating voltage:</u>	10VDC...15VDC
<u>Function voltage:</u>	11VDC...14VDC
<u>Overvoltage protection:</u>	80V
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 72/245/EWG, ISO 7637-2DIS 2000
<u>Operating temperature:</u>	40...+85°C
<u>Electrcal connection:</u>	According to 41 9 0163 S Page 2
<u>Installation:</u>	On socket



Choice between 21W bulbs or LED-Lights, freely combinable

Operarting voltage: 10... 15 Volt

Function voltage: 11... 14 Volt



Order number: 41 9 0169

Nominal voltage:

12 VDC

Usage:

suitable for tractor according to North American regulations

Functions:

Input signals:

E1 = Warning flashing, terminal 30 from Hazard switch

E2 = direction indication left, terminal 15 from indicator switch

E3 = direction indication right, terminal 15 from indicator switch

Output signals:

A1 = Warning flashing left, P max = 110W

A2 = Warning flashing right, P max = 110W

A3 = turn signal left, P max = 50W

A4 = turn signal, P max = 50W

Functions:

Warning flashing:

Warning flashing lights front/rear and optional additional lamps front/rear

flashing with a Frequency of (60...85) Imp/min

direction indication left

Warning flashing left front/rear and optional additional lamps front/rear

such as die flash light turning left

with frequency of (80...105) Imp/min.

flashing lights on the right side light continuously.

direction indication right

according to direction indication left

Compliance:

plastic housing with fixation bracket ISO 7588,

Terminals according to

DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8-OH.

Duration of light pulse:

50%...75%

Operating voltage:

8 VDC...16 VDC

Over voltage strength:

26V (5min)

Operating temperature:

-30°C...+80°C

Electromagnetic compatibility:

according to 75/322/EWG

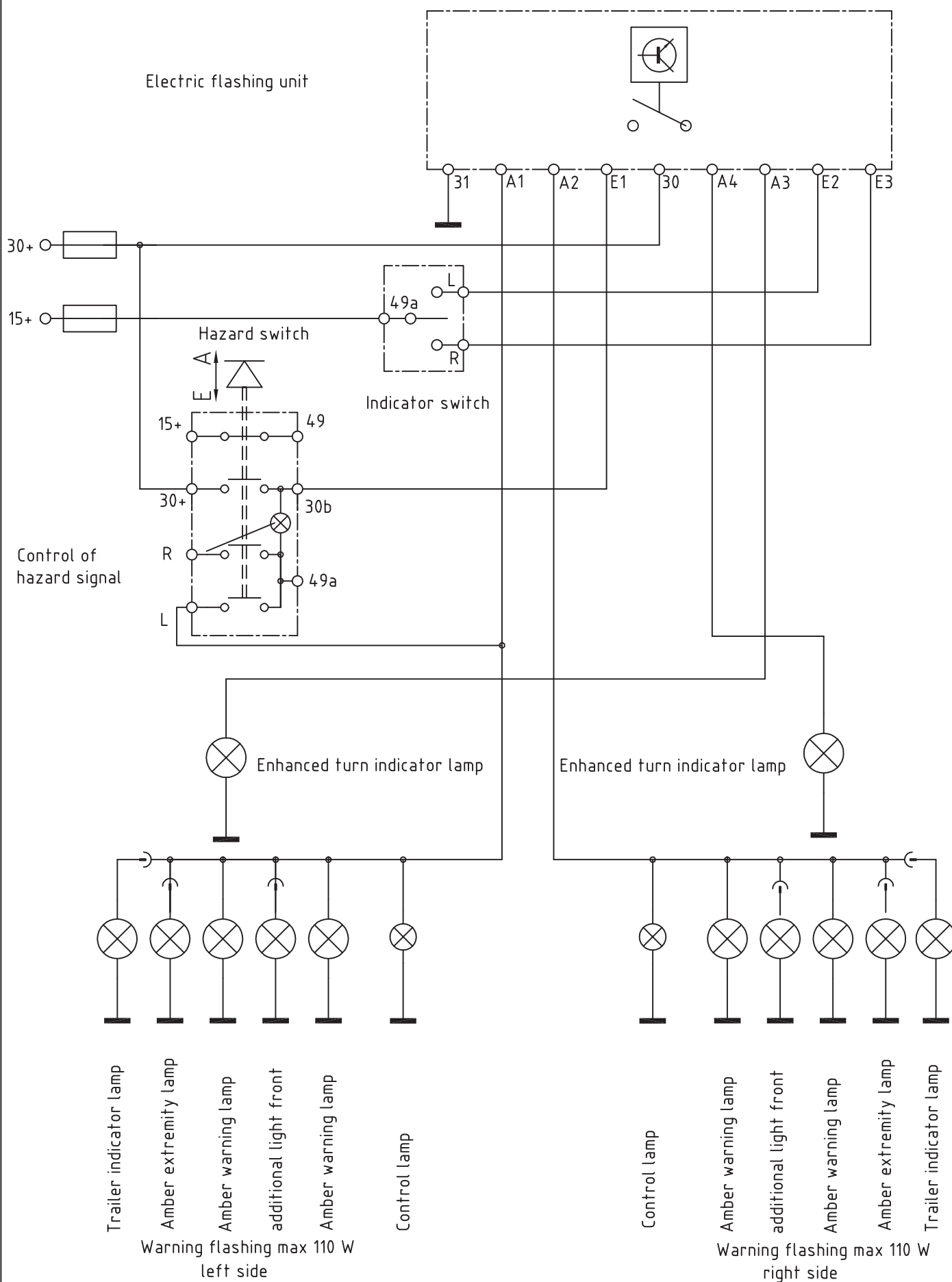
Connection:

according to 41 9 0169 S Page 2

Installation:

Plug base resp. central electronics

Connection for flasher lights



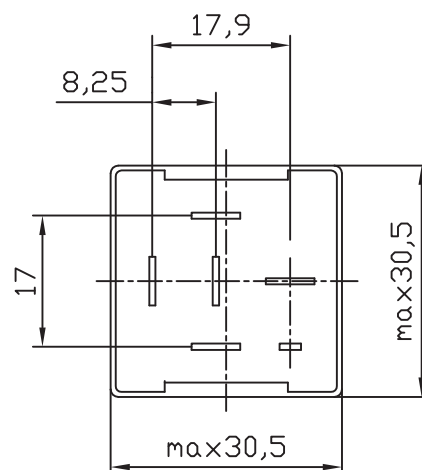
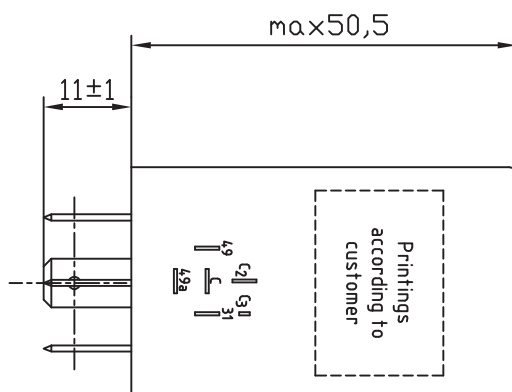
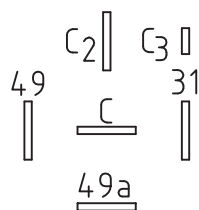
Specifications

Flasher Unit

(2+1+1(+1))x21W bzw. 10x21W

41 9 0170 S
Page 1

Connection assignment



Dimensions in mm

Order number: 41 9 0170

Nominal voltage:

12V

Application:

Suitable for passenger cars and commercial vehicles without or up to two trailers

Installation of an additional front device possible (single circuit flasher)

Functions:

Direction indication: (2+1+1) x 21W or (2+1+1+1)x21W

Warning flashing: 8x21W or 10x21W

Control: 1,2W...2W

Control of functions

Failure of a flashing light (2+1+1)x21W:

C3-Control remains dark

Failure of a flashing light (2+1)x21W:

C3- and C2-Controls remain dark

Failure of a flashing light 2x21W:

C3- and C2-Controls remain dark

Compliance:

The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8 OH.

Frequency :

90 ± 30 flashes per minute for direction indication and warning flashing

Duration of light pulse:

30...75%

Operating voltage:

10VDC...16VDC

Electromagnetic compatibility:

Interference immunity and interference emissions according to 75/322/EWG

Operating temperature:

-40...+85°C

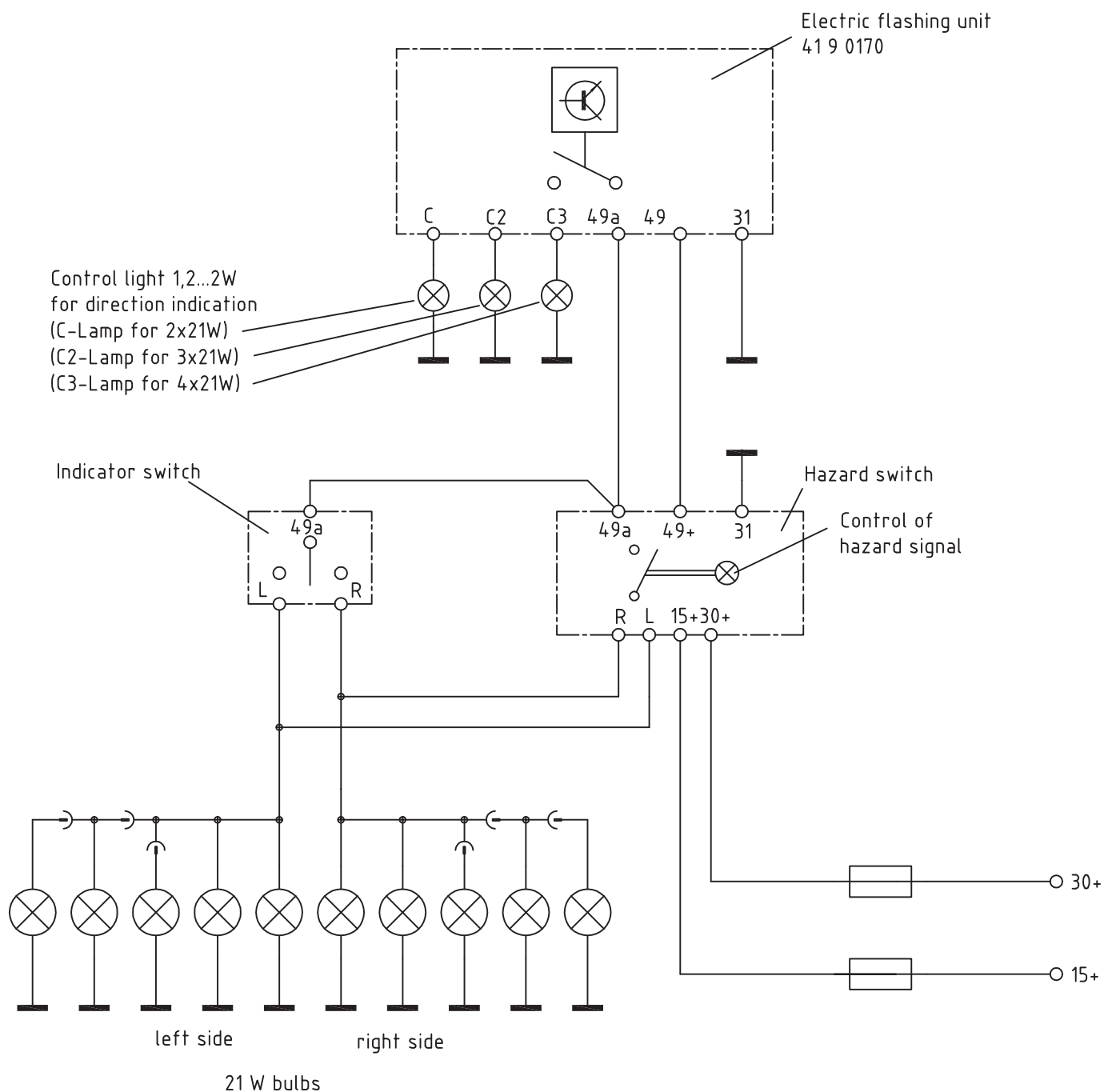
Electrical connection:

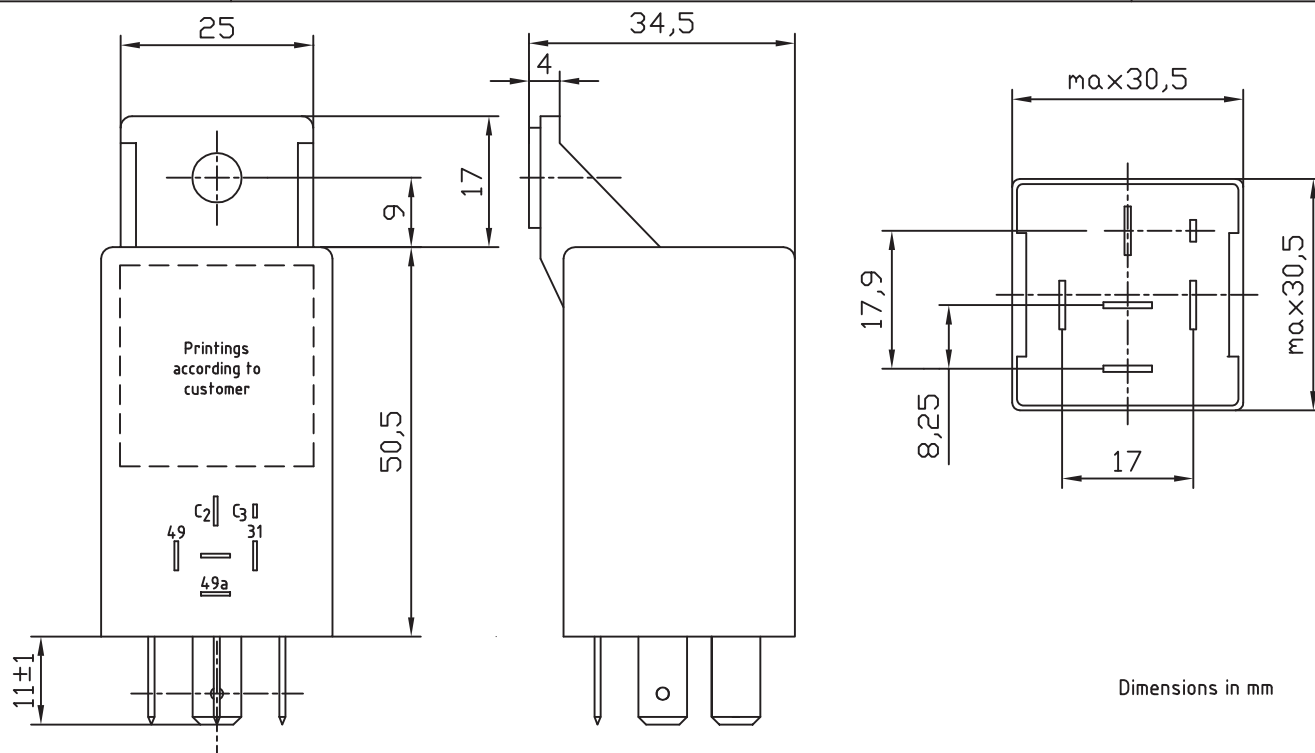
According to 41 9 0170 S Page 2

Installation:

On socket

Connections for the single circuit flasher

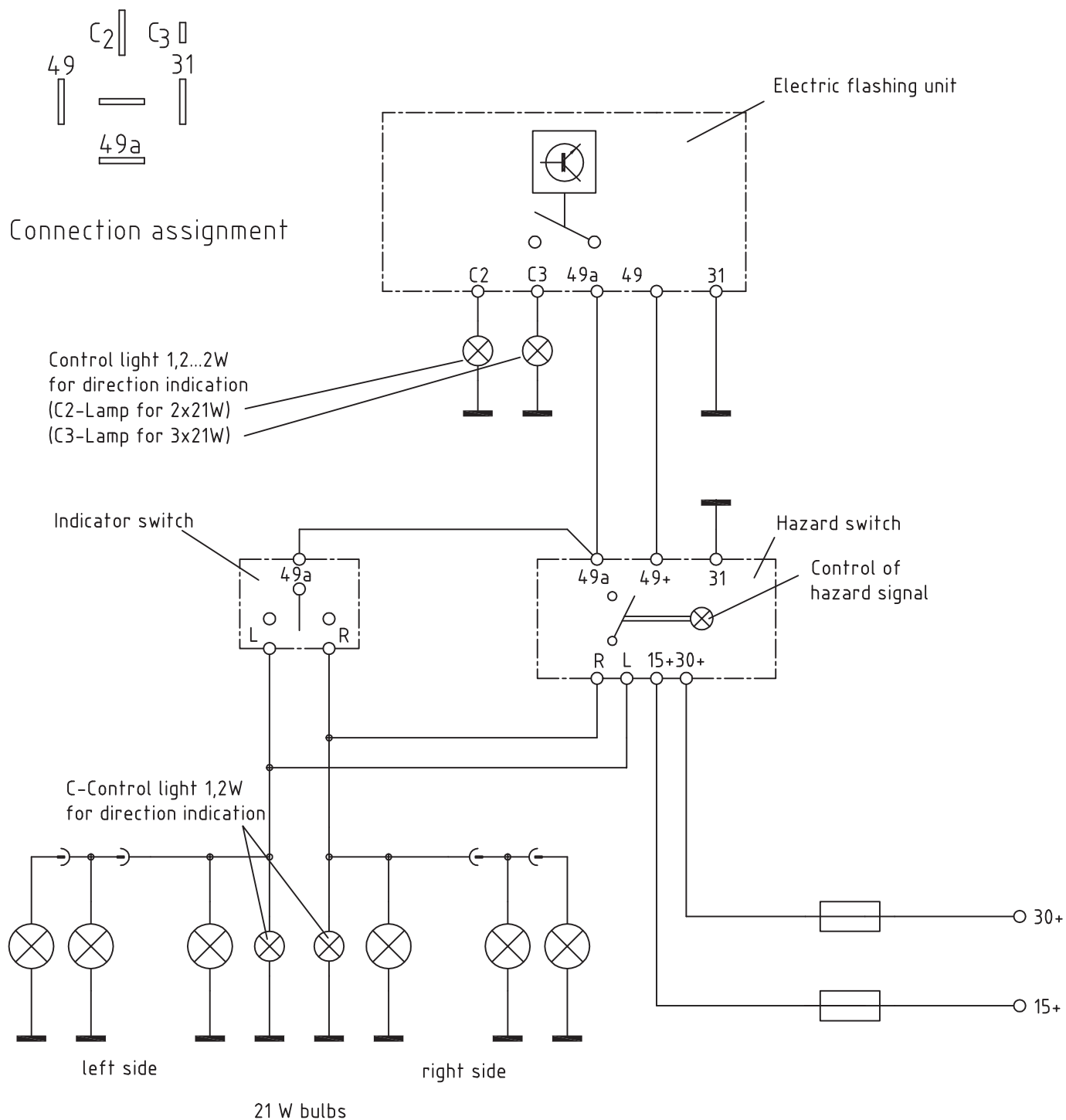


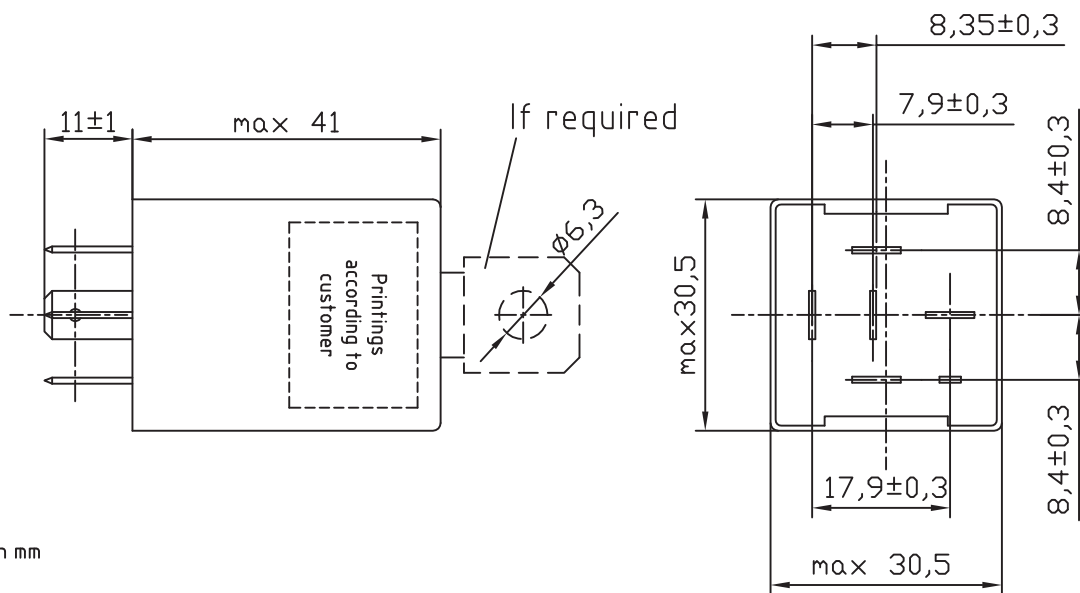


Order number: 41 9 0172

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for commercial vehicles without or up to two trailers (single circuit flasher)
<u>Functions:</u>	Direction indication (1+1+1)x21W Warning flashing 6x21W Control 1,2W
<u>Control of functions:</u>	Failure of a flashing light (2+1+1)x21W or (3+1)x21W: C3-Control remains dark Failure of a flashing light (2+1)x21W or 3x21W: C3- and C2-Controls remain dark Failure of a flashing light 2x21W: C3- and C2-Controls remain dark C-Control light: flashing frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588, Terminals according to DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8 OH.
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	30%...75%
<u>Operating voltage:</u>	10 VDC...16 VDC
<u>Electromagnetic compatibility:</u>	According to 75/322/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0172 S Page 2
<u>Installation:</u>	On socket

Connections for the single circuit flasher



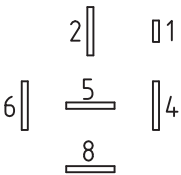


Dimensions in mm

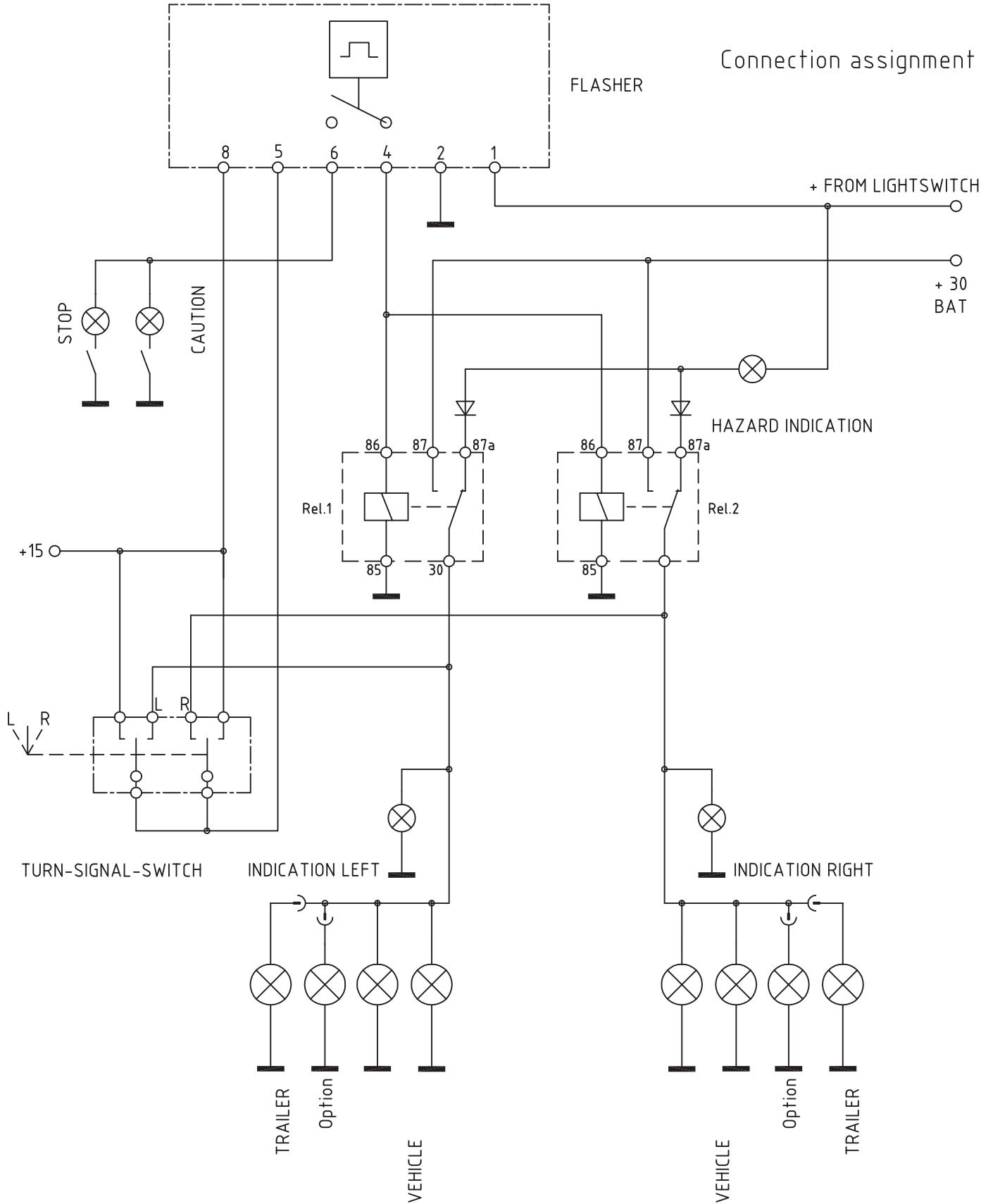
Order number: 41 9 0175

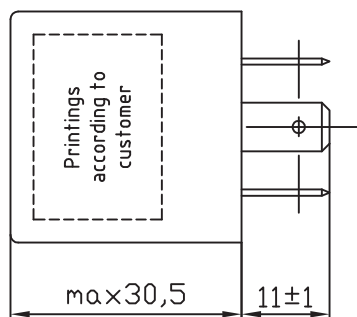
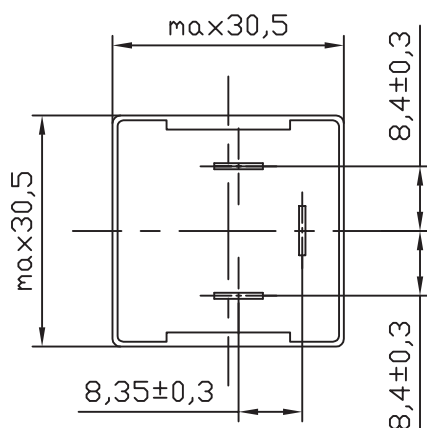
<u>Nominal Voltage:</u>	12 VDC
<u>Application:</u>	Flasher unit for SAE 137 application
<u>Functions:</u>	3 = nominal load 400mA (2 Relays) 4 = nominal load 1A (2x5W bulbs)
<u>Bulb loads:</u>	Direction indication: 3(4) x 32cp + 1 x 3W Warning flashing: 6(8) x 32cp + 2 x 3W "Stop"-bulb: 1 x 5W "Attention"-bulb: 1 x 5W
<u>Functions:</u>	Warning flashing: flashing frequency 73 Imp/min $\pm$ 10 Imp/min Direction Indication: flashing frequency 97 Imp/min $\pm$ 10 Imp/min
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588, terminals according to DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8-OH.
<u>Duration of light pulse:</u>	50% $\pm$ 5%
<u>Operating voltage:</u>	10 VDC...15 VDC
<u>Over voltage strength:</u>	26V (5min)
<u>Operating temperature:</u>	30°C...+70°C
<u>Electromagnetic compatibility:</u>	Load bounded disturbances according to DIN 40 839 Impulse 1,2,3a,3b assessment B HF-Interference up to 100 V/m 1 MHz...220 MHz no functional disturbances
<u>Degree of protection:</u>	IP 53 according to DIN 40 050-9
<u>Electrical connection:</u>	According to page 22

Connection assignment



Connection assignment





Connection assignment

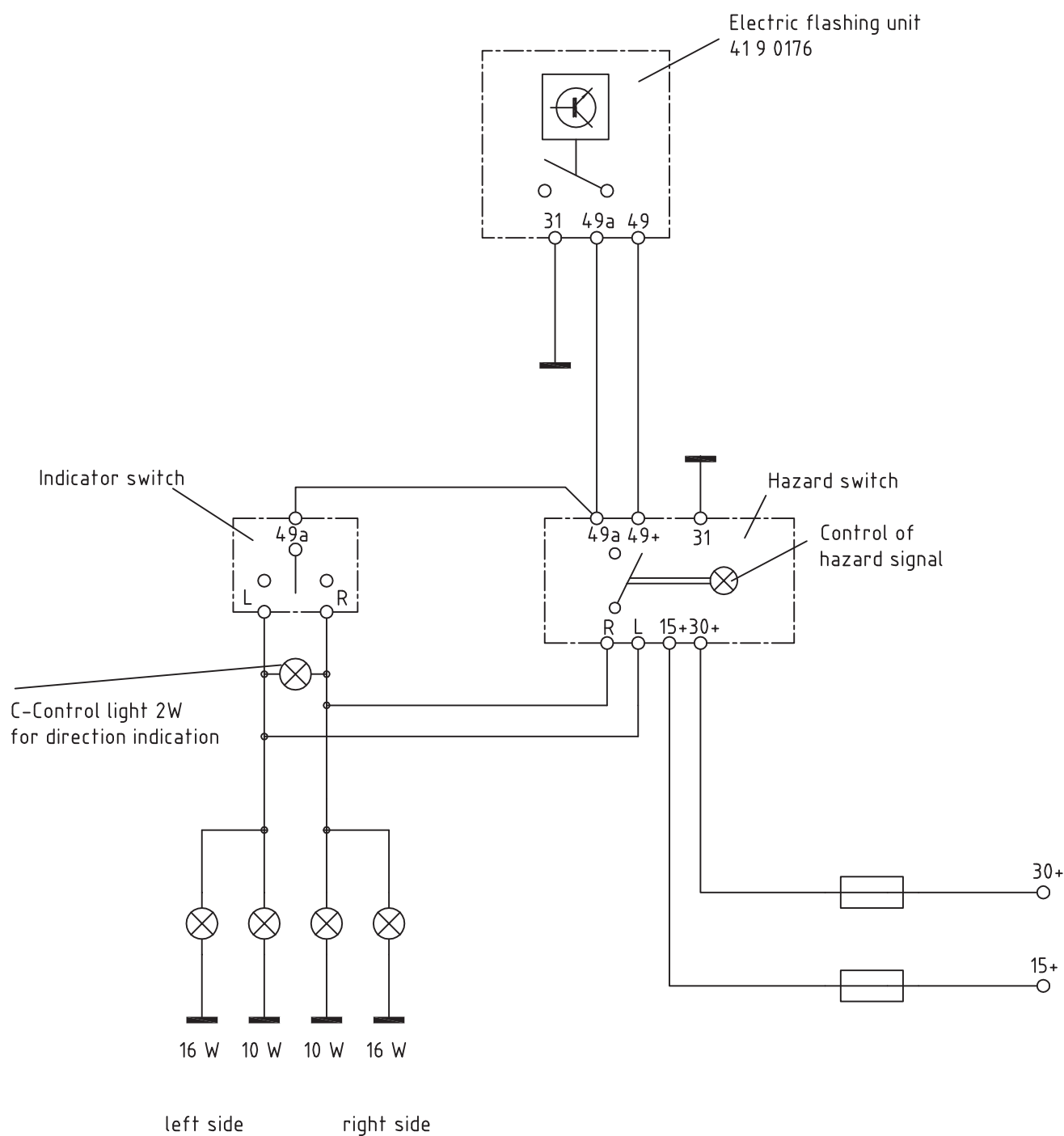
49 || 31
49a

Dimensions in mm

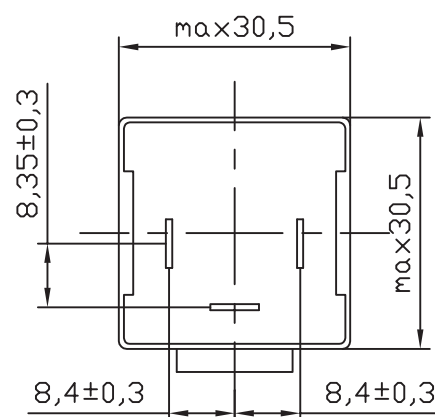
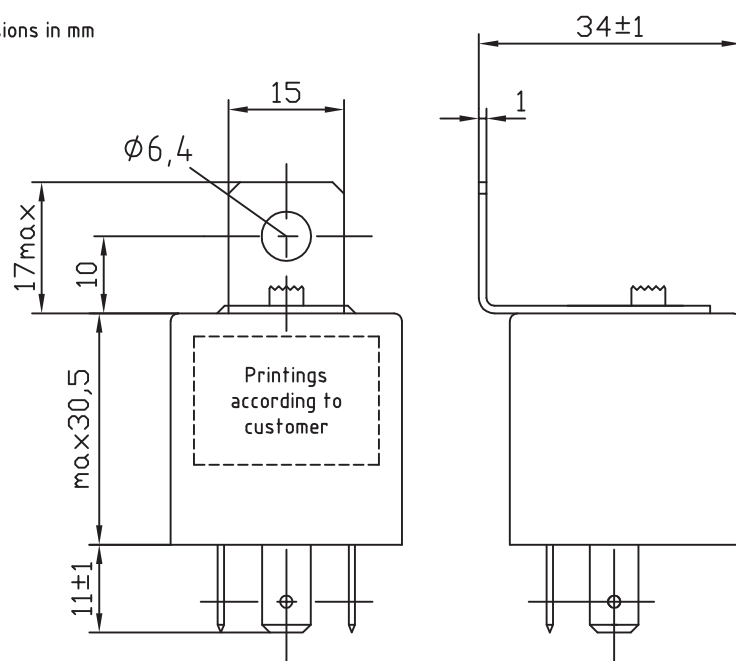
Order number: 41 9 0176

<u>Nominal Voltage:</u>	12 VDC
<u>Application:</u>	Suitable for motorcycle
<u>Functions:</u>	Direction indication 10 W + 16W Warning flashing 10 W + 16W + 10W + 16W
<u>Control of functions:</u>	Outage of flashing bulb 10W resp. 16W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	75...100 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	47%...53%
<u>Operating Voltage:</u>	11 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operation temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to page 2

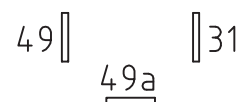
Connection plan for flasher unit



Dimensions in mm



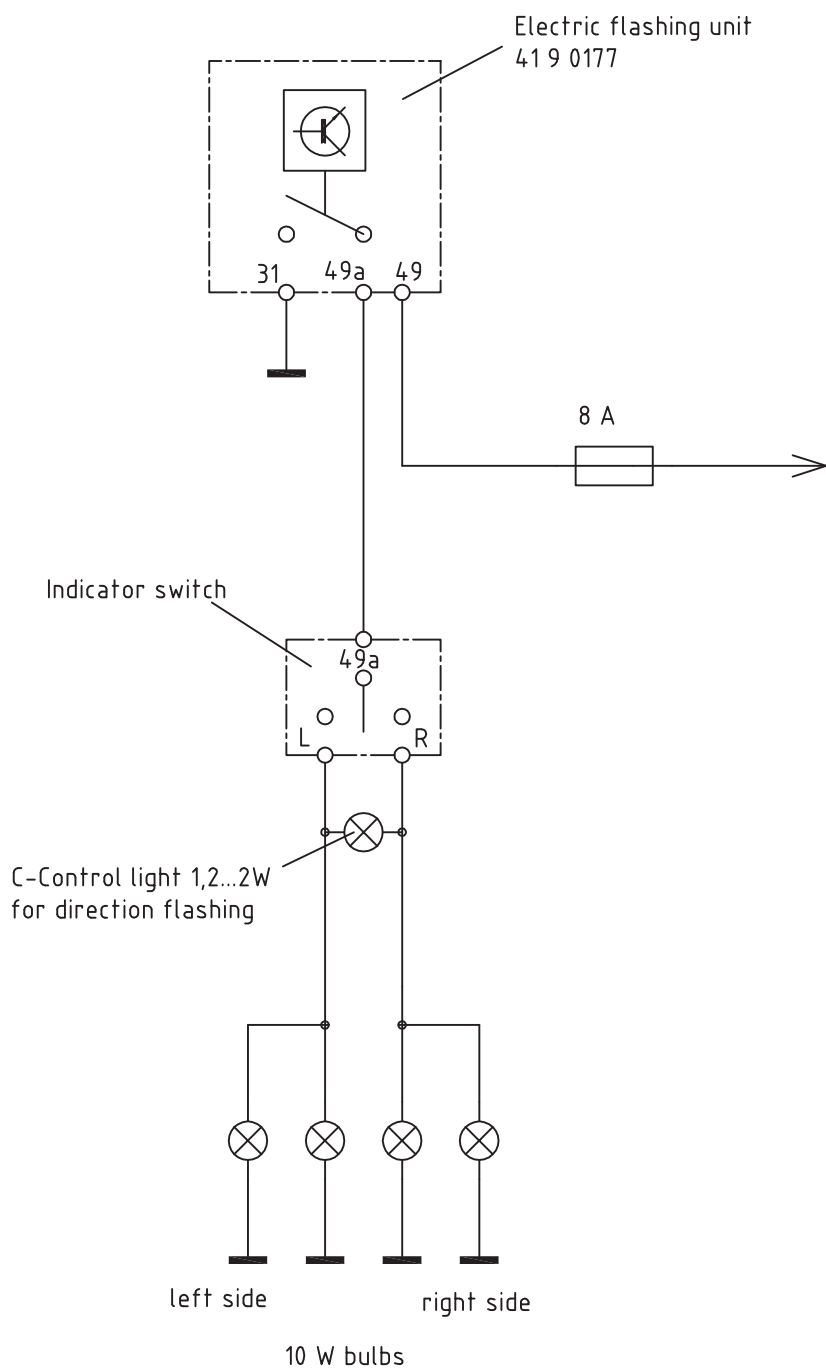
Connection assignment

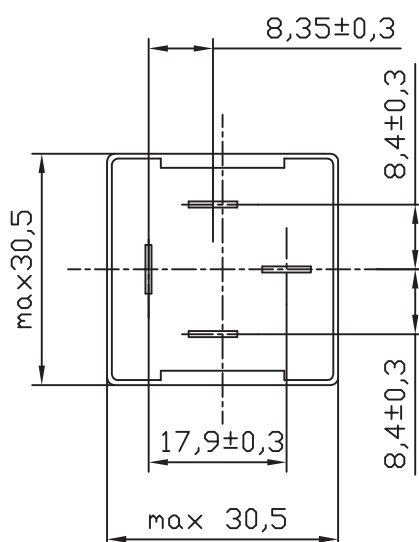
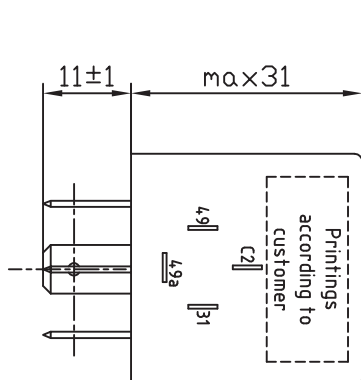


Order number: 41 9 0177

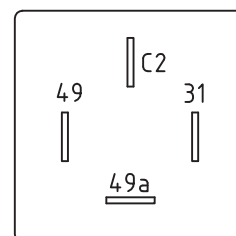
<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for motorcycle
<u>Connection values:</u>	Direction indication 2 x 10 W Warning flashing 4 x 10 W
<u>Control of functions:</u>	Failure of a flashing light 10W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN-EN ISO 8092-1 6,3x0,8 OH
<u>Degree of Protection:</u>	IP 53 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operation voltage:</u>	10 VDC...15 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG
<u>Operation temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to page 2
<u>Installation:</u>	Terminal downwards, protect against wet and coarse dirt

Connection plan for flasher unit 2(4)x10W





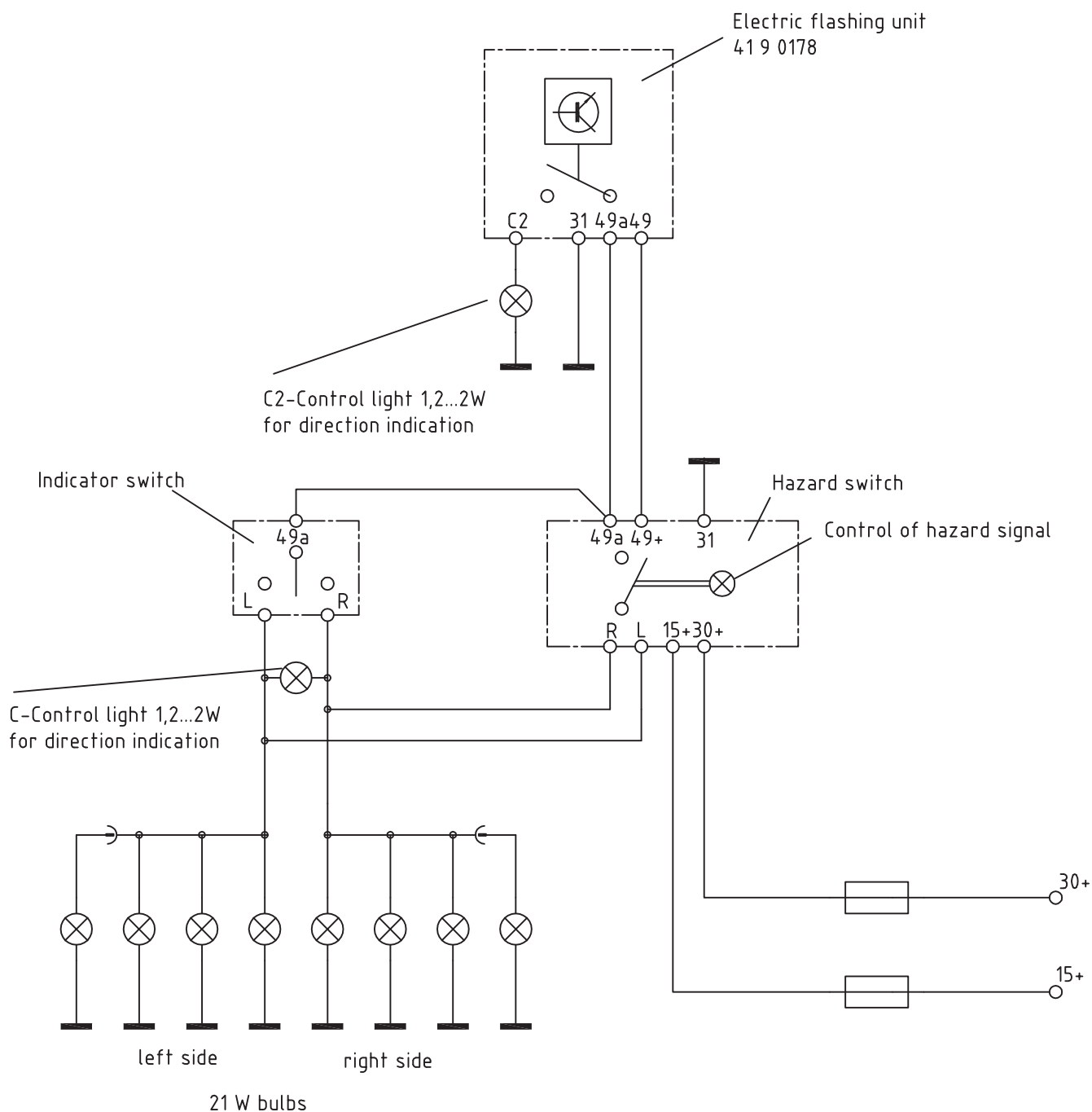
Connection assignment



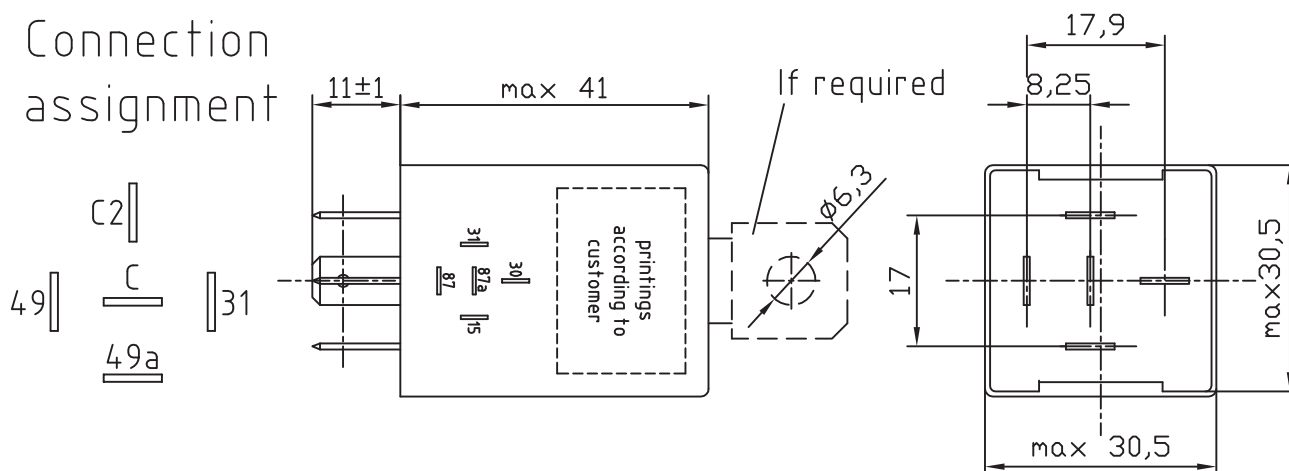
Order number: 41 9 0178

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with resp. without trailer
<u>Functions:</u>	Direction indication (3+1)x21W Warning flashing 8x21W Control 1,2...2W
<u>Control of functions:</u>	Control for passenger cars or commercial vehicles without trailer: Failure of a flashing light 21W: Frequency increase >100% Control for passenger cars or commercial vehicles with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	46%...55%
<u>Operating voltage:</u>	9 VDC...16 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0178 S Page 2
<u>Installation:</u>	On plug base resp. central electronics

Connections for the single circuit flasher 3+1(8)x21W



Connection assignment



Order number:

41 9 0180

Nominal Voltage

12 V

Note

Control lamps (C and C2 are connected to positive potential)

Application:

Suitable for tractor with resp. without trailer

Works also without battery connected to system

Functions:

Direction indication (2+1)x21W resp. (2+2)x21W without controlling

Warning flashing 6x21W resp. 8x21W

Control 1,2...2W

Control of functions:

Control without trailer:

Failure of a flashing light 21W: C-Control remains dark

Control with trailer:

Failure of a flashing light 21W: C2-control remains dark

Failure of two flashing lights 21W: C- and C2-Controls remain dark

Compliance:

The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-EA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH

Degree of protection:

IP 53 DIN 40 050-9

Frequency:

90±30 flashes per minute for direction indication and warning flashing

90+60/-30 flashes per minute for direction indication and warning flashing without battery

Duration of light pulse:

40%...70%

Operating voltage:

10,8 VDC...15 VDC

Operating temperature:

-40°C...+55°C

Storage temperature:

-40°C...+85°C

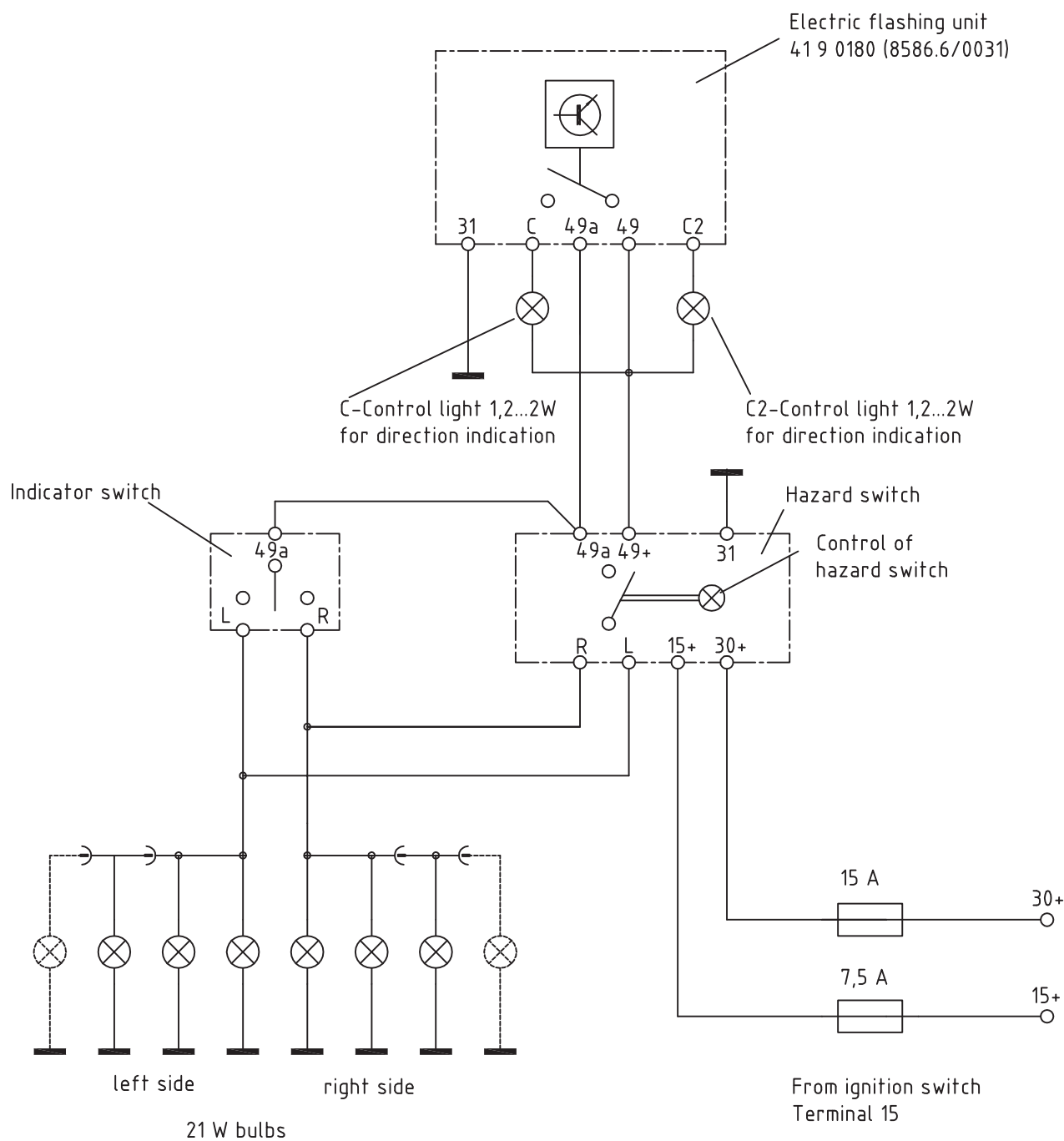
Connection:

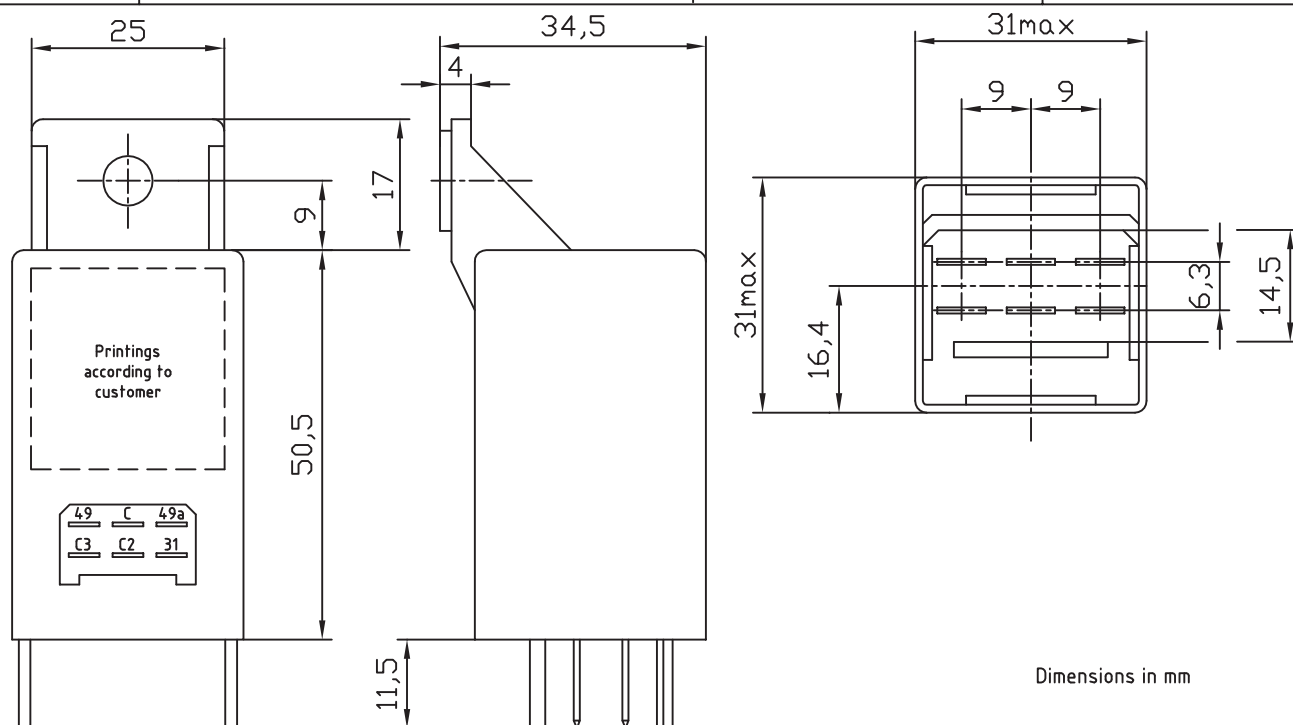
According to 41 9 0180 S Page 2

Installation:

Mounting vertically, connections downwards

Connections for the single circuit flasher

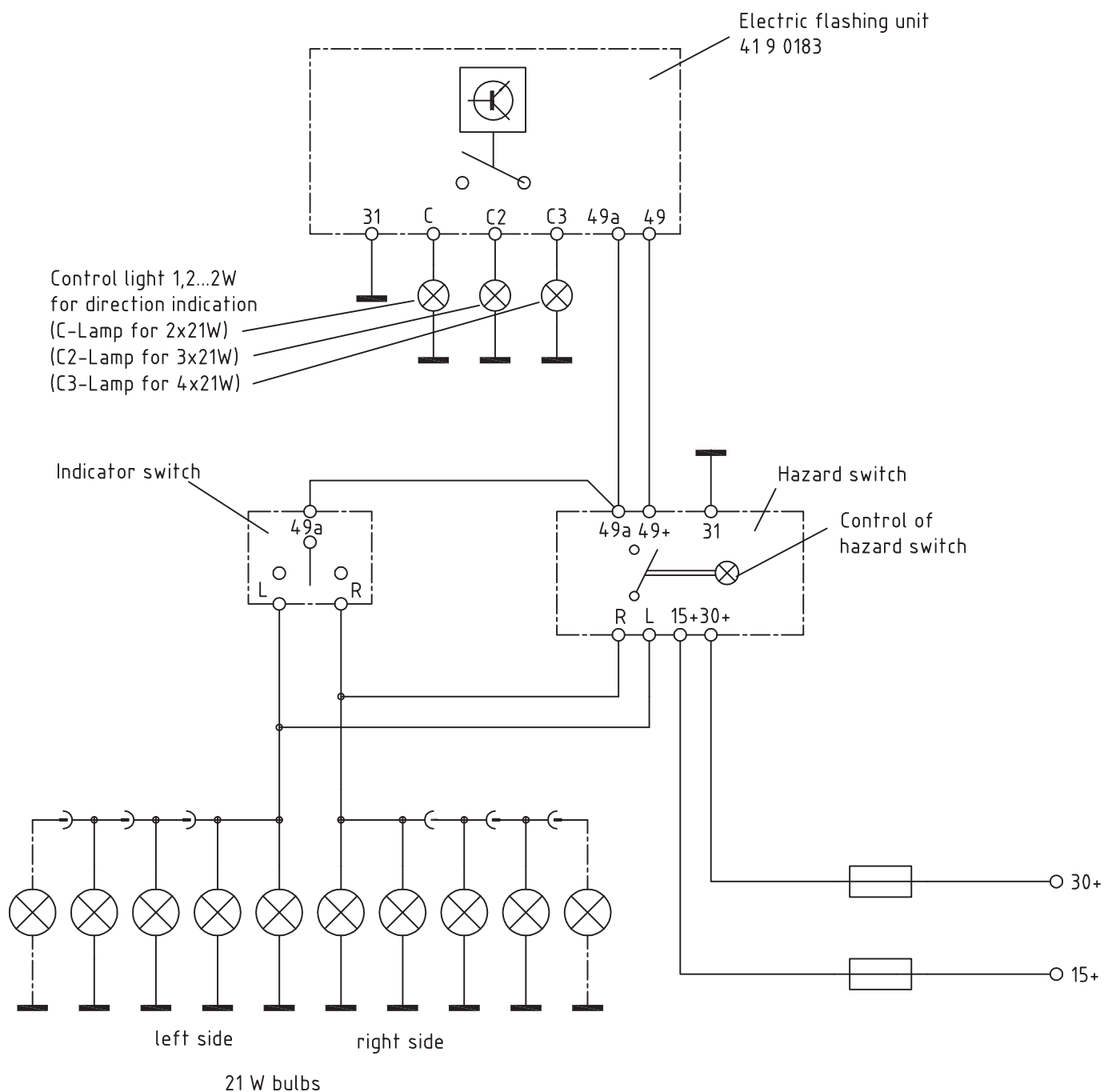


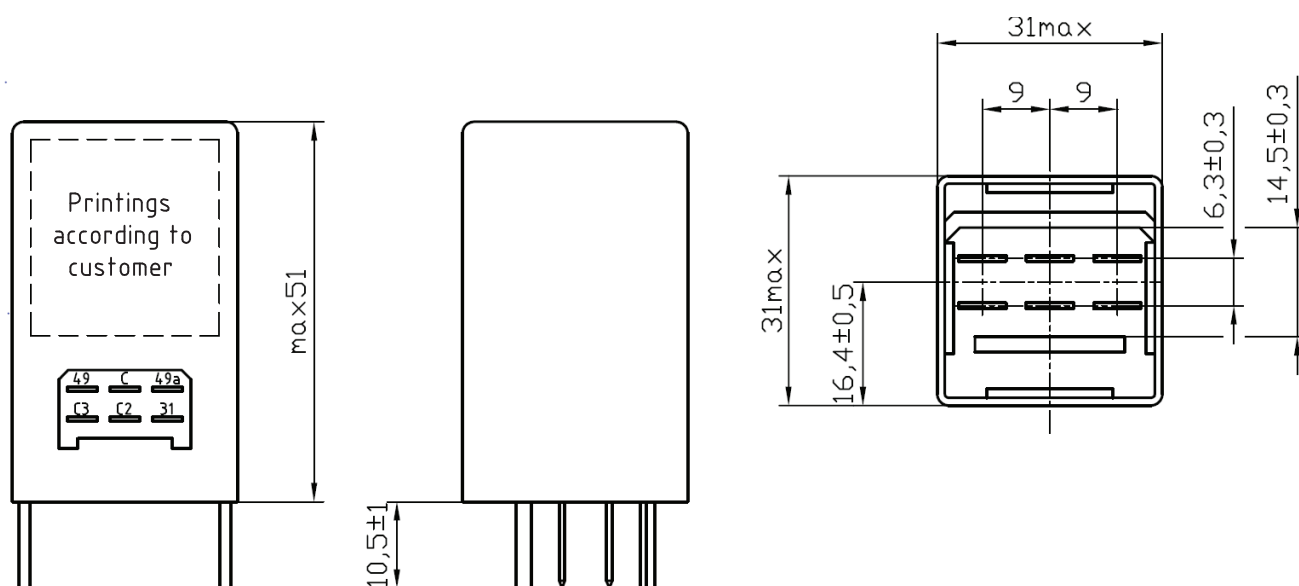


Order number: 41 9 0183

<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for commercial vehicle without resp. with up to 2 trailers, installation of additional front device is possible (single flasher unit)
<u>Functions:</u>	Direction indication (2+1+1)x21W resp. (2+1+1+1)x21W Warning flashing 8x21W resp. 10x21W Control 1,2...2W
<u>Control of functions:</u>	Failure of a flashing light (2+1+1)x21W: C3-Control remains dark Failure of a flashing light (2+1)x21W: C3- and C2-Controls remain dark Failure of a flashing light 2x21W: C3,C2 and C-Controls remain dark
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, terminal according to DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8 OH.
<u>Degree of protection:</u>	IP50 according to DIN 40050-9
<u>Frequency:</u>	90±30 flashes per minute for direction and warning flashing
<u>Duration of light pulse:</u>	30%...75%
<u>Operation Voltage:</u>	9 VDC...16 VDC
<u>Operation temperature:</u>	-40°C...+85°
<u>Electromagnetic compatibility:</u>	Interference immunity and emission according to 72/245/EWG und ISO 7637-1
<u>Durability:</u>	Direction indication 4 x 21W 200h 15s on 15s off Warning flashing 8 x 21W 50h permanent flashing
<u>Electrical connection:</u>	According to 41 9 0183 S Page 2
<u>Installation:</u>	On plug base

Connections for the single flasher unit



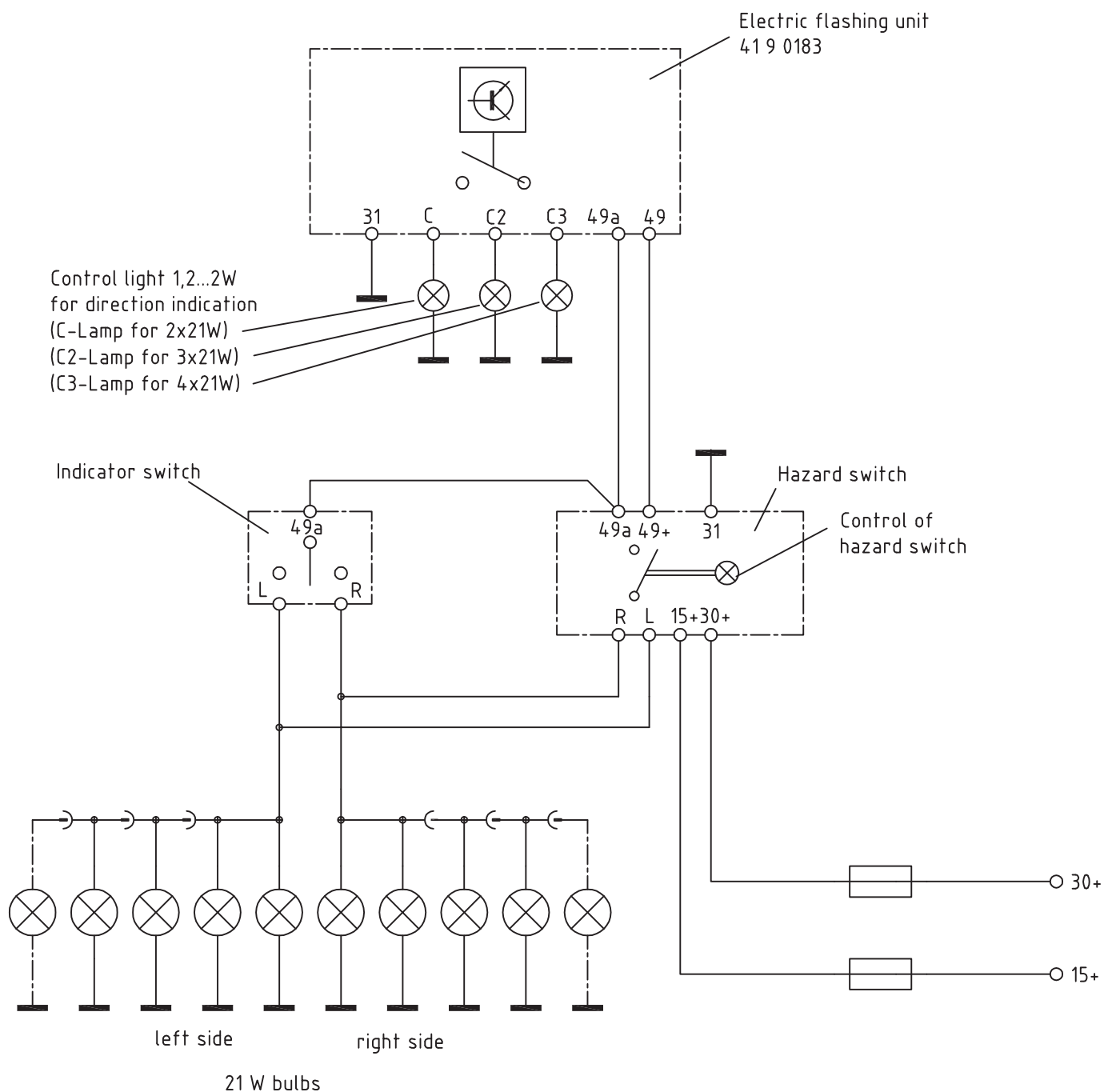


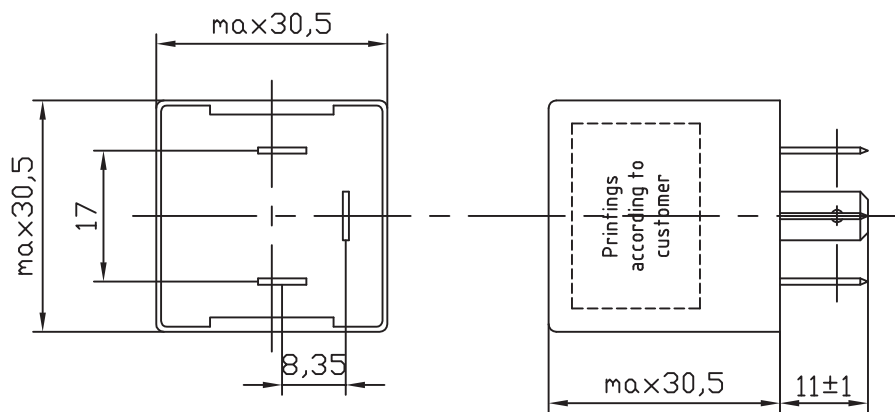
Dimensions in mm

Order number: 41 9 0184

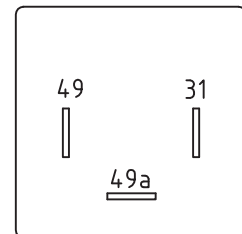
<u>Nominal voltage:</u>	12 VDC
<u>Application:</u>	Suitable for commercial vehicle without resp. with up to 2 trailers, installation of additional front device is possible (single flasher unit)
<u>Functions:</u>	Direction indication (2+1+1)x21W resp. (2+1+1+1)x21W Warning flashing 8x21W resp. 10x21W Control 1,2...2W
<u>Control of functions:</u>	Failure of a flashing light (2+1+1)x21W: C3-Control remains dark Failure of a flashing light (2+1)x21W: C3- and C2-Controls remain dark Failure of a flashing light 2x21W: C3,C2 and C-Controls remain dark
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according to ISO 7588-CA, terminal according to DIN EN ISO 8092-1 2,8x0,8 OH / 6,3x0,8 OH.
<u>Degree of protection:</u>	IP50 according to DIN 40050-9
<u>Frequency:</u>	90±30 flashes per minute for direction and warning flashing
<u>Duration of light pulse:</u>	30%...75%
<u>Operation Voltage:</u>	9 VDC...16 VDC
<u>Operation temperature:</u>	-40°C...+85°
<u>Electromagnetic compatibility:</u>	Interference immunity and emission according to 72/245/EWG und ISO 7637-1
<u>Durability:</u>	Direction indication 4 x 21W 200h 15s on 15s off Warning flashing 8 x 21W 50h permanent flashing
<u>Electrical connection:</u>	According to 41 9 0184 S Page 2
<u>Installation:</u>	On plug base

Connections for the single flasher unit





Connection assignment

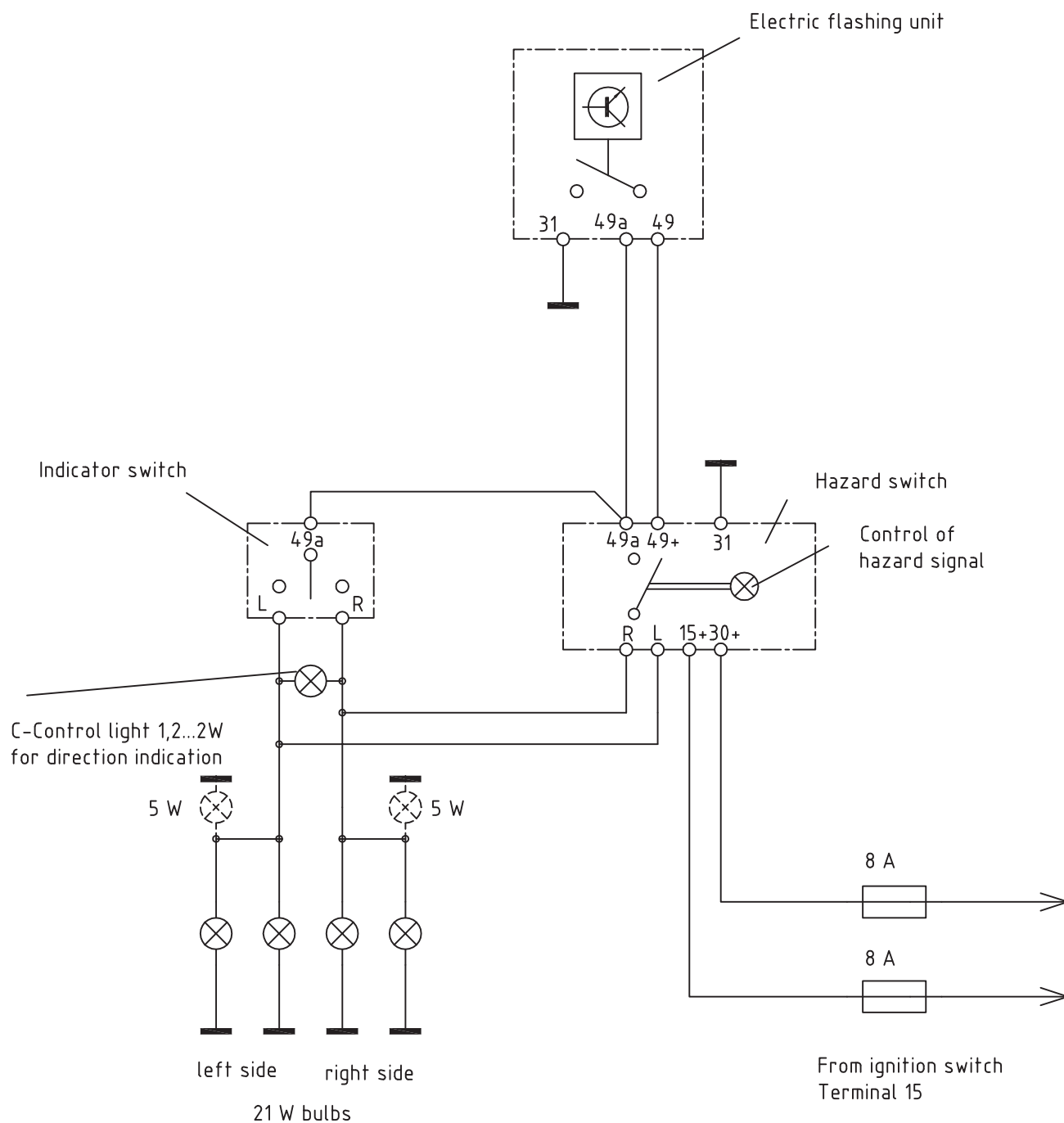


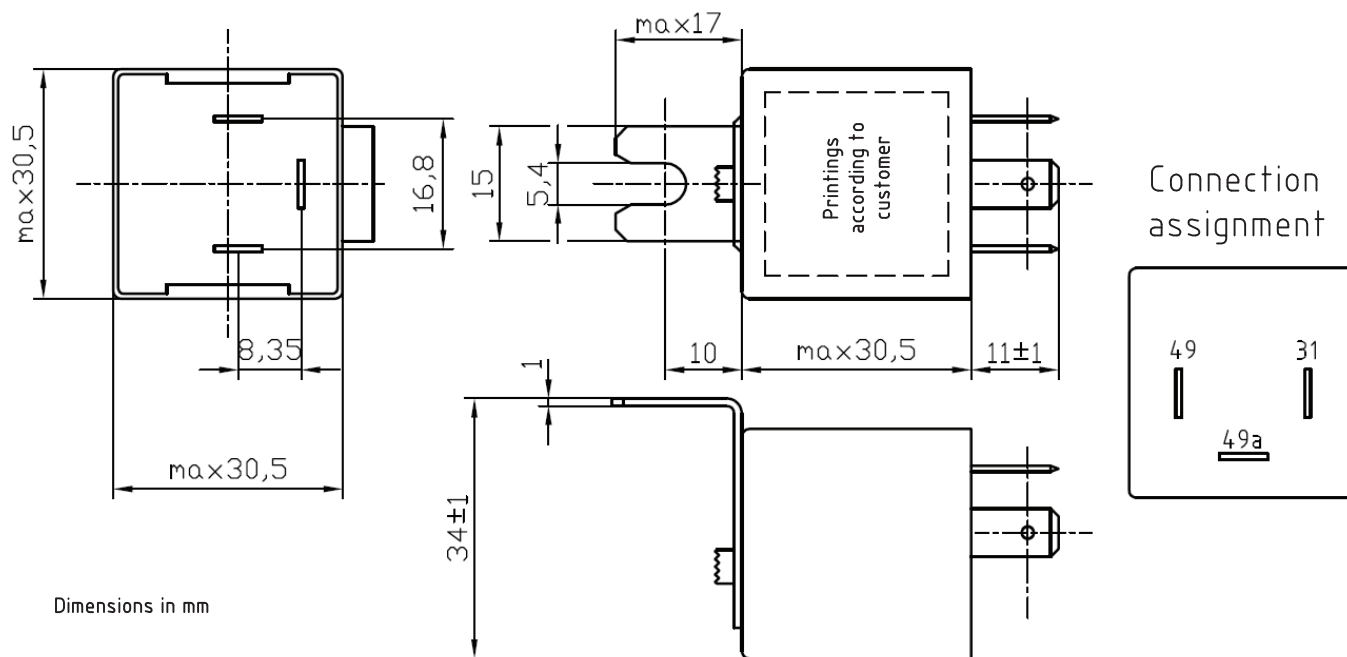
Dimensions in mm

Order number.: 41 9 0114

<u>Nominal voltage:</u>	24 VDC
<u>Usage:</u>	Suitable for passenger cars and commercial vehicles
<u>Functions:</u>	Direction indication 2 x 21 W Warning flashing 4 x 21 W
<u>Control funktion:</u>	Failure of a flashing light 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Protection degree:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operation voltage:</u>	21 VDC...28 VDC
<u>Electromagnetic compatibility:</u>	Immunity and emitted interference according to guideline 72/245/EWG
<u>Operation temperature:</u>	-40°C...+85°C
<u>Connection:</u>	According to 41 9 0114 S page 2
<u>Installation:</u>	Plug base resp. central electronics

Connections for the single circuit flasher 2(4)x21W+0...5(0...10)W

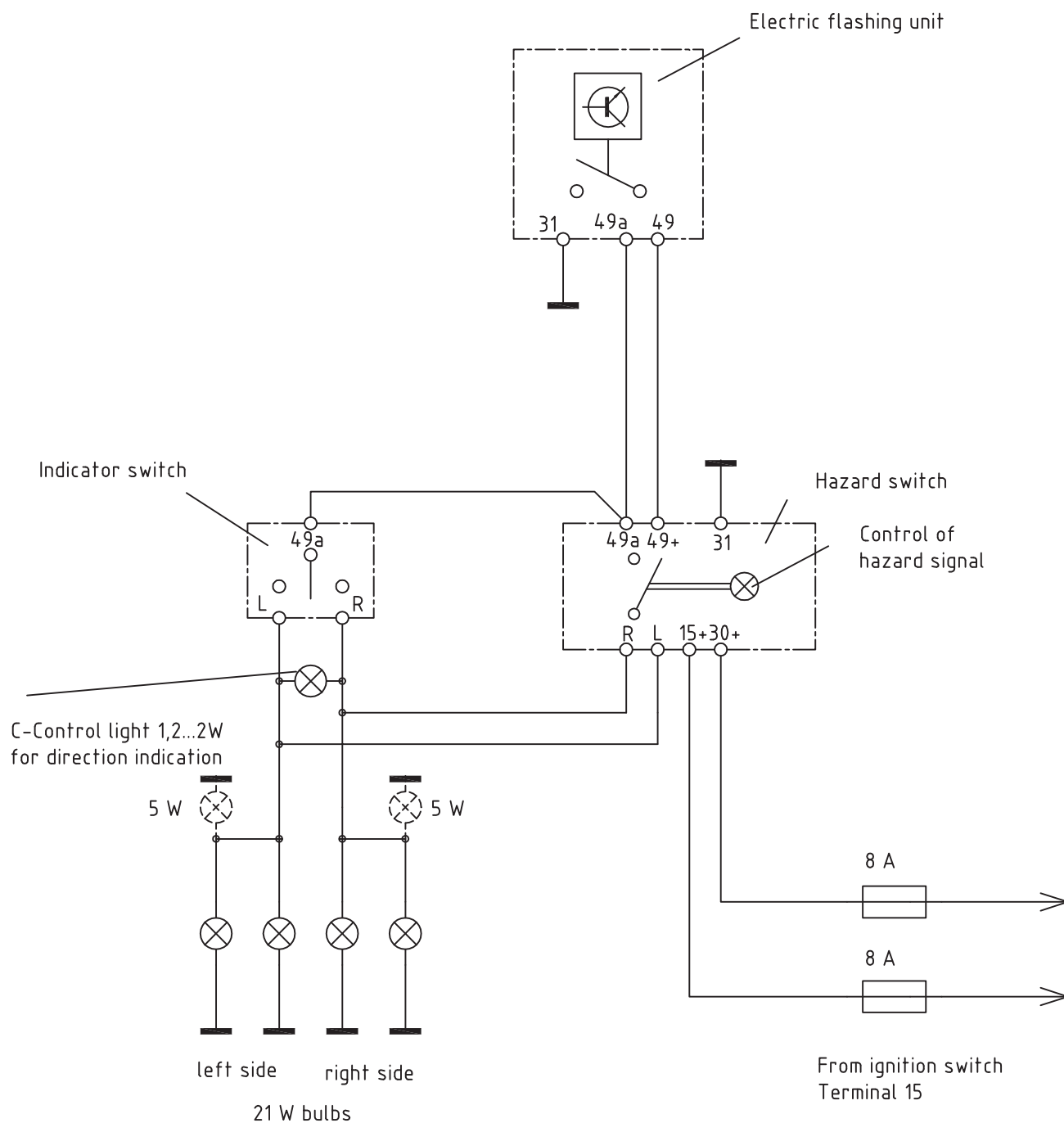


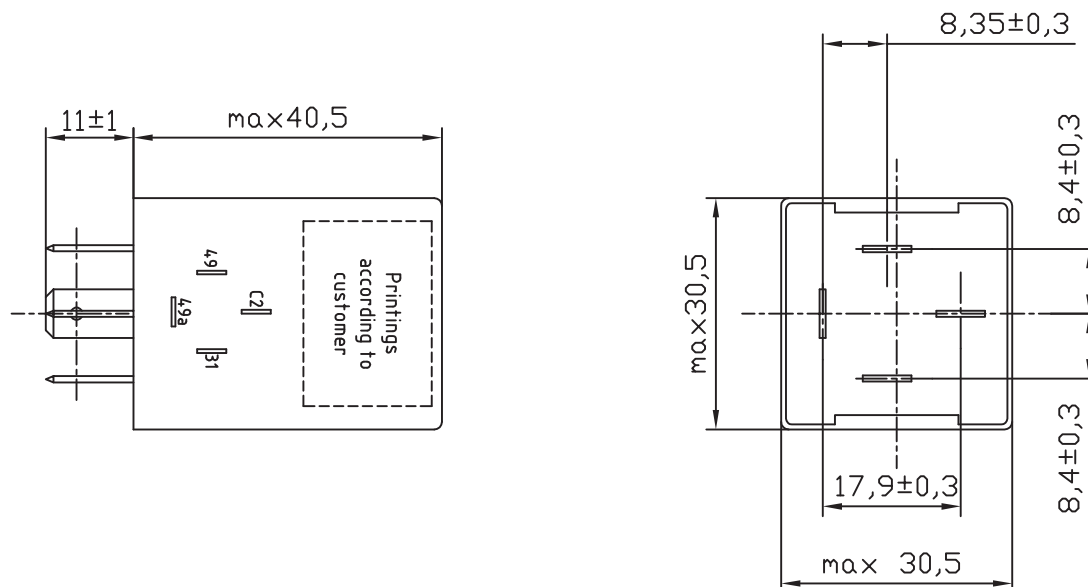


Order number.: 41 9 0115

<u>Nominal voltage:</u>	24 VDC
<u>Usage:</u>	Suitable for passenger cars and commercial vehicles
<u>Functions:</u>	Direction indication 2 x 21 W Warning flashing 4 x 21 W
<u>Control funktion:</u>	Failure of a flashing light 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Protection degree:</u>	IP 00 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...75%
<u>Operation voltage:</u>	21 VDC...28 VDC
<u>Electromagnetic compatibility:</u>	Immunity and emitted interference according to guideline 72/245/EWG
<u>Operation temperature:</u>	-40°C...+85°C
<u>Connection:</u>	According to 41 9 0115 S page 2
<u>Installation:</u>	Plug base resp. central electronics

Connections for the single circuit flasher 2(4)x21W+0...5(0...10)W

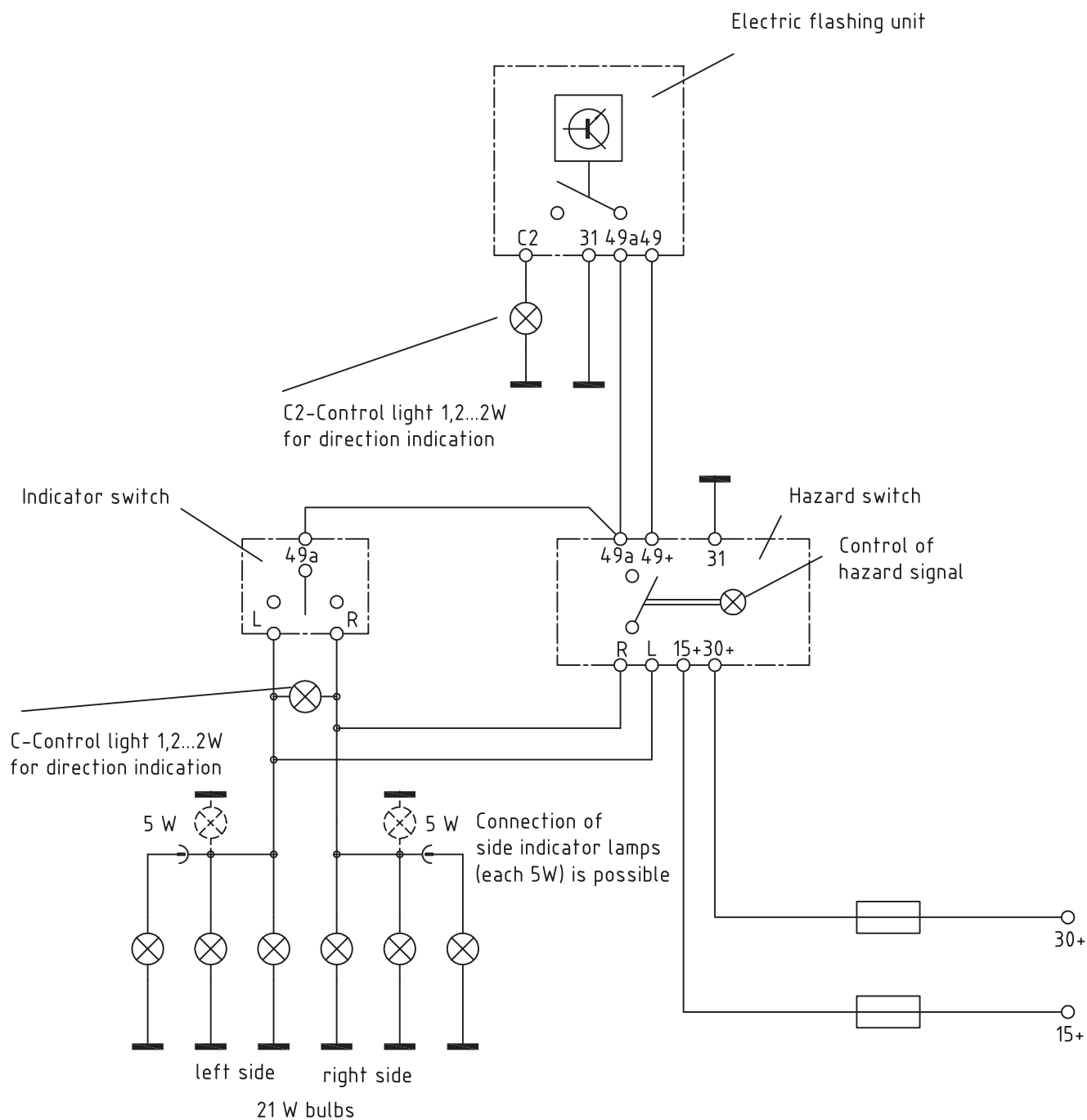




Order number: 41 9 0116

<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with or without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control C2 1,2...2W
<u>Control function:</u>	Control for passenger car or commercial vehicle with resp. without trailer: Frequency increase >100% Control for passenger car / commercial vehicle with trailer Failure of a flashing light 21W: C-Control remains dark Failure of two flashing lights 21W: Frequency increase >100% The control output C2 is short-circuit proof.
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Protection degree:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±15 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...55%
<u>Operation voltage:</u>	21 VDC...30 VDC
<u>Electromagnetic compatibility:</u>	Immunity and emitted interference according to guideline 72/245/EWG and ISO 7637-2
<u>Operation temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0116 S page 2
<u>Installation:</u>	Plug base resp. central electronics

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W

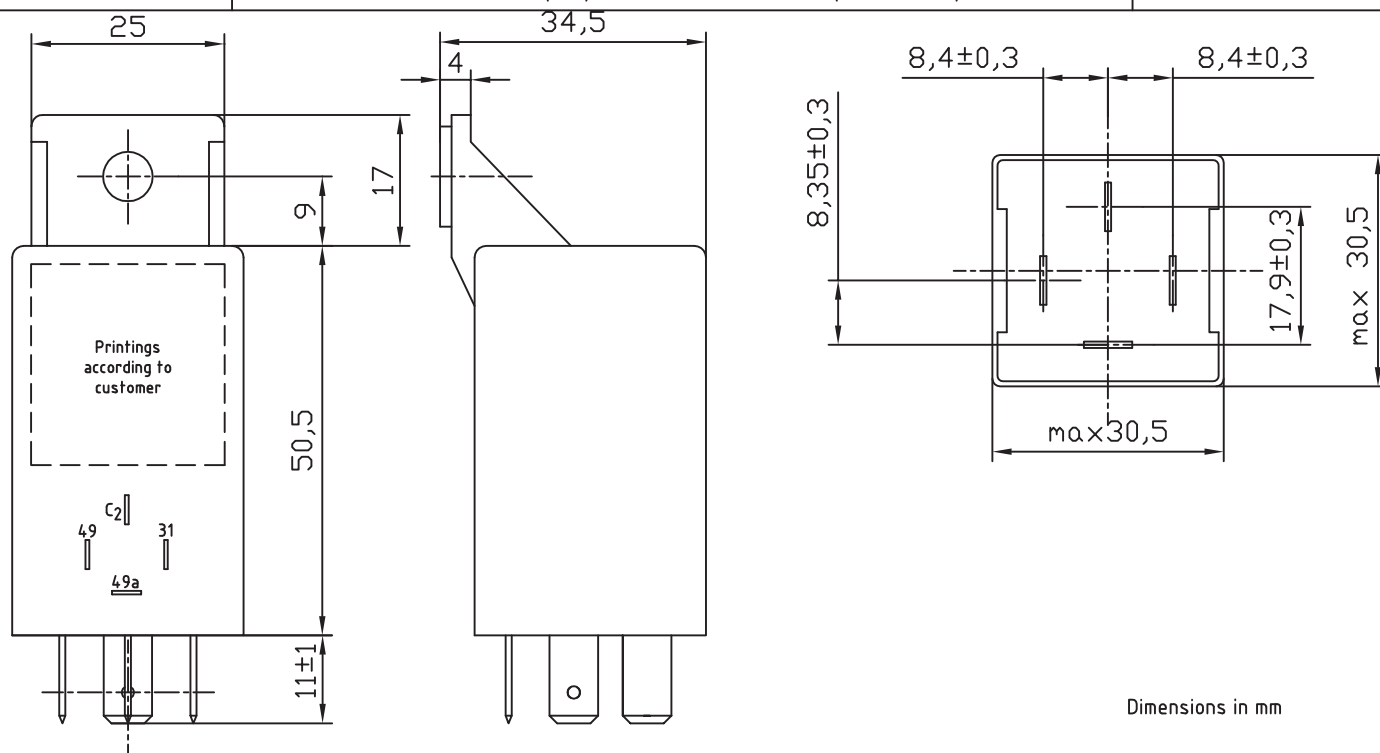


Specifications

Flasher Unit

24 V 2+1(6)x21W+0...5(0...10)W

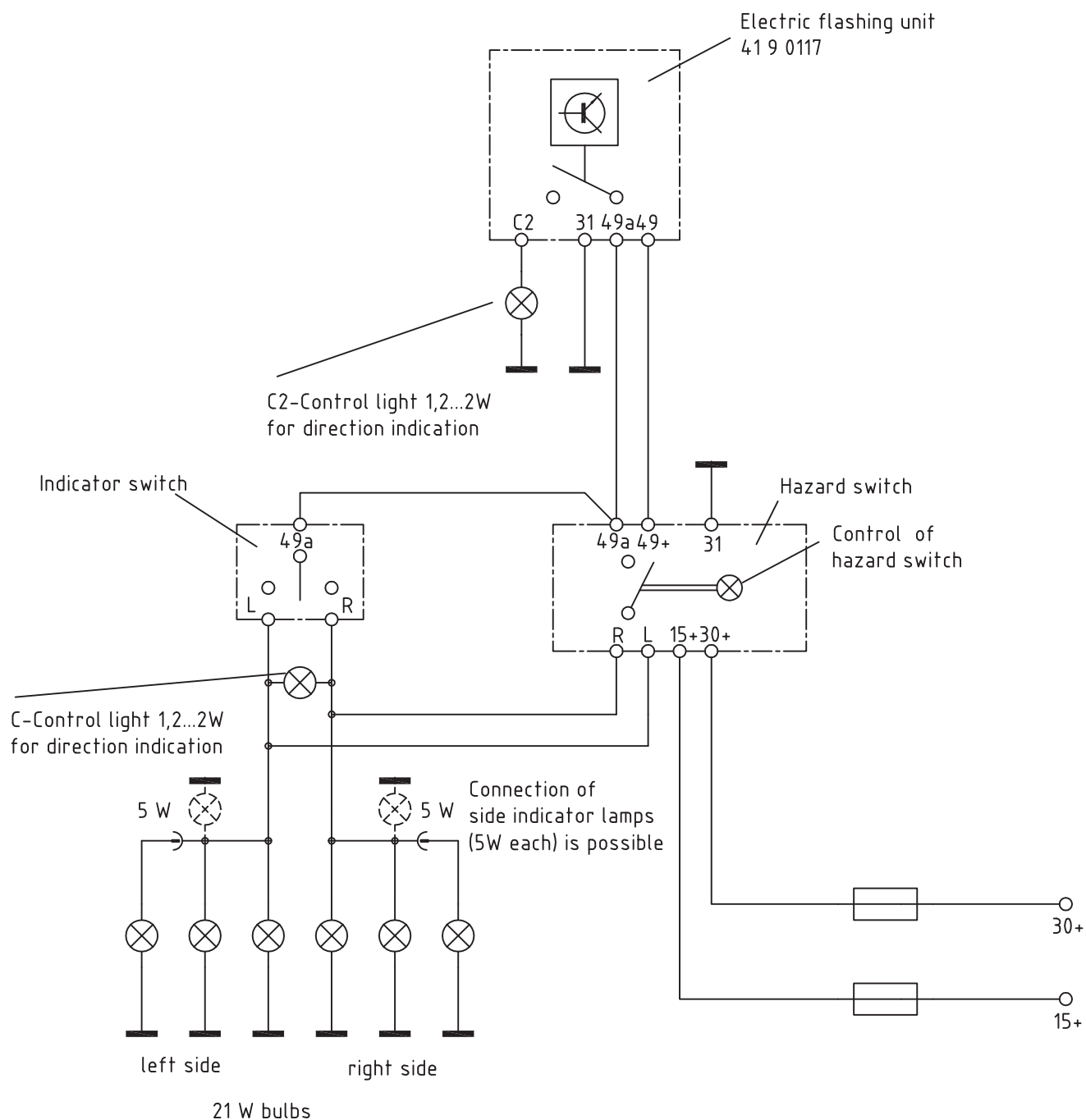
41 9 0117 S
Page 1

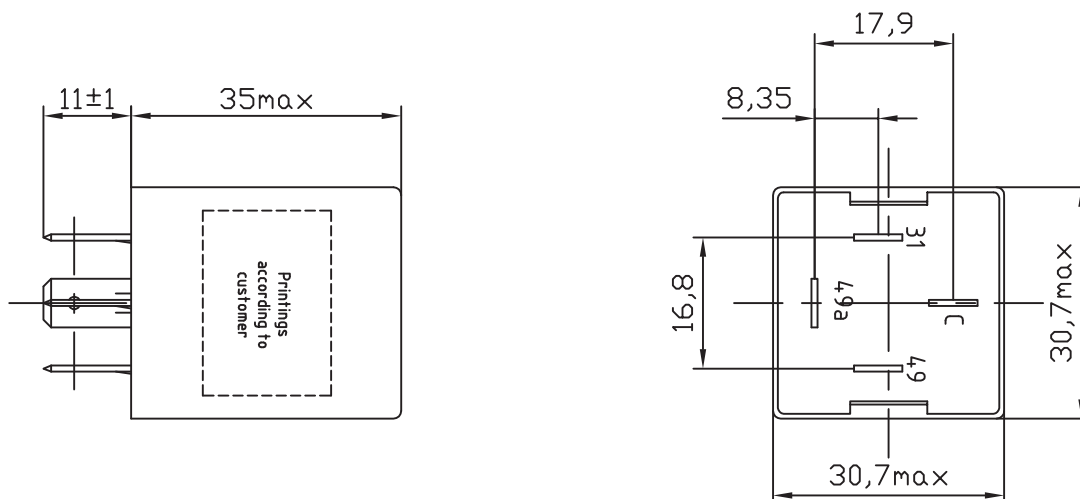


Order number: 41 9 0117

<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with or without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control 1,2...2W
<u>Control of functions:</u>	Control of vehicle without trailer: Failure of a flashing light 21W: Frequency increase >100% Control of vehicle with trailer: Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100% Control output C2 is short-circuit-proof.
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 40 DIN 40 050-9
<u>Frequency:</u>	90±15 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...55%
<u>Operating voltage:</u>	21 VDC...30 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to 72/245/EWG and ISO 7637-2
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to page 2
<u>Installation:</u>	On plug base resp. central electronics

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W



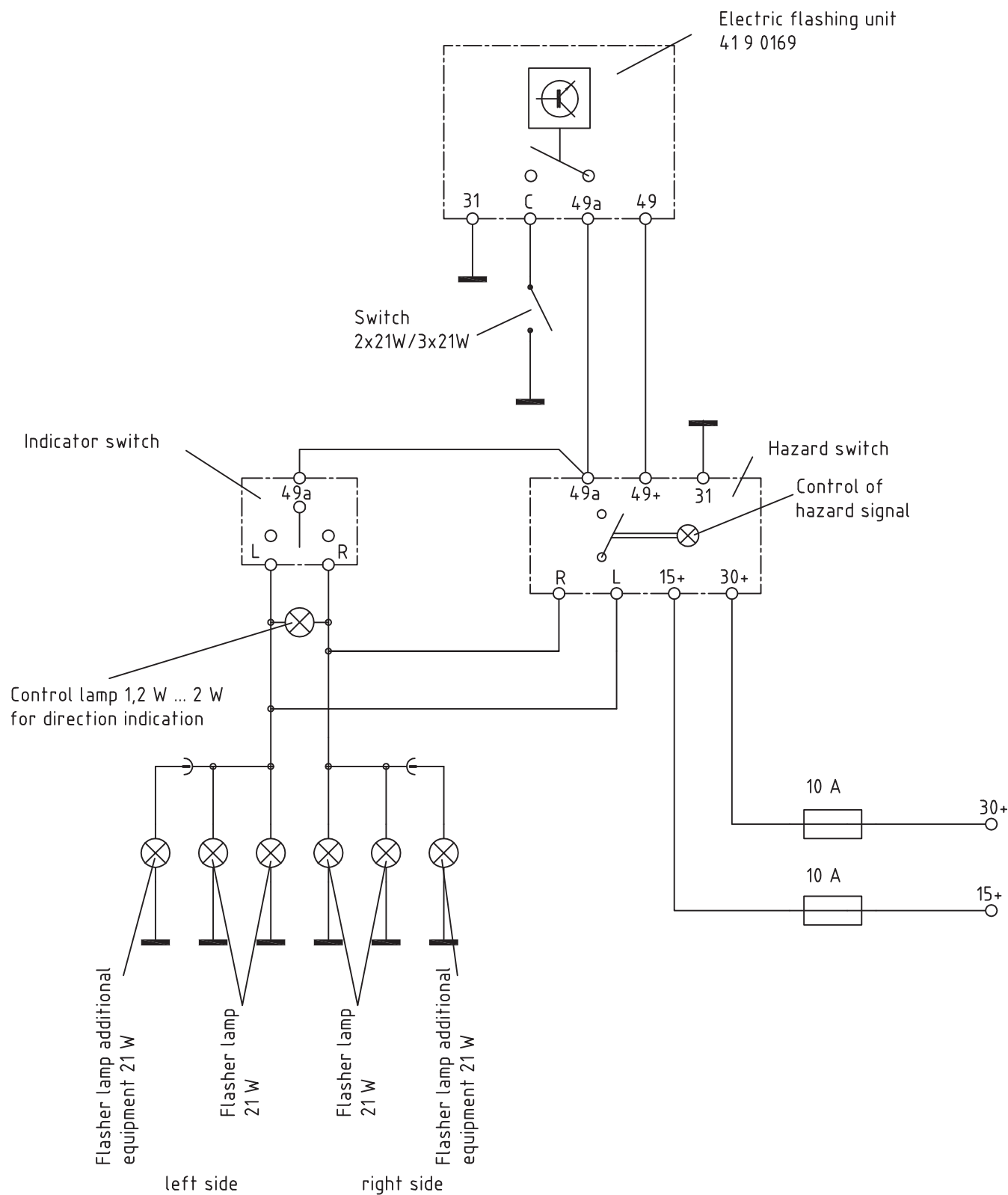


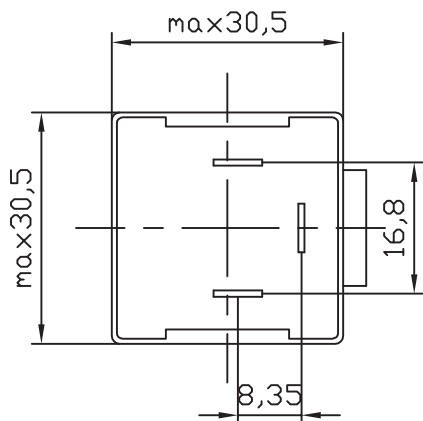
Dimensions in mm

Order number: 41 9 0127

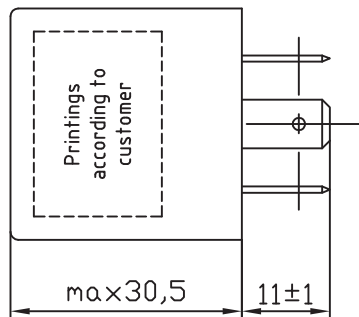
<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	For use on commercial vehicle without or with trailer.
<u>Functions:</u>	The flasher is built up of one flasher system 2x21W and one flasher system 3x21W. The alternation from 2x21W to 3x21W effected by temporary connection of input C with ground. The interruption of the supply voltage (pin 49) resets to 2x21W
<u>Flashing output:</u>	Direction indication 2x21W+2W or 3x21W+2W Warning flashing 4x21W or 6x21W
<u>Control of functions:</u>	In case of failure of a flasher lamp the flasher blinks with a higher frequency.
<u>Compliance:</u>	Plastic housing with terminals in accordance with ISO 7588, Terminals in accordance with ISO 8092-1, size 6,3x0,8 OH
<u>Frequency:</u>	90 ± 30 flashes per minute
<u>Duration of light pulse:</u>	40%...75%
<u>Operating voltage:</u>	21 VDC...28 VDC
<u>Overvoltage protection:</u>	26V (5min)
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 75/322/EWG
<u>Water splash protection:</u>	Housing IP 53 in accordance with DIN 40 050-9

Connection for the flasher





Dimensions in mm



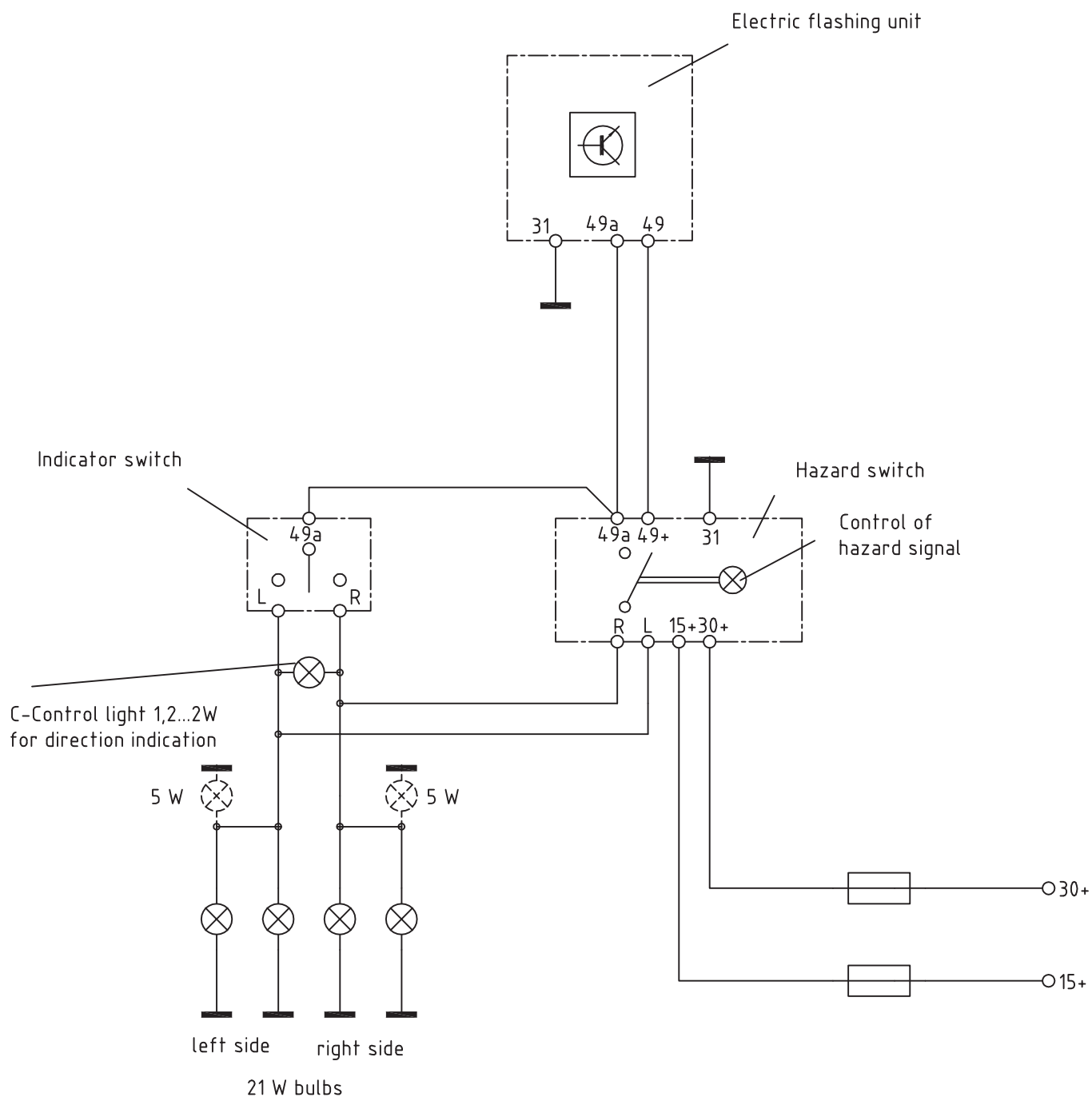
Connection
assignment

49 || 31
49a

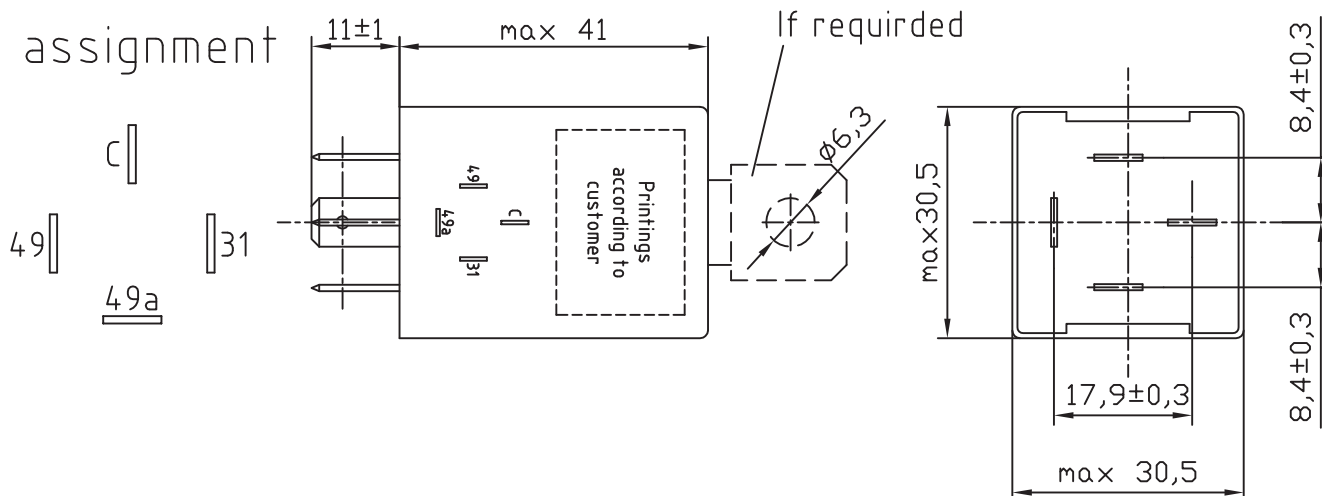
Order number: 41 9 0147

<u>Nominal Voltage:</u>	24 VDC
<u>Usage:</u>	Suitable for passenger cars and commercial vehicles
<u>Connection Values:</u>	Direction indication 2 x 21 W + (0...5)W Warning flashing 4 x 21 W + (0...10)W
<u>Control function:</u>	Failure of a flashing light 21W:Frequency Increase >100%
<u>Compliance:</u>	Plastic housing with fixation bracket ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse :</u>	40%...75%
<u>Operation voltage:</u>	18 VDC...32 VDC
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to guideline SAE J 113 and 72/245/EWG
<u>Operation temperature:</u>	-40°C...+85°C
<u>Lifespan:</u>	Minimum 2000h (T=23°C,U=24VDC,P=4x21W+10W)
<u>Connection :</u>	According to 41 9 0147 S Page 2
<u>Installation:</u>	Plug base resp. central electronics

Connection Plan for Flasher Unit 2(4)x21W+0...5(0...10)W

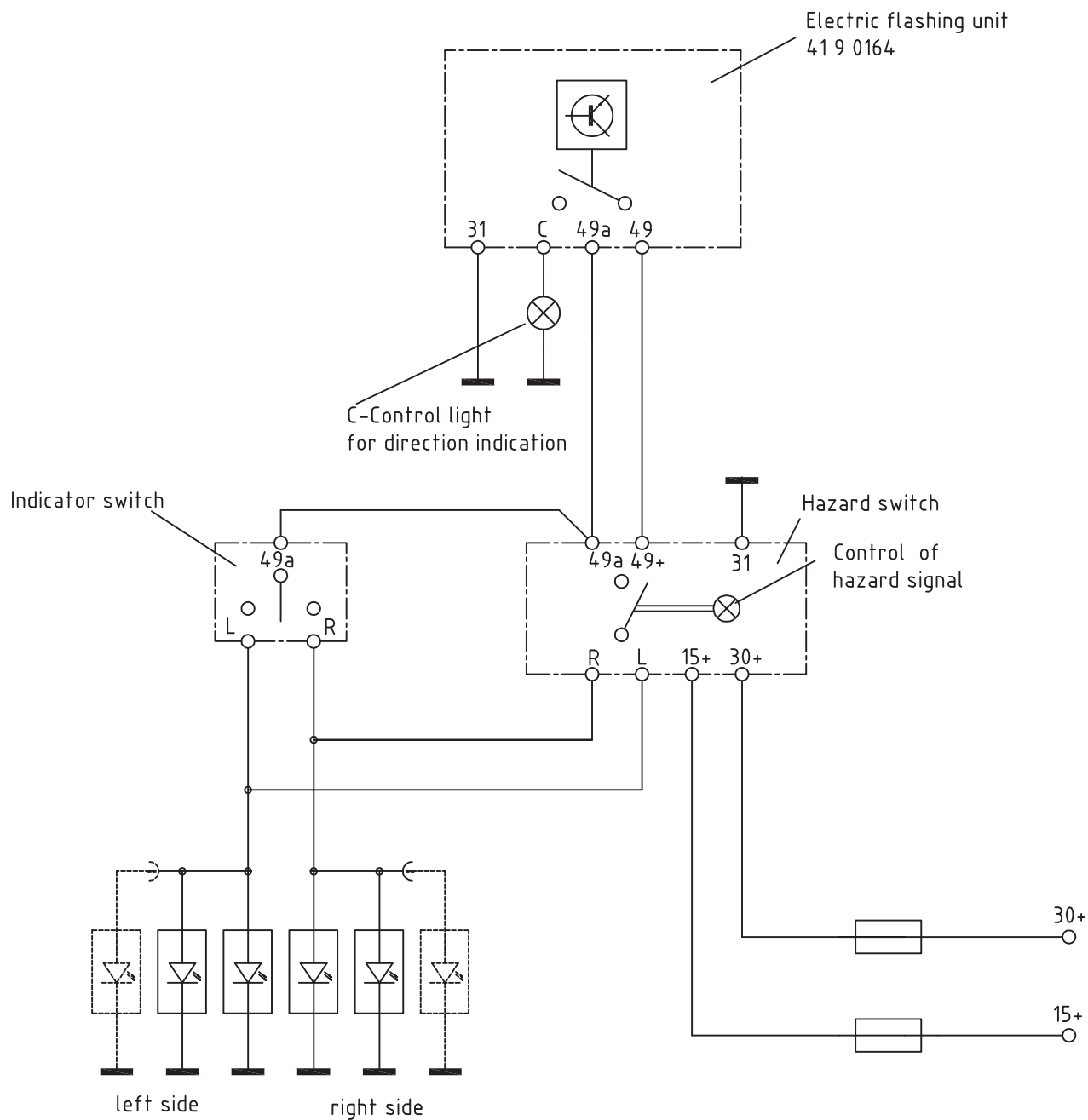


Connection assignment



Order number: 41 9 0164

<u>Nominal voltage:</u>	24V
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with or without trailer
<u>Functions:</u>	Direction indication: (2+1) x 21W or LED- Lights, bulbs and LED- Lights freely combinable Warning flashing: 6x21W or LED- Lights Control: max 3W
<u>Control of functions:</u>	Passenger car or commercial vehicle without trailer: Failure of a flashing light or LED: Frequency increase =100% Passenger car or commercial vehicle with trailer: Failure of a flashing light or LED: C-Control remains dark Failure of two flashing lights or LEDs: Frequency increase =100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 53 DIN 40050-9
<u>Frequency :</u>	90 ± 30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40...75%
<u>Operating voltage:</u>	18VDC...32VDC
<u>Function voltage:</u>	20VDC...28VDC
<u>Overvoltage protection:</u>	80V
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 72/245/EWG, ISO 7637-2DIS 2000
<u>Operating temperature:</u>	-40...+85°C
<u>Electrcal connection:</u>	According to 41 9 0164 S Page 2
<u>Installation:</u>	On socket

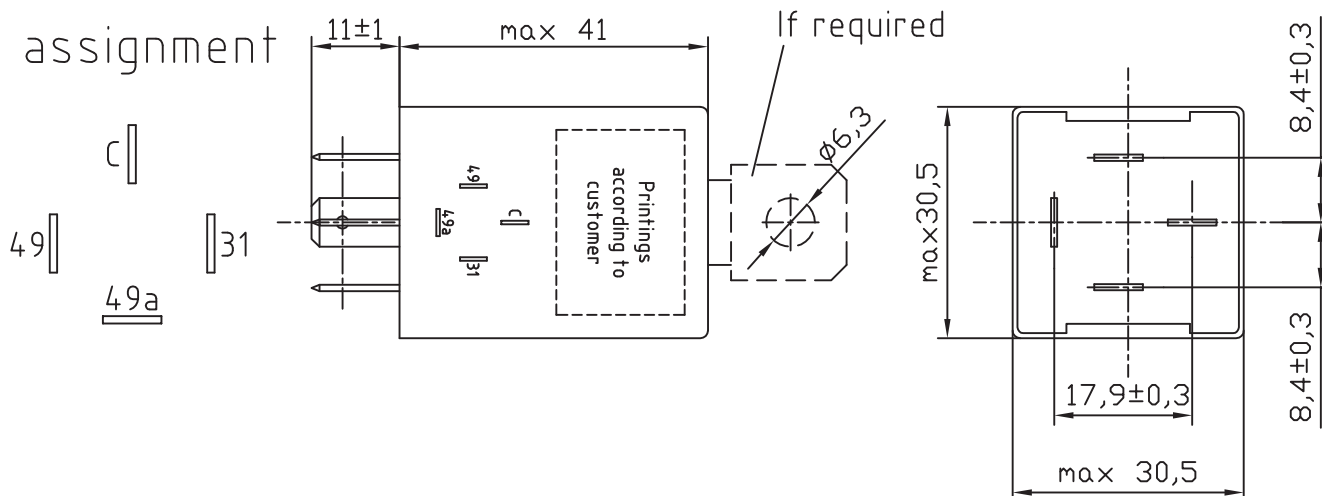


Choice between 21W bulbs or LED-Lights, freely combinable

Operating voltage: 18V ... 32 Volt

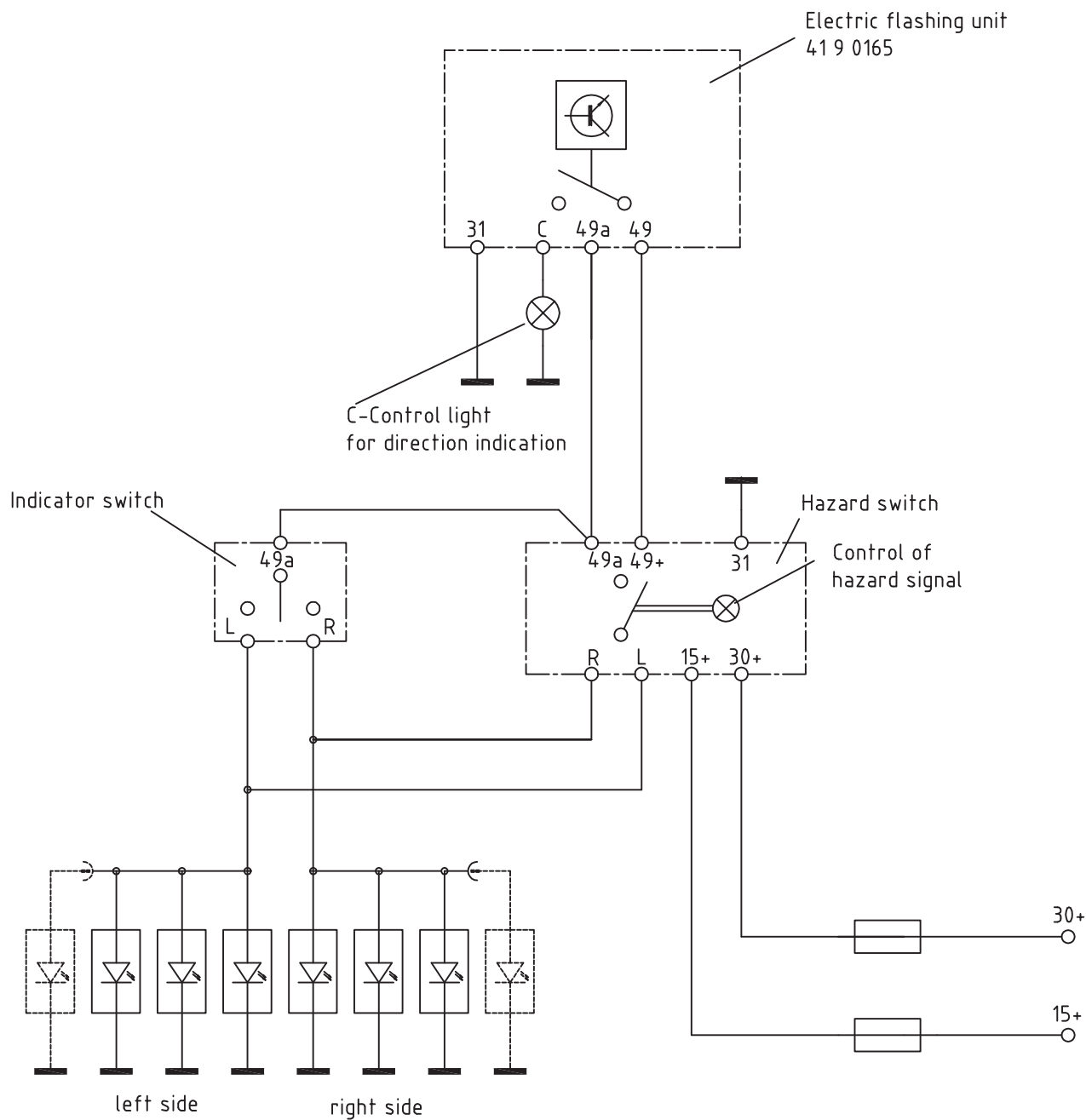
Function voltage: 20V ... 28 Volt

Connection assignment



Order number: 41 9 0165

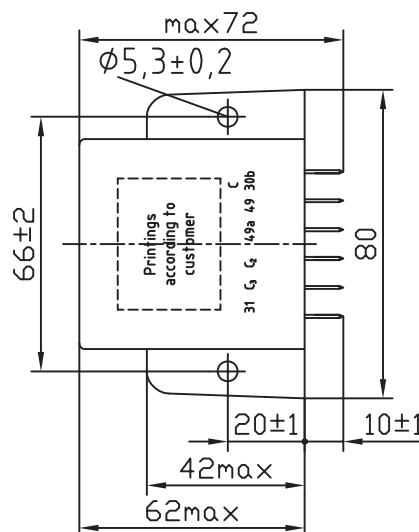
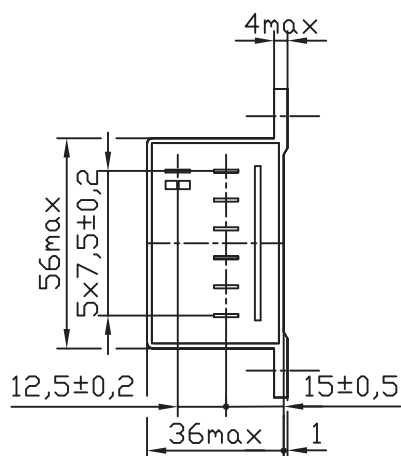
<u>Nominal voltage:</u>	24V
<u>Application:</u>	Suitable for passenger cars and commercial vehicles with or without trailer
<u>Functions:</u>	Direction indication: (3+1) x 21W or LED- Lights, bulbs and LED- Lights freely combinable Warning flashing: 8x21W or LED- Lights Control: max 3W
<u>Control of functions:</u>	Passenger car or commercial vehicle without trailer: Failure of a flashing light or LED: Frequency increase >100% Passenger car or commercial vehicle with trailer: Failure of a flashing light or LED: C-Control remains dark Failure of two flashing lights or LEDs: Frequency increase =100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	IP 53 DIN 40050-9
<u>Frequency :</u>	90 ± 30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40...75%
<u>Operating voltage:</u>	18VDC...32VDC
<u>Function voltage:</u>	20VDC...28VDC
<u>Overvoltage protection:</u>	80V
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emissions according to 72/245/EWG, ISO 7637-2DIS 2000
<u>Operating temperature:</u>	-40...+85°C
<u>Electrcal connection:</u>	According to 41 9 0165 S Page 2
<u>Installation:</u>	On socket



Choice between 21W bulbs or LED-Lights, freely combinable

Operating voltage: 18V ... 32 Volt

Function voltage: 20V ... 28 Volt

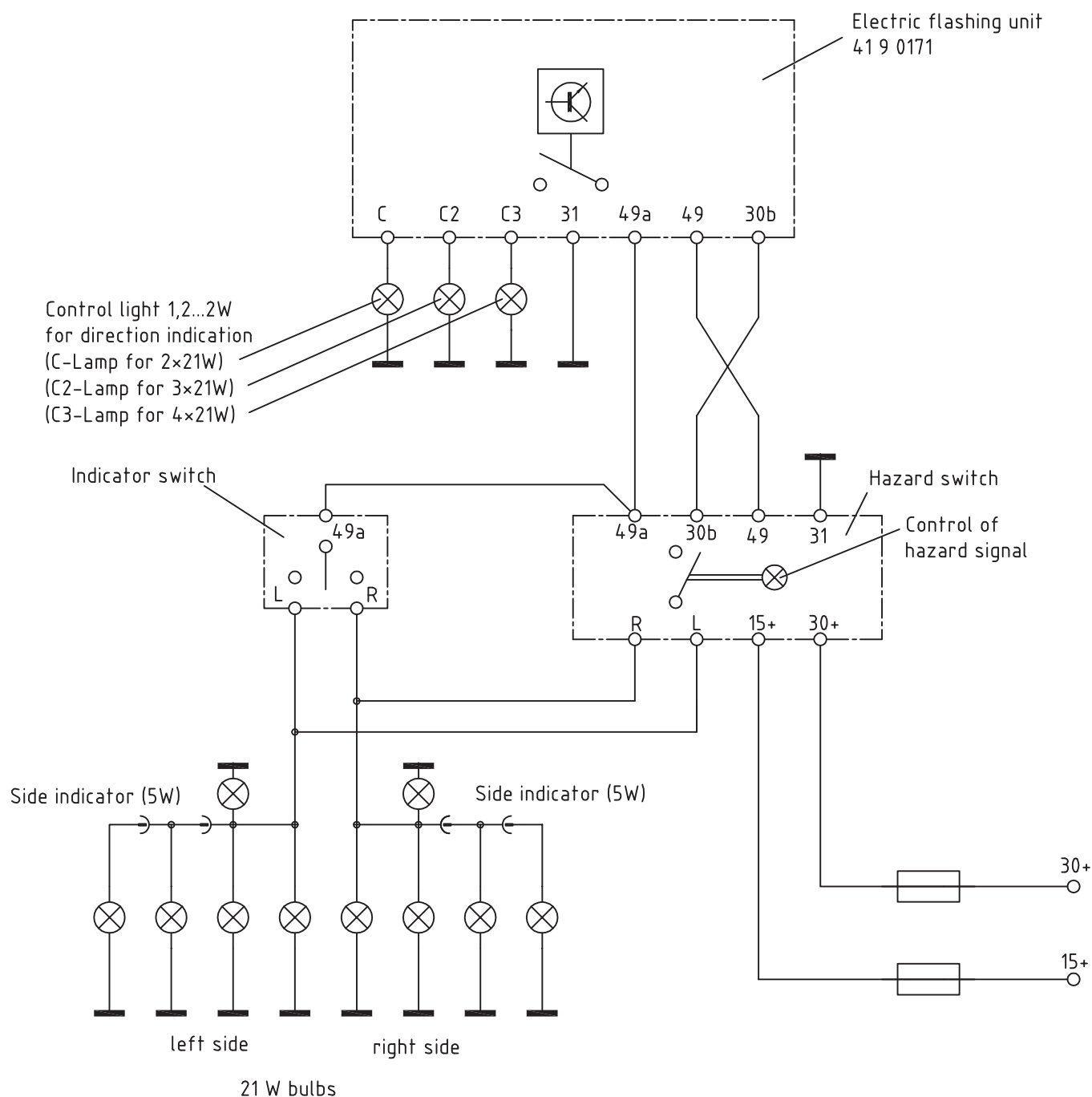


Dimensions in mm

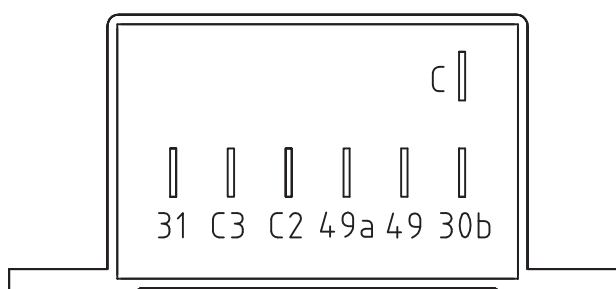
Order number: 41 9 0171

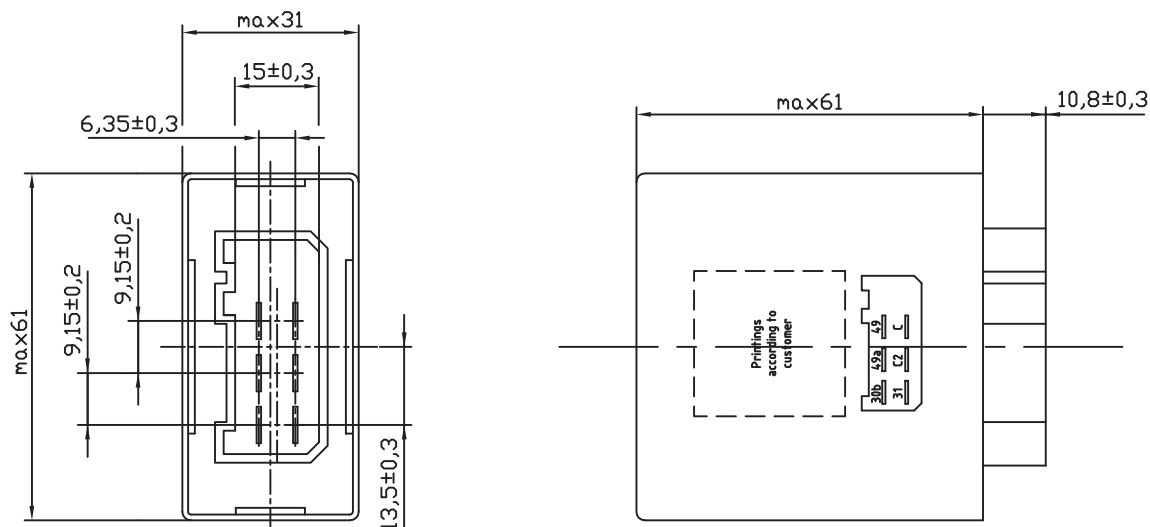
<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Suitable for commercial vehicles without or up to two trailers (single circuit flasher)
<u>Functions:</u>	Direction indication (2+1+1)x21W+5W or (3+1)x21W+5W Warning flashing 8x21W+10W Control 1,2...2W
<u>Control of functions:</u>	Failure of a flashing light (2+1+1)x21W or (3+1)x21W: C3-Control remains dark Failure of a flashing light (2+1)x21W or 3x21W: C3- and C2-Controls remain dark Failure of a flashing light 2x21W: C3, C2 and C-Control lights remain dark No control while warning flashing
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation brackets according to ISO 7588-CA, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Degree of protection:</u>	Plug connections IP 20, housing IP 33 (connections downwards), IP 40 DIN 40 050-9
<u>Frequency:</u>	90±30 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	30%...75%
<u>Operating voltage:</u>	21,6 VDC...30 VDC
<u>Electromagnetic compatibility:</u>	According to 72/245/EWG standard
<u>Operating temperature:</u>	-40°C...+85°C
<u>Electrical connection:</u>	According to 41 9 0171 S Page 2
<u>Installation:</u>	Mounting vertically, terminals downwards, vibration level max 5g

Connections for the single circuit flasher (2+1+1)x21W+5W bzw. (3+1)x21W+5W



Connection
assignment





Dimensions in mm

Order number: 41 9 0174

<u>Nominal voltage:</u>	24 VDC
<u>Application:</u>	Fully electronic flasher Suitable for trucks with or without trailer
<u>Functions:</u>	Direction indication (2+1)x21W+(0...5)W Warning flashing 6x21W+(0...10)W Control 1,2...2W
<u>Control of functions:</u>	Control for passenger car or commercial vehicle without trailer Failure of a flashing light 21W: Frequency increase >100% Control for passenger car or commercial vehicle with resp. without trailer Failure of a flashing light 21W: C2-Control remains dark Failure of two flashing lights 21W: Frequency increase >100%
<u>Compliance:</u>	The device complies with the ISO 4082 standard, plastic housing with fixation bracket according DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Protection degree:</u>	IP 43 DIN 40 050-9
<u>Frequency:</u>	90±15 flashes per minute for direction indication and warning flashing
<u>Duration of light pulse:</u>	40%...55%
<u>Operation voltage:</u>	20 VDC...30 VDC
<u>Electromagnetic compatibility:</u>	Immunity and emitted interference according to guideline 72/245/EWG and VOLVO-EMV-Spezifikation TDJD20000225
<u>Operation temperature:</u>	-40°C...+85°C
<u>Connection:</u>	According to page 2
<u>Installation:</u>	Plug base resp. central electronics

Connections for the single circuit flasher 2+1(6)x21W+0...5(0...10)W

