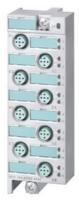
## 6ES7143-4BF00-0AA0

**Data sheet** 



SIMATIC DP, Electronic modules for ET 200 PRO 4 DIO/4 DO 24 V DC, 0.5A Module diagnostics; incl. bus module, Connection module IO 6ES7194-4CB50-0AA0 order separately

Supply voltage	24 V
Rated value (DC)	
Reverse polarity protection	Yes; Against destruction; encoder power supply outputs applied with reversed polarity
Load voltage 2L+	
<ul><li>Rated value (DC)</li></ul>	24 V
Short-circuit protection	Yes
<ul> <li>Reverse polarity protection</li> </ul>	Yes; against destruction; load increasing
nput current	
from supply voltage 1L+, max.	20 mA
from load voltage 2L+ (without load), max.	20 mA
from backplane bus 3.3 V DC, max.	30 mA
incoder supply	
Short-circuit protection	Yes; per module, electronic
Output current	
• up to 55 °C, max.	1 A
Power loss	
Power loss, typ.	3 W
Digital inputs	
Number of digital inputs	4; 4 DIOs can be parameterized
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 55 °C, max.	4
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+11 to +30V
Input current	
• for signal "1", typ.	7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", min.	1.2 ms
— at "0" to "1", max.	4.8 ms
— at "1" to "0", min.	1.2 ms
— at "1" to "0", max.	4.8 ms
Cable length	
	30 m
<ul><li>unshielded, max.</li></ul>	
unshielded, max.  Digital outputs	

Short-leval protection	• in groups of	4; 2 load groups for 4 outputs each
. Response threshold, by.  Controlling a digital input  Switching capacity of the outputs  - on famp body max.  Switching capacity of the outputs  - on famp body max.  Switching capacity of the outputs  - on famp body max.  Switching capacity of the output service  - on famp body max.  Switching capacity of the output service  - lower lamb  - lower lamb  - lower lamb  - for signal "1", min.  Subject than 1 and		
Immitted or finiticitive shatistive values to 1 yes		
Controlling a rigidal Input   Ves		
Switching separaty of the outputs	<del>-</del>	
• on tomp load, max   48 0 0		103
Load resistance range		5 W
• (over limit		5 W
Output voltage         + for signal "1", min.         2 L + (0.8 V)           Output current         + for signal "1" rated value         0.5 A           + for signal "1" rated value         0.5 mA           + for signal "1" rated value         0.5 mA           + for signal of "0" residual current, max.         0.5 mA           + for redundant control of a load         Yes           Switching frequency         + with inductive load, max.         0.5 ftz           + with inductive load, max.         0.5 ftz           - with inductive load, max.         0.5 ftz           - with inductive load, max.         1 Hz           - load current of the outputs (per group)         2 A           all mounting positions         2 A           - up to 5 °C. max.         2 A           Gable length         * yes           - solar general of the outputs (per group)         * yes           - whire research         * yes           - up to 5 °C. max.         2 A           Cable length         * yes           - ex-wire search         Yes           - ex-wire search         Yes           - belongenotic stratus information         Yes           - blaggoestic struction         Yes           - blaggoestic struction         Ye		49.0
Output current  • for signal*1"r intel or value  • for signal*1"r rated value  • for signal*1" rated value  • for signal*2" rated v		
• or signal "1", min.  Output current  • for signal "1" rated value • for signal path value • for uproting • for redundant control of a load  Parallel switching of two outputs • for redundant control of a load  Ves  Switching frequency • with resistive load, max. • on lamp load, max. • 2 A  Cable length • unshielded, max. • 2 A  Cable length • outshielded, max. • 30 m  Connectable encoders • 2 wire sensor — permissible quiescent current (2-wire sensor), max.  1.5 mA  Interruptation proting load information  Diagnosate function • Yes  • Diagnosate information readable • Short circuit  • Short circuit  Diagnosate information readable • Short circuit • Status indicator digital pat (green) • Status indicator digital input (green) • Short circuit on the channels and backylane bus • Potential separation digital inputs • Short chrow the channels and backylane bus • Short with expansion digital inputs • Short with expansion digital digital with the province of the province of the province of the province		4 K12
Use of resignal "1" rated value	· •	21 + 7 0 0 1/1
• for signal "1" rated value     • for signal "0" residual current, max.     • for signal "0" residual current, max.     • for uprating     • for or uprating     • for or uprating     • for or uprating     • for or uprating     • for redunal control of a load     • for redunal control of a load     • for redunal control of a load     • with individe load, max.     • with individe load, max.     • on lamp load, max.     • Total current of the outputs (per group)     all mounting positions     • up to 5 °C, max.     • 2A     Cable length     • unshielded, max.     • 30 m     Recoder  Connectable encoders     • 2 wite sensor     • — permissible quiescent current (2-wire sensor), max.     • 1.5 mA Interrupts diagnostic sistatus informatio  Pagnostic silloritoritoritoritoritoritoritoritoritorit		ZL+ (-0,8 V)
e for signal "0" residual current, max. Parallel switching of two outputs  • for updating • for redundant control of a load • Yes Switching frequency  • with resistive load, max. • with inductive load, max. • on lamp load, max. • up to 55 °C. max.  — up to 55 °C. max. — up to 55 °C. max. • unshielded, max. • unshielded, max. • unshielded, max. • with sensor • — very sensor • — very sensor • — very sensor • — very sensor • — permissible quiescent current (2-wire sensor), max.  Interrupts/diagnostic systatus information  Diagnostics function Alarms • Diagnostic shruction  Alarms • Diagnostic information readable • Short-circuit • Shott-circuit • Shott-circuit • Shott-circuit • Status indicator digital input (green) • Status indicator digital input • between the channels and backplane bus • between the channels and backplane b	·	0.5.4
Perallel switching of two outputs  • for uprailing • with resistive load, max. • with inductive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • up to 55 °C, max.  2 A  Cable length • unshielded, max. • so many load of the outputs (ger group)  all mounting positions  — up to 55 °C, max.  2 A  Cable length • unshielded, max. • 30 m  Fecodor  Connectable encoders • Zwire sensor — permissible quiescent current (2-wire sensor), max.  1.5 mA  Interrupts (diagnostic sistatus information)  Diagnostics function Alarms • Diagnostics information readable • Diagnostic information readable • Short-circuit • Yes • Short-circuit • Yes • Short-circuit • Yes • Short-circuit of outputs to ground; module by module  Diagnostics indicator digital input (green) • Status indicator digital input (green) • Status indicator digital inputs • Detween the channels and backplane bus • Detween the chann	-	
• for redundant control of a load	· · · · · · · · · · · · · · · · · · ·	U.5 MA
• for redundant control of a load  Switching frequency  • with resistive load, max.  • on lamp load, max.  — up to 55 °C, max.  — up		
Switching frequency  • with resistive load, max. • on lamp load, max.  1 Hz  Total current of the outputs (per group) all mounting positions  — up to 55 °C, max. 2 A  Cable length • unshielded, max. • on shielded, max.  30 m  Encoder  Connectable encoders  • 2-2 wire sensor — permissible quiescent current (2-wire sensor), max.  Interrupts/diagnostics/status information  Diagnostics/status information  Pes  Diagnostics function Alarms • Diagnostic information readable • Short-circuit Diagnostic information readable • Short-circuit Diagnostics indication LED • Group error SF (red) • Short-circuit Diagnostics indicator digital input (green) • Status indicator digital input (green) • Status indicator digital input (green) • Short-circuit • Deveme has kpiane bus and all other circuit components • Deveme has kpiane bus and all other circuit components • Deveme the channels • Detween the channels • Detween the channels and backplane bus • Detween the channels and backpla	. •	
• with resistive load, max.         0.5 Hz           • on lamp load, max.         1 Hz           Total current of the outputs (per group)         II Hz           all mounting positions         2 A           — up to 55 °C. max.         2 A           Cable length         • unshielded, max.           • unshielded, max.         30 m           Encoder           Connectable encoders           • 2-wire sensor         Yes           • permissible quiescent current (2-wire sensor), max.         1.5 mA           Interrupts/diagnostic/status information           Diagnostic alarm         Yes           Diagnostic alarm         Yes           Diagnostic information readable         Yes           • Short-circuit         Yes; Short-circuit of outputs to ground; module by module           Diagnostic indicator digital input (green)         Yes           • Status indicator digital input         Yes           • Status indicator digital input (green)         Yes           • Status indicator digital input         Yes <td< td=""><td></td><td>Yes</td></td<>		Yes
with inductive load, max. 1 Hz     on lamp load, max. 1 Hz     Total current of the outputs (per group)     all mounting positions		
Total current of the outputs (per group) all mounting positions — up to 55 °C, max. 2A  Cable length • unshelded, max, 30 m  Encodor  Connectable encoders • 2-wire sensor		
Total current of the outputs (per group)  all mounting positions — up to 55°C, max. 2A  Cable length • unshielded, max. 30 m  Encodor  Connectable encoders • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 1.5 mA  Interrupts/diagnostics/status information  Diagnostics function Yes Alaims • Diagnostic sinction  Alaims • Diagnostic information readable Yes • Short-circuit Yes; Short-circuit of outputs to ground; module by module  Diagnostics information readable Yes • Short-circuit Yes; Short-circuit of outputs to ground; module by module  Diagnostics indication LED • Group error SF (red) Yes • Status indicator digital input (green) Yes • Status indicator digital input (green) Yes  Potential separation digital inputs • between the channels And backplane bus Yes  Potential separation digital inputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential s		
all mounting positions - up to 55 °C, max. 2 A  Cable length • unshielded, max. 30 m  Encoder  Connectable encoders • 2-wire sensor		1 Hz
Cable length  • unshielded, max.  • unshielded, max.    Solid manual man	· · · · · · · · · · · · · · · · · · ·	
Cable length  unshielded, max. 30 m  Eccodor  Connectable encoders  2-wire sensor — permissible quiescent current (2-wire sensor), max. 1.5 mA  Interrupts/diagnostics/status information  Diagnostics function Alarms  Diagnostic alarm Diagnostic information readable Diagnostic information readable Short-Circuit Short-Circuit Forcupt (2-wire sensor)  Pes Diagnostic information readable Short-Circuit Short-Circuit Pes Short-Circuit Forcupt (2-wire sensor)  Pes Short-Circuit Forcupt (2-wire sensor) Pes Status indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital input (green) Potential separation  between backplane bus and all other circuit components Potential separation digital inputs  between the channels between the channels and backplane bus	all mounting positions	
Encoder  Connectable encoders	— up to 55 °C, max.	2 A
Encoder  Connectable encoders  • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 1.5 mA  Interrupts/diagnostics/status information  Diagnostics function Alarms • Diagnostic alarm	Cable length	
Connectable encoders	unshielded, max.	30 m
	Encoder	
Interrupts/diagnostics/status information  Diagnostics function Yes  • Diagnostic alarm Yes  • Diagnostic information readable Yes  • Diagnostic information readable Yes; Short-circuit of outputs to ground; module by module  Diagnostics indication LED  • Group error SF (red) Yes • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes  Potential separation  between backplane bus and all other circuit components Yes  Potential separation digital inputs • between the channels Abckplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Yes  Highest safety class achievable for safety-related tripping of standard modules • Performance level according to ISO 13849-1 PL d Category according to ISO 13849-1 Cat. 3 • SIL acc. to IEC 62061  Width 45 mm	Connectable encoders	
Diagnostics function	• 2-wire sensor	Yes
Diagnostics function Yes  Alarms  • Diagnostic alarm Yes  Diagnosts  • Diagnostic information readable Yes  • Short-circuit Yes; Short-circuit of outputs to ground; module by module  Diagnostics indicator LED  • Group error SF (red) Yes  • Status indicator digital input (green) Yes  • Status indicator digital output (green) Yes  Potential separation  between backplane bus and all other circuit components Yes  Potential separation digital inputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Potential separation digital outputs  • between the channels and backplane dus Yes  Biolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1  • El. acc. to IEC 62061  billioners  Width 45 mm	<ul> <li>permissible quiescent current (2-wire sensor), max</li> </ul>	1.5 mA
Poliagnostic alarm Poliagnoses  Diagnostic information readable Short-circuit Pressibility (green) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green) Potential separation  between backplane bus and all other circuit components Potential separation digital inputs  between the channels between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation  No  Yes  Biolation tested with  707 V DC (type test)  Standards, approvals, certificates  Sultable for safety-related tripping of standard modules  Performance level according to ISO 13849-1  Category according to ISO 13849-1  Silt acc. to IEC 62061  Biolation tested with  Silt acc. to IEC 62061		
Diagnostic alarm Diagnostic information readable Short-circuit Short-circuit Possport (red) Status indicator digital input (green) Status indicator digital input (green) Status indicator digital input (green)  Detween backplane bus and all other circuit components Setween the channels Short-circuit of outputs to ground; module by module  Potential separation  Detween beckplane bus and all other circuit components Short-circuit of outputs to ground; module by module Status indicator digital input (green) Setween backplane bus and all other circuit components  Potential separation Short-circuit of outputs Short-circuit of outputs (green) Setween the channels and lother circuit components Short-circuit of outputs (green) Short-circuit of outputs to ground; module by Short-circuit of outputs to ground; module by Short-circuit of outputs to ground; module short-circuit of output	· · · · · · · · · · · · · · · · · · ·	
Diagnoses  Diagnostic information readable Short-circuit Ves; Short-circuit of outputs to ground; module by module  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital input (green) Status indicator digital output (green) Ves  Potential separation  between backplane bus and all other circuit components Potential separation  between the channels No between the channels and backplane bus Potential separation digital inputs  between the channels and backplane bus Ves  Potential separation digital outputs  between the channels and backplane bus Yes  Potential separation digital outputs  between the channels and backplane bus Yes  Potential separation digital outputs  between the channels and backplane bus Yes  Potential separation digital outputs  between the channels and backplane bus Yes  Isolation  Isolation tested with Yor V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Performance level according to ISO 13849-1 Category according to ISO 13849-1 Sil. acc. to IEC 62061 Sil. 2  Dimensions  Width  Midth	Interrupts/diagnostics/status information	Yes
Diagnostic information readable Short-circuit Short-circuit Personance Force Status indicator LED Status indicator digital input (green) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital input (green) Status indicator digital input (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components Potential separation digital inputs  Detween the channels Substation Status indicator digital outputs Status indicator digital inputs Status indicator digital inputs Status indicator digital inputs Status indicator digital inputs Status indicator digital outputs Status indicator digital outputs Status indicator digital outputs Standards, approvals, certificates Suitable for safety-related tripping of standard modules Performance level according to ISO 13849-1 Category according to ISO 13849-1 Sil. acc. to IEC 62061 Sil. 2 Dimensions Width  Passon tricuit of outputs to ground; module by module by module supposed to a specific according to ISO 13849-1 Sil. 45 mm	Interrupts/diagnostics/status information Diagnostics function	Yes
Short-circuit Pes; Short-circuit of outputs to ground; module by module Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital input (green) Status indicator digital output (green) Potential separation  between backplane bus and all other circuit components Potential separation digital inputs  • between the channels • between the channels and backplane bus Potential separation digital outputs • between the channels and backplane bus Potential separation digital outputs • between the channels and backplane bus Potential separation digital outputs  • between the channels and backplane bus Pes  Sloation  Isolation tested with TO7 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061  SIL 2  Dimensions  Width  Yes	Interrupts/diagnostics/status information  Diagnostics function  Alarms	
Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Yes  Otential separation  between backplane bus and all other circuit components  Potential separation digital inputs  Otential separation digital inputs  Otential separation digital inputs  Otential separation digital inputs  Otential separation digital outputs  Otential separation digita	Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm	
• Group error SF (red) Yes • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes  Potential separation  between backplane bus and all other circuit components Yes  Potential separation digital inputs • between the channels No • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules • Performance level according to ISO 13849-1 PL d • Category according to ISO 13849-1 Cat. 3 • SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm  Diagnoses	Yes
• Status indicator digital input (green) • Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  • between the channels • between the channels No • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Potential separation digital outputs  • between the channels and backplane bus Yes  Isolation  Isolation  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm  Diagnoses  • Diagnostic information readable	Yes
Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  • between the channels • between the channels • between the channels and backplane bus  Potential separation digital outputs • between the channels and backplane bus  Potential separation digital outputs • between the channels and backplane bus  Yes  Potential separation digital outputs  • between the channels and backplane bus  Yes  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061  SIL 2  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm  Diagnoses  • Diagnostic information readable  • Short-circuit	Yes
• Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  • between the channels • between the channels and backplane bus  Potential separation digital outputs  • between the channels and backplane bus  Potential separation digital outputs  • between the channels and backplane bus  Potential separation digital outputs  • between the channels and backplane bus  Yes  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1  • Category according to ISO 13849-1  • Category according to ISO 13849-1  • SIL acc. to IEC 62061  SIL 2  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm  Diagnoses  • Diagnostic information readable  • Short-circuit  Diagnostics indication LED	Yes Yes; Short-circuit of outputs to ground; module by module
Potential separation  between backplane bus and all other circuit components Yes  Potential separation digital inputs  • between the channels No • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Potential separation digital outputs • between the channels and backplane bus Yes  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Yes  Highest safety class achievable for safety-related tripping of standard modules • Performance level according to ISO 13849-1 PL d • Category according to ISO 13849-1 Cat. 3 • SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable  Short-circuit  Diagnostics indication LED  Group error SF (red)	Yes  Yes  Yes; Short-circuit of outputs to ground; module by module  Yes
between backplane bus and all other circuit components  Potential separation digital inputs  • between the channels • between the channels and backplane bus  Potential separation digital outputs • between the channels and backplane bus  Potential separation digital outputs  • between the channels and backplane bus  Yes  Isolation  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green)	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes
Potential separation digital inputs  • between the channels • between the channels and backplane bus  Potential separation digital outputs  • between the channels and backplane bus  Yes  Potential separation digital outputs  • between the channels and backplane bus  Yes  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Yes  Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1  • Category according to ISO 13849-1  • Category according to ISO 13849-1  • SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)	Yes Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes
between the channels     between the channels and backplane bus  Potential separation digital outputs     between the channels and backplane bus  Yes  Isolation  Isolation tested with     707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Yes  Highest safety class achievable for safety-related tripping of standard modules  Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061  SIL 2  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes
between the channels and backplane bus     Potential separation digital outputs     between the channels and backplane bus     Yes  Isolation  Isolation tested with     707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard modules  Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes
Potential separation digital outputs  • between the channels and backplane bus  Yes  Isolation  Isolation tested with  707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1  • Category according to ISO 13849-1  • SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Potential separation  between backplane bus and all other circuit components Potential separation digital inputs	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes
● between the channels and backplane bus  Isolation  Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Yes  Highest safety class achievable for safety-related tripping of standard modules  ● Performance level according to ISO 13849-1 PL d  ● Category according to ISO 13849-1 Cat. 3  ● SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes No
Isolation Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Yes  Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 PL d  • Category according to ISO 13849-1 Cat. 3  • SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  between the channels between the channels between the channels and backplane bus	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes No
Isolation tested with 707 V DC (type test)  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules Yes  Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 PL d  • Category according to ISO 13849-1 Cat. 3  • SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  between the channels between the channels between the channels and backplane bus	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes
Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1  • Category according to ISO 13849-1  • SIL acc. to IEC 62061  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes
Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard modules  Performance level according to ISO 13849-1  Cat. 3  SIL acc. to IEC 62061  Pimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus	Yes Yes; Short-circuit of outputs to ground; module by module  Yes Yes Yes Yes Yes Yes  Yes  No Yes
Highest safety class achievable for safety-related tripping of standard modules  • Performance level according to ISO 13849-1 PL d  • Category according to ISO 13849-1 Cat. 3  • SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  between the channels between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Isolation  Isolation tested with	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes Yes Yes No Yes
Performance level according to ISO 13849-1 Cat. 3 SIL acc. to IEC 62061  PL d  Cat. 3 SIL 2  Dimensions  Width  45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Isolation  Isolation tested with  Standards, approvals, certificates	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes  You Yes  No Yes  Yes  You Yes
● Category according to ISO 13849-1	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green) Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Potential separation digital outputs shout outputs between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes  You Yes  No Yes  Yes  You Yes  Yes
● SIL acc. to IEC 62061 SIL 2  Dimensions  Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels between the channels between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Solation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard	Yes Yes Yes; Short-circuit of outputs to ground; module by module  Yes Yes Yes Yes  Yes  You Yes  No Yes  Yes  707 V DC (type test)  Yes  and modules
Dimensions Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes  Yes  You Yes  You Yes  Yes  Yes  To 7 V DC (type test)  Yes  and modules PL d
Width 45 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  between the channels between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1  Category according to ISO 13849-1	Yes Yes; Short-circuit of outputs to ground; module by module  Yes Yes Yes Yes  Yes  No Yes  Yes  707 V DC (type test)  Yes  ard modules PL d Cat. 3
	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED  Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs  between the channels between the channels and backplane bus  Potential separation digital outputs  between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061	Yes Yes; Short-circuit of outputs to ground; module by module  Yes Yes Yes Yes  Yes  No Yes  Yes  707 V DC (type test)  Yes  ard modules PL d Cat. 3
Height 130 mm	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital output (green)  Potential separation  between backplane bus and all other circuit components  Potential separation digital inputs between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061  Dimensions	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes Yes  Yes  Yes  Yes  Y
100 11111	Interrupts/diagnostics/status information  Diagnostics function  Alarms  Diagnostic alarm  Diagnoses  Diagnostic information readable Short-circuit  Diagnostics indication LED Group error SF (red) Status indicator digital input (green) Status indicator digital output (green) Status indicator digital inputs Detween backplane bus and all other circuit components  Potential separation  between the channels between the channels between the channels and backplane bus  Potential separation digital outputs between the channels and backplane bus  Isolation  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety-related tripping of standard modules  Highest safety class achievable for safety-related tripping of standard Performance level according to ISO 13849-1 Category according to ISO 13849-1 SIL acc. to IEC 62061  Dimensions  Width	Yes Yes; Short-circuit of outputs to ground; module by module Yes Yes Yes Yes  Yes  No Yes  Yes  To7 V DC (type test)  Yes  ard modules PL d Cat. 3 SIL 2  45 mm

Depth	35 mm
Weights	
Weight, approx.	140 g

last modified:

8/23/2023