



SIWAREX WT231, single-channel weighing terminal in stainless steel enclosure for platform or hopper scales with analog load cells / strain gauge (full bridges), 4xDI, 4xDQ, 1xAQ, 1xRS 485, 1xLC load cell interface (1-4mV/V), 100-240 VAC, IP65, 0-40 degrees Celsius. Detailed load cell diagnostics with digital junction box SIWAREX DB (7MH5001-0AD20 or 7MH5001-0AD01)

General information	
Product type designation	SIWAREX WT231
Firmware version	
<ul style="list-style-type: none"> FW update possible 	Yes
Product function	
<ul style="list-style-type: none"> I&M data Isochronous mode suitable for operation on PROFINET R1 IMs Adjustment of measuring range 	No No No No
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision 	- / - - / - - / - - / -
Installation type/mounting	
Rail mounting	No
Supply voltage	
Rated value (AC)	230 V
Input current	
Current consumption, max.	0.12 A
Encoder supply	
Output voltage (DC)	4.85 V
Short-circuit protection	Yes
Digital inputs	
Number of digital inputs	4
Digital inputs, parameterizable	Yes
Input voltage	
<ul style="list-style-type: none"> Type of input voltage Rated value (DC) for signal "0" for signal "1" 	DC 24 V 5 V DC at 1 mA 15 V DC at 2.5 mA
Digital outputs	
Number of digital outputs	4
Short-circuit protection	Yes
Switching capacity of the outputs	
<ul style="list-style-type: none"> with resistive load, max. 	0.5 A
Output voltage	
<ul style="list-style-type: none"> Type of output voltage Rated value (DC) 	DC 24 V

Output delay with resistive load	
• "0" to "1", max.	25 μ s
• "1" to "0", max.	150 μ s
Total current of the outputs	
• Current per channel, max.	0.5 A
• Current per module, max.	4 A
Cable length	
• shielded, max.	500 m
• unshielded, max.	150 m
Analog outputs	
Number of analog outputs	1
Output ranges, current	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
Load impedance (in rated range of output)	
• with current outputs, max.	600 Ω
Cable length	
• shielded, max.	100 m
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
• Resolution with overrange (bit including sign), max.	16 bit
Encoder	
Connection of signal encoders	
• 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 ; when using SIWAREX IS: 50 ohm for 7MH4710-5BA; 105 ohm when using 7MH4710-5CA
• Resistance of full bridge, max.	4 100 Ω
Interfaces	
Number of RS 485 interfaces	1; SIWATOOL V7 or SIWAREX DB or SIEBERT remote display
2. Interface	
Interface types	
• RJ 45 (Ethernet)	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Diagnostic alarm
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes; Parameterizable
• Hardware interrupt	Yes; Parameterizable
Diagnoses	
• Monitoring the supply voltage	Yes
• Wire-break	Yes
• Short-circuit	Yes
Diagnostics indication LED	
• DIAG LED	Yes
• for status of the inputs	Yes
• for status of the outputs	Yes
• for maintenance	Yes
Integrated Functions	
Counter	No
Load cell	
• Non-automatic weighing instrument	NAWI
• Sampling rate	100 Hz
• Resolution of input signal	$\pm 1\ 000\ 000$ parts pro mV/V
• Common mode voltage, min.	0 V
• Common mode voltage, max.	5 V
• Cable length, max.	500 m; when using the SIWAREX 7MH4702-8AG cable

Measuring functions	
Measuring range	
— -1 mV/V to +1 mV/V	Yes
— -2 mV/V to +2 mV/V	Yes
— -4 mV/V to +4 mV/V	Yes
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP65
Standards, approvals, certificates	
CE mark	Yes; CE marking / EC Declaration of Conformity
UL approval	Yes; UL 61010-2-201, UL 61010-1
cULus	Yes; UL 61010-2-201 Third Edition; CAN/CSA-C22.2 No. 61010-2-201 Third Edition
Ambient conditions	
Free fall	
• Fall height, max.	1 m; five times, in product package
Ambient temperature during operation	
• vertical installation, min.	0 °C
• vertical installation, max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °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
Altitude during operation relating to sea level	
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 080 hPa ... 660 hPa (-1 000 m ... +3 500 m)
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	5 ... 8.4 Hz / 3.5 mm, 8.4 ... 150 Hz / 1 g; For wall mounting: 9 ... 29 Hz / 1.5 mm, 29 ... 200 Hz / 5 g
• Operation, tested according to IEC 60068-2-6	Yes
Shock testing	
• tested according to IEC 60068-2-27	Yes; 150 m/s ² , 11 ms
Mechanics/material	
Enclosure material (front)	stainless steel, mat. no. 1.4301
• Plastic	No
Dimensions	
Width	263 mm
Height	203 mm
Depth	155 mm
Weights	
Weight, approx.	4.55 kg
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

Approvals / Certificates

General Product Approval

[Metrological Approval](#)

last modified:

10/23/2025