

## SAFETY PRODUCTS

# OCB

## Sensor connection block

OCB is a connection block for OSSD and voltage free safety sensor signals. It is used to simplify the connection of multiple sensors by only having one cable out from the control cabinet to the sensors.

Up to 4 sensors can be connected to each OCB.

Sensors can be either OSSD or voltage free.

Sensors are either treated as in series or with individual safety signals.



### Speed up your projects

#### Easy connection

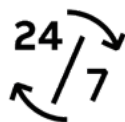
The M12 connectors are fast and easy to use, while minimizing the risk of poor connection.

#### No programming required

Just connect the sensors to the OCB and the wires to the safety controller – and you're good to go.

#### Reduced wiring

Only one cable required for each OCB, reducing the number of wires to the cabinet to 25 % or less.



### Continuous operation

#### Simple replacement

If you need to replace any of the sensors, you just disconnect it and connect the new one. No configuration required.

#### Simple trouble shooting

OCB always provides individual status information for each sensor, in order to simplify trouble shooting.

#### Resistant to demanding environments

The OCB housing has an IP67 rating and can be used in applications with temperatures from -25 to +80 °C.



### Safety and protection

#### Easy to reach highest safety level

OSSD connection always reaches Cat 4/PL e.

Voltage free sensors with individual safety signals results in Cat 4/ PL e.

Voltage free sensors connected in series depends on the configuration, but are often Cat 3/PL d.

## Connection example

### OCB vs traditional connection

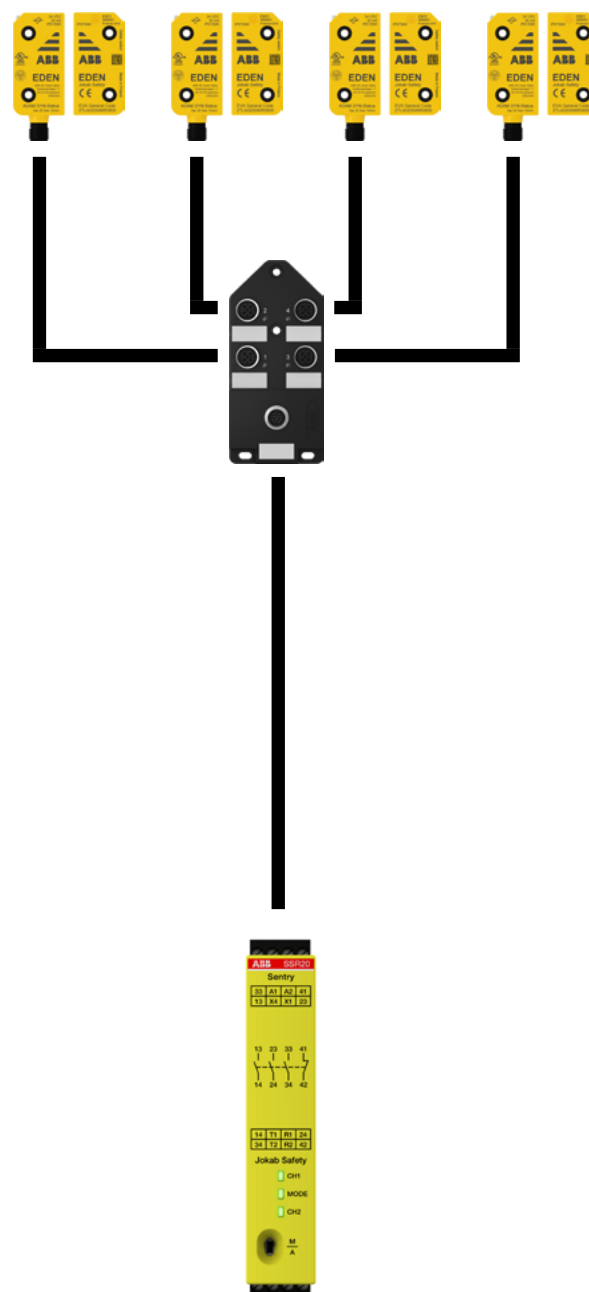
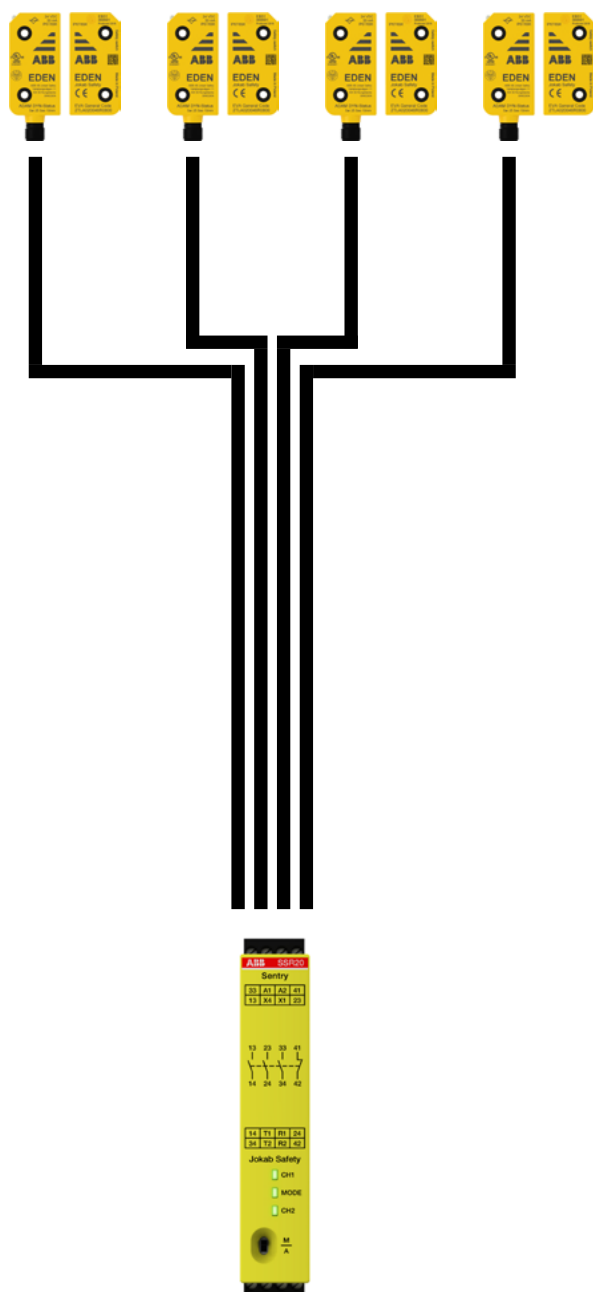
#### Traditional connection

A traditional connection with 4 sensors connected in series for gates and hatches on a machine, with individual status information for each sensor. The control cabinet is 10 m away from the machine.

#### OCB connection

Using OCB for the same machine would result in a number of advantages for the cabling:

- Reduced total cable length with appr. 30 m
- Reduced number of cables to the cabinet
- Reduced number of cable glands in the cabinet
- Reduced number of terminal blocks in the cabinet



## Models

### OCB

#### Model descriptions

##### OCB-1A - serial OSSD

OCB-1A is used for serial connection of the safety signals of up to 4 Eden OSSD sensors. It has four M12-8 pin female connectors for the connection of the safety sensors and one M12-8 pin male connector for connection to the electrical cabinet. The blanking plug JSOP-8 must be connected to any unused M12 sensor connectors. Individual information output is available from each sensor.

Compatible sensors: Adam OSSD-Info M12-8, and other OSSD sensors with compatible pin configuration.



OCB-1A



##### OCB-2A - serial voltage free

OCB-2A is used for serial connection of the safety signals of up to 4 sensors with voltage free contacts. It has four M12-5 pin female connectors for the connection of the safety sensors and one M12-8 pin male connector for connection to the electrical cabinet. Blanking plug JST2 must be connected to any unused M12 sensor connectors. Individual information output is available from each sensor.

Compatible sensors: Smile, LineStrong, MKey, EStrong, and other sensors with compatible pin configuration.



OCB-2A



##### OCB-3A - individual OSSD

OCB-3A is used for individual connection of the safety signals of up to 4 Eden OSSD sensors. It has four M12-5 pin female connectors for the connection of the safety sensors and one M12-12 pin male connector for connection to the electrical cabinet.

Compatible sensors: Adam OSSD-Info M12-5, Orion, and other OSSD sensors with compatible pin configuration.



OCB-3A



##### OCB-4A - individual voltage free

OCB-4A is used for individual connection of the safety signals of up to 4 sensors with voltage free contacts. It has four M12-5 pin female connectors for the connection of the safety sensors and one M12-12 pin male connector for connection to the electrical cabinet.

Compatible sensors: Smile, LineStrong, MKey, EStrong, and other sensors with compatible pin configuration.



OCB-4A



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**OCB sensor connection box**



**OCB-1A**

Connection	Communication type	Connectors for sensors	Connector for cabinet	Type	Order code
Serial	OSSD	M12-8 female	M12-8 male	OCB-1A	2TLA020055R3000
	Voltage free	M12-5 female	M12-8 male	OCB-2A	2TLA020055R3100
Individual	OSSD	M12-5 female	M12-12 male	OCB-3A	2TLA020055R3200
	Voltage free	M12-5 female	M12-12 male	OCB-4A	2TLA020055R3300



**JSOP-8**

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**OCB accessories**

Function	Usage	Connector	Type	Order code
OSSD termination plug	Required for unused connectors on OCB-1A	M12-8 male	JSOP-8	2TLA020055R2400
Voltage free termination plug	Required for unused connectors on OCB-2A	M12-5 male	JST2	2TLA030051R1300



**JST2**

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**Selection table for OCB cable types**

Connection block	OCB-1A	OCB-2A	OCB-3A	OCB-4A
Sensor cable	B	A	A	A
Cabinet cable	C	C	D	D

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**Cables for OCB**



**M12-C334**

Cable type	Connector	Female/male	Length	Type	Order code
A	M12-5	Female + male	1 m	M12-C112	2TLA020056R2000
			3 m	M12-C312	2TLA020056R2100
			6 m	M12-C612	2TLA020056R2200
			10 m	M12-C1012	2TLA020056R2300
			16 m	M12-C1612	2TLA020056R5400
			20 m	M12-C2012	2TLA020056R2400
B	M12-8	Female + male	1 m	M12-C134	2TLA020056R5000
			3 m	M12-C334	2TLA020056R5100
			6 m	M12-C634	2TLA020056R7600
			10 m	M12-C1034	2TLA020056R7700
			20 m	M12-C2034	2TLA020056R7800
C	M12-8	Female	3 m	M12-C33	2TLA020056R2900
			6 m	M12-C63	2TLA020056R3000
			10 m	M12-C103	2TLA020056R4000
			20 m	M12-C203	2TLA020056R4100
D	M12-12	Female	6 m	M12-C65	2TLA020056R7200
			10 m	M12-C105	2TLA020056R7300
			20 m	M12-C205	2TLA020056R7500