



Figure similar

SIPLUS S7-300 SM 321 4DI NAMUR for medial exposure with conformal coating based on 6ES7321-7RD00-0AB0 . Digital "input Isolated ""4 DI; 24 V DC," NAMUR/DIN 19234, for signals from the hazardous area, diagnostics-capable, PTB tested

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes
Input current	
from load voltage L+ (without load), max.	50 mA
from backplane bus 5 V DC, max.	80 mA
Encoder supply	
Type of output voltage	via the inputs
Power loss	
Power loss, typ.	1.1 W
Digital inputs	
Number of digital inputs	4
Number of NAMUR inputs	4
Input voltage	
<ul style="list-style-type: none"> Type of input voltage 	DC
<ul style="list-style-type: none"> Rated value (DC) 	8.2 V; from internal power circuit supply
Input current	
<ul style="list-style-type: none"> on wire-break, max. 	0.1 mA
<ul style="list-style-type: none"> on short-circuit, max. 	8.5 mA
Input delay (for rated value of input voltage)	
<ul style="list-style-type: none"> Input frequency (with a time delay of 0.1 ms), max. 	2 kHz
for NAMUR inputs	
— parameterizable	Yes; 0.1 / 0.5 / 3 / 15 / 20 ms (plus 0.25 ms preparation time)
Cable length	
<ul style="list-style-type: none"> unshielded, max. 	200 m
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> NAMUR encoder 	Yes; Two-wire connection
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnoses	
<ul style="list-style-type: none"> Diagnostic information readable 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> Group error SF (red) 	Yes
<ul style="list-style-type: none"> Status indicator digital input (green) 	Yes

• Channel fault indicator F (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
maximum values for connecting terminals for gas group IIC	
• U _o (no-load voltage), max.	10 V
• I _o (short-circuit current), max.	14.1 mA
• P _o (power output), max.	33.7 mW
• C _o (permissible external capacity), max.	3 µF
• L _o (permissible external inductivity), max.	100 mH
Potential separation	
Potential separation digital inputs	
• between the channels	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
• between the channels, in groups of	1
• between the channels and backplane bus	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
• Between the channels and load voltage L+	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
• ATEX marking	ATEX II 3 G (2) GD Ex nA [ib Gb] [ib IIIC Db] IIC T4 Gc
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C; = T _{min}
• max.	60 °C; = T _{max}
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	T _{min} ... T _{max} at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // T _{min} ... (T _{max} - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // T _{min} ... (T _{max} -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible);

71.04	level LC3 (salt spray) and level LB3 (oil)
Remark	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
Connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	230 g
last modified:	5/20/2021 