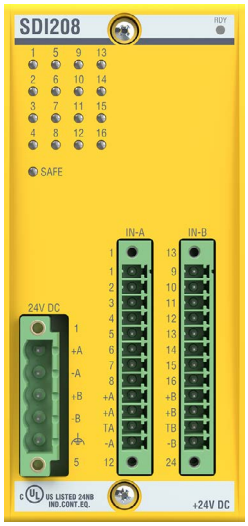

Safety

SDI208
Safety Digital Input Module

The SDI208 module adds an additional 8 input channels to the SLC284 safety processor module. A homogeneous total system is created through independent and safe integration in the M1 controller. Through the free choice of the slot – either directly beside the safety controller, through bus expansion, or several hundred meters away through the FASTBUS – the safety system can be optimally adapted to the distributed requirements and existing infrastructure of the system.

The SDI208 safety digital input module is approved under the latest safety standard IEC 61508. The SDI208 can be easily integrated in the safety application, comparable with a standard I/O module – as the proven »SolutionCenter« development platform offers the easiest configuration, most flexible type of programming, and a safe simulation via easily combinable PLC-Open function modules. All variables, and states of the SDI208 safety digital input module are accessible in all other machine program languages (PLC, C/C++); visualization is also available and makes cumbersome parallel wiring unnecessary.

- 16 digital inputs – can be used redundantly in pairs (PL e/SIL3/Cat 4)
- Safe monitoring of the inputs with redundant 32-bit microcontrollers
- Several SDI208 modules per controller possible
- All safety I/O states can be used by M1 controller
- Safety programming via SolutionCenter
- Galvanic isolation between the groups
- Galvanic isolation from the system
- Operating state display »SAFE«
- Status display for each channel via LED

Item	Item-No.
SDI208	00014544-00
SDI208 CC	00017459-00

SDI208	
Digital Inputs	
Quantity	16 digital inputs – can be used redundantly in pairs (PL e/SIL3/Cat 4)
Input voltage range (H)	15 to 34 V DC
Input voltage range (L)	-34 to +5 V DC
Input delay (normally) HW	300 µs
Input delay (normally) SW	1 ms with deactivated test clocking
Input type according to IEC61131-2	Type 1
Input current at least	3.5 mA at 24 V DC
Status display (LED)	Green
Error monitoring	Internal function monitoring External test clocking optional
Internal Power Supply	
Galvanic isolation from the system	500 V
Galvanic isolation between groups	500 V
Internal power supply	Backplanes BS2xx
Current consumption internal	5 V / 500 mA via backplane
External Power Supply	
Reverse polarity protection	Yes
Input voltage	24 V DC (18 to 34 V)
Current consumption	Normally 65 mA at 24 VDC + Σ current consumption of the encoders and sensors
Connection Technology	
I/O connection	Connector RM3.5 with flange
Power supply connection	Connector RM5.08 with flange
Connection technology	Screw or spring terminal Writable and codable plug
Standards	
Machine safety	IEC 61508:2010: Functional safety – Design of complex E/E/PE safety components
Approved for	ISO 13849: Safety of Machinery IEC 62061: Functional safety machine-related E/E/PE systems IEC 61511: Functional safety equipment and process industry
Product standard	IEC 61131-2 UL 508
Additional Features	
Status display via LEDs	

SDI208		
Approvals / Certificates	**Standard**	**ColdClimate (❄)**
General	CE, cULus, CCC	
Marine	–	DNV GL, LR, ABS, BV, NK, KR, RINA
Ambient Conditions	**Standard**	**ColdClimate (❄)**
Operating temperature	-30 to +60 °C fanless	-30 to +60 °C fanless
Relative humidity operation	5 to 95 % without condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	-40 to +85 °C
Relative humidity storage	5 to 95 % without condensation	5 to 95 % with condensation
Maximum altitude[1)]	4,500 m above sea level	
Pollution degree	2 (without condesation; according to IEC 60664-1)	2 (according to IEC 60664-1)
Protection class	3	

1) For operation at an altitude of 2,000 m above sea level, a derating of -0.5 Kelvin per 100 m to a maximum altitude of 4,500 m above sea level must be taken into account.

Order Codes		
Item	**Item No.**	**Description**
SDI208	00014544-00	Safety digital input module; SIL3/PLe: 8x DI 24V; (SIL2/PLd: 16x DI)
SDI208 CC	00017459-00	Like SDI208; ColdClimate (❄)
Accessories		
KZ-SDI208 B+C	00014774-50	Terminal set Phoenix cage clamp (1x KZ 51/05; 2x KZ 35/12) with labeling strip and coding elements