



Sensor extension module for 3RS26/8 Temperature monitoring relay, 2 sensors, sensor status relay, analog input, 22.5 mm width, 24 - 240 V AC/DC screw terminals

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Sensor extension module
<b>design of the product</b>	2 additional resistivity sensors, analog input 4 ... 20 mA, ATEX via analog input, status relay
<b>product type designation</b>	3RS2
<b>General technical data</b>	
<b>product function</b>	temperature monitoring
<b>display version LED</b>	Yes
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
<b>test voltage for isolation test</b>	4 kV
<b>degree of pollution</b>	3
<b>shock resistance according to IEC 60068-2-27</b>	11g / 15 ms
<b>vibration resistance according to IEC 60068-2-6</b>	10 ... 55 Hz: 0.35 mm
<b>switching behavior</b>	monostable
<b>mechanical service life (operating cycles) typical</b>	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
<b>thermal current of the switching element with contacts maximum</b>	5 A
<b>reference code according to IEC 81346-2</b>	K
<b>influence of the surrounding temperature</b>	0.05% per K deviation from T20
<b>measurable temperature</b>	
• initial value	-50 °C
• full-scale value	750 °C
<b>measurable Fahrenheit temperature</b>	
• initial value	-58 °F
• full-scale value	1 382 °F
<b>Substance Prohibitance (Date)</b>	05/01/2012
<b>SVHC substance name</b>	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
<b>Weight</b>	0.185 kg
<b>product function</b>	
• error memory	Yes
• external reset	Yes
<b>design of the sensor connectable</b>	Resistance sensors: Pt100, Pt1000, KTY83-110, KTY84, NTC
measurable temperature with KTY-sensor maximum	300 °C
<b>sensor current with KTY-sensor</b>	0.33 mA
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage at AC</b>	

<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	24 ... 240 V 24 ... 240 V
<b>control supply voltage 1 at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 50 Hz</li> <li>• at 60 Hz rated value</li> <li>• at 60 Hz</li> </ul>	24 V 24 ... 240 V 24 V 24 ... 240 V
<b>control supply voltage at DC rated value</b>	24 ... 240 V
<b>control supply voltage 1 at DC</b>	24 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b>	
<ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b>	
<ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
<ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	0.85 1.1
supply voltage frequency for auxiliary and control circuit	50 ... 60 Hz
<b>number of measuring circuits</b>	3
<b>buffering time in the event of power failure minimum</b>	20 ms
<b>Precision</b>	
<b>relative metering precision</b>	1 %
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the NO contacts of the relay outputs required</li> <li>• for short circuit protection of the NC contacts of the relay outputs required</li> </ul>	gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the NO contacts of the relay outputs safety-related required</li> <li>• for short circuit protection of the NC contacts of the relay outputs safety-related required</li> </ul>	gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	No
<b>Auxiliary circuit</b>	
<b>material of switching contacts</b>	AgSnO2
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	1
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> <li>• at 250 V</li> </ul>	1 A 0.2 A 0.1 A
<b>contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>contact rating of auxiliary contacts according to UL</b>	R300 / B300
<b>operating frequency rated value</b>	50 ... 60 Hz
ampacity of the output relay at AC-15 at 250 V at 50/60 Hz	3 A
<b>ampacity of the output relay at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> </ul>	1 A 0.2 A
<b>continuous current of the DIAZED fuse link of the output relay</b>	6 A
<b>continuous current of DIAZED fuse link of the output relay safety-related</b>	2 A
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 60947-1	Class B
<b>conducted interference</b>	

<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	<p>2 kV (power ports), 1 kV (signal ports)</p> <p>2 kV (line to ground)</p> <p>1 kV (line to line)</p>
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Galvanic isolation</b>	
<b>design of the electrical isolation</b>	galvanic isolation
<b>galvanic isolation</b>	
<ul style="list-style-type: none"> <li>• between input and output</li> <li>• between the voltage supply and other circuits</li> </ul>	<p>Yes</p> <p>Yes</p>
<b>IEC 62061</b>	
SIL Claim Limit (subsystem) according to EN 62061	1
<b>Safety Integrity Level (SIL) according to IEC 62061</b>	SIL 1
PFHD with high demand rate according to IEC 62061	2.9E-7 1/h
<b>ISO 13849</b>	
performance level (PL) according to EN ISO 13849-1	c
category according to EN ISO 13849-1	1
<b>performance level (PL)</b>	
<ul style="list-style-type: none"> <li>• according to ISO 13849-1</li> <li>• for delayed release circuit according to ISO 13849-1</li> </ul>	<p>PL c</p> <p>c</p>
<b>IEC 61508</b>	
<b>Safety Integrity Level (SIL)</b>	
<ul style="list-style-type: none"> <li>• according to IEC 61508</li> <li>• for delayed release circuit according to IEC 61508</li> </ul>	<p>1</p> <p>1</p>
<b>safety device type according to IEC 61508-2</b>	Type B
<b>Safe failure fraction (SFF)</b>	66 %
hardware fault tolerance according to IEC 61508	0
T1 value for proof test interval or service life according to IEC 61508	20 a
<b>ATEX</b>	
certificate of suitability relating to ATEX	Yes, with 3RS26/3RS28 digital device
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	screw terminal
<ul style="list-style-type: none"> <li>• for auxiliary and control circuit</li> </ul>	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• for AWG cables solid</li> </ul>	<p>1x (0.5 ... 4 mm<sup>2</sup>), 2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (0.5 ... 4 mm<sup>2</sup>), 2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (20 ... 12), 2x (20 ... 14)</p>
<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	<p>0.5 ... 4 mm<sup>2</sup></p> <p>0.5 ... 4 mm<sup>2</sup></p>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	<p>20 ... 12</p> <p>20 ... 12</p>
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail
<b>height</b>	100 mm
<b>width</b>	22.5 mm
<b>depth</b>	90 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

- for grounded parts
  - forwards 0 mm
  - backwards 0 mm
  - upwards 0 mm
  - at the side 0 mm
  - downwards 0 mm
- for live parts
  - forwards 0 mm
  - backwards 0 mm
  - upwards 0 mm
  - downwards 0 mm
  - at the side 0 mm

0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm  
0 mm

#### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity during operation maximum	70 %
<b>explosion protection category for dust</b>	Ex II (2) D [b1] [Ex h] [pyb] [tb] [mb] [kb] [sb] III C Db
<b>explosion protection category for gas</b>	Ex II (2) G [b1] [Ex h] [db] [eb] [pyb] [mb] [ob] [q] [kb] [sb] II C Gb

#### Approvals Certificates

##### General Product Approval



[TUEV](#)



##### EMV

##### For use in hazardous locations

##### Test Certificates

##### Maritime application



[KC](#)



[Miscellaneous](#)

[Special Test Certificate](#)



##### other

##### Environment

[Confirmation](#)



[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

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

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### 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=3RS2900-1AW30>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS2900-1AW30>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RS2900-1AW30>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RS2900-1AW30&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS2900-1AW30&lang=en)



