RFID transponders
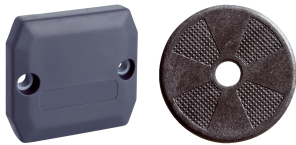
Object identification with the help of HF and UHF RFID data cards

SICK

Sensor Intelligence.

RFID transponders

Technical data overview

Frequency band	HF (13.56 MHz) / UHF (860 MHz ... 960 MHz) (depending on type)
Weight	+ 0.55 g ... + 34 g (depending on type)

Product description

The RFID transponder (also called RFID tags) from SICK work on the basis of high frequency (HF) or ultra-high frequency (UHF). The tags work passively and use the energy of the RFID read/write device for data transmission. Both HF and UHF transponders follow a standard which is valid worldwide. The large range of transponders regarding dimensions, size, storage size, ambient operating temperature, mounting and read range enable use in many different applications. RFID tags can save up to 64 bits of data and can be identified up to a read range of 10 m. Together with the RFID read/write devices, they create reliable and future-proof identification solutions.

At a glance

- Passive transponders
- Compliance with standards
- Mounting on various materials possible, even on metallic surfaces
- No visual contact required
- Reading and writing
- Ambient temperature range from −40 °C to +230 °C

Your benefits

- Low price and maintenance-free
- Standard-compatible transponders enable future-proof solutions
- High flexibility thanks to the option of mounting on different materials and functions which make visual contact to the RFID read/write device unnecessary
- Variable use due to quick and easy overwriting of transponder data
- The rugged design enables reliable operation - even in tough industrial environments

Fields of application

- High-temperature applications in paint lines
- Identification of containers and pallets
- Identification of vehicles and trains

Ordering information

Other models and accessories → www.sick.com/RFID_transponders

Carrier frequency	Special features	Memory capacity (UII / user memory)	Dimensions (L x W x H)	Diameter	Type	Part no.
13.56 MHz	–	2528 Bit (79 x 4 Byte)	53.98 mm x 85.6 mm x 0.76 mm	–	HF transponder, ISO card	6037848
		896 Bit (28 x 4 Byte)	–	30 mm	HF transponder, disk	6051701
			14 mm x 7 mm	7 mm	HF transponder, cylinder	6067993
			18 mm x 36 mm x 0.42 mm	–	HF transponder, paper label	6052794
			30 mm x 5 mm	5 mm	HF transponder, cylinder	6044368
			49 mm x 81 mm x 0.42 mm	–	HF transponder, paper label	6037763
	High Temperature	2048 Bit (64 x 4 Byte)	–	22 mm	HF transponder, coin	6033173
		2528 Bit (79 x 4 Byte)	–	50 mm	HF transponder, disk	6033781
			21.7 mm	4 mm	HF transponder, glass	6039237
		896 Bit (28 x 4 Byte)	–	16 mm	HF transponder, coin	6041592
			–	30 mm	HF transponder, disk	6034740
			6.5 mm x 51 mm x 51 mm	–	HF transponder, square, high-temp	6060918
	High Temperature, High Memory	16,000 Bit (250 x 8 Byte)	–	30 mm	HF transponder, disk	6043514
				50 mm	HF transponder, disk	6042212
	On Metal	896 Bit (28 x 4 Byte)	–	22 mm	HF transponder, disk	6052179
			12.5 mm x 25 mm x 5 mm	–	HF Transponder, rectangular, on-metal	6039051
			37 mm x 90 mm x 7 mm	–	HF Transponder, rectangular, on-metal	6047938

RFID transponders

Carrier frequency	Special features	Memory capacity (UII / user memory)	Dimensions (L x W x H)	Diameter	Type	Part no.
865 MHz ... 868 MHz	On Metal	448/2048 Bit	54 mm x 25 mm x 1.8 mm	–	UHF Transponder, label, on-metal, ETSI	6084214
		496/128 Bit	26 mm x 155 mm x 14.5 mm	–	UHF Transponder, Rectangular, On-Metal, ETSI	6086971
		≤ 448/640 Bit	26 mm x 155 mm x 14.5 mm	–	UHF Transponder, rectangular, on-metal, ETSI	6061180
	On Metal, ESD, High Temperature	496/128 Bit	80 mm x 35 mm x 1.2 mm	–	UHF Transponder, label, ESD, on-metal, ETSI	6077157
	On Metal, High Temperature	–	32 mm x 10.8 mm x 6 mm	–	UHF Transponder, Rectangular, On-Metal, ETSI	6086974
		96/512 Bit	12.8 mm x 31.7 mm x 4.97 mm	–	UHF Transponder, rectangular, on-metal, ETSI	6070746
		96/688 Bit	55 mm x 36.2 mm x 7.5 mm	–	UHF Transponder, Rectangular, On-Metal & High-Temp, ETSI	6084487

Carrier frequency	Special features	Memory capacity (UII / user memory)	Dimensions (L x W x H)	Diameter	Type	Part no.
865 MHz … 928 MHz	–	–	73 mm x 17 mm x 0.2 mm	–	UHF Transponder, Paper label, global	6086972
		128/512 Bit	18 mm x 122 mm x 2 mm	–	UHF Transponder, rectangular, global	6068184
			3.98 mm x 85.6 mm x 0.76 mm	–	UHF Transponder, ISO-card, global	6051820
			73 mm x 14 mm x 0.3 mm	–	Special label	6054385
		0/3,328	11 mm x 41 mm x 5.15 mm	–	UHF Transponder, rectangular, on-metal & high memory, global	6054025
		148/2048 Bit	27 mm x 97 mm x 0.2 mm	–	UHF Transponder, label, global	6073284
		496/128 Bit	15 mm x 97 mm x 0.2 mm	–	UHF Transponder, paper label, global	6070051
			21 mm x 85 mm x 10 mm	–	UHF Transponder, rectangular, on-metal, global	6068580
	High Temperature	256/512 Bit	70 mm x 110 mm x 0.42 mm	–	UHF Transponder, rectangular, high-temp, global	6052355
		96/240 Bit	70 mm x 110 mm x 0.42 mm	–		6049636
	On Metal	128/512 Bit	27 mm x 27 mm x 6 mm	–	UHF Transponder, square, on-metal, global	6052186
		496/128 Bit	21 mm x 85 mm x 10 mm	–	UHF Transponder, Rectangular, On-Metal, global	6086968
			27 mm x 27 mm x 6 mm	–	UHF Transponder, Square, On-Metal, global	6086969
		96/688 Bit	21 mm x 85 mm x 10 mm	–	UHF Transponder, Rectangular, On-Metal, global	6080937
	On Metal, High Memory	240/64,000	8 mm x 65 mm x 45 mm	–	UHF Transponder, rectangular, on-metal & high memory, global	6061389
	On Metal, High Temperature	128/512 Bit	7.5 mm x 51.5 mm x 10 mm	–	UHF Transponder, rectangular, on-metal, global	6052346
		496/128 Bit	7.5 mm x 51.5 mm x 10 mm	–	UHF Transponder, Rectangular, On-Metal, global	6086967
	Wind-shield	496/128 Bit	11.5 mm x 93 mm x 0.2 mm	–	UHF Transponder, PET label, global	6065191

RFID transponders

Carrier frequency	Special features	Memory capacity (UII / user memory)	Dimensions (L x W x H)	Diameter	Type	Part no.
902 MHz ... 928 MHz	On Metal	128/512 Bit	26 mm x 155 mm x 14.5 mm	–	UHF Transponder, rectangular, on-metal, FCC	6060819
		496/128 Bit	26 mm x 155 mm x 14.5 mm	–	UHF Transponder, Rectangular, On-Metal, FCC	6086970
	On Metal, High Temperature	–	32 mm x 10.8 mm x 6 mm	–		6086975
		96/512 Bit	12.8 mm x 31.7 mm x 4.97 mm	–	UHF Transponder, rectangular, on-metal, FCC	6070747
		96/688 Bit	55 mm x 36.2 mm x 7.5 mm	–	UHF Transponder, Rectangular, On-Metal & High-Temp, FCC	6084486

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

SICK
Sensor Intelligence.