## **SIEMENS**

## **Data sheet**

6ES7223-1BL32-0XB0



SIMATIC S7-1200, Digital I/O SM 1223, 16 DI/16 DO, 16 DI 24 V DC, Sink/Source, 16 DO, transistor 0.5 A

General information	
Product type designation	SM 1223, DI 16x24 V DC, DQ 16x24 V DC
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
from backplane bus 5 V DC, max.	185 mA
Digital inputs	
<ul> <li>from load voltage L+ (without load), max.</li> </ul>	4 mA; per channel
Output voltage	
Power supply to the transmitters	
<ul><li>present</li></ul>	Yes
Power loss	
Power loss, typ.	4.5 W
Digital inputs	
Number of digital inputs	16
• in groups of	2
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	16
horizontal installation	
— up to 40 °C, max.	16
— up to 50 °C, max.	16
vertical installation	
— up to 40 °C, max.	16
Input voltage	
<ul> <li>Type of input voltage</li> </ul>	DC
<ul><li>Rated value (DC)</li></ul>	24 V
• for signal "0"	5 V DC at 1 mA
• for signal "1"	15 V DC at 2.5 mA
Input current	
<ul><li>for signal "0", max. (permissible quiescent current)</li></ul>	1 mA
<ul><li>for signal "1", min.</li></ul>	2.5 mA
<ul><li>for signal "1", typ.</li></ul>	4 mA

for standard inputs  — parameterizable  — parameterizable  Yes; 0.2 ms, 0.4 ms selectable in groups for interrupt inputs — parameterizable  Yes  Cable length  • shielded, max.  • unshielded, max.  500 m  • unshielded, max.  500 m  Short-circuit protection  No; to be provided etc.  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  • with resistive load, max.  • on lamp load, max.  • on lamp load, max.  • for signal "0", max.  • for signal "1" rated value • for signal "1" remissible range, max. • for signal "1" residual current, max.  0.5 A  • for signal "0" residual current, max.  0.5 A  • for signal "0" residual current, max.  0.5 A  • for signal "0" residual current max.  0.5 A  • for signal "1" permissible range, max. • for signal "1" nax.  • for signal "0" residual current, max.  0.5 A  • for signal "0" residual current, max.  0.5 A  • for signal "0" residual current, max.  0.5 A  • for signal "1" nax.  • "1" to "0", max.  • "1" to "0", max.  200 µs  Total current of the outputs (per group)  horizontal installation  — up to 50 °C, max.  Relay outputs  Switching capacity of contacts  — with inductive load, max.  — on lamp load, max.  — on lamp load, max.  — on lamp load, max.  — with resistive load, max.  — with resistive load, max.  — with resistive load, max.  — on lamp load max.  — on lamp load max.  — on shielded, max.  150 m  Interrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Diagnostics indication LED  • for status of the inputs  • for status of the outputs  Potential separation digital inputs  • between the channels, in groups of  2 between the channels, in groups of  • between the channels and backplane bus  Standards, approvals, certificates	
for interrupt inputs  — parameterizable  Cable length  • shielded, max. • unshielded, max.  Number of digital outputs • in groups of  Short-circuit protection  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  • with resistive load, max. • on lamp load, max. • for signal "1" rated value • for signal "1" rated value • for signal "1" resistive load • "0" to "1", max. • of or signal "0" residual current, max.  Output delay with resistive load • "0" to "1", max. • "1" to "0", max. • "1" to "0", max. 200 µs  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. • on lamp load, max. 500 m  - up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with resistive load, max. — on lamp load, max. • o.5 A  Cable length • shielded, max.  • shielded, max.  • Diagnostic alarm  Por status of the outputs • for status of the inputs • for status of the inputs • for status of the inputs • for status of the outputs • for status of the outputs • between the channels, in groups of • between the channels and backplane bus	
- parameterizable Yes  Cable length	s, 0.8 ms, 1.6 ms, 3.2 ms, 6.4 ms and 12.8 ms, s of four
Cable length  • shielded, max. • unshielded, max.  9 unshielded, max.  100 m  Short-circuit protection  Short-circuit protection  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  • with resistive load, max.  • on lamp load, max.  10.5 A  • for signal "1", min.  20 V DC  Output current  • for signal "1" rated value  • for signal "1" rated value  • for signal "1" remissible range, max.  • for signal "1" remissible range, max.  • for signal "0" residual current, max.  10 µA  Output delay with resistive load  • "0" to "1", max.  • "1" to "0", max.  • "1" to "1", max.  • "10 pax.	
shielded, max.  unshielded, max.  unshielded, max.  300 m  Digital outputs  Number of digital outputs  in groups of  Short-circuit protection  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  with resistive load, max.  on lamp load, max.  for signal "1" rated value  for signal "1" permissible range, max.  of or signal "1" permissible range, max.  of or signal "0", max.  for signal "0" residual current, max.  Output current  for signal "0" residual current, max.  of or signal "0" residual current, max.  for signal "0" residual current, max.  for signal "0" remax.  for signal "0" residual current, max.  Output delay with resistive load  "0" to "1", max.  "1" to "0", max.  "1" to "0", max.  "4" to "0", max.  As A; Current per max.  Relay outputs  Switching capacity of contacts  — with inductive load, max.  — on lamp load, max.  — on lamp load, max.  — with resistive load, max.  — with resistive load, max.  — with resistive load, max.  — on lamp lo	
shielded, max.  unshielded, max.  unshielded, max.  300 m  Digital outputs  Number of digital outputs  in groups of  Short-circuit protection  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  with resistive load, max.  on lamp load, max.  for signal "1" rated value  for signal "1" permissible range, max.  of or signal "1" permissible range, max.  of or signal "0", max.  for signal "0" residual current, max.  Output current  for signal "0" residual current, max.  of or signal "0" residual current, max.  for signal "0" residual current, max.  for signal "0" remax.  for signal "0" residual current, max.  Output delay with resistive load  "0" to "1", max.  "1" to "0", max.  "1" to "0", max.  "4" to "0", max.  As A; Current per max.  Relay outputs  Switching capacity of contacts  — with inductive load, max.  — on lamp load, max.  — on lamp load, max.  — with resistive load, max.  — with resistive load, max.  — with resistive load, max.  — on lamp lo	
■ unshielded, max.  Digital outputs  Number of digital outputs ■ in groups of ■ 1 Short-circuit protection Limitation of inductive shutdown voltage to L+ (-48 V) Switching capacity of the outputs ■ with resistive load, max. ■ on lamp load, max. ■ O.5 A ■ on lamp load, max. ■ O.1 V; with 10 kOhm ■ for signal "1", min. ■ O.5 A ■ for signal "1" rated value ■ for signal "1" rated value ■ for signal "1" permissible range, max. ■ for signal "0" residual current, max.  Output delay with resistive load ■ "0" to "1", max. ■ "1" to "0", max. ■ "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max. — on lamp load, max. — on lamp load, max. — on shielded, max. — on shielded, max. — on shielded, max. — or status of the inputs ■ for status of the outputs  Potential separation  Potential separation digital inputs ■ between the channels, in groups of	
Number of digital outputs  in groups of Short-circuit protection Limitation of inductive shutdown voltage to Skitching capacity of the outputs with resistive load, max. on lamp load, max. of or signal "0", max. of or signal "1" rated value of or signal "1" reminissible range, max. of or signal "1" permissible range, max. of or signal "0", max. of or signal "1" permissible range, max. of or signal "1" permissible range, max. of or signal "0", max. of or signal "0", max. of or signal "1" permissible range, max. of or signal "0" residual current, max.  Output delay with resistive load of "0" to "1", max. of "1" to "0", max.  Total current of the outputs (per group) horizontal installation of uput to 50 °C, max.  Relay outputs Switching capacity of contacts of with inductive load, max. of lamp load, max. of lamp load, max. of lamp load, max. of lamp load, max. of shielded, max. of lamp load, max. of shielded, max.	
Number of digital outputs  in groups of  Short-circuit protection  Limitation of inductive shutdown voltage to  Switching capacity of the outputs  with resistive load, max.  on lamp load, max.  of or signal "0", max.  of or signal "1", min.  Output current  of or signal "1" permissible range, max.  of or signal "0", max.  of or signal "0", max.  of or signal "0", residual current, max.  of or signal "0" residual current, max.  of or signal "0", max.  of or signal "0" residual current, max.  of or signal "0" permissible load  of "0" to "1", max.  of or signal "0" permissible range, max.  of on signal "0" permissible range, max.  of or signal "1" permissible range, max.  of of signal "1" permissible range, max.  of or signal "1" permissible range, max.  of of signal "1" permissible range, m	
in groups of Short-circuit protection No; to be provided of Limitation of inductive shutdown voltage to L+ (-48 V)  Switching capacity of the outputs  • with resistive load, max. 0.5 A • on lamp load, max. 5 W  Output voltage  • Rated value (DC) 24 V • for signal "0", max. 0.1 V; with 10 kOhm 20 V DC  Output current • for signal "1" rated value 0.5 A • for signal "1" permissible range, max. 0.5 A • for signal "1" permissible range, max. 0.5 A • for signal "0" residual current, max. 0.5 A • for signal "0" residual current, max. 0.9 μs • "1" to "0", max. 50 μs  - "10 μs  - "10 μs  - "10 μs	
Short-circuit protection Limitation of inductive shutdown voltage to L+ (-48 V) Switching capacity of the outputs  • with resistive load, max. • on lamp load, max. • on lamp load, max.  • on lamp load, max.  • Ontout voltage  • Rated value (DC) • for signal "0", max. • for signal "1" rated value • for signal "1" rated value • for signal "1" residual current • for signal "1" permissible range, max. • for signal "0" residual current, max.  Output delay with resistive load • "0" to "1", max. • "1" to "0", max.  • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs Switching capacity of contacts — with inductive load, max. — on lamp load, max. — on lamp load, max. — with resistive load, max.  50 W — with resistive load, max.  50 W  Cable length • shielded, max. • 150 m  Total current of the outputs (per group) horizontal installation  - up to 50 °C, max.  Relay outputs  Switching capacity of contacts  - with inductive load, max. 5 W  - on lamp load, max. 5 W  - on shielded, max. • 150 m  Total current of the outputs of the inputs • Shielded, max. • Unshielded, max. • Diagnostics alarm  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus	
Limitation of inductive shutdown voltage to  Switching capacity of the outputs  with resistive load, max. on lamp load, max. 5 W  Output voltage Rated value (DC) for signal "0", max. of ro signal "1" rated value of or signal "1" remains load of or signal "0" residual current, max.  Output delay with resistive load of "0" to "1", max. of or "0" to "1", max. of or "0" to "4", max. of or "0" to "4", max. of or signal "0" remains load of "0" to "4", max. of the outputs (per group) horizontal installation of up to 50 °C, max.  Relay outputs  Switching capacity of contacts of with inductive load, max. of the inductive load, max. of the inductive load, max. of the outputs load, max. of the inductive load, max. of the outputs load load load load load load load load	U
Switching capacity of the outputs  • with resistive load, max. • on lamp load, max.  • on lamp load, max.  • on lamp load, max.  • on lamp load, max.  • on lamp load, max.  • on lamp load, max.  • or signal "0", max. • for signal "1", min.  20 V DC  Output current  • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max.  Output delay with resistive load • "0" to "1", max. • "1" to "0", max.  *"1" to "0", max.  *"10 µA  *"10	externally
with resistive load, max.     on lamp load, max.     on lamp load, max.  Output voltage     Rated value (DC)     for signal "0", max.     of or signal "1", min.  Output current     for signal "1" rated value     of or signal "1" permissible range, max.     of or signal "0" residual current, max.  Output delay with resistive load     o"0" to "1", max.     on lamp load, max.     on up to 50 °C, max.  Relay outputs  Switching capacity of contacts     on lamp load, max.     on lamp load, max.     on lamp load, max.     on shielded, max.     on	
on lamp load, max.  Output voltage     Rated value (DC)     for signal "0", max.     for signal "1", min.  Output current     for signal "1" rated value     for signal "1" permissible range, max.     for signal "1" permissible range, max.     for signal "0" residual current, max.  Output delay with resistive load     "0" to "1", max.     for "0" to "1", max.     "1" to "0", max.      "1" to "0", max.  Total current of the outputs (per group)     horizontal installation     — up to 50 °C, max.  Relay outputs  Switching capacity of contacts     — with inductive load, max.     — on lamp load, max.     — with resistive load, max.     — with resistive load, max.     Sunded, max.      for shade, max.      inshelded, max.      inshelded, max.      inshelded, max.      instructive load, max.      for status of the inputs     for status of the outputs  Potential separation  Potential separation digital inputs     between the channels, in groups of     between the channels and backplane bus      sunder the channels and backplane bus      for status of to the channels and backplane bus      for status of the channels and backplane bus	
Output voltage  Rated value (DC) for signal "0", max. for signal "1" rated value for signal "1" rated value for signal "1" rated value for signal "1" permissible range, max. for signal "0" residual current, max.  O.5 A for signal "0" residual current, max.  for signal "0" residual current, max.  Output delay with resistive load  "0" to "1", max. "1" to "0", max.  "1" to "0", max.  "1" to "0", max.  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  Sou max.  Cable length  shielded, max.  unshielded, max.  unshielded, max.  for status of the inputs for status of the outputs for status of the outputs  Potential separation digital inputs between the channels, in groups of between the channels and backplane bus  500 V AC	
Rated value (DC)  • for signal "0", max.  • for signal "1", min.  20 V DC  Output current  • for signal "1" rated value  • for signal "1" permissible range, max.  • for signal "0" residual current, max.  0.5 A  • for signal "0" residual current, max.  10 μA  Output delay with resistive load  • "0" to "1", max.  • "1" to "0", max.  Total current of the outputs (per group)  horizontal installation  — up to 50 °C, max.  Relay outputs  Switching capacity of contacts  — with inductive load, max. — on lamp load, max. — on lamp load, max. — with resistive load, max.  5 W — with resistive load, max.  5 0.5 A  Cable length  • shielded, max. • unshielded, max.  • unshielded, max.  • 150 m  nterrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Poisquostics indication LED  • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels, in groups of • between the channels and backplane bus  500 V AC	
• for signal "0", max. • for signal "1", min.  20 V DC  Output current • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max.  0.5 A • for signal "0" residual current, max.  10 μA  Output delay with resistive load • "0" to "1", max. • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max.  500 m • shielded, max. • shielded, max. • unshielded, max. • 150 m  **Total current per max*  **Diagnostic alarm  Diagnostic sindication LED • for status of the inputs • for status of the outputs  **Otential separation  Potential separation digital inputs • between the channels, in groups of • between the channels, and backplane bus  500 V AC	
• for signal "1", min.  Output current  • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max.  Output delay with resistive load • "0" to "1", max. • "1" to "0", max. • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. 5 W — with resistive load, max. 5 W	
Output current  • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max.  Output delay with resistive load • "0" to "1", max. • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max. — with resistive load, max. — on lamp load, max. — on lamp load, max. — on shielded, max. • unshielded, max. • unshielded, max. • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  500 V AC	n load
<ul> <li>for signal "1" rated value</li> <li>for signal "1" permissible range, max.</li> <li>for signal "0" residual current, max.</li> <li>10 μA</li> <li>Output delay with resistive load</li> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> <li>200 μs</li> <li>Total current of the outputs (per group)</li> <li>horizontal installation  — up to 50 °C, max.</li> <li>Relay outputs</li> <li>Switching capacity of contacts  — with inductive load, max.</li> <li>— on lamp load, max.</li> <li>— with resistive load, max.</li> <li>— with resistive load, max.</li> <li>500 m</li> <li>shielded, max.</li> <li>unshielded, max.</li> <li>unshielded, max.</li> <li>for status of the inputs</li> <li>for status of the outputs</li> <li>Potential separation</li> <li>Potential separation digital outputs</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> <li>500 V AC</li> </ul>	
<ul> <li>for signal "1" permissible range, max.</li> <li>for signal "0" residual current, max.</li> <li>10 μA</li> <li>Output delay with resistive load</li> <li>"0" to "1", max.</li> <li>"1" to "0", max.</li> <li>200 μs</li> <li>Total current of the outputs (per group)</li> <li>horizontal installation  — up to 50 °C, max.</li> <li>8 A; Current per max</li> <li>Relay outputs</li> <li>Switching capacity of contacts</li> <li>— with inductive load, max.</li> <li>— on lamp load, max.</li> <li>— with resistive load, max.</li> <li>— with resistive load, max.</li> <li>5 W</li> <li>— with resistive load, max.</li> <li>150 m</li> <li>shielded, max.</li> <li>• unshielded, max.</li> <li>150 m</li> <li>nterrupts/diagnostics/status information</li> <li>Alarms</li> <li>• Diagnostic alarm</li> <li>Possible of status of the inputs</li> <li>• for status of the outputs</li> <li>Potential separation</li> <li>Potential separation digital inputs</li> <li>• between the channels, in groups of</li> <li>• between the channels and backplane bus</li> <li>500 V AC</li> </ul>	
• for signal "0" residual current, max.  Output delay with resistive load  • "0" to "1", max. • "1" to "0", max.  200 μs  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  15 W  Cable length • shielded, max. • unshielded, max.  150 m  nterrupts/diagnostics/status information  Alarms • Diagnostic alarm  Diagnostics indication LED • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  500 V AC	
Output delay with resistive load  • "0" to "1", max. • "1" to "0", max.  • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  • shielded, max. • unshielded, max.  • unshielded, max.  • Diagnostic alarm  Diagnostics indication LED • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  500 W A  50 µs  50 µs  50 µs  60 A; Current per ma  8 A; Current per ma  8 A; Current per ma  9 No 5 A  0.5 A  0.5 A  0.5 A  500 m  9 Ves  150 m  150 m	
Output delay with resistive load  • "0" to "1", max. • "1" to "0", max.  • "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  • shielded, max. • unshielded, max.  • unshielded, max.  • Diagnostic alarm  Diagnostics indication LED • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  500 W A  50 µs  50 µs  50 µs  60 A; Current per ma  8 A; Current per ma  8 A; Current per ma  9 No 5 A  0.5 A  0.5 A  0.5 A  500 m  9 Ves  150 m  150 m	
• "0" to "1", max. • "1" to "0", max.  Total current of the outputs (per group)  horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  • shielded, max. • unshielded, max.  • unshielded, max.  • Diagnostics/status information  Alarms  • Diagnostics indication LED • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  500 µs  200 µs  200 µs  200 µs  200 µs  200 µs  210 µs  221 Potential separation digital outputs • between the channels and backplane bus	
• "1" to "0", max.  Total current of the outputs (per group) horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  Solo m  cable length  shielded, max.  unshielded, max.  biagnostics/status information  Alarms  Diagnostic alarm  Potential separation  Potential separation digital inputs  between the channels, in groups of between the channels and backplane bus  200 µs  A A; Current per ma  8 A; Current per ma  8 A; Current per ma  9 Cos A  0.5 A  0.5 A  0.5 A  500 m  150 m  150 m  150 m  150 m  160 separation  170 separation  180 separation  190 separation  100 separation  110 separation digital inputs  between the channels, in groups of between the channels, in groups of between the channels and backplane bus	
Total current of the outputs (per group)  horizontal installation  — up to 50 °C, max.  Relay outputs  Switching capacity of contacts  — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  — with resistive load, max.  — unshielded, max.  • unshielded, max.  • unshielded, max.  150 m  nterrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Diagnostics indication LED  • for status of the inputs • for status of the outputs  Potential separation  Potential separation digital inputs  • between the channels, in groups of  • between the channels, in groups of • between the channels and backplane bus  500 V AC	
horizontal installation — up to 50 °C, max.  Relay outputs  Switching capacity of contacts — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.	
— up to 50 °C, max.  Relay outputs  Switching capacity of contacts  — with inductive load, max. — on lamp load, max. — with resistive load, max. — with resistive load, max.  5 W  0.5 A  Cable length  • shielded, max. • unshielded, max.  • unshielded, max.  • Diagnostics/status information  Alarms  • Diagnostic alarm  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  8 A; Current per max  8 A; Current per max  8 A; Current per max  9 U.5 A  0.5 A  500 m  150 m  Yes  150 m	
Relay outputs  Switching capacity of contacts  — with inductive load, max. — on lamp load, max. — with resistive load, max.  — with resistive load, max.  — with resistive load, max.  O.5 A  Cable length  • shielded, max.  • unshielded, max.  150 m  Interrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus  0.5 A  0.5 A  0.5 A  Cable length  • yes  500 m  150 m  Yes  150 m  Yes  2  Potential separation digital inputs • between the channels, in groups of • between the channels and backplane bus	ee .
Switching capacity of contacts  - with inductive load, max on lamp load, max with resistive load, max with resistive load, max with resistive load, max with resistive load, max o.5 A  Cable length  • shielded, max. • unshielded, max.  • unshielded, max.  150 m  Interrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Yes  Diagnostics indication LED  • for status of the inputs • for status of the outputs  Yes  Potential separation  Potential separation digital inputs • between the channels, in groups of • between the channels, in groups of • between the channels and backplane bus  500 V AC	
<ul> <li>with inductive load, max.</li> <li>on lamp load, max.</li> <li>with resistive load, max.</li> <li>with resistive load, max.</li> <li>shielded, max.</li> <li>unshielded, max.</li> <li>unshielded, max.</li> <li>biagnostics/status information</li> </ul> Alarms <ul> <li>Diagnostic alarm</li> <li>for status of the inputs</li> <li>for status of the outputs</li> </ul> Potential separation Potential separation digital inputs <ul> <li>between the channels, in groups of</li> <li>between the channels, in groups of</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> </ul> 500 V AC 500 V AC 500 V AC	
- on lamp load, max with resistive load, max.  Cable length  shielded, max. unshielded, max.  Diagnostics/status information  Alarms Diagnostic alarm  Pofential separation  Potential separation digital inputs between the channels, in groups of between the channels, in groups of between the channels and backplane bus  5 W 0.5 A  5 W 0.5 A  5 W 0.5 A  500 m 150 m  7 yes 150 m  7 yes 2 yes 2 Potential separation Uputs between the channels, in groups of 1 5 00 V AC	
— with resistive load, max.  Cable length  • shielded, max.  • unshielded, max.  150 m  Interrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Poince status of the inputs  • for status of the outputs  Potential separation  Potential separation digital inputs  • between the channels, in groups of  • between the channels and backplane bus  500 V AC	
Cable length  • shielded, max.  • unshielded, max.  150 m  Interrupts/diagnostics/status information  Alarms  • Diagnostic alarm  Potential separation  Potential separation digital inputs  • between the channels, in groups of  • between the channels and backplane bus  500 V AC	
shielded, max.     unshielded, max.     150 m  Interrupts/diagnostics/status information  Alarms     Diagnostic alarm     Yes  Diagnostics indication LED     for status of the inputs     for status of the outputs     for status of the outputs  Potential separation  Potential separation digital inputs     between the channels, in groups of     between the channels, in groups of     between the channels and backplane bus      500 V AC	
unshielded, max.  Interrupts/diagnostics/status information  Alarms      Diagnostic alarm      Poing indication LED      for status of the inputs     for status of the outputs  Potential separation  Potential separation digital inputs      between the channels, in groups of      between the channels, in groups of      between the channels and backplane bus      150 m      16 m      17 m      18	
Alarms	
Alarms	
Diagnostic alarm     Diagnostics indication LED     of ro status of the inputs     of ro status of the outputs     otential separation  Potential separation digital inputs     obetween the channels, in groups of     obetween the channels, in groups of     obetween the channels, in groups of     obetween the channels and backplane bus	
Diagnostics indication LED	
• for status of the inputs     • for status of the outputs      • for status of the outputs      • cotential separation  Potential separation digital inputs     • between the channels, in groups of      • between the channels, in groups of     • between the channels, in groups of     • between the channels and backplane bus      • 500 V AC	
• for status of the outputs  Potential separation  Potential separation digital inputs      • between the channels, in groups of  Potential separation digital outputs      • between the channels, in groups of      • between the channels and backplane bus      500 V AC	
• for status of the outputs  Potential separation  Potential separation digital inputs      • between the channels, in groups of  Potential separation digital outputs      • between the channels, in groups of      • between the channels and backplane bus      500 V AC	
Potential separation  Potential separation digital inputs  • between the channels, in groups of 2  Potential separation digital outputs  • between the channels, in groups of 1  • between the channels and backplane bus 500 V AC	
Potential separation digital inputs  • between the channels, in groups of  Potential separation digital outputs  • between the channels, in groups of  • between the channels and backplane bus  500 V AC	
<ul> <li>between the channels, in groups of</li> <li>Potential separation digital outputs</li> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> </ul>	
Potential separation digital outputs  • between the channels, in groups of • between the channels and backplane bus  500 V AC	
<ul> <li>between the channels, in groups of</li> <li>between the channels and backplane bus</li> <li>500 V AC</li> </ul>	
• between the channels and backplane bus 500 V AC	
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Standards, approvals, certificates	
CE mark Yes	
CSA approval Yes	
UL approval Yes	
cULus Yes	
FM approval Yes	
RCM (formerly C-TICK)  Yes	

KC approval	Yes
Marine approval	Yes
Ambient conditions	
Free fall	
Fall height, max.	0.3 m; five times, in product package
Ambient temperature during operation	
• min.	-20 °C
• max.	60 °C
<ul> <li>horizontal installation, min.</li> </ul>	-20 °C
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul><li>vertical installation, min.</li></ul>	-20 °C
<ul> <li>vertical installation, max.</li> </ul>	50 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Air pressure acc. to IEC 60068-2-13	
<ul> <li>Storage/transport, min.</li> </ul>	660 hPa
Storage/transport, max.	1 080 hPa
Relative humidity	
$ullet$ Operation at 25 $^{\circ}{\rm C}$ without condensation, max.	95 %
Connection method	
required front connector	Yes
Mechanics/material	
Enclosure material (front)	
Plastic	Yes
Dimensions	
Width	70 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	310 g

1/16/2021

last modified: