

## APPLICATION

### RFID technology used to identify workpiece carriers and initiate automated washing

In the harsh environment of a washing station, RFID tags and RWMs are exposed to hot water, mechanical shocks, corrosive chemicals and high-pressure jetting. Despite these challenges, identification systems must operate continuously with high reliability. Typically, RFID tags are mounted on the part carriers. On arrival at the washing station, information from the tag is used to select the correct washing cycle for the part type and process.

## INDUSTRIES

Automotive production and supply, maritime, food and beverage



*Autoclave application*



*Automotive part sensing*



*Maritime industry*



*Brewery production equipment*

# EXTREME AND WASHDOWN RFID

## HIGHEST MECHANICAL AND CHEMICAL RESISTANCE

Read/write modules (RWMs) and embeddable tags from these two ranges feature robust, full-metal, stainless-steel construction. They offer outstanding performance in metallic environments and are insensitive to dirt and metal chips. For the highest mechanical and chemical resistance, **Washdown** components in food-grade stainless steel (V4A/AISI 316L) are fully sealed and laser welded. They function reliably when immersed in fluids such as water or oil.

### KEY ADVANTAGES

- ✓ LF passive tags, no battery required
- ✓ If the ContriNET protocol is used, LF components can share one network with HF types, including the full range of interfaces
- ✓ Insensitive to dirt
- ✓ Outstanding performance in metallic environments
- ✓ Tags readable/writable through metal
- ✓ Tags fully embeddable, including in metal
- ✓ Enclosure rating IP68 & IP69K

### Extreme RWMs and tags

- ✓ All-metal, stainless-steel housings (V2A/AISI 304) resist corrosion, impacts and abrasion
- ✓ Suitable for use in harsh environments, such as the steel industry, agriculture and other outdoor applications
- ✓ Temperature range: tags  $-40 \dots +95^{\circ}\text{C}$  ( $-40 \dots +203^{\circ}\text{F}$ ), RWMs  $-25 \dots +80^{\circ}\text{C}$  ( $-13 \dots +176^{\circ}\text{F}$ )

### Washdown RWMs and tags

- ✓ All-metal housings in food-grade stainless steel (V4A/AISI 316L) resist saltwater, solvents, corrosion, impacts and abrasion
- ✓ Designed for demanding clean-in-place (CIP) applications within the food, pharmaceutical and other industries
- ✓ Temperature range  $-40 \dots +125^{\circ}\text{C}$  ( $-40 \dots +257^{\circ}\text{F}$ )



## PRODUCT OVERVIEW

Housing size mm	M18	M30
Read/write distance max (mm)	12	12

## ACCESSORIES

Go to page 290 to see all the accessories



# RFID EXTREME AND WASHDOWN SYSTEM

## OUTPUT

Housing size

[18] M18 [30] M30

Temperature

[0] Standard up to +80°C

[1] High up to +125°C

RLS-1[xx][x]-03[x]


Material

[0] Stainless steel V2A

[2] Stainless steel V4A


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

EXTREME AND

WASHDOWN SYSTEM

READ/WRITE MODULES

FAMILY	READ/WRITE DISTANCE MAX. (mm)	HOUSING SIZE (mm)	OPERATING FREQUENCY	STANDARD	
EXTREME	12	M18		Proprietary	
	12	M30		Proprietary	
WASH- DOWN	12	M18		Proprietary	
	12	M30		Proprietary	

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## VIEW RFID DATASHEETS

[www.contrinex.com/product\\_range/rfid-extreme](http://www.contrinex.com/product_range/rfid-extreme)  
[www.contrinex.com/product\\_range/rfid-washdown](http://www.contrinex.com/product_range/rfid-washdown)



EXTREME &  
WASHDOWN  
RWMS

### KEY ADVANTAGES

- ✓ If the ContriNET protocol is used, LF components can share one network with HF types, including the full range of interfaces
- ✓ Insensitive to dirt
- ✓ Outstanding performance in metallic environments
- ✓ Enclosure rating IP68 & IP69K
- ✓ Rugged all-metal LF RWMs with impervious sensing face





#### Extreme

- ✓ Temperature range  $-25 \dots +80^{\circ}\text{C}$   
( $-13 \dots +176^{\circ}\text{F}$ )

#### Washdown

- ✓ Temperature range  $-40 \dots +125^{\circ}\text{C}$   
( $-40 \dots +257^{\circ}\text{F}$ )



	USER MEMORY SIZE (BYTE)	HOUSING MATERIAL	MOUNTING	INTERFACE	CONNECTION / CONNECTOR	AMBIENT TEMPERATURE	PART REFERENCE
	400	Stainless-steel V2A	Non-embeddable	ContriNET × RFID	 M12	$-25 \dots +80^{\circ}\text{C}$	RLS-1180-030
	400	Stainless-steel V2A	Non-embeddable	ContriNET × RFID	 M12	$-25 \dots +80^{\circ}\text{C}$	RLS-1300-030
	400	Stainless-steel V4A	Non-embeddable	ContriNET × RFID	 M12	$-40 \dots +125^{\circ}\text{C}$	RLS-1182-031
	400	Stainless-steel V4A	Non-embeddable	ContriNET × RFID	 M12	$-40 \dots +125^{\circ}\text{C}$	RLS-1302-031

# RFID EXTREME AND WASHDOWN SYSTEM

## OUTPUT

Series

[F] All metal [L] All metal, laser welded [M] Metal

Size

[##] Diameter in mm

RT[x]-1[xx][x]-00[x]

Type


[0] Smooth sleeve  
[1] Non-embeddable  
[2] Embeddable

Temperature


[0] Standard up to +80°C  
[1] High up to +125°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 EXTREME AND WASHDOWN SYSTEM TRANSPONDERS

FAMILY	HOUSING SIZE (mm)	USER MEMORY SIZE (BYTE)	READ/WRITE DISTANCE MAX. (mm)	
EXTREME	Ø 10	240	<div></div> 17	
	Ø 16	240	<div></div> 19	
	M16	240	<div></div> 13	
	Ø 26	240	<div></div> 26	
	M30	240	<div></div> 18	
	M30	240	<div></div> 23	
WASHDOWN	Ø 10	240	<div></div> 17	
	Ø 16	240	<div></div> 13	
	M16	240	<div></div> 13	
	Ø 26	240	<div></div> 26	
	M30	240	<div></div> 18	
	M30	240	<div></div> 18	



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**Extreme**

- ✓ Temperature range  $-40 \dots +95^{\circ}\text{C}$   
( $-40 \dots +203^{\circ}\text{F}$ )

**Washdown**

- ✓ Temperature range  $-40 \dots +125^{\circ}\text{C}$   
( $-40 \dots +257^{\circ}\text{F}$ )

	OPERATING FREQUENCY	STANDARD	HOUSING MATERIAL	MOUNTING	INTERFACE	STORAGE TEMPERATURE	AMBIENT TEMPERATURE	PART REFERENCE
		Proprietary	Stainless-steel V2A	Embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTM-0100-000
		Proprietary	Stainless-steel V2A	Embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTM-0160-000
		Proprietary	Stainless-steel V2A	Embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTM-2160-000
		Proprietary	Stainless-steel V2A	Embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTM-0260-000
		Proprietary	Stainless-steel V2A	Embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTM-2300-000
		Proprietary	Stainless-steel V2A	Non-embeddable	RFID	$-40 \dots +95^{\circ}\text{C}$	$-40 \dots +80^{\circ}\text{C}$	RTF-1300-000
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-0102-001
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-0162-001
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-2162-001
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-0262-001
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-1302-001
		Proprietary	Stainless-steel V4A	Embeddable	RFID	$-40 \dots +125^{\circ}\text{C}$	$-40 \dots +125^{\circ}\text{C}$	RTL-2302-001