

Function Principle	Emitter + Receiver (intermediate slave model)
1. The emitter transmits a signal to the receiver. 2. The receiver receives the signal and processes it. 3. The receiver transmits a signal back to the emitter. 4. The emitter receives the signal and processes it.	1. The emitter transmits a signal to the receiver. 2. The receiver receives the signal and processes it. 3. The receiver transmits a signal back to the emitter. 4. The emitter receives the signal and processes it.

Safety parameters

Type	4
SIL	3
SILCL	3
PL	e
PFHd	8,48E-09
Dcavg	96,80%
MTTFd	100
CFF	80%

Outputs

Output type	2 x PNP-N0 (OSSD safety output)
Response time	4,5ms
Response Time (Master + Slave)	$T = [0,11 \cdot (T_{slave} + T_{master}) + 0,9376] \cdot 2$
Response Time (Master + 2 Slave)	$T = [0,11 \cdot (T_{slave1} + T_{slave2} + T_{master}) + 1,0508] \cdot 2$

Electrical data

Operating Voltage	19,2 ... 28,8 Vcc
Load current	$\leq 400\text{mA}$
Time delay before availability	2s
Interference to external light	according to IEC 61496-2
Power Consumption - Receiver	2W (no load)
Power Consumption - Emitter	1W
Equivalent Resistive Load	$\geq 60 \Omega$
Capacitive Load	$\geq 0,82 \mu\text{F}$
Cabel Length (Power Supply/Output)	$\leq 100\text{m}$
Cable Length for Master Slave Interconnections	$\leq 50\text{m}$

Mechanical data

Dimensions	28mm (front) x 30mm
Connections	2 x M12-5 poles (emitter) 2 x M12 5 poles (receiver)
Operating temperature	-10°C ÷ +55°C (no condensation)
Storage temperature	-25°C ÷ +70°C (no condensation)
humidity	95% (no condensation)

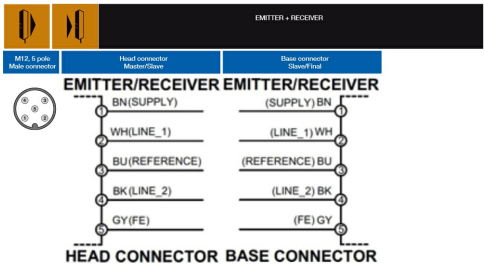
Test/Approvals

Approvals	CE, cULus, TÜV
EMC compatibility	According to 2014/30/EU Directive
Shocks and vibrations	according to IEC 61496-1
Degree of protection	IP65, IP67

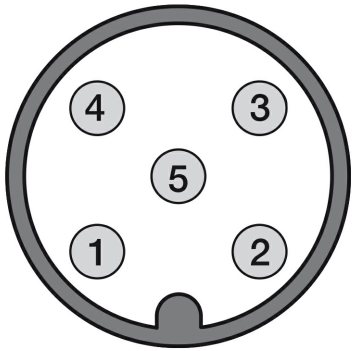
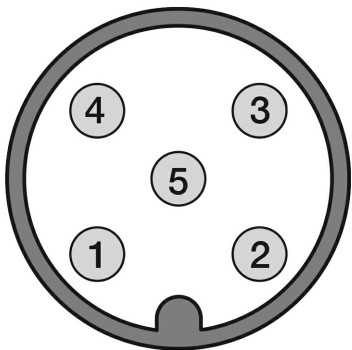
Accessories

Supplied Accessories	ST 204 4S
Generical Data	
Dimensions	28mm (front)x 30mm
Operating Temperature	-10°C ÷ +55°C (no condensation)
Humidity	95% (no condensation)
Mechanical Protection	IP65, IP67

ELECTRICAL DIAGRAMS OF THE CONNECTIONS



CONNECTOR



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