

iButton Dallas

DS1990A

Data Sheet v1.1

2020-04-20



- ¹Radius 8,7 mm, width 3,1 mm
- 1-Wire protocol based
- Resistant to dirt, moisture and shock

iButton description

The DS1990A serial number iButton® is a rugged data carrier that serves as an electronic registration number for automatic identification. Data is transferred serially through the 1-Wire® protocol, which requires only a single data lead and a ground return. Every DS1990A is factory lasered with a guaranteed unique 64-bit registration number that allows for absolute traceability. The durable stainless-steel iButton package is highly resistant to environmental hazards such as dirt, moisture, and shock. Its compact coin-shaped profile is self-aligning with mating receptacles, allowing the DS1990A to be used easily by human operators. Accessories enable the DS1990A iButton to be mounted on almost any object, including containers, pallets, and bags.

¹Physical properties

Radius, mm	8,7
Width, mm	3,1
Housing	Stainless steel

Contacts

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iButton types	Pin-Package
² DS1990A-F5+	F5 iButton
² DS1990A-F3+	F3 iButton

¹F5 iButton variant.

²+Denotes a lead(Pb)-free/RoHS-compliant package.

Technical specifications

Read time	5 ms
Read /Write voltage	2,8V – 6,0 V DC
Working temperature	-40°C ~ +85°C
³ Registration number	64-bit
Communicates to Bus Master with a Single Digital Signal at	16,3 kbps

³First 8 bits are a 1-Wire family code. The next 48 bits are a unique serial number. The last 8 bits are a CRC of the first 56 bits.

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