



SIMATIC S7-1500, TM SIWAREX WP522 ST, two-channel weighing module for two platform or hopper scales with analog load cells / strain gauges (full bridges), 3xDI, 3xDQ, 1xRS485, 1xEthernet, 2xLC load cell interface (1-4mV/V)

General information	
Product type designation	TM SIWAREX WP522 ST
Firmware version	V1.0.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	STEP 7 V14 or higher
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD Revision 5
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML
Installation type/mounting	
Rail mounting	Yes; S7-1500 mounting rail
Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>permissible range, lower limit (DC)</li> </ul>	19.2 V
<ul style="list-style-type: none"> <li>permissible range, upper limit (DC)</li> </ul>	28.8 V
<ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>	Yes
Power	
Power consumption from the backplane bus	0.55 W
Power loss	
Power loss, typ.	3.9 W
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	64 byte
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	64 byte
Digital inputs	
Number of digital inputs	6; 3 per channel
Digital inputs, parameterizable	Yes
Input characteristic curve in accordance with IEC 61131, type 3	Yes
Digital outputs	
Number of digital outputs	8; 4 per channel
Digital outputs, parameterizable	Yes
Short-circuit protection	Yes
Digital output functions, parameterizable	
<ul style="list-style-type: none"> <li>Switching tripped by comparison values</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Freely usable digital output</li> </ul>	Yes
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> </ul>	0.5 A; Per digital output

<b>Output voltage</b>	
• Type of output voltage	DC
<b>Output delay with resistive load</b>	
• "0" to "1", max.	65 µs
• "1" to "0", max.	110 µs
<b>Total current of the outputs</b>	
• Current per module, max.	8 A
<b>Cable length</b>	
• shielded, max.	500 m
• unshielded, max.	150 m
<b>Encoder</b>	
<b>Connection of signal encoders</b>	
• For strain gauges (full bridges) with 4-conductor connection	Yes
• For strain gauges (full bridges) with 6-conductor connection	Yes
• Resistance of full bridge, min.	40 Ω
• Resistance of full bridge, max.	4 100 Ω
<b>Interfaces</b>	
Number of RS 485 interfaces	1
<b>1. Interface</b>	
<b>Interface types</b>	
• RS 485	Yes
<b>2. Interface</b>	
<b>Interface types</b>	
• RJ 45 (Ethernet)	Yes; 10/100 Mbit/s
• Number of ports	1
<b>Interrupts/diagnostics/status information</b>	
Substitute values connectable	Yes
<b>Alarms</b>	
• Diagnostic alarm	Yes
• Hardware interrupt	Yes
<b>Diagnoses</b>	
• Monitoring the supply voltage	Yes
• Wire-break	Yes
• Short-circuit	Yes
<b>Diagnostics indication LED</b>	
• RUN LED	Yes
• ERROR LED	Yes; red LED
• MAINT LED	Yes; Yellow LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green LED
• Channel status display	Yes; green LED
• for channel diagnostics	Yes; red LED
<b>Integrated Functions</b>	
Counter	No
Fast mode	No
<b>Load cell</b>	
• Non-automatic weighing instrument	NAWI
• Sampling rate	100 Hz
• Resolution of input signal	±1 000 000 parts pro mV/V
• Common mode voltage, min.	0.25 V
• Common mode voltage, max.	4.75 V
• Cable length, max.	800 m; when using the SIWAREX 7MH4702-8AG cable
<b>Measuring functions</b>	
<b>Measuring range</b>	
— -1 mV/V to +1 mV/V	Yes
— -2 mV/V to +2 mV/V	Yes
— -4 mV/V to +4 mV/V	Yes
<b>Potential separation</b>	
<b>Potential separation channels</b>	
• between the channels and backplane bus	Yes

Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes; CE marking / EC Declaration of Conformity
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	122.59 kg
— global warming potential, (during production) [CO2 eq]	23.3 kg
— global warming potential, (during operation) [CO2 eq]	98.8 kg
— global warming potential, (after end of life cycle) [CO2 eq]	0.49 kg
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	40 °C
Air pressure acc. to IEC 60068-2-13	
• Operation, min.	795 hPa
• Operation, max.	1 080 hPa
• Storage/transport, min.	660 hPa
• Storage/transport, max.	1 080 hPa
Mechanics/material	
Enclosure material (front)	plastic
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	290 g
Classifications	

	Version	Classification
eClass	14	27-24-22-05
eClass	12	27-24-22-05
eClass	9.1	27-24-22-05
eClass	9	27-24-22-05
eClass	8	27-24-22-05
eClass	7.1	27-24-22-05
eClass	6	27-24-22-05
ETIM	10	EC001422
ETIM	9	EC001422
ETIM	8	EC001422
ETIM	7	EC001422

Approvals / Certificates	
General Product Approval	For use in hazardous locations



KC

EM

For use in hazardous locations

Environment



[Miscellaneous](#)



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