

# RightSwitch

Patent Pending

## Isolation Switch Identifier



Figure 1  
RightSwitch Indicator Part: RS32HMI

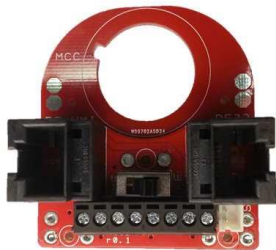


Figure 2  
MCC Printed Circuit Board Part: RS32M



Figure 3  
Field Panel Printed Circuit Board Part: RS32F



Figure 4  
Key Switch Part: RS32KS



Figure 5  
Isolator Indicator Part: RS32II



Figure 5  
Indicator Cable Part: RS32HMIC

RightSwitch ensures that the correct switch is isolated prior to working on electrical equipment.

RightSwitch matches field located equipment to its associated MCC mounted, isolation switch. It also adds field indication to a DeadEasy installation. Together they confirm that the correct switch has been correctly isolated.

### Features

RightSwitch offers the following features:

- **Simple Use** – Key switch and remote LED provides easy isolator and equipment matching
- **Safe** - Integration with DeadEasy facilitates RightSwitch LED transitions. Allows robust identity checks even during simultaneous lockout procedures
- **Field Indication** – Integration with DeadEasy facilitates field indication of equipment power status. Reassuring workers that the power is off during maintenance work
- **Simple Installation** - Preassembled equipment. Mount the printed circuit boards on the back of the indicators, CAT V cable, plug and play!
- **Production Friendly** - Identify correct isolation switches without needing to start equipment ie inconvenient if equipment loaded with material or bogged
- **Flexible** - Allows subsequent identification without reversal of the isolation ie accommodates late working parties
- **Inexpensive** – Leverages new or existing DeadEasy installations. Utilises common cable and simple installation methods
- **Robust** – Remote indicator IP65, ABS Plastic

### Operation

RightSwitch facilitates lockout procedures involving both single and multiple isolation officers.

#### Operation - Single Isolation Officer

A single isolation officer must match the isolation switch to the field equipment without being able to be at both locations to witness LED transitions, at the same time. In addition, identity confusion must be prevented should multiple isolations be attempted simultaneously.

A key switch mounted adjacent to the equipment isolator on the MCC is operated which controls an amber LED on the Field Panel. Figure 2 below illustrates the equipment arrangement.

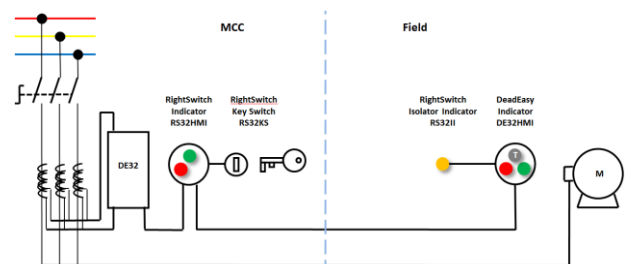


Figure 2

## Isolation Switch Identifier

Key switch operation and remote indication is part of an integrated RightSwitch and DeadEasy isolation procedure as detailed in Figure 3 below.

| Isolation Verification Procedure |      |       |     |           |               |
|----------------------------------|------|-------|-----|-----------|---------------|
| Location                         | Step | Power | Key | Self Test | LED           |
| MCC                              | 1    | I     | O   | -         | Red           |
|                                  | 2    | O     | O   | -         | Green         |
|                                  | 3    | O     | I   | -         | Green         |
| Field                            | 4    | O     | I   | -         | Green + Amber |
|                                  | 5    | O     | I   | Touch     | Green + Amber |
| MCC                              | 6    | O     | O   | -         | Green         |

**DANGER**

Isolation Verification Procedure must illuminate required LED only.  
If in doubt, call an electrician.




Figure 3

The location of the key switch and indicator may be swapped to suit site preferences. Figure 2 illustrates the suggested arrangement where it is more convenient to commence and complete isolation procedures at the MCC. This may be due to office areas, where staff spend most of their time, being nearest to switch rooms.

### Operation - Multiple Isolation Officers

Where isolation officers can be stationed at the MCC and RightSwitch Field Panel simultaneously, the key switch and amber LED need not be used. In this case the standard DeadEasy isolation verification procedure can be used. The field isolation officer simply witnesses LED transitions that coincide with MCC isolation officer actions. Finally, the field isolation officer performs the DeadEasy self-test function to confirm instrument and wiring integrity.

### Installation

RightSwitch incorporates the following components:

- RightSwitch Indicator
- MCC Printed Circuit Board
- Field Panel Printed Circuit Board
- Key switch
- Amber LED
- HMI Cat 5 Cables

The following site supplied components will be required to complete the installation:

- Unshielded Twisted Pair (CAT 5 or 6 cable)

In summary, the installation involves:

- Remove the DeadEasy Indicator and locate it in a Field Control Panel (supplied by others)
- Mount the key switch and LED at the required locations (MCC or Field First Dependent)
- Mount the RightSwitch Indicator into the MCC

- Install and terminate an unshielded twisted pair cable between the RightSwitch Indicator and the DeadEasy Indicator
- Plug in all connections

### Description

RightSwitch is an add on option to DeadEasy. It allows the matching of a remote isolator to field equipment. It extends DeadEasy's single fault tolerant design out to the field location.

### Specifications

**Application** Matching of electrical field equipment to switch room located, MCC based isolation switches.

**Power Supply** Nil – Powered from DeadEasy

**Human Machine Indicator (RS32HMI)** Super Bright (clear when off) LEDs as follows:

- De-energised – Green
- Energised – Red
- Key Switch Match – Amber

Size - Standard 22.5mm Diameter x 50D, 7/8" Diameter x 2' D

Temperature - 0C to 70C, 32F to 158F

Ingress Protection – IP66, NEMA 4X

**MCC Printed Circuit Board (RS32M)** MCC printed circuit board, connects to:

- DeadEasy Module
- RightSwitch Indicator
- Cable to Field Panel
- Key Switch

Size – 55mm, 2'1/8" H x 48mm, 1' 7/8" W

Temperature - 0C to 70C, 32F to 158F

Mounting – Attaches to HMI

**Field Panel Printed Circuit Board (RS32F)** Field Panel printed circuit board, connects to:

- DeadEasy Indicator
- Cable to Field Panel
- Key Switch
- Amber LED

Size – 55mm, 2'1/8" H x 48mm, 1' 7/8" W

Temperature - 0C to 70C, 32F to 158F

Mounting – Attaches to HMI

**Key switch (RS32KS)** Key trapped in "On" position

Ingress Protection - IP67, NEMA 6,

Temperature - -20C to 65C, -4F to 149F,

Size – 16mm Diameter Cutout x 38D, 5/8"

Cutout Diameter x 1' 1/2"D

Cable Length – 0.3m, 1ft

**Isolator Indicator (RS32II)** Amber LED

Ingress Protection - IP66, NEMA 4X

Temperature - 0C to 85C, 32F to 185F

Cutout – 8mm Diameter, 3/8" Diameter

Cable Length – 0.3m, 1ft

**RightSwitch Indicator Cable (RS32HMIC)** CAT 5 Patch lead

Cable Length – 0.3m, 1ft

**Fault Tolerance**

Green & Red LEDs series connected with DE32HMI.

Refer to DeadEasy datasheet for more information.

**MCC to Field Panel Cable (site supplied)** CATV, Maximum Length = 500m, 1640ft,

RJ45 connector terminated

**Approvals** Refer to DeadEasy Approvals