SIMATIC ET 200SP, digital output module, DQ 4x 24VDC/2A Standard, suitable for BU type A0, Color code CC02, Module diagnostics



General information	
Product type designation	DQ 4x24 V DC/2 A ST
HW functional status	From FS08
Firmware version	V1.1
 FW update possible 	Yes
usable BaseUnits	BU type A0
Color code for module-specific color identification	CC02
plate	
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
 STEP 7 TIA Portal configurable/integrated as of version 	V11 SP2 / V13
 STEP 7 configurable/integrated as of version 	V5.5 SP3 / -
 PCS 7 configurable/integrated as of version 	V8.1 SP1
 PROFIBUS as of GSD version/GSD revision 	GSD Revision 5
 PROFINET as of GSD version/GSD revision 	GSDML V2.3
Operating mode	
• DQ	Yes

 DQ with energy-saving function 	No
• PWM	No
Oversampling	No
• MSO	No
Redundancy	
Redundancy capability	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption, max.	60 mA; without load
Output voltage	
Rated value (DC)	24 V
Power loss	
Power loss Power loss, typ.	1 W
. ewe. 1666, typ.	
Address area	
Address space per module	
 Address space per module, max. 	1 byte; + 1 byte for QI information
Hardware configuration	
Automatic encoding	
 Mechanical coding element 	Yes
Selection of BaseUnit for connection variants	
1-wire connection	BU type A0
• 2-wire connection	BU type A0
3-wire connection	BU type A0 with AUX terminals or potential distributor module
• 4-wire connection	BU type A0 + Potential isolation module
Digital outputs	
Type of digital output	Source output (PNP, current-sourcing)
Number of digital outputs	4
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes
Response threshold, typ.	2.8 to 5.2 A
Limitation of inductive shutdown voltage to	Typ. L+ (-50 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
with resistive load, max.	2 A
, -	

Load resistance range • lower limit 12 Ω • upper limit 3 400 Ω Output current • for signal "1" rated value 2 A • for signal "1" rated value 2 A • for signal "1" rated value 2 A • for signal "0" residual current, max. 0.1 mA Output delay with resistive load • "0" to "1", typ. 50 µs • "1" to "0", max. 50 µs • "1" to "0", max. 100 µs • Interest to "1 or "1 or "2 or "2 or "3 or "2 or "4	• on lamp load, max.	10 W
• upper limit • tor signal "1" rated value • for signal "0" residual current, max. Output delay with resistive load • "0" to "1", typ. • "0" to "1", typ. • "1" to "0", max. • "1" to "0", max. • 100 μs • "1" to "0", max. • with inductive load, max. • with inductive load, max. • to lamp load, max. • to lamp load, max. • Current per channel, max. • Current per channel, max. • Current per module, max. • Current per module, max. • Current per module, max. • Up to 30 "C, max. • up to 50 "C, max. • 4 A Vertical installation • up to 30 "C, max. • 4 A Vertical installation • up to 30 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Vertical installation • up to 50 "C, max. • 4 A Cable length • shielded, max. • 1 000 m • shielded, max. • unshielded, max. • 1 000 m • Interrupts/diagnostics/status information	Load resistance range	
Output current • for signal "1" rated value • for signal "1" rated value • for signal "0" residual current, max. Output delay with resistive load • "0" to "1", typ. • "0" to "1", typ. • "1" to "0", max. 100 μs Parallel switching of two outputs • for uprating • for redundant control of a load Ves Switching frequency • with resistive load, max. • uhit inductive load, max. • on lamp load, max. 10 Hz Total current of the outputs • Current per module, max. • Current per module, max. 10 at a wax Total current of the outputs (per module) horizontal installation — up to 30 "C, max. — up to 40 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 50 "C, max. — up to 50 "C, max. — up to 60 "C, max. — un to shielded, max. • unshielded, max.	• lower limit	12 Ω
• for signal "0" residual current, max. • for signal "0" residual current, max. Output delay with resistive load • "0" to "1", typ. • "0" to "1", max. • "1" to "0", typ. • "1" to "0", typ. • "1" to "0", max. • for uprating • for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • Current per channel, max. • Current per module, max. • Current for the outputs (per module) horizontal installation — up to 30 "C, max. — up to 40 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 50 "C, max. — up to 50 "C, max. — up to 60 "C, max. —	• upper limit	3 400 Ω
• for signal "0" residual current, max. Output delay with resistive load • "0" to "1", typ. • "0" to "1", typ. • "0" to "1", max. 50 µs • "1" to "0", typ. • "10 to "0", max. 100 µs Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • vith inductive load, max. • on lamp load, max. 10 Hz Total current of the outputs • Current per module, max. • Current per module, max. • Up to 40 °C, max. — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 40 °C, max. — up to 40 °C, max. — up to 40 °C, max. — up to 40 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 50 °C, max. — up to 60 °C,	Output current	
Output delay with resistive load • "0" to "1", typ. • "0" to "1", max. • "1" to "0", max. • "1" to "0", max. • 100 µs • "1" to "0", max. 100 µs Parallel switching of two outputs • for redundant control of a load • yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • Current per channel, max. • Current per module, max. 8 A Total current of the outputs (per module) horizontal installation — up to 30 "C, max. — up to 40 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C, max.	• for signal "1" rated value	2 A
• "0" to "1", typ. • "0" to "1", typ. • "0" to "1", max. 50 µs • "1" to "0", typ. 100 µs • "1" to "0", typ. 100 µs Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. 10 Hz Total current of the outputs • Current per channel, max. • Current per module, max. * Current per module, max. * Total current of the outputs (per module) horizontal installation — up to 30 "C, max. — up to 40 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 40 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 60 "C, max. — up to 50 "C,	• for signal "0" residual current, max.	0.1 mA
• "0" to "1", max. • "1" to "0", typ. • "1" to "0", typ. • "1" to "0", max. Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • Current per channel, max. • Current per module, max. * Current per module, max. * Current of the outputs (per module) horizontal installation — up to 30 "C, max. — up to 40 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C, max. — up to 60 "C, max. — up to 50 "C,	Output delay with resistive load	
• "1" to "0", typ. 100 µs • "1" to "0", max. 100 µs Parallel switching of two outputs • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 2 Hz • on lamp load, max. 10 Hz Total current of the outputs • Current per channel, max. 8 A Total current of the outputs (per module) horizontal installation — up to 30 °C, max. 8 A — up to 40 °C, max. 6 A — up to 60 °C, max. 4 A vertical installation — up to 30 °C, max. 4 A vertical installation — up to 30 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A vertical installation — up to 50 °C, max. 4 A up to 60 °C, max. 4 A up to 60 °C, max. 4 A Sale length • shielded, max. 1000 m sochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	• "0" to "1", typ.	50 μs
• "1" to "0", max. 100 µs Parallel switching of two outputs • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 2 Hz • on lamp load, max. 10 Hz Total current of the outputs • Current per module, max. 8A Total current of the outputs (per module) horizontal installation — up to 30 °C, max. 8A — up to 40 °C, max. 8A — up to 50 °C, max. 4A vertical installation — up to 30 °C, max. 4A vertical installation — up to 30 °C, max. 4A Cable length • shielded, max. 100 ms Sochronous mode	• "0" to "1", max.	50 μs
Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • Outrent per channel, max. • Current per module, max. • Current per module, max. Total current of the outputs (per module) horizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 50 °C, max. — up to 50 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 50 °C, max. — up t	• "1" to "0", typ.	100 μs
• for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. 10 Hz Total current of the outputs • Current per channel, max. • Current per module, max. 10 Hz Total current of the outputs (per module) horizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 30 °C, max. — up to 50 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up t	• "1" to "0", max.	100 μs
• for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • On lamp load, max. • Current per channel, max. • Current per module, max. • Current per module, max. **Total current of the outputs (per module) **Notizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60	Parallel switching of two outputs	
Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • On lamp load, max. • Current of the outputs • Current per channel, max. • Current per module, max. • Current of the outputs (per module) horizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 60 °C, max. — up to 30 °C, max. — up to 30 °C, max. — up to 50 °C, max. — No max. — up to 50 °C, max. — No m	• for uprating	No
with resistive load, max. with inductive load, max. lo haz on lamp load, max. lo Hz Total current of the outputs Current per channel, max. Current per module, max. Current per module, max. Ray Current of the outputs (per module) horizontal installation up to 30 °C, max. up to 40 °C, max. up to 50 °C, max. up to 50 °C, max. up to 60 °C, max. up to 30 °C, max. A A Vertical installation up to 30 °C, max. 4 A Vertical installation up to 30 °C, max. 4 A Vertical installation up to 50 °C, max. 4 A Vertical installation up to 50 °C, max. 4 A Vertical installation up to 50 °C, max. 4 A Vertical installation up to 50 °C, max. 4 A Vertical installation up to 50 °C, max. 4 A Vertical installation up to 50 °C, max. 6 A up to 60 °C, max. 6 A up to 50 °C, max. 6 A up to 60 °C, max. 4 A Cable length • shielded, max. unshielded, max. ounshielded, max. No No Interrupts/diagnostics/status information	 for redundant control of a load 	Yes
with inductive load, max. on lamp load, max. 10 Hz Total current of the outputs Current per channel, max. Current per module, max. 8 A Total current of the outputs (per module) horizontal installation - up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A vertical installation - up to 30 °C, max. - up to 40 °C, max. 4 A Vertical installation - up to 30 °C, max. - up to 40 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	Switching frequency	
on lamp load, max. Total current of the outputs Current per channel, max. Current per module, max. Current per module, max. Current of the outputs (per module) horizontal installation	• with resistive load, max.	100 Hz
Total current of the outputs Current per channel, max. Current per module, max. Current per module, max. Reference with the outputs (per module) horizontal installation	with inductive load, max.	2 Hz
Current per channel, max. Current per module, max. Current per module, max. A A Total current of the outputs (per module) horizontal installation - up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A vertical installation - up to 30 °C, max. - up to 40 °C, max. 4 A vertical installation - up to 40 °C, max. 4 A Cable length Shielded, max. unshielded, max. Soon Soon Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	• on lamp load, max.	10 Hz
Current per module, max. Total current of the outputs (per module) horizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 60 °C, max. 4 A vertical installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. — No Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	Total current of the outputs	
Total current of the outputs (per module) horizontal installation — up to 30 °C, max. 8 A — up to 40 °C, max. 6 A — up to 50 °C, max. 4 A vertical installation — up to 30 °C, max. 8 A vertical installation — up to 30 °C, max. 8 A — up to 40 °C, max. 8 A — up to 50 °C, max. 8 A — up to 50 °C, max. 4 A Cable length • shielded, max. 1000 m sochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal)	Current per channel, max.	2 A
horizontal installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. 4 A vertical installation — up to 30 °C, max. — up to 40 °C, max. 8 A — up to 50 °C, max. 4 A — up to 50 °C, max. — up to 50 °C, max. 4 A — up to 50 °C, max. 4 A — up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	 Current per module, max. 	8 A
- up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A vertical installation - up to 30 °C, max. - up to 40 °C, max. 8 A - up to 40 °C, max. 4 A - up to 50 °C, max. 4 A - up to 50 °C, max. 4 A - up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	Total current of the outputs (per module)	
- up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. - up to 60 °C, max. 4 A vertical installation - up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal)	horizontal installation	
- up to 50 °C, max. - up to 60 °C, max. 4 A vertical installation - up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 50 °C, max. 4 A - up to 50 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 30 °C, max.	8 A
— up to 60 °C, max. vertical installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. — up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 40 °C, max.	8 A
vertical installation — up to 30 °C, max. — up to 40 °C, max. — up to 50 °C, max. — up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 50 °C, max.	6 A
- up to 30 °C, max. - up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m 600 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 60 °C, max.	4 A
- up to 40 °C, max. - up to 50 °C, max. - up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	vertical installation	
- up to 50 °C, max. - up to 60 °C, max. 4 A Cable length • shielded, max. • unshielded, max. 1 000 m lsochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 30 °C, max.	8 A
— up to 60 °C, max. Cable length • shielded, max. • unshielded, max. 1 000 m 600 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 40 °C, max.	6 A
Cable length • shielded, max. • unshielded, max. 1 000 m 600 m Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 50 °C, max.	4 A
shielded, max. unshielded, max. lsochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	— up to 60 °C, max.	4 A
• unshielded, max. Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	Cable length	
Isochronous mode Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	• shielded, max.	1 000 m
Isochronous operation (application synchronized up to terminal) Interrupts/diagnostics/status information	• unshielded, max.	600 m
Interrupts/diagnostics/status information	Isochronous mode	
		No
Diagnostics function Yes	Interrupts/diagnostics/status information	
	Diagnostics function	Yes

Substitute values connectable	Yes
Alarms	163
Diagnostic alarm	Yes
Diagnostic messages	163
	Yes
Monitoring the supply voltage	
Wire-break	Yes; Module-wise
Short-circuit	Yes; Module-wise
Group error	Yes
Diagnostics indication LED	
Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
 Channel status display 	Yes; Green LED
 for channel diagnostics 	No
• for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
• between the channels	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of 	No
the electronics	
Isolation	
Isolation tested with	707 V DC (type test)
	707 V DC (type test)
	707 V DC (type test) No
Standards, approvals, certificates	
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard	No
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules	No
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode	No Yes; From FS03
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508	No Yes; From FS03
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508	No Yes; From FS03
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions	No Yes; From FS03
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation	No Yes; From FS03 PL d SIL 2
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min.	No Yes; From FS03 PL d SIL 2 -30 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min.	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min.	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max.	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C 50 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max.	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C 50 °C
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions Width	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C 50 °C 2 000 m; On request: Installation altitudes greater than 2 000 m
Standards, approvals, certificates Suitable for safety functions Suitable for safety-related tripping of standard modules Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • SIL acc. to IEC 61508 Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Dimensions	No Yes; From FS03 PL d SIL 2 -30 °C 60 °C -30 °C 50 °C 2 000 m; On request: Installation altitudes greater than 2 000 m

Weights	
Weight, approx.	30 g
last modified:	05/09/2019