



File E125629

Vol 1

Auth. Page 1

Issued: 1990-02-21

Revised: 2011-11-14

FOLLOW-UP SERVICE PROCEDURE
(TYPE R)

COMPONENT - SWITCHES, INDUSTRIAL CONTROL
(NRNT2, NRNT8)

Manufacturer: SEE ADDENDUM FOR MANUFACTURER LOCATIONS

Applicant: SAME AS MANUFACTURER
(100528-141)

Recognized Company: SAME AS MANUFACTURER
(100528-141)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL), or any authorized licensee of UL, only on products when constructed, tested and found to be in compliance with the requirements of this Procedure and in accordance with the terms of the applicable UL Services Agreement and Follow-Up Service Terms and Conditions. UL further defines responsibilities, duties and requirements for both manufacturers and UL representatives in the document titled, "UL Mark Surveillance Requirements" that can be located at the following web-site: <http://www.ul.com/fus> and in accordance with the applicable Terms and Conditions at <http://www.ul.com/responsibilities>. Manufacturers without Internet access may obtain the current version of this document from their local UL customer service representative or UL field representative. For assistance, or to obtain a paper copy of the Terms and Conditions, please contact UL's Customer Service at <http://www.ul.com/global/eng/pages/corporate/contactus>, select a location and enter your request, or call the number listed for that location.

The Applicant, the specified manufacturer(s) and any Listee will be considered to have agreed to Follow-Up Services and the terms of this Follow-Up Service Procedure upon the earliest use of the prescribed UL Mark, acceptance of the factory inspection, or payment of the Follow-Up Service fees in accordance with the Follow-Up Services Terms and Conditions. Follow-Up Services will be governed by and incorporate by reference such GSA and the Follow-Up Service Terms which can be accessed by clicking here: <http://www.ul.com/contracts/newfusterns>. In all other events, such Follow-Up Services will be governed by and incorporate the terms of the applicable agreement and any applicable Program Terms and Conditions.

It is the responsibility of the Listee to make sure that only the products meeting the aforementioned requirements bear the authorized Marks of UL, or any authorized licensee of UL. The Applicant and the specified manufacturer(s) in this Follow-Up Services Procedure must agree to the Follow-Up Services as required by UL's Contracting Party.

This Procedure contains information for the use of the above Manufacturer(s) and representatives of UL or any licensee of UL, and is not to be used for any other purpose. It is lent to the Manufacturer with the understanding that it will be returned upon request and is not to be copied in whole or in part.

This Procedure, and any subsequent revisions, is the property of UL and any authorized licensee of UL, and is not transferable. This procedure contains confidential information for use only by the above named Manufacturer(s) and representatives of UL and is not to be used for any other purpose. It is lent to the Subscribers with the understanding that it is not to be copied, either wholly or in part unless specifically allowed, and that it will be returned to UL, upon request.

UL shall not incur any obligation or liability for any loss, expense or damages, including incidental, consequential or punitive damages arising out of or in connection with the use or reliance upon this Procedure to anyone other than the above Manufacturer(s) as provided in the agreement between UL or an authorized licensee of UL, and the Manufacturer(s).

Willam R.Carney
Director
North American Certification Program

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Authorization Page Revised: 2011-11-14

LOCATION
(100528-141) COMUS TECHNOLOGY BV
JAN CAMPERTSTRAAT 11
6416 SG HEERLEN THE NETHERLANDS
Factory ID: None

Recognized Component Marking Data Page (RCMDP)

(FILE IMMEDIATELY AFTER AUTHORIZATION PAGE)

RECOGNIZED COMPONENT MARKING

Products Recognized under UL's Component Recognition Service are identified by marking elements consisting of:

1. The Recognized Company's identification specified in this document.
2. A catalog, model or other applicable product designation specified in the descriptive sections of this document.
3. The UL Recognized Component Mark shown below is optional unless required elsewhere in the Procedure.

Only those components, which actually bear the Marking, should be considered as being covered under the Recognition Program. The UL Listing or Classification Mark is not authorized for use on or in connection with Recognized Components.

Recognized Component Mark



Minimum size of the Recognized Component Mark is not specified as long as it is legible. Minimum height of the registered symbol ® shall be 3/64 inch but may be omitted if it is out of proportion to the Recognized Component Mark or not legible to the naked eye.

The manufacturer may reproduce the Mark electronically. Any decision regarding the acceptability of the manufacturer's Mark reproduction will be made at the Reviewing Office.

Recognized Component Marking Data Page (RCMDP)

(FILE IMMEDIATELY AFTER AUTHORIZATION PAGE)

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Products Recognized under UL's Component Recognition Service are identified by marking elements consisting of:

1. The Recognized Company's identification specified in this document.
2. A catalog, model or other applicable product designation specified in the descriptive sections of this document.
3. The UL Recognized Component Mark shown below:
 - (A) Recognized only to Canadian safety requirements, or;
 - (B) Recognized to both U.S. and Canadian safety requirements.

Only those components, which actually bear the Marking, should be considered as being covered under the Recognition Program. The UL Listing or Classification Mark is not authorized for use on or in connection with Recognized Components.

Recognized Component Mark

(A)



(B)



Minimum size of the Recognized Component Mark is not specified as long as it is legible. Minimum height of the registered symbol ® shall be 3/64 inch but may be omitted if it is out of proportion to the Recognized Component Mark or not legible to the naked eye.

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<u>Industrial control switches, Types</u>	<u>Sec.</u>	<u>Report Date</u>	<u>USR</u>	<u>CNR</u>
*WITHDRAWN	1	1990-02-21	X	-
Series RI-01B, RI-01C, RI-02, RI-03, RI-05, RI-06, RI-07, RI-08, RI-21, RI-23, RI-24, RI-25, RI-26, RI-27, RI-29, RI-46, RI-44, RI-48, RI-60, RI-70, RI-80 and RI-90	2	1999-09-13	X	X

Note: USR - indicates United States Standard, Recognized Component
 CNR - indicates Canadian National Standard, Recognized Component

*

TRADEMARK DESIGNATION:

The following trademark or trade name, if any, may be used to identify products described in this Procedure in lieu of the Listee and/or Recognized Company name. The company identification is the Recognized Company's name or trademark.

Coto Technology



File E125629

Vol. 1

Sec. 1
and Report

Issued: 1990-02-21
Revised: 2009-07-14

REPLACES ENTIRE SECTION 1

DESCRIPTION:

PRODUCT COVERED:

USR, CNR - Component, Industrial Control Switches, Series RI-01B, RI-01C, RI-02, RI-03, RI-05, RI-06, RI-07, RI-08, RI-21, RI-23, RI-24, RI-25, RI-26, RI-27, RI-29, RI-44, RI-46, RI-48, RI-60, RI-70, RI-80 and RI-90. May be followed by one or more suffixes.

GENERAL:

These devices are small glass enclosed *SPST (normally open) reed switches (except model RI-90). Model RI-90 is a SPDT, small glass enclosed, reed switch (normally open and -closed). Devices may only be used in circuits with same polarity.

They are activated by either a separate coil or a magnetic field.

RATINGS:

Type	Max. power (VA)	Max. current dc (A)	Max. voltage dc (V)	Max. current ac (A)	Max. voltage ac (V)	Use
RI-01B, -01C, -02, -07, -24, -60	10 10	0.5	200	0.5	140	Resistive Resistive
RI-03, -21, -23	10 10	0.5	200	0.5	140	Resistive GP
RI-05, -06	10 10	0.4	200	0.4	140	Resistive Resistive
RI-25	25 25	1.0	200	1.0	140	Resistive GP
RI-26	20 20	1.0	200	1.0	140	Resistive Resistive
RI-27	10 10	0.5	200	0.5	140	Resistive GP
RI-29	20 20	1.0	200	1.0	140	Resistive GP
RI-08, -46	40 40	1.0	200	1.0	250	Resistive GP
RI-44	40 40	1.0	1000	0.7	700	Resistive Resistive

RATINGS (CONT'D):

<u>Type</u>	<u>Max. power (VA)</u>	<u>Max. current dc (A)</u>	<u>Max. voltage dc (V)</u>	<u>Max. current ac (A)</u>	<u>Max. voltage ac (V)</u>	<u>Use</u>
RI-48	70 70	1.0	200			Resistive Resistive
RI-70	10 10	0.25	170	0.25	120	Resistive Resistive
RI-80	5 5	0.35	200	0.25	140	Resistive Resistive
RI-90	5 5	0.4	175	0.28	125	Resistive Resistive

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

These components, types RI-01B, RI-01C, RI-02, RI-05, RI-06, RI-07, RI-08, RI-24, RI-26, RI-44, RI-48, RI-60, RI-70, RI-80 and RI-90 have been judged on the basis of the required spacing in the Standard for Industrial Control Equipment (UL 508, Seventeenth Edition) Table 36.1, which would cover the component itself if submitted for unrestricted Listing.

Types RI-03, RI-21, RI-23, RI-25, RI-27, RI-29 and RI-46 have been transferred from volume 1, section 1. Types have been judged on the bases of the required spacing in the Standard for Industrial Control Equipment (UL 508, Fourteenth Edition), Table 47.1, which would cover the component itself is submitted for unrestricted Listing.

Use - For use only in products where the acceptability of the combination has been determined by Underwriters Laboratories Inc.

CONDITIONS OF ACCEPTABILITY:

1. These devices should be used within the ratings specified above.
2. This device must be installed in an adequate enclosure having proper spacings, thickness and strength for the intended application.
3. No determination of the acceptability of the leads for wiring in an end-use application has been determined.
4. No determination of the strength of the glass envelope has been made. Each end-use application shall determine the adequacy of the glass envelope.
5. These devices are intended for factory installation only in a circuit with same polarity.
6. In the end-use application a dielectric withstand test should be performed.

SPECIAL INSTRUCTION TO UL FUS INSPECTOR:

Thickness of gold layer shall be determined by using the manufacturer's calibrated X-ray measuring equipment, type Fischerscope x-ray system XDL, manufactured by Helmut Fischer.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

CNR - Indicates investigation to Canadian National Standards C22.2 No. 14 - 95

USR - Indicates investigation to U.S. National Standard UL 508.

Note:

CNR = Canadian National Standards - Recognized

USR = United States Standards - Recognized

CONSTRUCTION DETAILS:

Spacings - This is a series device with no opposite polarity. Therefore, spacings are not specified.

Tolerances - All tolerances are nominal unless otherwise specified.

Corrosion Protection - Corrosion protection is obtained by tin plating.

MARKING:

The packaging material of these devices is to be marked to indicate the manufacturer's name and series type. The electrical ratings are optional.

SERIES RI-07
(REPRESENTS ALL SERIES DEVICES)

FIG. 1 (M9914617)

General - Figure 1 shows an overview of several reed switches, which are representing all other models written in this report. The reed switch consists of the following parts:

1. Complete Device - See also Ill. 1 *
2. Leads - Tin-plated nickel iron.
Gold layer - See table on Ill. 1.

RI-07



RI-60



RI-24



RI-26



RI-48



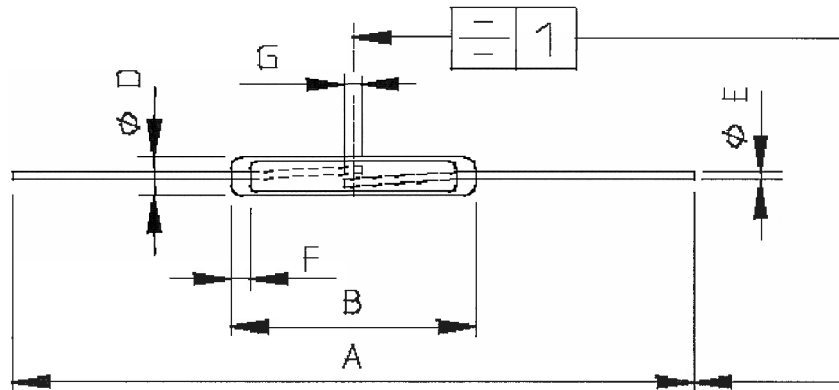
RI-70



And Report

Dimensions reedswitches:

TYPE	AFMETINGEN					
	A(mm)	B(mm)	D(mm)	E(mm)	F(mm)	G(µm)
RI-03/06/21/23/24/25/26	46,0 ± 0,5	15,0 max	2,54 max	0,60 max	1,8 ± 0,5	325 +150 -100
RI-01B	46,0 ± 0,5	15,0 max	2,54 max	0,50 max	1,8 ± 0,5	325 +150 -100
RI-01C/05/07/27/29	46,0 ± 0,5	13,5 max	1,80 max	0,50 max	1,5 ± 0,5	325 +150 -100
RI-08/46/48	54,8 ± 0,5	20,5 max	2,70 max	0,65 max	2,0 ± 0,5	470 +150 -100
RI-44	54,8 ± 0,5	20,5 max	2,70 max	0,65 max	2,0 ± 0,5	270 +150 -100
RI-02/60	46,0 ± 0,5	10,0 max	1,80 max	0,50 max	min. 0,8	325 +150 -100
RI-70	46,0 ± 0,5	7,0 max	1,80 max	0,45 max	min. 0,8	310 +100 -100
RI-80	46,0 ± 0,5	5,0 max	1,80 max	0,45 max	min. 0,8	310 +100 -100
RI-90	50,5 ± 0,6	15,0 max	2,54 max	0,60 max	1,8 ± 0,5	325 +150 -100



	RI-01B/01C/02	RI-03	RI-05	RI-06	RI-07	RI-21	RI-23	RI-24	RI-25	RI-26	RI-27	RI-29	RI-08	RI-44	RI-46	RI-48	RI-60	RI-70	RI-80	RI-90
Au 1	X	X			X			X	X			X	X	X	X	X	X	X	X	X
Au 2						X	X			X	X									
Au 3			X	X																
Cu								X				X								
Coil.Ru	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X
Spot4.Ru								X	X	X	X	X	X	X	X	X	X	X	X	X

- Au 1 Layer thickness <1.4µm
- Au 2 Layer thickness 1.0-2.0µm
- Au 3 Layer thickness >2.0µm