



VP Engineering  
COMUS TECHNOLOGY BV  
JAN CAMPERTSTRAAT 11  
6416 SG HEERLEN THE NETHERLANDS

Date: 2009/07/24  
Subscriber: 100528141  
PartySite: 1868668  
File No: E125629  
Project No: 09SR5013588  
PD No: 09Q04126  
Type: R  
PO Number:

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

**Issue**

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
	1		Add New Manufacturer	
	1		Revised Authorization Page(s)	2009/07/24
	1		Section General Page(s)	

Applicant File Transfer.

Inspections at your plant will be conducted under the supervision of ROB GEUIJEN, UL INSPECTION CENTER NETHERLANDS, UL INTERNATIONAL (NETHERLANDS) B V, DELTA 1A, BUSINESS PARK, IJSSELOORD 2, ARNHEM, The Netherlands, 6825 ML., PHONE: 26-376-4950, FAX: 26-376-4960, EMAIL: rob.geuijen@nl.ul.com

Marks as needed may be obtained from UL LABEL CENTER EUROPEAN, UL INTERNATIONAL ITALIA SRL, VIA DELLE INDUSTRIE 6, CARUGATE, MI, Italy, 20061. PHONE: 02-92503501, FAX: 02-92503567, EMAIL: LABELCENTER.EU@EU.UL.COM, ATTN: ALESSIA TESTONI

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL Netherlands Customer Service, PHONE: 31 26 376 4800, FAX: 31 26 376 4840, E-MAIL: CustomerService.nl@nl.ul.com, referring to the above Project and/or PD Numbers.

This material is provided on behalf of Underwriters Laboratories Inc.(UL) or any authorized licensee of UL.

ARN File

UL INSPECTION CENTER 522

# Follow-Up Service Procedure

## DO NOT DISCARD THIS PAGE

**It is important to keep Procedures and Test Reports up-to-date as new or revised pages are received.**

Correct maintenance will decrease the amount of time the UL Representative spends when visiting your facility. Refer to the **HOW TO UPDATE** column below for instructions.

Underwriters Laboratories Inc. offers MyHome @UL, a dedicated website providing secure access to online tools and databases that can help simplify your compliance activities by giving you the ability to tap into UL's compliance expertise. You can customize your personal MyHome @UL page to include the content needed most, including timely information about certification updates specific to your interests and links to other Web sites you visit regularly. Visit <http://my.home.ul.com/> to sign up today!

PAGE	FUNCTION	HOW TO UPDATE
<b>Authorization Page</b>	Authorizes the appropriate type of Follow-Up Service (L or R). Contains the names and addresses of the Applicant, Listee (Recognized or Classified Company) and Manufacturer and the corporate Identifier number assigned by UL to each entity, as well as the name of the UL product category title.	Replace present page by matching the UL File Number, Volume Number and most current "Issued" or "Revised" date.
<b>Addendum to Authorization Page*</b>	Lists the names, addresses and UL identifier numbers of all manufacturing locations when multiple locations exist	Replace, add or delete page by matching the UL File Number, Volume Number and most current "Issued" or "Revised" date.
<b>Listing Mark Data (LMD), Classification Mark Data (CMD) or Recognized Component Mark Data (RCMD) Pages*</b>	Used only for products covered under Type R service as shown on the Authorization Page. Use to determine the correct Listing/Classification/Recognized Component Mark(ing). For Listed and Classified categories the assigned control number is included, which is part of the required marking. Also includes additional information regarding minimum size, application, procurement, and any other optional markings, as well as the appropriate UL Mark.	Replace present page with most current "Issued" or "Revised" date.
<b>Multiple Listing (ML) Correlation Sheet*</b>	Correlates product model numbers between those products made by a Manufacturer for the Basic Applicant and those supplied to another company, the Multiple Listee.	Replace, add or delete page(s) with most current "Issued" or "Revised" date.
<b>Index*</b>	Catalogs the contents of the Procedure by some logical means, i.e. Section Number or Issue Date.	Replace present page by matching the UL File Number, Volume Number, Page Number and most current "Revised" date.
<b>Appendices* (App.)</b>	Contains instructions for the Manufacturer and UL Representative concerning specific responsibilities and required periodic tests. May also outline tests to be conducted on samples to be forwarded to UL's facilities.	Replace present page by matching the UL File Number, Volume Number, Appendix letter (eg. App. A), Page Number and most current "Revised" date.
	Standardized Appendix Pages are the same for all manufacturers within a particular product category.	Replace present page by matching the Appendix letter (eg. App. A), Page Number and most current "Revised" date.
<b>Follow-Up Inspection Instructions (FUII) Pages*</b>	Contains information similar to that in the Appendices. FUII Pages are issued as part of the Procedure when a UL Standard is used in conjunction with the Procedure, and are the same for all manufacturers within a particular category.	Replace present pages by matching the Page Number and most current "Issued" or "Revised" date.
<b>Section General* (Sec. Gen.)</b>	Contains description, requirements, identifications and/or specifications that are common to all products covered by the entire volume and supplements the information provided in the Description Section.	Replace present page by matching the UL File Number, Volume Number, Page Number and most current "Revised" date.
<b>Description Section (Sec.)</b>	Contains the specific description of one or more products or systems. This includes written text supplemented by photographs, drawings, etc., as necessary, to define features that affect compliance with the applicable requirements.	Replace present page by matching the UL File Number, Volume Number, Section Number, Page Number and most current "Issued" date.

The above page(s) may not appear in all UL Follow-Up Service Procedures; UL's Conformity Assessment Services staff determines their inclusion.

**PLEASE NOTIFY YOUR LOCAL UL OFFICE OF ANY CHANGES IN CONTACT NAME, COMPANY NAME OR ADDRESS SO THAT MATERIAL AND IMPORTANT INFORMATION CONTINUES WITHOUT INTERRUPTION TO YOUR FACILITY.**



File E125629

Vol 1

Issued: 1990-02-21

Revised: 2009-07-24

FOLLOW-UP SERVICE PROCEDURE  
(TYPE R)

COMPONENT - SWITCHES, INDUSTRIAL CONTROL  
(NRNT2,NRNT8)

Manufacturer: COMUS TECHNOLOGY BV  
(100528-141) JAN CAMPERTSTRAAT 11  
6416 SG HEERLEN THE NETHERLANDS

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 covered by this Procedure, in accordance with the applicable UL Services Agreement.

The prescribed Mark or Marking shall be used only at the above manufacturing location on such products which comply with this Procedure and any other applicable requirements.

The Procedure contains information for the use of the above named Manufacturer and representatives of Underwriters Laboratories Inc. and is not to be used for any other purpose. It is lent to the Manufacturer with the understanding that it is not to be copied, either wholly or in part, and that it will be returned to Underwriters Laboratories Inc. (UL) or any authorized licensee of UL, upon request.

This PROCEDURE, and any subsequent revision, is the property of Underwriters Laboratories Inc.(UL) and the authorized licensee of UL and is not transferable.

Underwriters Laboratories Inc.

Stephen Hewson  
Senior Vice President  
Global Follow-Up Service Operations

William R. Carney  
Director  
North American Certification Program

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)

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:
  - (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.

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.

## INDEX

<u>Industrial control switches, Types</u>	<u>Sec.</u>	<u>Report Date</u>	<u>USR</u>	<u>CNR</u>
<b>*WITHDRAWN</b>	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:

<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-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	1.0	250	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

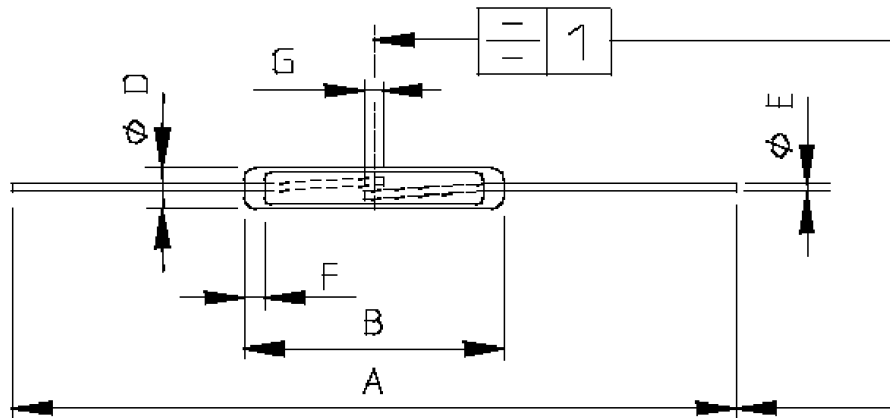


RI-70



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								
Galv. Ru	X	X	X	X	X	X	X													X
Sputt. 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