APPLICATION

RFID tags withstand elevated temperatures during automotive paint curing

Identification components in paint shops are exposed to a variety of rinsing, coating and burning operations, including electrophoresis. Since soiling makes visual identification difficult or impossible, rugged RFID systems are an excellent solution. The RFID tag accompanies each product throughout all painting processes. It can store individual data, including customer requirements, directly on the product or carrier. This allows highly automated customized processes, with smaller batches and central data storage.

INDUSTRIES

Automotive production and supply, maritime, food and beverage

Paint shop in automotive industry

Maritime industry

Brewery production equipment

Automotive part sensing

HIGH TEMPERATURE TAGS

RFID

READY TO BAKE

Designed for environments up to 180 or 250°C, **High Temperature** tags offer exceptional longevity and a thermal-cycling reliability of 1000 hours (or 1000 cycles). Tags are insensitive to dirt and provide between 112 and 2000 Bytes of user memory. As passive devices, no battery or other power source is required. Housings are impervious (IP68 and IP69K).

KEY ADVANTAGES

- ✓ High frequency, fully compatible with ISO/IEC 15693
- ✓ Exceptionally long life-expectancy, even under intense read/write and temperature cycling
- ✓ Insensitive to dirt

∅26 mm, PPS housing

- ✓ Temperature range −25…+180°C (−13…+356°F)
- ✓ Embeddable in metal
- ✓ User memory size (EEPROM): 160 Byte

∅50 mm, LCP housing

- ✓ Temperature range −25…+250°C (−13…+482°F)
- ✓ 100% silicone-free, ideal for paint-shop applications (LABS-free, PWIS-free)
- ✓ User memory size:
  - ✓ FRAM technology: 2000 Byte (RTP-0502-062)
  - ✓ EEPROM technology: 112 Byte (RTP-0502-082) and 160 Byte (RTP-0502-022)

PRODUCT OVERVIEW

Housing size mm	∅26 mm	M30
Read/write distance max (mm)	12	12

ACCESSORIES

Go to page 290 to see all the accessories

Cables and couplers

Handheld devices

Starter kits

OUTPUT

Size
[26] ∅26 mm [50] ∅50 mm

Technology
[2] IC NxP ICODE SLI-S
[6] IC FUJITSU FRAM MB89R118C
[8] IX NxP ICODE SLI

RTP-0[xx][x]-0[x][x]

Material
[2] LCP
[3] PPS

Temperature
[0] Very high up to +150°C
[2] Ultra high up to +250°C

Reference key on pages 294–297

ACCESSORIES

Starter kits
See page 292

Handheld devices
See page 292

RFID couplers
See page 293

Cables
See page 288

Go to page 298 for details

RFID HIGH TEMPERATURE TRANSPONDERS

HIGH TEMPERATURE

FAMILY	HOUSING SIZE (mm)	USER MEMORY SIZE (BYTE)	READ/WRITE DISTANCE MAX. (mm)
	∅ 26	160	31
	∅ 50	112	42.5
	∅ 50	160	50
	∅ 50	2000	44.5

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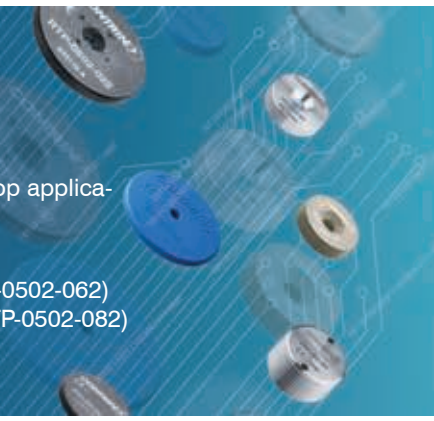

	OPERATING FREQUENCY	STANDARD	HOUSING MATERIAL	MOUNTING	INTERFACE	STORAGE TEMPERATURE	AMBIENT TEMPERATURE	PART REFERENCE
	HF	ISO/IEC 15693	PPS	Embeddable	RFID	−40 … +180°C	−25 … +180°C	**RTP-0263-020**
		ISO/IEC 15693	LCP (liquid crystal polymer)	Non-embeddable	RFID	−40 … +250°C	−25 … +150°C	**RTP-0502-082**
		ISO/IEC 15693	LCP (liquid crystal polymer)	Non-embeddable	RFID	−40 … +250°C	−25 … +150°C	**RTP-0502-022**
		ISO/IEC 15693	LCP (liquid crystal polymer)	Non-embeddable	RFID	−40 … +250°C	−25 … +150°C	**RTP-0502-062**