APPLICATION

RFID technology for automated testing and tracking of individual motors

Product testing lines tipically comprise several test stations, each performing a fixed sequence of tests. For efficient real-time monitoring, identification systems must integrate well into the overall control system.
In a typical RFID system, part carriers are equipped with tags and every test station has an RWM. To program the testing machine, the RWM reads from each tag the type of test required for an individual part. After each test, the RWM writes the results back into the appropriate tag memory address/location. Test reports are automatically forwarded to the controller for product acceptance or rejection and fault correction.

INDUSTRIES

Automotive production and supply, machine tool, packaging, logistics, materials handling, assembly, automation, robotics

Automotive industry

Packaging systems

Machine tools

Robotics

BASIC AND USB SYSTEM

RFID

FIRST CHOICE FOR HIGH AND LOW FREQUENCY

Basic transponders (tags) and read/write modules (RWMs) provide cost-effective solutions with ISO/IEC 15693-compatible HF transponders or proprietary LF transponders. Data protection is excellent, transfer time is fast and all components use the same ContriNET protocol with an RS-485 or USB physical layer. For hardware connection to a PC computer, USB RWMs are an ideal solution as they provide an USB output on their integral connector cable (2 m).

KEY ADVANTAGES

Basic RWMs and tags

- ✓ ContriNET RS-485 protocol with outstanding fieldbus coverage
- ✓ LF and HF RWMs can be daisy-chained on same network
- ✓ HF and LF passive tags, no battery required
- ✓ LF tags embeddable in metal
- ✓ Insensitive to dirt
- ✓ Tag temperature range −40 … +125°C (−40 … +257°F), IP67
- ✓ RWM temperature range −25 … +80°C (−13 … +176°F), IP67, integral S12 connector

USB RWMs and interface

- ✓ ContriNET USB protocol for direct connection to PC (non-networkable)
- ✓ Compatible with ContriNET BASIC support tools and DEMO software
- ✓ DLL for easy development of custom solutions
- ✓ Temperature range −25 … +70°C (−13 … +158°F), IP67, integral USB A male connector

PRODUCT OVERVIEW

Housing size mm	M18	M30	C44
Read/write distance max (mm)	26/31/36	41/58/60	80

ACCESSORIES

Go to page 290 to see all the accessories

Cables and couplers

Handheld devices

Starter kits

OUTPUT

Housing size
[M18] Cylindrical M18 [M30] Cylindrical M30
[C44] Cubic C44

RLH-[**xxx**]PA-NSS

Housing size
[18] M18 [30] M30

Technology
[2] Conldent HF [3] Conldent LF

RLS-1[**xx**][**x**]-0[**x**]0

Material
[1] PBTP / Chrome-plated brass
[3] PBTP / Stainless steel V2A

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 BASIC AND USB SYSTEM

READ/WRITE MODULES

FAMILY	READ/WRITE DISTANCE MAX. (mm)	HOUSING SIZE (mm)	OPERATING FREQUENCY	STANDARD
BASIC	26	M18	HF	ISO/IEC 15693
	31	M18	HF	ISO/IEC 15693
	36	M18	LF	Proprietary
	41	M30	LF	Proprietary
	58	M30	HF	ISO/IEC 15693
	60	M30	HF	ISO/IEC 15693
	80	40 × 40 (C44)	HF	ISO/IEC 15693
USB	31	M18	HF	ISO/IEC 15693
	31	M18	HF	ISO/IEC 15693
	36	M18	LF	Proprietary
	41	M30	LF	Proprietary
	60	M30	HF	ISO/IEC 15693
	60	M30	HF	ISO/IEC 15693

VIEW RFID DATASHEETS

www.contrinex.com/product_range/rfid-basic
www.contrinex.com/product_range/rfid-usb

KEY ADVANTAGES

- ✓ Powerful RS-485 network protocol for LF and HF systems
- ✓ Threaded Read/Write Modules (RWMs) with S12 connector and RS-485 output
- ✓ LF and HF RWMs can be mixed on the same network

USER MEMORY SIZE (BYTE)	HOUSING MATERIAL	MOUNTING	INTERFACE	CONNECTION / CONNECTOR	AMBIENT TEMPERATURE	PART REFERENCE
400	Chrome-plated brass	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLH-M18PA-NSS**
400	Stainless-steel V2A	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLS-1183-020**
400	Chrome-plated brass	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLS-1181-030**
400	Chrome-plated brass	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLS-1301-030**
400	Chrome-plated brass	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLH-M30PA-NSS**
400	Stainless-steel V2A	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLS-1303-020**
400	PBTP	Non-embeddable	ContriNET × RFID	M12	−25 … +80°C	**RLH-C44PA-NSS**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1181-220**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1181-220-120**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1181-230**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1301-230**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1301-220**
400	Chrome-plated brass	Non-embeddable	ContriNET USB × RFID		−25 … +70°C	**RLS-1301-220-120**

OUTPUT

Size
[D20] ∅20 mm [D30] ∅30 mm [D50] ∅50 mm

RTH-[**xxx**]QA-N[**x**]0

Communication compatibility
[C] ICODE SLI-X
[D] FRAM MBR89R118C

Size
[##] Diameter in mm

Material
[0] Epoxy [1] PBTP

RLS-1[**xx**][**x**]-0[**x**]0

Technology
[0] Low Frequency
[2] High Frequency ICode SLI-S ISO 15693

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

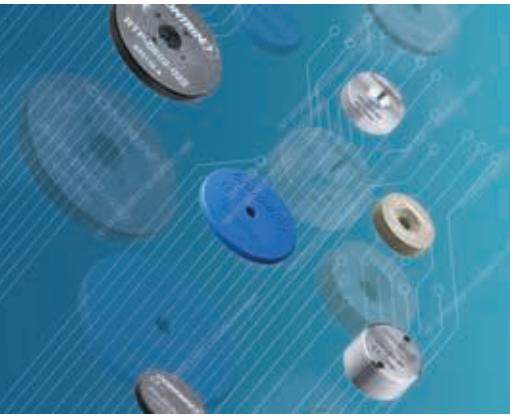
Go to page 298 for details

RFID BASIC AND USB SYSTEM TRANSPONDERS

FAMILY	HOUSING SIZE (mm)	USER MEMORY SIZE (BYTE)	READ/WRITE DISTANCE MAX. (mm)
BASIC AND USB	∅ 9	160	14
	∅ 16	160	30
	∅ 20	112	34
	∅ 20	160	25
	∅ 20	240	28
	∅ 20	2000	27
	∅ 30	112	44.5
	∅ 30	160	45
	∅ 30	240	29
	∅ 30	2000	45.5
	∅ 50	112	67
	∅ 50	160	60
	∅ 50	240	41
	∅ 50	2000	64.5

VIEW RFID DATASHEETS

www.contrinex.com/product_range/rfid-basic
www.contrinex.com/product_range/rfid-usb



KEY ADVANTAGES

- ✓ ContriNET RS-485 protocol with outstanding fieldbus coverage
- ✓ HF and LF passive tags, no battery required
- ✓ LF tags embeddable in metal
- ✓ Insensitive to dirt
- ✓ Tag temperature range −40 … +125°C (−40 … +257°F), IP67

OPERATING FREQUENCY	STANDARD	HOUSING MATERIAL	MOUNTING	INTERFACE	STORAGE TEMPERATURE	AMBIENT TEMPERATURE	PART REFERENCE
HF	ISO/IEC 15693	PPS + epoxy	Non-embeddable	RFID	−20 … +110°C	−20 … +85°C	**RTP-0090-020**
HF	ISO/IEC 15693	PPS + epoxy	Non-embeddable	RFID	−20 … +110°C	−20 … +85°C	**RTP-0160-020**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D20QA-NC0**
HF	ISO/IEC 15693	PBTP	Non-embeddable	RFID	−40 … +125°C	−25 … +85°C	**RTP-0201-020**
LF	Proprietary	PBTP	Embeddable	RFID	−40 … +125°C	−40 … +125°C	**RTP-0201-000**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D20QA-ND0**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D30QA-NC0**
HF	ISO/IEC 15693	PBTP	Non-embeddable	RFID	−40 … +125°C	−25 … +85°C	**RTP-0301-020**
LF	Proprietary	PBTP	Embeddable	RFID	−40 … +125°C	−40 … +125°C	**RTP-0301-000**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D30QA-ND0**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D50QA-NC0**
HF	ISO/IEC 15693	PBTP	Non-embeddable	RFID	−40 … +125°C	−25 … +85°C	**RTP-0501-020**
LF	Proprietary	PBTP	Embeddable	RFID	−40 … +125°C	−40 … +125°C	**RTP-0501-000**
HF	ISO/IEC 15693	PPA	Non-embeddable	RFID	−40 … +90°C	−25 … +80°C	**RTH-D50QA-ND0**