MS 31/32 — Modular hood with integrated connectors

Part No. 501 09542

RS 232
RS 485

10 - 30 V
DC

BARCODE

- Modular hood with integrated connectors for BCL 31 and BCL 32 devices
- Connection with M12 technology
- Integrated, fail-safe parameter memory facilitates device exchange without reconfiguration
- Networking of multiple BCL 31 devices via RS 485 in multiNet plus
- Address setting using rotary and slide switches
- Separate connection for switching inputs and switching outputs

IEC 801...

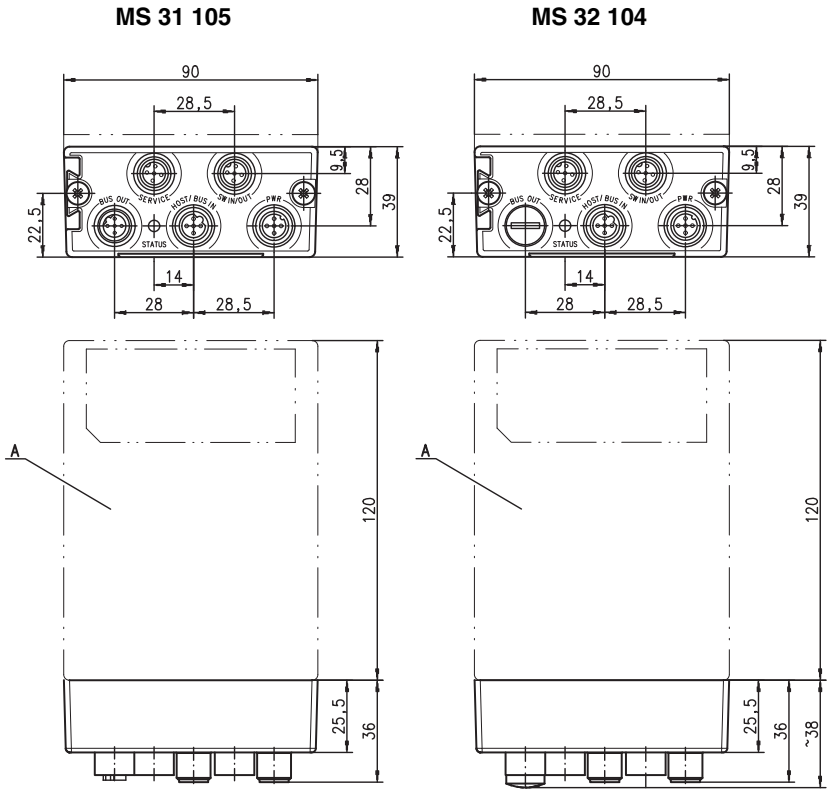
IP 65

Accessories:

(available separately)

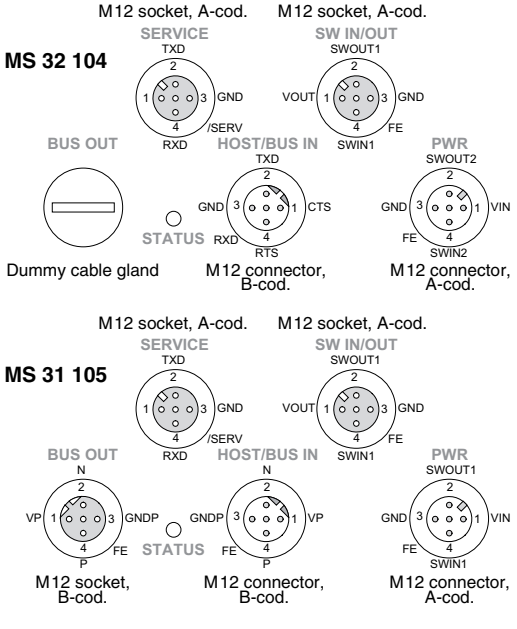
- Ready-made lines for connecting the RS 485 devices in lengths of 1 … 30m (KB PB ...)
- Service cable for connecting the service interface to the PC (KB-Service-3000)
- Easy-to-wire connectors for
  - voltage supply (KD 095-5-A)
  - multiNet plus IN (KD 02-5-BA)
  - multiNet plus OUT (KD 02-5-SA)
- Terminating resistor (TS 02-4-SA)
- Dovetail rod mounting set (BT 56)

Dimensioned drawing



A Barcode reader BCL 31/32

Electrical connection



VIN	Operating voltage 10 … 30VDC
GND	Ground
FE	Functional earth
VOUT	Supply voltage sensor
SWIN1	Switching input 1
SWOUT1	Switching output 1
SWIN2	Switching input 2
SWOUT2	Switching output 2
VP	Supply voltage for RS 485 Termination
GNDP	Ground for RS 485 Termination
P	RS 485 line A
N	RS 485 line B
/SERV	Input for switching to Service mode
TXD	Transmission line RS 232
RXD	Receiving line RS 232
RTS	Ready To Send
CTS	Clear To Send

Specifications

	MS 31 105	MS 32 104
Electrical data		
Operating voltage Power consumption	see BCL 31/32 data sheet/technical description	
Switching input	1, 12 … 30 VDC	2, 12 … 30 VDC
Switching output	1, I_{max} 100 mA	2, I_{max} 100 mA
Indicators		
"STATUS" LED green	ready	ready
orange	switching output 1	switching output 1
red	not ready	–
Mechanical data		
Protection class	IP 65	IP 65
Weight	160 g	160 g
Dimensions (HxWxD)	38x90x39 mm	38x90x39 mm
Housing	diecast zinc	diecast zinc
Connection type	M12 connector, 5-pin	M12 connector, 5-pin
Environmental data		
Ambient temp. (operation/storage)	0 °C … +40 °C/-20 °C … +60 °C	
Air humidity	max. 90% rel. humidity, non-condensing	
Vibration	IEC 60068-2-6, Test Fc 10 … 55 Hz, 0.35 mm	
Shock	IEC 60068-2-27, Test Ea 15 g/11 ms	
Continuous shock	IEC 60068-2-29, Test Eb 10 g/16 ms	
Electromagnetic compatibility	EN 61326-1, IEC 61000-4-2, -3, -4 and -6	

Attention!
The MS 31/32 modular hood with integrated connectors can **only be used in combination with BCL 31/32 barcode readers with software version 2.03 and newer**.

Order guide

Type	Description	Part No.
MS 31 105	Modular hood with integrated connectors for BCL 31 devices with 5 M12 connectors	501 07685
MS 32 104	Modular hood with integrated connectors for BCL 32 devices with 4 M12 connectors	501 07686
Accessories		
BT 56	Dovetail rod mounting set	500 27375
KD 095-5-A	User-configurable M12 connector for supply voltage	500 20501
KD 02-5-BA	User-configurable M12 socket for RS 485 IN	500 38538
KD 02-5-SA	User-configurable M12 connector for RS 485 OUT	500 38537
TS 02-4-SA	Connector with RS 485 terminating resistor	500 38539
KB PB … BA	Ready-made, shielded RS 485 line, M12 socket - open end, lengths: 1 m/2 m/5 m/10 m/15 m/20 m/25 m/30 m, see price list	
KB PB … SA	Ready-made, shielded RS 485 line, M12 connector - open end, lengths: 1 m/2 m/5 m/10 m/15 m/20 m/25 m/30 m, see price list	
KB PB … SBA	Ready-made, shielded RS 485 line, M12 connector - M12 socket, lengths: 1 m/2 m/5 m/10 m/15 m/20 m/25 m/30 m, see price list	
KB-Service-3000	Service cable for connecting the MS 31/32 to a PC, length: 3 m	501 10155

Tables

Diagrams

See page 3.

Remarks

Intended Use

The modular hoods with integrated connectors are connector units for simplifying the connection and networking of the BCL 31 and BCL 32 barcode readers with M12 connector technology.

- The scanner must not be plugged in if the power is on.
- Refer to the technical description for the BCL 31/32 barcode readers.

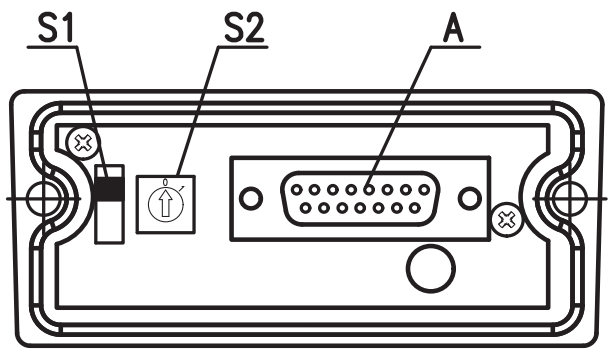
MS 31/32 — Modular hood with integrated connectors

Description

The MS 31 105 and MS 32 104 modular hoods with integrated connectors were developed for networking with the BCL 31 and BCL 32 barcode readers and/or for connecting them to the host system with M12 connector technology.

- MS 31 105 and MS 32 104 are equipped with a parameter memory in which the parameters of the connected barcode reader are stored in a fail-safe manner.
- A separate M12 service connector facilitates simple and reliable data communication should servicing be necessary. As soon as the service cable is plugged into the RS 232 socket, the connected barcode reader goes into Service mode (default data format 9600 baud / 8 data bits / 1 stop bit / no parity).
- The address is set using a hexadecimal rotary switch and a binary slide switch.
- Ready-made M12 lines, user-configurable M12 connectors or M12 sockets can be connected to the hoods with integrated connectors.

Operational controls



Address setting:

A 15-pin Sub-D connector for connecting the BCL 31/32
S1 Slide switch for selecting the address range 0 … 15 or 16 … 31
S2 Hexadecimal rotary switch for setting the device address from 0 … 15 or from 16 … 31

Example: Address = 12: Set **S1** to  and **S2** to '**C**'.

Address = 21: Set **S1** to and **S2** to '**5**'.

In addition to assigning the multiNet address, the rotary and slide switches of the MS 31 105 can also be used to implement the parameter reset function on address 31.

- For this purpose the address needs to be set to 31.
- The BCL 31 device is then restarted.
- The parameter set of the BCL 31 is overwritten with the factory parameter set.

Because the MS 32 104 is not operated in a network, the address setting for the MS 32 104 only applies with reference to address 31. Address 31 is also used as the reset function for BCL 32.

Wiring of the switching inputs and switching outputs