## **SIEMENS**

Data sheet 3RS2900-2AA30



Sensor extension module for 3RS26/8 Temperature monitoring relay, 2 sensors, sensor status relay, analog input, 22.5 mm width, 24 V AC/DC, spring-type terminals (push-in)

Figure similar

	O/DILIO
product brand name	SIRIUS
product designation	Sensor extension module
design of the product	2 additional resistivity sensors, analog input 4 20 mA, ATEX via analog input, status relay
product type designation	3RS2
General technical data	
product function	temperature monitoring
display version LED	Yes
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
test voltage for isolation test	4 kV
degree of pollution	3
protection class IP	20
shock resistance according to IEC 60068-2-27	11g / 15 ms
switching behavior	monostable
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
certificate of suitability relating to ATEX	Yes, with digital unit 3RS26/3RS28
reference code according to IEC 81346-2	K
influence of the surrounding temperature	0.05% per K deviation from T20
measurable temperature	
• initial value	-50 °C
full-scale value	750 °C
measurable Fahrenheit temperature	
• initial value	-58 °F
• full-scale value	1 382 °F
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 2-Methyl-1-(4-methylthiophenyl)-2-morpho - 71868-10-5
product function	
• error memory	Yes
external reset	Yes
design of the sensor connectable	Resistance sensors: Pt100, Pt1000, KTY83-110, KTY84, NTC
measurable temperature with KTY-sensor maximum	300 °C
sensor current with KTY-sensor	0.33 mA
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC

control supply voltage at AC	
• at 50 Hz rated value	24 24 V
• at 60 Hz rated value	24 24 V
control supply voltage 1 at AC	
at 50 Hz rated value	24 V
• at 50 Hz	24 24 V
at 60 Hz rated value	24 V
• at 60 Hz	24 24 V
control supply voltage 2 at AC	27 27 V
• at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
	24 24 V
control supply voltage at DC rated value	24 24 V
control supply voltage 1	
at DC rated value	24 V
• at DC	24 24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at	
AC at 50 Hz	
• initial value	0.85
full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
full-scale value	1.1
supply voltage frequency for auxiliary and control circuit	50 60 Hz
number of measuring circuits	3
buffering time in the event of power failure minimum	20 ms
Precision	20 1110
1 recicion	
relative metering precision	1 %
relative metering precision	1 %
Short-circuit protection	1 %
Short-circuit protection design of the fuse link	
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required	gL/gG: 6 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay	
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay	gL/gG: 6 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay	gL/gG: 6 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A
design of the fuse link         • for short-circuit protection of the NO contacts of the relay outputs required         • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link         • for short-circuit protection of the NO contacts of the relay outputs safety-related required         • for short circuit protection of the NC contacts of the relay outputs safety-related required         • for short circuit protection of the NC contacts of the relay outputs safety-related required	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
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design of the fuse link         • for short-circuit protection of the NO contacts of the relay outputs required         • for short circuit protection of the NC contacts of the relay outputs required         • for short circuit protection of the NC contacts of the relay outputs required          • for short-circuit protection of the NO contacts of the relay outputs safety-related required         • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A No AgSnO2
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts  number of NC contacts for auxiliary contacts	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A No AgSnO2 0
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts  number of NC contacts for auxiliary contacts	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A No AgSnO2 0 1
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A No AgSnO2 0 1
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A  gL/gG: 6 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A  gL/gG: 6 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2  0  1  0
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at DC-13  • at 24 V  • at 125 V	gL/gG: 6 A or MCB type C: 1 A  gL/gG: 6 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2  0  1  0  1 A  0.2 A  0.1 A  one incorrect switching operation of 100 million switching operations (17 V, 5
Short-circuit protection  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol  protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts  number of NC contacts for auxiliary contacts  number of NO contacts for auxiliary contacts  operational current of auxiliary contacts at DC-13  • at 24 V  • at 125 V  • at 250 V  contact reliability of auxiliary contacts	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0 1 A 0.2 A 0.1 A one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0 1 A 0.2 A 0.1 A one incorrect switching operation of 100 million switching operations (17 V, 5 mA) R300 / B300
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0 1 A 0.2 A 0.1 A one incorrect switching operation of 100 million switching operations (17 V, 5 mA) R300 / B300 50 60 Hz
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0 1 A 0.2 A 0.1 A one incorrect switching operation of 100 million switching operations (17 V, 5 mA) R300 / B300
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A  gL/gG: 6 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2  0  1  0  1 A  0.2 A  0.1 A  one incorrect switching operation of 100 million switching operations (17 V, 5 mA)  R300 / B300  50 60 Hz  3 A
design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs required  • for short circuit protection of the NC contacts of the relay outputs required  design of the fuse link  • for short-circuit protection of the NO contacts of the relay outputs safety-related required  • for short circuit protection of the NC contacts of the relay outputs safety-related required  Communication/ Protocol protocol is supported IO-Link protocol  Auxiliary circuit  material of switching contacts number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at DC-13  • at 24 V  • at 125 V  • at 250 V  contact reliability of auxiliary contacts  contact rating of auxiliary contacts according to UL  operating frequency rated value  ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2 0 1 0 1 A 0.2 A 0.1 A one incorrect switching operation of 100 million switching operations (17 V, 5 mA) R300 / B300 50 60 Hz 3 A
design of the fuse link	gL/gG: 6 A or MCB type C: 1 A  gL/gG: 6 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  gL/gG: 2 A or MCB type C: 1 A  No  AgSnO2  1  0  1 A  0.2 A  0.1 A  one incorrect switching operation of 100 million switching operations (17 V, 5 mA)  R300 / B300  50 60 Hz  3 A

relay	
continuous current of DIAZED fuse link of the output relay	2 A
safety-related	
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	Class B
conducted interference	
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV (power ports), 1 kV (signal ports)
due to conductor-earth surge according to IEC 61000-4-5	2 kV (line to ground)
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV (line to line)
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
design of the electrical isolation	galvanic isolation
galvanic isolation	
between input and output	Yes
between the voltage supply and other circuits	No
Safety related data	
SIL Claim Limit (subsystem) according to EN 62061	1
performance level (PL) according to EN ISO 13849-1	C
category according to EN ISO 13849-1	1
Safe failure fraction (SFF)	66 %
hardware fault tolerance according to IEC 61508	0
T1 value for proof test interval or service life according to IEC 61508	20 a
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	spring-loaded terminal (push-in)
for auxiliary and control circuit	spring-loaded terminals (push-in)
type of connectable conductor cross-sections	
• solid	0.5 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
<ul> <li>finely stranded without core end processing</li> </ul>	0.5 4 mm²
<ul> <li>for AWG cables solid</li> </ul>	20 12
for AWG cables stranded	20 12
connectable conductor cross-section	
• solid	0.5 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>
finely stranded without core end processing	0.5 4 mm²
AWG number as coded connectable conductor cross section	
• solid	20 12
• stranded	20 12
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	100 mm
width	22.5 mm
depth	90 mm
required spacing	
with side-by-side mounting	0.000
— forwards	0 mm
— backwards	0 mm
— upwards — downwards	0 mm
— downwards — at the side	0 mm
at the side     for grounded parts	VIIIII
for grounded parts     forwards	0 mm
— lorwards — backwards	0 mm
— packwards — upwards	0 mm
— at the side	0 mm
at the side	Vilini

— downwards	0 mm	
<ul> <li>for live parts</li> </ul>		
— forwards	0 mm	
— backwards	0 mm	
— upwards	0 mm	
— downwards	0 mm	
— at the side	0 mm	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
<ul> <li>during operation</li> </ul>	-25 +60 °C	
during storage	-40 +85 °C	
during transport	-40 +85 °C	
relative humidity during operation	70 %	
explosion protection category for dust	Ex II (2) D [b1] [Ex h] [pyb] [tb] [mb] [kb] [sb] III C Db	
explosion protection category for gas	Ex II (2) G [b1] [Ex h] [db] [eb] [pyb] [mb] [ob] [q] [kb] [sb] II C Gb	
Approvals Certificates		

**General Product Approval** 

EMC

For use in hazardous locations



Confirmation







Explosion Protection Certificate

For use in hazardous locations Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



Type Examination Certificate





Special Test Certificate



Marine / Shipping

other



Confirmation

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS2900-2AA30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS2900-2AA30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RS2900-2AA30

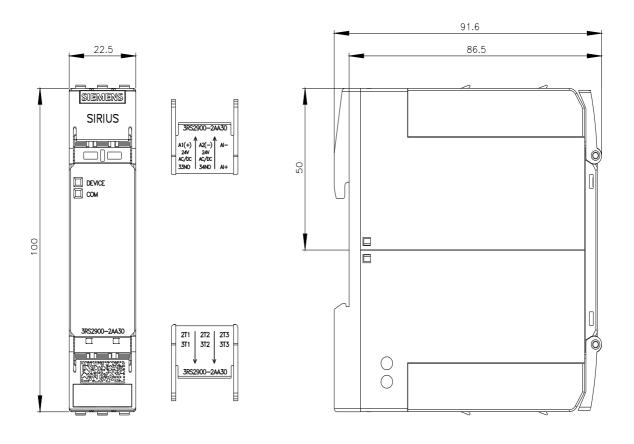
Intersection of the section of the s

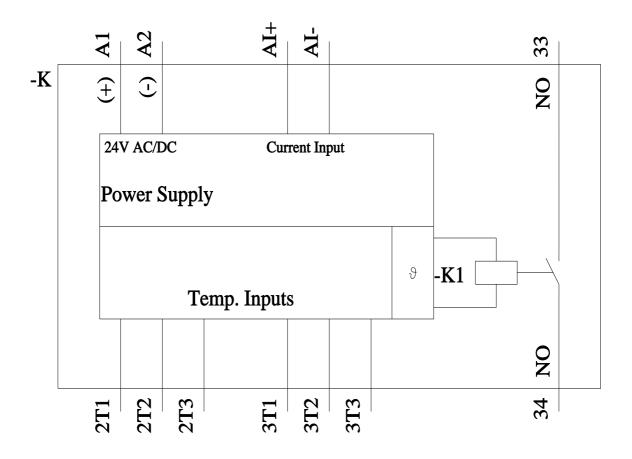
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RS2900-2AA30\&lang=en}}$ 

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RS2900-2AA30/manual





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