



Offers a wide range of signalling options in a fully enclosed corrosion resistant case. Available for direct mounting onto Kinetrol rotary actuators, or discrete mounting via an industry standard VDI/VDE interface onto any make of rotary actuator. Easy to wire and set up with real industrial quality robustness. Internally fitted options include AS Interface digital communication and a 4-20mA 2-wire modulating angle retransmit circuit.

The range of switch and terminal arrangements includes 2 or 4 switches, extra connections allowing single point termination of wiring for limit switches and solenoid valves, ATEX approved Eexed (Category 2) explosion proof and Eexia intrinsically safe packages (Category 1). Integral sealed Clear Cone Monitor and red/green Led indicator options also give excellent external visual indication of position.

See KF-487 for full details.

## Specification

### Casing

Precision diecast aluminium alloy, switch option 003  
Eex ed diecast zinc alloy

### Finish

Epoxy stove enamel

### Seals

Nitrile rubber 'O' ring seals

### Weight

1.05 kg  
Switch option 003 - 1.4 kg

### Cable entry options

2 or 4 entries

M20 x 1.5 Conduit thread  
or  
1/2 NPS Conduit thread

4 Way plug DIN 43650A  
(fits any conduit thread)

4 Way M12 Connector  
(M20 Conduit thread only)

### Temperature Range

Standard -20°C to +80°C

High Temp Seals  
up to 100°C

Also see switch  
temperatures on  
page 10

### Dimensions

See page 53

- All units sealed to IP66/NEMA 4X. IP67 option available
- Robust corrosion resistant epoxy painted diecast box
- Easy and accurate setting of switch position
- Available for direct mounting to Kinetrol models 03 to 15, for minimum height
- Quick access - No special tools required
- Discrete VDI/VDE (NAMUR) interface option for use with industry standard actuators
- Two or four cable entries as standard to allow back wiring of solenoid valves
- Many switch options available for general and hazardous areas
- AS Interface bus circuit option inside box reads up to 4 switch inputs, drives up to 2 solenoids powered by bus only (see pages 13 & 14)
- Optional Clear Cone monitor available
- Integral LED indicator lamps and angle retransmit circuit options are available
- Compact SPST version of type 004 available for model 02 actuator

## LOAD RATINGS FOR STANDARD MICROSWITCHES (type 004)

Voltage	Resistive Load
125 V AC	15A
250 V AC	15A
up to 12 V DC	15A
up to 24 V DC	10A
up to 48 V DC	3A
up to 250 V DC	0.25A

## MULTIPLICATION FACTORS FOR NON-RESISTIVE LOADS

Steady state tungsten lamp load - x 0.1  
Steady state inductive load - x 0.2  
Peak inductive load - x 1.0



## Ordering Codes

### Switch Type 001

2 intrinsically safe 2 wire inductive proximity sensors for hazardous areas (ATEX CAT 1), normally closed.  
Ambient temperature range -20°C to +80°C

### Switch Type 002

2 pneumatic switches with 4mm (5.32") push in fittings (ATEX CAT 2), normally closed.  
Ambient temperature range -20°C to +80°C

### Switch Type 003

Certificated unit to EEx ed II T6 for hazardous areas to Zone 1 (ATEX CAT 2) 2 x 3 wire switches for SPDT.  
Ambient temperature range -20°C to +70°C

### Switch Type 004

2 x 3 wire microswitches for SPDT.  
Ambient temperature range -40°C to +80°C

### Switch Type 005

2 x 2 wire proximity sensors 20-250 volts AC, normally open.  
Ambient temperature range -25°C to +70°C

### Switch Type 006

2 x 2 wire proximity sensors 5-60 volts DC, normally open, with Led switch status indicators.  
Ambient temperature range -20°C to +80°C

### Switch Type 007

4 x 3 wire microswitches for DPDT.  
Ambient temperature range -40°C to +80°C

### Switch Type 008

2 x 2 wire inductive slotted proximity sensors, normally closed.  
Ambient temperature range -20°C to +80°C

### Switch Type 009

2 x 3 wire gold plated contacts intrinsically safe microswitches for SPDT (ATEX CAT 1).  
Ambient temperature range -20°C to +80°C

### Switch Type 00E

2 x 2 wire proximity sensors 20-140 volts AC / 10-140 volts DC.  
Ambient temperature range -25°C to +80°C

### Switch Type 00M

4 x 3 wire inductive proximity sensors 10-30 volts DC, normally open.  
Ambient temperature range -25°C to +70°C

### Switch Type 00N

2 x 3 wire inductive proximity sensors 10-30 volts DC, normally open.  
Ambient temperature range -25°C to +70°C

### Electronics Option B - E

AS interface options are available with both the two and four entry Kinetrol Universal Limit Switch Box. Options B to E allow for different extended addressing options. For more information on the Kinetrol AS interface card see page 13 & 14.

### Electronics Option P

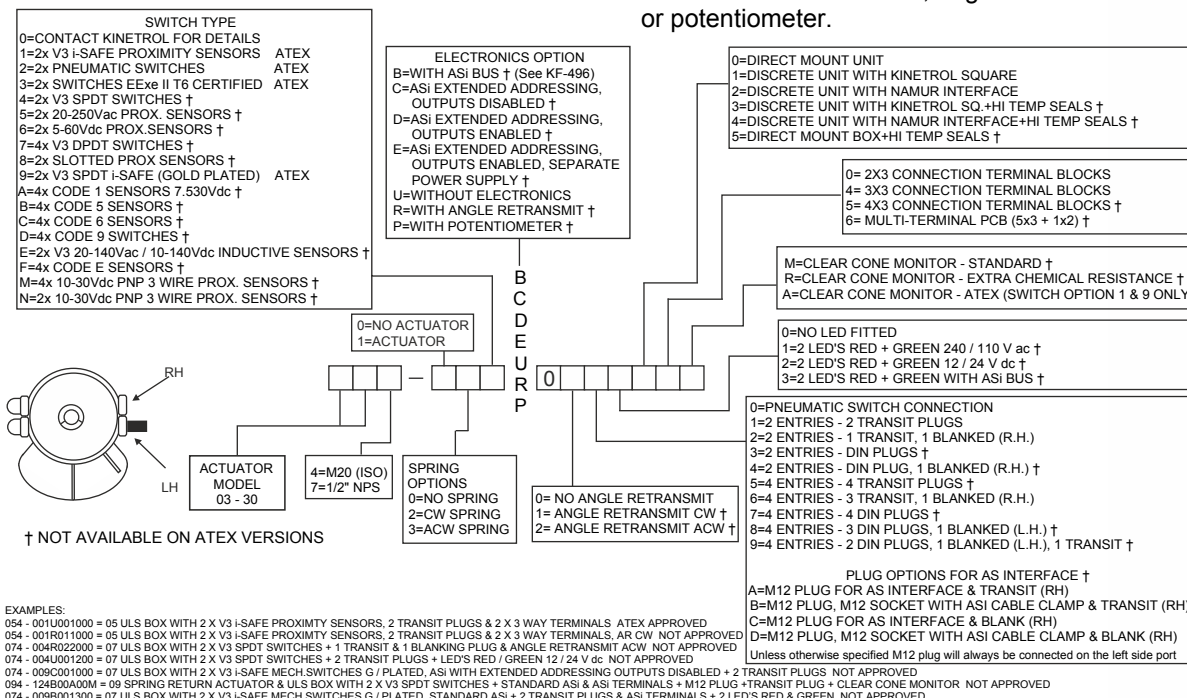
Two or four way Universal Limit Switch Box fitted with potentiometer (20K ohms conductive plastic type).

### Electronics Option R

Two or four entry Universal Limit Switch Box fitted with angle retransmit, loop powered two wire circuit passes 4-20mA current, proportional to 0-90° position of actuator.

### Electronics Option U (standard)

Two or four entry Universal Limit Switch Box without AS interface card, angle retransmit or potentiometer.



#### EXAMPLES:

054 - 001U001000 = 05 ULS BOX WITH 2 X V3 I-SAFE PROXIMITY SENSORS, 2 TRANSIT PLUGS & 2 X 3 WAY TERMINALS ATEX APPROVED  
 054 - 001R011000 = 05 ULS BOX WITH 2 X V3 I-SAFE PROXIMITY SENSORS, 2 TRANSIT PLUGS & 2 X 3 WAY TERMINALS, AR CW NOT APPROVED  
 074 - 004R022000 = 07 ULS BOX WITH 2 X V3 SPDT SWITCHES + 1 TRANSIT & 1 BLANKING PLUG & ANGLE RETRANSMIT ACW NOT APPROVED  
 074 - 004U001200 = 07 ULS BOX WITH 2 X V3 SPDT SWITCHES + 2 TRANSIT PLUGS + LED'S RED / GREEN 12 / 24 V dc NOT APPROVED  
 074 - 009C001000 = 07 ULS BOX WITH 2 X V3 I-SAFE MECH. SWITCHES G / PLATED, ASI WITH EXTENDED ADDRESSING OUTPUTS DISABLED + 2 TRANSIT PLUGS NOT APPROVED  
 074 - 124B00A000 = 09 SPRING RETURN ACTUATOR & ULS BOX WITH 2 X V3 SPDT SWITCHES + STANDARD ASI & ASI TERMINALS + M12 PLUG + TRANSIT PLUG + CLEAR CONE MONITOR NOT APPROVED  
 074 - 009B001300 = 07 ULS BOX WITH 2 X V3 I-SAFE MECH. SWITCHES G / PLATED, STANDARD ASI + 2 TRANSIT PLUGS & ASI TERMINALS + 2 LED'S RED & GREEN NOT APPROVED

Further switch options are available upon request -contact Kinetrol for details

For more information  
see KF-487

