



# BRIEF INFORMATION

## Rocker switches

- Series 3100
- Series 4100
- Series 4570 / 7832

### PRODUCT FEATURES

#### Series 3100

- Waterproof and dustproof modular switch series for electrical systems (IP68)
- Highly reliable in extreme conditions
- Lasered symbols are lit by integrated LEDs
- Individual application by means of abrasion-resistant lasered symbols

#### Series 4100

- Modular switch series with self-cleaning microswitch suitable for electrical and electronic systems
- Reliable switching of small currents without soiling the contacts
- Long service life
- Timeless design
- Lasered symbols are lit by integrated LEDs
- Individual application by means of abrasion-resistant lasered symbols

#### Series 4570 / 7832

- Basic program for simple electrical systems, well-tried for more than 20 years
- Application for price-conscious consumers
- Symbol cards according to DIN standard or in the customer's choice of colors
- Pilot lighting realised by bulbs or LEDs (to be ordered separately)



For more information see  
[www.hella.com/switch](http://www.hella.com/switch)

# SWITCH SERIES 3100

The waterproof modular switch series for electrical systems meets the requirements of protection class IP 68. The lasered symbols are illuminated by integrated LEDs.

## The advantages of the product range:

- IP 68 according to test standard IEC EN 60529
- Highly reliable even under extreme conditions
- Ideal for use in agricultural and construction machinery
- Most diverse switch functions in 12/24 V
  - Normally open contact/ changeover contact
  - Momentary-contact switch / maintained-contact switch
  - Locking functions
  - Hazard warning light switch
- Manifold standard and customer-specific laser symbols
- Specific symbol illumination by using one or two LEDs
- Easy to install, either directly in the mounting hole or using a modular mounting frame
- Indicator light in the same design for safety-related feedback



TECHNICAL DETAILS	
Mounting hole	21.1 mm x 37.0 mm
Rocker material	PC transparent, painted
Base plate material	PBT
Blade terminals	6.3 mm x 0.8 mm
Terminal material	CuZn silver-plated
Light source	Up to two LEDs, one pilot lighting, green 1 x function lighting, red Indicator lights available in amber and green
Symbol type	lasered
Service life	50,000 switching cycles at 20 A / 12V ohmic 50,000 switching cycles at 15 A / 24V ohmic
IP-rating	Terminal side: IP66, Actuator side: IP68
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
Dashboard thickness [mm]	For direct installation 1.6 ... 6.3 With installation frame 2.5 ... 6.5

ACCESSORIES	
<b>Installation frame</b>	
<b>Modular</b>	
End piece, left, right	9AR 169 209-102/-107
Center piece	9AR 169 208-102/-107
<b>Dummy cover</b>	9HB 172 229-101/-107
<b>Female connector housing</b>	
Type I	8JD 010 076-102/-107
Type II	8JD 010 076-112/-117
Type III	8JD 010 076-122/-127
<b>Blade terminal female 6.3 mm</b>	
0.5 mm <sup>2</sup> – 1 mm <sup>2</sup>	8KW 744 882-003
1.0 mm <sup>2</sup> – 2.5 mm <sup>2</sup>	8KW 744 825-003
<b>Disassembly</b>	8PE 197 631-001

# SWITCH SERIES 4100

The modular switch series with self-cleaning contacts is suitable for modern electrical and electronic systems. This also ensures reliable switching of small currents without contaminating the contacts. The series stands out from the crowd with its timeless design and with lasered symbols illuminated by integrated LEDs.

## The strength of this range:

- Modular switch construction
- Realisation of a wide range of 12 V and 24 V switching functions:
  - N/O contact/changeover contact
  - Momentary-contact / maintained-contact switches
  - Locking function
  - Hazard warning light switch
- Manifold standard and customer-specific symbols
- Specific and reliable long-life symbol illumination by using up to four LEDs
- Easy to install, either directly in the mounting hole or using a modular mounting frame
- Display lights in the same design for safety-related feedback



TECHNICAL DETAILS	
Mounting hole	19.8 mm x 41.8 mm
Rocker material	PC transparent, painted
Base plate material	PA white, housing PA black
Blade terminals	3 mm Junior Power Timer
Terminal material	AgNi
Light source	Up to four LEDs, two pilot lighting, green 2 x function lighting, red Indicator lights also available in blue and amber
Symbol type	lasered
Service life	450,000 switching cycles at 5 mA 270,000 switching cycles at 5 A / 24 V inductive 90,000 switching cycles at 4 A / 24 V bulb (75 W) 80,000 switching cycles at 10 A / 24V ohmic
IP-rating	IP 54
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +100°C
Dashboard thickness [mm]	for direct installation 2 ± 0,3 with installation frame 3 ... 4

ACCESSORIES	
<b>Installation frame</b>	
one-way	9AR 168 396-002/ -007
<b>Modular</b>	
End piece, left	9AR 169 209-002/ -007
End piece, right	9AR 169 210-002/ -007
Center piece	9AR 169 208-002/ -007
<b>Dummy cover</b>	9HB 172 229-002/ -007
<b>Female connector housing, 10-pole</b>	8JD 010 076-002/ -007
<b>Blade terminal female 2.8 mm</b>	
Junior Power Timer 0.5 mm <sup>2</sup> – 1 mm <sup>2</sup>	8KW 863 934-003
Junior Power Timer 1.0 mm <sup>2</sup> – 2.5 mm <sup>2</sup>	8KW 863 934-023/ -024

# SWITCH SERIES 4570 / 7832

The basic program for simple electrical systems that has proved itself over more than 20 years. The symbol cards are available to DIN standard or in the customer's choice of colors. The symbols are lit by incandescent bulbs or LEDs, which can be ordered as accessories.

## The strength of the product range:

- Complete, automotive functional range (standard and specified functions)
- One-stage and two-stage switches
- Momentary-contact or maintained-contact switches
- Effective locking system
- 12 V / 24 V voltage
- LED and incandescent technology
- Manifold lock-in symbol cards
- Initial configuration and retrofitting due to standardised 41.1 x 22.1 mm mounting hole and mounting frame



TECHNICAL DETAILS	
Mounting hole	22.1 mm x 44.1 mm
Rocker material 4570	PA6-GF30 / with red button: PA6
Rocker material 7832	PA6-GF30 / parts with button lock: PA6
Base plate material	POM
Housing material	Plastic, black, grained
Blade terminals	6.3 mm, DIN 46244
Light source	GL W5 / 1.2 12 V/24 V, DIN 72601 LED 12 V–32 V
Symbol type	Replaceable symbol cards
Service life 13.5 V	250,000 switching cycles at 6 A 150,000 switching cycles at 10 A 20,000 switching cycles at 16 A
Service life 27.5 V	150,000 switching cycles at 3 A 100,000 switching cycles at 5 A 20,000 switching cycles at 8 A
IP-rating	Suitable for indoor use
Operating temperature	-35°C to +65°C
Storage temperature	-40°C to +90°C
Dashboard thickness [mm]	For direct installation and with installation frame 1 ... 2.5

## ACCESSORIES

### Bulb-sockets

with 12 V bulb	9FF 713 627-001
with 24 V bulb	9FF 713 627-011
with 12 V–32 V LEDs, Ø 5 mm	9FF 713 627-031

### Installation frame

three-way	8HG 714 504-001
six-way	8HG 713 626-001

### Modular

End piece, left, right	8HG 716 734-001 / -007
Center piece	8HG 716 735-001 / -007

### Dummy cover

	9HB 713 629-001 / -007
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### Female connector housing

8-pole	8JA 713 631-001
2-pole	8JA 715 600-001

### Warning lights for switch bank 004 570-...

with 12 V bulb	2AA 713 628-001
with 24 V bulb	2AA 713 628-011
with 12 V and 24 V LEDs	2AA 713 628-051

### Warning lights for switch bank 007 832-...

with 12 V bulb	2AA 713 628-021
with 24 V bulb	2AA 713 628-031
with 12 V and 24 V LEDs	2AA 713 628-041

### Blade terminal female 6.3 mm

0.5 mm <sup>2</sup> –1 mm <sup>2</sup>	8KW 744 819-003
1.5 mm <sup>2</sup> –2.5 mm <sup>2</sup>	8KW 701 235-033 / -034