

## Quick-start guide

H-6551-8520-RTA

**RENISHAW**   
apply innovation™

## RMI-QE



|     |                                                                                   |                                                                                                                                                                                                        |                                                                                    |
|-----|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| EN  |   | Publications for this product are available<br>by scanning the barcode or visiting<br><b><a href="http://www.renishaw.com/rmi-qe">www.renishaw.com/rmi-qe</a></b> .                                    |                                                                                    |
| DE  |                                                                                   | Für dieses Produkt stehen weitere Informationen zur<br>Verfügung. Scannen Sie dazu den Barcode oder besuchen Sie<br><b><a href="http://www.renishaw.de/rmi-qe">www.renishaw.de/rmi-qe</a></b> .        |  |
| ES  |  | Para acceder a las publicaciones sobre este producto<br>escanee el código de barras o visite<br><b><a href="http://www.renishaw.es/rmi-qe">www.renishaw.es/rmi-qe</a></b> .                            |                                                                                    |
| FR  |                                                                                   | Les documentations pour ce produit sont disponibles en<br>scannant le code barres ou en visitant<br><b><a href="http://www.renishaw.fr/rmi-qe">www.renishaw.fr/rmi-qe</a></b> .                        |  |
| IT  |  | Le pubblicazioni relative a questo prodotto sono disponibili<br>scansionando il codice a lato oppure visitando il sito:<br><b><a href="http://www.renishaw.it/rmi-qe">www.renishaw.it/rmi-qe</a></b> . |                                                                                    |
| 日本語 |                                                                                   | 本製品に関する資料については、バーコードをスキャンするか<br><b><a href="http://www.renishaw.jp/rmi-qe">www.renishaw.jp/rmi-qe</a></b><br>をご覧ください。                                                                                  |  |

|            |                                                                                   |                                                                                                                                                                               |                                                                                    |
|------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| PL         |   | Dostęp do dokumentacji tego produktu można uzyskać, skanując kod kreskowy lub odwiedzając witrynę <b><a href="http://www.renishaw.pl/rmi-qe">www.renishaw.pl/rmi-qe</a></b> . |                                                                                    |
| CS         |                                                                                   | Publikace pro tento produkt jsou k dispozici po naskenování QR kódu nebo na stránce <b><a href="http://www.renishaw.cz/rmi-qe">www.renishaw.cz/rmi-qe</a></b> .               |  |
| RU         |  | Если вас интересует информация об этом продукте, отсканируйте штрих-код или посетите сайт <b><a href="http://www.renishaw.ru/rmi-qe">www.renishaw.ru/rmi-qe</a></b> .         |                                                                                    |
| 中文<br>(繁體) |                                                                                   | 可透過下列方式獲得此產品的出版物<br>透過掃描條碼，或造訪<br><b><a href="http://www.renishaw.com.tw/rmi-qe">www.renishaw.com.tw/rmi-qe</a></b> 。                                                         |  |
| 中文<br>(简体) |  | 可通过以下方式获得此产品的相关文档：<br>扫描二维码，或访问<br><b><a href="http://www.renishaw.com.cn/rmi-qe">www.renishaw.com.cn/rmi-qe</a></b> 。                                                        |                                                                                    |
| 한국어        |                                                                                   | 본 제품에 대한 간행물은<br>바코드를 스캔하거나 다음을 방문하여 확인하실 수 있습니다<br><b><a href="http://www.renishaw.co.kr/rmi-qe">www.renishaw.co.kr/rmi-qe</a></b> .                                         |  |

## **Safety**

### **Information to the machine supplier/installer**

It is the machine supplier's responsibility to ensure that the user is made aware of any hazards involved during operation, including those mentioned in Renishaw product literature, and to ensure that adequate guards and safety interlocks are provided.

If the probe fails, the probe signal may falsely indicate a probe seated condition. Do not rely on probe signals to halt the movement of the machine.

### **Information to the equipment installer**

All Renishaw equipment is designed to comply with the relevant EU and FCC regulatory requirements. It is the responsibility of the equipment installer to ensure that the following guidelines are adhered to, in order for the product to function in accordance with these regulations:

- Any interface **MUST** be installed in a position away from any potential sources of electrical noise (for example, power transformers, servo drives).
- All 0 V/ground connections should be connected to the machine "star point" (the "star point" is a single point return for all equipment ground and screen cables). This is very important and failure to adhere to this can cause a potential difference between grounds.
- All screens must be connected as outlined in the user instructions.
- Cables must not be routed alongside high current sources (for example, motor power supply cables), or be near high-speed data lines.
- Cable lengths should always be kept to a minimum.

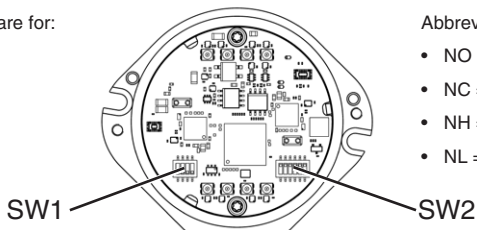
### **Equipment operation**

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

## Switch settings SW1 and SW2

Factory settings shown are for:

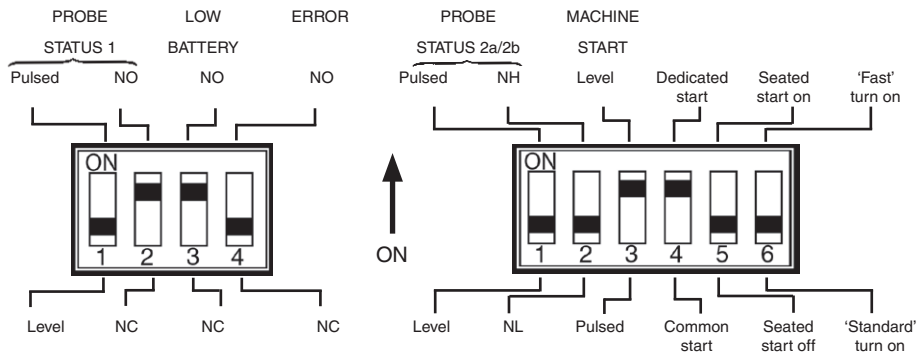
- A-6551-0049
- A-6551-0050



Abbreviations are as follows:

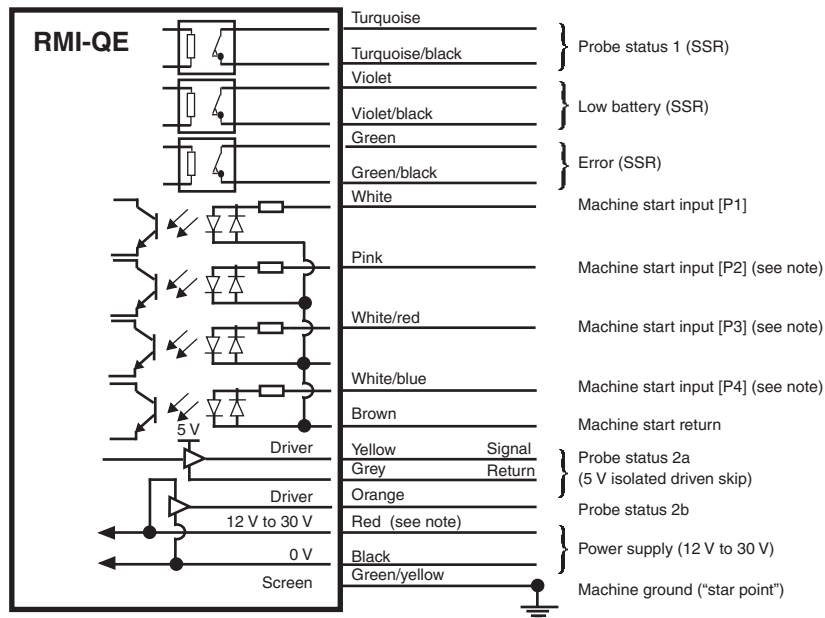
- NO = Normally open
- NC = Normally closed
- NH = Normally high
- NL = Normally low

## Switch SW1 output configuration      Switch SW2 output configuration



**CAUTION:** Exercise caution when using error or probe SSR in NO mode as a wiring fault could cause loss of error condition and therefore could result in a non-failsafe condition.

## Wiring diagram (with output groupings shown)



**CAUTION:** The power supply 0 V should be terminated at the machine ground ("star point"). A negative supply can be used, when wired appropriately.

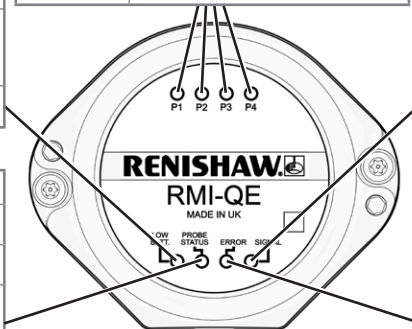
**NOTE:** A switch can be fitted between the machine power supply and the red wire, to aid powering up the RMI-QE when partnering.

## RMI-QE visual diagnostics

| LOW BATTERY/START LED |                                                      |
|-----------------------|------------------------------------------------------|
| Off                   | Battery is okay and no M-code start/stop in progress |
| ●                     | Battery low                                          |
| ●                     | M-code start/stop in progress                        |
| ●                     | Battery low and M-code start/stop in progress        |
| ● ● ●                 | Overload error                                       |

| PROBE STATUS LED |                                        |
|------------------|----------------------------------------|
| ●                | Probe triggered                        |
| ●                | Probe seated                           |
| ● ● ●            | System error<br>See installation guide |
|                  | Overload error                         |

| P1, P2, P3, P4 SYSTEM STATUS LEDs |                                         |
|-----------------------------------|-----------------------------------------|
| Off                               | Probe number empty                      |
| ●                                 | Probe number full, in standby           |
| ●                                 | Probe number full, operating            |
| ●                                 | System error<br>See installation guide  |
| ● ● ●                             | Selection error                         |
| ● ● ● ● ●                         | Partnering/clearing pending, probe full |
| ● ● ● ● ●                         | Partnering pending, probe empty         |
| ● ● ● ● ●                         | Partnering complete, probe full         |
| ● ● ● ● ●                         | Probe authentication error              |
| ● ● ● ● ●                         | Clearing complete, probe empty          |



| KEY TO THE SYMBOLS |                 |
|--------------------|-----------------|
| ●                  | Continuously on |
| ● ● ●              | Flashing        |

| SIGNAL LED |                     |
|------------|---------------------|
| Off        | No probes operating |
| ●          | Good communications |
| ●          | Poor communications |
| ● ● ●      | Overload error      |

| ERROR LED |                                        |
|-----------|----------------------------------------|
| Off       | No error                               |
| ●         | Error                                  |
| ● ● ●     | System error<br>See installation guide |
|           | Overload error                         |

This page is intentionally left blank.

© 2021 Renishaw plc. All rights reserved.

This document may not be copied or reproduced in whole or in part, or transferred to any other media or language, by any means, without the prior written permission of Renishaw plc.

Renishaw plc. Registered in England and Wales. Company no: 1106260. Registered office: New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR, UK.

## **Disclaimer**

WHILE CONSIDERABLE EFFORT WAS MADE TO VERIFY THE ACCURACY OF THIS DOCUMENT AT PUBLICATION, ALL WARRANTIES, CONDITIONS, REPRESENTATIONS AND LIABILITY, HOWSOEVER ARISING, ARE EXCLUDED TO THE EXTENT PERMITTED BY LAW.

RENISHAW RESERVES THE RIGHT TO MAKE CHANGES TO THIS DOCUMENT AND TO THE EQUIPMENT, AND/OR SOFTWARE AND THE SPECIFICATION DESCRIBED HEREIN WITHOUT OBLIGATION TO PROVIDE NOTICE OF SUCH CHANGES.

## **Trade marks**

RENISHAW® and the probe symbol are registered trade marks of Renishaw plc. Renishaw product names, designations and the mark 'apply innovation' are trade marks of Renishaw plc or its subsidiaries.

Other brand, product or company names are trade marks of their respective owners.

## **Warranty**

Unless you and Renishaw have agreed and signed a separate written agreement, the equipment and/or software are sold subject to the Renishaw Standard Terms and Conditions supplied with such equipment and/or software, or available on request from your local Renishaw office.

Renishaw warrants its equipment and software for a limited period (as set out in the Standard Terms and Conditions), provided that they are installed and used exactly as defined in associated Renishaw documentation. You should consult these Standard Terms and Conditions to find out the full details of your warranty.

Equipment and/or software purchased by you from a third-party supplier is subject to separate terms and conditions supplied with such equipment and/or software. You should contact your third-party supplier for details.

## EU declaration of conformity



Renishaw plc hereby declares that the RMI-QE is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Contact Renishaw plc or visit [www.renishaw.com/mtpdoc](http://www.renishaw.com/mtpdoc) for the full EU declaration of conformity.

## Disposal of waste electrical and electronic equipment (WEEE)



The use of this symbol on Renishaw products and/or accompanying documentation indicates that the product should not be mixed with general household waste upon disposal. It is the responsibility of the end user to dispose of this product at a designated collection point for waste electrical and electronic equipment (WEEE) to enable reuse or recycling. Correct disposal of this product will help to save valuable resources and prevent potential negative effects on the environment. For more information, please contact your local waste disposal service or Renishaw distributor.

## Disposal of batteries



The use of this symbol on the batteries, packaging or accompanying documents indicates that used batteries should not be mixed with general household waste. Dispose of the used batteries at a designated collection point. This will prevent potential negative effects on the environment and human health which could otherwise arise from inappropriate waste handling. Contact your local authority or waste disposal service concerning the separate collection and disposal of batteries. All lithium and rechargeable batteries must be fully discharged or protected from short circuiting prior to disposal.

## **REACH regulation**

Information required by Article 33(1) of Regulation (EC) No. 1907/2006 ("REACH") relating to products containing substances of very high concern (SVHCs) is available at:

**[www.renishaw.com/REACH](http://www.renishaw.com/REACH)**

## **China RoHS**

For more information on China RoHS visit:

**[www.renishaw.com/chinarohs](http://www.renishaw.com/chinarohs)**

## **FCC Information to user (USA only)**

### **47 CFR Section 15.19**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### **47 CFR Section 15.21**

The user is cautioned that any changes or modifications not expressly approved by Renishaw plc or authorised representative could void the user's authority to operate the equipment.

## **ICES Information to user (Canada only)**

This ISM device complies with Canadian ICES-001.

Cet appareil ISM est conforme à la norme ICES-001 du Canada

## **Patents**

Features of RMI-QE and features of similar products are the subject of one or more of the following patents and/or patent applications:

Patents pending

## 雷尼绍（上海）贸易有限公司

中国上海市静安区江场三路288号  
18幢楼1楼  
200436

T +86 21 6180 6416

F +86 21 6180 6418

E shanghai@renishaw.com

[www.renishaw.com.cn](http://www.renishaw.com.cn)

## 安全须知

### 机床供应商/安装商须知

机床制造商有责任确保用户了解操作中存在的任何危险，包括雷尼绍产品说明书中所述的危险，并确保提供充分的防护装置和安全联动装置。

如果测头测量失败，则有误发测头已复位状态信号的可能。切勿单凭测头信号来停止机床运动。

### 设备安装商须知

雷尼绍所有设备的设计均符合相关的EU和FCC监管要求。为使产品按照这些规定工作，设备安装商有责任保证遵守以下指导原则：

- 任何接口的安装位置**必须**远离任何潜在的电噪声源，如变压器、伺服系统驱动装置等；
- 所有0伏/接地连接都应当连接到机床接地终端上（“接地终端”是所有设备地线和屏蔽电缆的单点回路）。这一点非常重要，不遵守此规定会造成接地之间存在电位差；
- 所有屏蔽装置都必须按使用说明书中所述进行连接；
- 电缆线路不得与电机电源电缆等高电流源并行或靠近高速数据传输线；
- 电缆长度应始终保持最短。

### 设备操作

如果设备使用方式与制造商要求的方式不符，设备提供的保护功能可能会减弱。

## Radio approvals

Canada:

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



**Renishaw plc**

New Mills, Wotton-under-Edge  
Gloucestershire, GL12 8JR  
United Kingdom

**T** +44 (0)1453 524524  
**F** +44 (0)1453 524901  
**E** [uk@renishaw.com](mailto:uk@renishaw.com)  
[www.renishaw.com](http://www.renishaw.com)

**RENISHAW**   
**apply innovation™**

**For worldwide contact details, visit**  
**[www.renishaw.com/contact](http://www.renishaw.com/contact)**



H - 6551 - 8520 - 01