05-090 Raszyn-Rybie, ul. 19 Kwietnia 58 Poland www.czaki.pl tel. +48 22 7202302 fax +48 22 7202305 e-mail czaki@czaki.pl



DATA LOGGERS

type RT-11 temperature data logger type RTW-12 temperature and humidity data logger

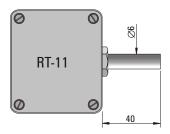
page 1 of 2

RT-11 and RTW-12 data loggers have a hermetic housing with IP65 protection.

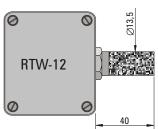
RT-11-1 is a device that allows measurement of the ambient temperature, and the RT-11-2 sensor enables remote measurement of the temperature of solid, liquid or gas, depending on the design of the sensor.

RTW-12-1 allows recording of temperature and relative humidity of a gas at the installation site, and the RTW-12-2 at the installation site of remote sensor. Special filters enclosing sensors of RTW data loggers are made of a porous sintered stainless steel.

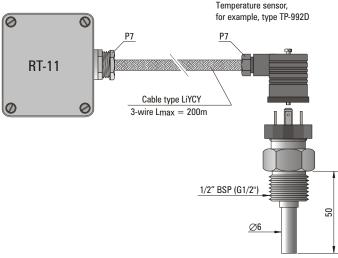
RT-11-1 (with local sensor)



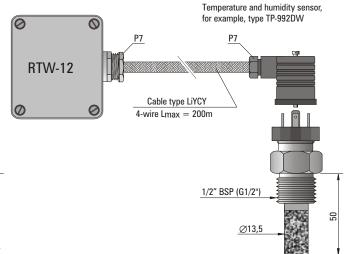
RTW-12-1 (with local sensor)



RT-11-2 (with remote sensor)



RTW-12-2 (with remote sensor)



Battery loggers type RT-11 and RTW-12 are microprocessor-based devices enabling the registration of temperature (type RT-11) or the temperature and humidity (Type RTW-12). The small size and battery power supply allow for their use wherever required to register changes in time of temperature and humidity. Especially when supply power is absent.

Loggers are fully standalone devices. They are equipped with sensors, their own non-volatile memory with the control system and their own power source in the form of a lithium battery. The logger can store over 200,000 measurements. When recording measurements once every quarter of an hour, registered data can be stored for almost 6 years. Stored data is protected from modification or falsification. Temperature or temperature and humidity are recorded with the current date and time. Communication with a PC is via USB. An integral part of the logger is software running on Windows®. It allows full configuration of thedevice and visualization of data stored on a computer monitor or printer. The format of stored data allows importation by popular programs such as MS Excel. Each record contains the temperature or temperature and humidity value, and the date and time of measurement.

The latest version of the software can be downloaded free of charge from www.czaki.pl.

An example of the use of temperature recorders is the transport and preservation of food and drugs, vaccines, blood products and other deep-frozen products, where there is an obligation to document the conditions of production, storage and transport.

CZAKI THERMO-PRODUCT

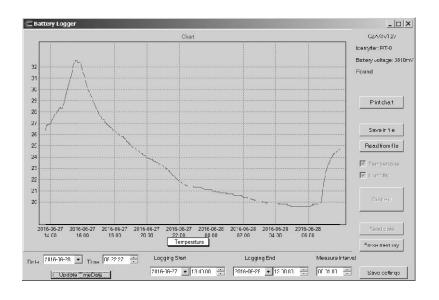
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DATA LOGGERS

type RT-11 temperature logger type RTW-12 temperature and humidity logger

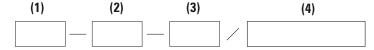
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TECHNICAL DATA

	Temperature measurement range	RT-11-1	-55°C+85°C		
		RT-11-2	-55°C+125°C		
	Temperature measurement accuracy	RT-11	± 0,5°C (-10°C+85°C); =	+85°C); \pm 2,0°C (-55°C10°C) and (85°C125°C)	
	Temperature measurement range	RTW-12-1	-40°C+85°C		
		RTW-12-2	-40°C+120°C		
	Temperature measurement accuracy	RTW-12	$\pm 0,4^{\circ}C (5^{\circ}C+40^{\circ}C);$	\pm 1,5°C (-40°C+5°C) i (40°C+85°C)	
			$\pm 2^{\circ}$ C (85°C+120°C)		
	Humidity measurement range	RTW-12	0100% RH		
	Humidity measurement accuracy	RTW-12	± 2%RH (1090%);	\pm 4%RH (010%) and (90100%)	
	Resolution Measurement repetition time Memory type / capacity Power supply Dimensions (width x height x depth)/ weight (without sensor)		0,1°C; 0,1%RH from10 seconds to 24 hours, programmable internal, non-volatile / 204800 measurements soldered lithium battery 3,6 V AA size 64 x 58 x 35 mm / ca. 60 g		
Interface / connector for communication with PC		USB / USB-B4 socket			
	Ingress protection		IP65		

ORDERING CODE



(1) Device type RT-11 temperature logger, RTW-12 temperature and humidity logger

(2) Version 1 - local sensor, 2 - remote sensor

(3) Cable length in meters for remote sensor.

(4) Remote sensor type.

Example for order: RT-11-1 means the ambient temperature logger with local sensor.

 $RTW-12-2-10/\ TP-992D-50-G1/2''\ means\ temperature\ and\ humidity\ logger\ with\ remote\ sensor\ type$

TP-992D-50-G1/2", cable length 10m.