

Industr. time synchronization Central plant clock SICLOCK TC100 device



General information

Product brand name	SICLOCK
Product type designation	TC100

Installation type/mounting

Mounting type	DIN rail 35 mm or 19 inch rack
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Supply voltage

Rated value (DC)	24 V
Relative negative tolerance	15 %
Relative positive tolerance	20 %

Mains buffering

<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	3 ms; Maximum
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Input current

Continuous rated current, max.	0.5 A
Operating current of fuse protection at input, slow-blow	1 A

Output current

Design of outputs for supply of the antenna	20 mA to 40 mA at 48 V
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Power	
Active power input, max.	9 W
Power loss	
Power loss, typ.	6 W
Time of day	
Design of the inputs	1x GPS1000 / DCFRS time input 48 V / 40 mA
Clock	
<ul style="list-style-type: none"> • Time deviation relative to GPS signal, max. • Time deviation relative to DCF77 signal, max. • Time deviation of the GPS signal with jitter, max. • Relative accuracy on loss of GPS signal, max. • Relative accuracy on loss of DCF77 signal, max. • Relative accuracy on power supply failure, max. • Clock error compensation relative to 1 s 	<ul style="list-style-type: none"> 50 μs 1 000 μs 200 ns 0.0001 % 0.000001 % 0.0004 % 50 μs
Digital outputs	
Relay outputs	
<ul style="list-style-type: none"> • Number of relay outputs <ul style="list-style-type: none"> — as NC contact for ALARM — as NC contact for WARNING 	<ul style="list-style-type: none"> 1 1
Switching capacity of contacts	
— Current carrying capacity at 48 V DC	0.06 A
Interfaces	
Number of industrial Ethernet interfaces	1
Industrial Ethernet	
<ul style="list-style-type: none"> • Transmission rate, min. • Transmission rate, max. 	<ul style="list-style-type: none"> 10 Mbit/s 100 Mbit/s
Interface types	
RJ 45 (Ethernet)	
<ul style="list-style-type: none"> • Autonegotiation 	Yes
Protocols	
Bus protocol/transmission protocol	(S)NTP, DCF77
Potential separation	
between Ethernet and electronics	Yes
Degree and class of protection	
IP degree of protection	IP20
Equipment protection class	III (according to EN 60536)

Standards, approvals, certificates	
CE mark	Yes
EAC (formerly Gost-R)	Yes
China RoHS compliance	Yes
Standard for EMC	EN 55022 Class A, FCC Class, EN 55024
Standard for ambient influences	
<ul style="list-style-type: none"> • During operation 	EN 60721-3-3 class 3KS
<ul style="list-style-type: none"> • During storage 	EN 60721-3-2 class 2K4
<ul style="list-style-type: none"> • Relative humidity during operation 	IEC 60068-2-78, IEC 60068-2-30
<ul style="list-style-type: none"> • Relative humidity during storage 	IEC 60068-2-78, IEC 60068-2-30
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. 	0 °C
<ul style="list-style-type: none"> • max. 	55 °C
<ul style="list-style-type: none"> • Permissible temperature change relative to one hour (without condensation) 	10 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • Storage, min. 	-40 °C
<ul style="list-style-type: none"> • Storage, max. 	70 °C
<ul style="list-style-type: none"> • Permissible temperature change relative to one hour (without condensation) 	20 °C
<ul style="list-style-type: none"> • Transportation, min. 	-40 °C
<ul style="list-style-type: none"> • Transportation, max. 	70 °C
Air pressure acc. to IEC 60068-2-13	
<ul style="list-style-type: none"> • permissible range, lower limit 	795 hPa
<ul style="list-style-type: none"> • permissible range, upper limit 	1 080 hPa
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude, min. 	-1 000 m
<ul style="list-style-type: none"> • Installation altitude, max. 	2 000 m
Relative humidity	
<ul style="list-style-type: none"> • Operation at 25 °C without condensation, min. 	10 %
<ul style="list-style-type: none"> • Operation at 25 °C without condensation, max. 	95 %
<ul style="list-style-type: none"> • Storage at 25 °C without condensation, min. 	10 %
<ul style="list-style-type: none"> • Storage at 25 °C without condensation, max. 	95 %
Mechanics/material	
Service life	
<ul style="list-style-type: none"> • Battery (during operation), min. 	10 y
<ul style="list-style-type: none"> • Battery unconnected (during storage), min. 	10 y
<ul style="list-style-type: none"> • Battery connected (during storage), min. 	6 y
Dimensions	
Width	180 mm

Height	89 mm
Depth	47 mm
last modified:	05/17/2018