

# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## FEATURES & APPLICATION:



Available as:  
4 Station model,  
2 Station model.  
Completely flexible - end user  
chooses buttons, lamps,  
switches  
options for each station.

### Application:

IDEM Universal Gate Boxes (UGB-KLT) provide high level RFID coded interlocking and machine control functions in one heavy duty housing. They can be easily fitted to access doors to provide guard locking, rear escape options and sliding or rotary handles.

They reduce the risk of operators being trapped inside a guarded area.

The UGB-KLT housings will incorporate standard 22mm push buttons, lamps or switches which can be added to provide machine request or control functions all from one UGB-KLT housing.

### Features:

- Robust Safety Interlock switches with RFID and multifunction control features built into one housing.
- 2 or 4 station housing for incorporating wide choice of standard 22mm push buttons, lamps or switches.
- Optional sliding handle actuators or rotary handle actuators.
- Rear escape release options.
- Rotary one way rear escape handle (cannot be re-closed from inside the hazardous area).
- The built-in KLT switch has both anti-tamper RFID coding technology and standard mechanical interlock technology.
- 24Vdc solenoid to release lock.
- Built-in LED diagnostics of switch status and easy to read label legends.
- Easy to mount Stainless Steel 316 housings with mirror polished finish.
- Holds guards closed and locked up to 3000N.
- Can be padlocked off for safe working.

## TECHNICAL SPECIFICATIONS:

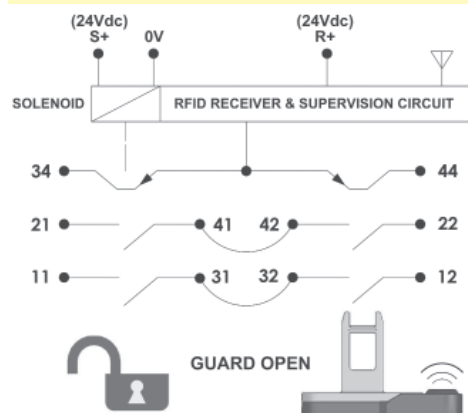
**Standards:** ISO14119  
EN60947-5-1 EN60204-1 EN62601  
ISO13849-1  
UL508

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	2.5 x 10 <sup>6</sup> operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
EN62061	Up to SIL3 depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
PFHd	4.77 x 10 <sup>-10</sup>
Proof Test Interval (Life)	20 years
MTTFd	1100a
KLT-SS-RFID Supply/Solenoid Voltage	24V dc
Solenoid Wattage	9W
Rated Insulation/Withstand Voltages	600Vac/2500Vac
Travel for Positive Opening	10mm
Maximum Approach/Withdrawal Speed	600mm/s
Holding Force	F1Max 3000N Fzh 2307N
Body Material	Polished Stainless Steel 316
Head Material	Polished Stainless Steel 316
Enclosure Protection	IP65
Operating Temperature	-25C +40C
Vibration	IEC 68-2-6 10-55Hz + 1Hz
Conduit Entry	M20
Fixing	2 x M6



## KLT INTERNAL CONNECTIONS:



For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed actuator inserted.

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## CONTACTS:

**UGB-KLT Universal Gate Box** (incorporating RFID coding)

4NC Safety Contacts

1NO Auxiliary PNP Signal (Guard Open)

1NO Auxiliary PNP Signal (Guard Locked)

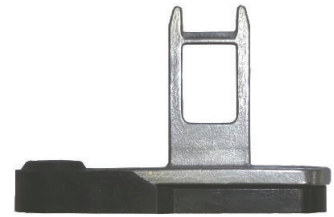
LED1 RED Solenoid Power On

LED2 GREEN Switch Locked

LED2 YELLOW Diagnostic Fault

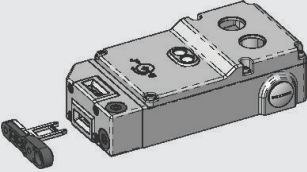
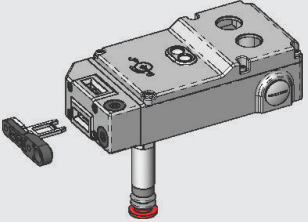
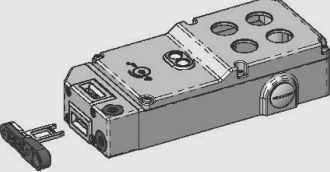
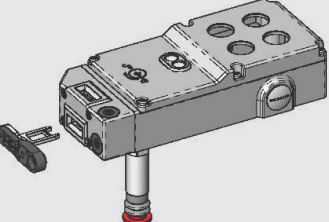
## ACTUATOR

Note: ALL Universal Gate Boxes are supplied complete with RFID coded tongue actuator. These can fitted directly to machine guard or to sliding or rotary handle.



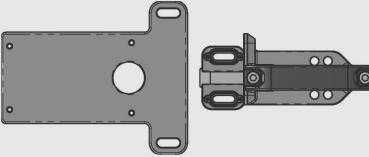
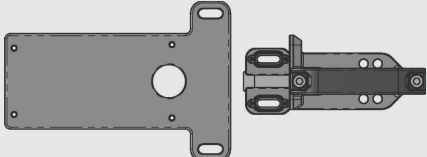
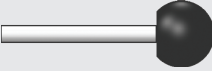
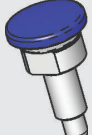
## GATE BOX SWITCHES & ACTUATORS SALES NUMBERS:

Note: ALL Universal Gate Boxes are supplied complete with RFID coded tongue actuator. These can fitted directly where no rear escape or rotary handles are preferred.

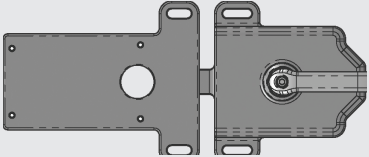
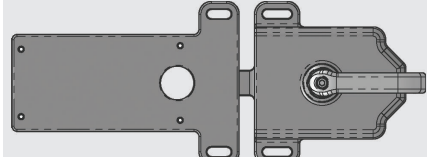
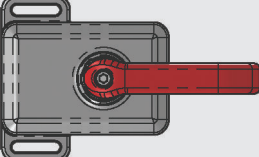
			
<b>TYPE: UGB2-KLT-SS-RFID</b>	<b>TYPE: UGB2-KLT-SS-RFID-RR</b>	<b>TYPE: UGB4-KLT-SS-RFID</b>	<b>TYPE: UGB4-KLT-SS-RFID-RR</b>
Universal Gate Box (2 Station)	Universal Gate Box (2 Station) with Rear Release	Universal Gate Box (4 Station)	Universal Gate Box (4 Station) with Rear Release
24V Solenoid M20 Conduit	24V Solenoid M20 Conduit	24V Solenoid M20 Conduit	24V Solenoid M20 Conduit
<b>SALES NUMBER (Manual Override)</b>	<b>SALES NUMBER(Manual Override)</b>	<b>SALES NUMBER(Manual Override)</b>	<b>SALES NUMBER(Manual Override)</b>
520001	520002	521001	521002
<b>SALES NUMBER (No Manual Override)</b>	<b>SALES NUMBER (No Manual Override)</b>	<b>SALES NUMBER (No Manual Override)</b>	<b>SALES NUMBER (No Manual Override)</b>
520003	520004	521003	521004

**IMPORTANT NOTE:** Order 22mm accessories (Switches, Lamps, Push Buttons) separately - please see next page.

## ACCESSORIES FOR ENHANCED FUNCTIONS OF SLIDING FRONT/REAR HANDLES:

			
<b>TYPE: UGB2-SFH-SS</b>	<b>TYPE: UGB4-SFH-SS</b>	<b>REAR HANDLE SS</b>	<b>SPRING CATCH SS</b>
UGB2 Sliding Front Handle and Mounting Plate	UGB4 Sliding Fron Handle and Mounting Plate	Rear Sliding Handle (for use with RR versions and Sliding Front Handles)	Optional Spring Catch to prevent accidental re-closing of Sliding Front Handles
<b>SALES NUMBER</b>	<b>SALES NUMBER</b>	<b>SALES NUMBER</b>	<b>SALES NUMBER</b>
522001	522002	211005	211006

## ACCESSORIES FOR ROTARY FRONT HANDLES & REAR ROTARY ESCAPE HANDLES:

		
<b>TYPE: UGB2-RFH-SS</b>	<b>TYPE: UGB4-RFH-SS</b>	<b>UGB-RERH-SS</b>
Rotary Front Handle and Mounting Plate	Rotary Front Handle and Mounting Plate	Rear Escape Rotary Handle (Optional)
<b>SALES NUMBER</b>	<b>SALES NUMBER</b>	<b>SALES NUMBER</b>
522003	522004	522005

# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

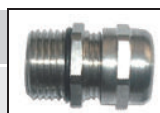
22mm ACCESSORIES FOR UGB-KLT (to be ordered separately):



SALES NUMBER	CONTACTS or VOLTAGE	DESCRIPTION	ELECTRICAL
522201	2NC	Compact Stop, Twist to Reset, Red 30mm Mushroom Head	AC-15 120Vac 1.5A 240Vac 1.0A  DC-13 24Vdc 0.3A 125Vdc 0.2A
522202	1NC 1NO	Compact Stop, Twist to Reset, Red 30mm Mushroom Head	
522203	2NC	Compact Stop, Twist to Reset, Red 30mm Mushroom Head with Reset Key	
522204	1NC 1NO	Compact Stop, Twist to Reset, Red 30mm Mushroom Head with Reset Key	
522205	2NC	Compact Stop, Twist to Reset, Red 40mm Mushroom Head	
522206	1NC 1NO	Compact Stop, Twist to Reset, Red 40mm Mushroom Head	
522207	2NC	Compact Stop, Twist to Reset, Red 40mm Mushroom Head with Reset key	
522208	1NC 1NO	Compact Stop, Twist to Reset, Red 40mm Mushroom Head with Reset key	
522251	1NC 1NO	Compact 2 Positions Plastic Selector Switch	
522252	2NC	Compact 2 Positions Plastic Selector Switch	
522301	1NC 1NO	Compact Push Button Momentary - RED	
522302	1NC 1NO	Compact Push Button Momentary - GREEN	
522303	1NC 1NO	Compact Push Button Momentary - YELLOW	
522304	1NC 1NO	Compact Push Button Momentary - BLUE	
522310	2NC	Compact Push Button Momentary - RED	
522311	2NC	Compact Push Button Momentary - GREEN	
522312	2NC	Compact Push Button Momentary - YELLOW	
522313	2NC	Compact Push Button Momentary - BLUE	
522401	24V ac/dc	Pilot Light LED - YELLOW	
522402	24V ac/dc	Pilot Light LED - RED	
522403	24V ac/dc	Pilot Light LED - GREEN	
522404	24V ac/dc	Pilot Light LED - BLUE	
522410	110V ac/dc	Pilot Light LED - YELLOW	
522411	110V ac/dc	Pilot Light LED - RED	
522412	110V ac/dc	Pilot Light LED - GREEN	
522413	110V ac/dc	Pilot Light LED - BLUE	
522451		Legend Holder for use with 22 mm Devices	
522452		Blanking Plug for sealing unused 22mm holes	

## RECOMMENDED ACCESSORY:

STAINLESS STEEL 316 GLAND	SALES NUMBER
M20	140120

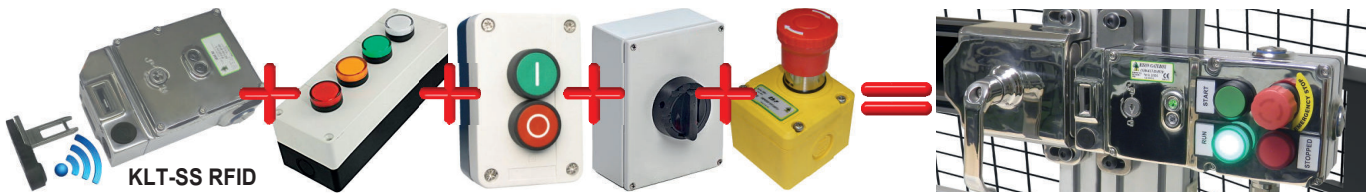


IDEM recommend using our Stainless Steel 316 Gland with the UGB-KLT Universal Gate Box switch.

# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## ORDERING EXAMPLE:

UGB-KLT GATEBOX SOLUTION - All-in-one control and safety interlocking with RFID coding.



### PROBLEM:

A traditional control installation requires several external components and housings for switches, push buttons, lamps, etc. All of these external components require individual mounting brackets and also require several conduit/cable runs.

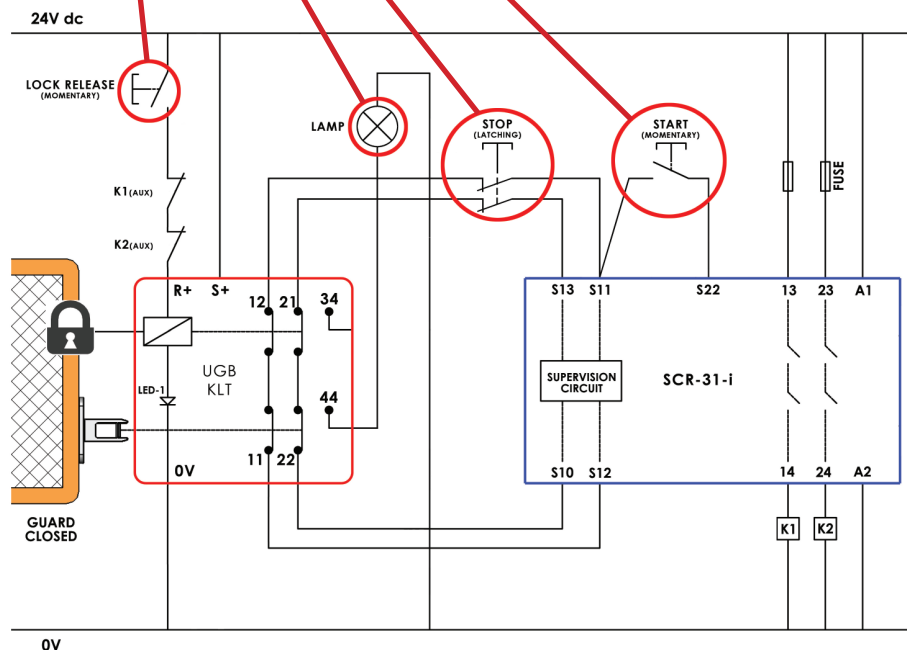
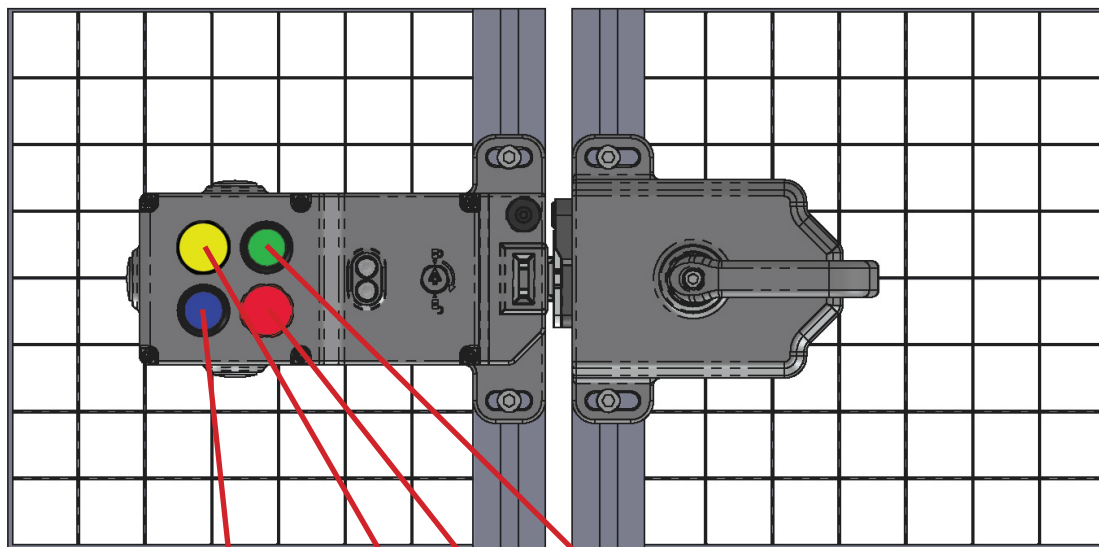
### THE SOLUTION: UGB-KLT GATEBOX

Only 4 mounting bolts, options for sliding or rotary handles, emergency release options and can use only one conduit exit for wiring.

Up to 4 x 22mm pushbuttons, switches or lamps can be fitted integrally.

RFID interlocking with LED diagnostics provides high functional safety interlocking.

Holds guards closed and locked up to 3000N.



### SCHEMATIC EXAMPLE:

UGB-KLT fitted with integral LATCHING STOP, STATUS PILOT LAMP, START and LOCK RELEASE buttons.

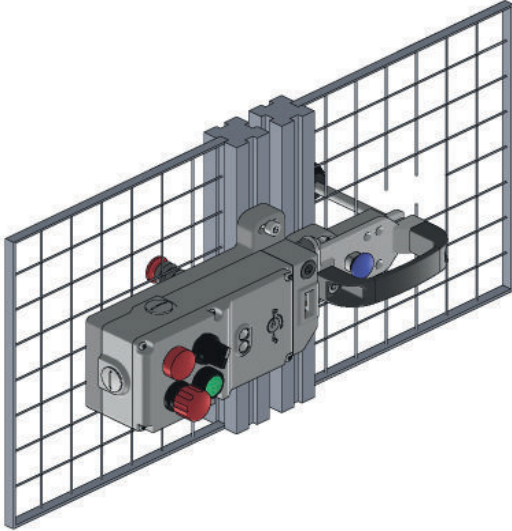
Connected to a safety relay to give up to PLe/ Cat 4.

# Universal Gate Box with Safety Interlocking TYPE: UGB4-KLT

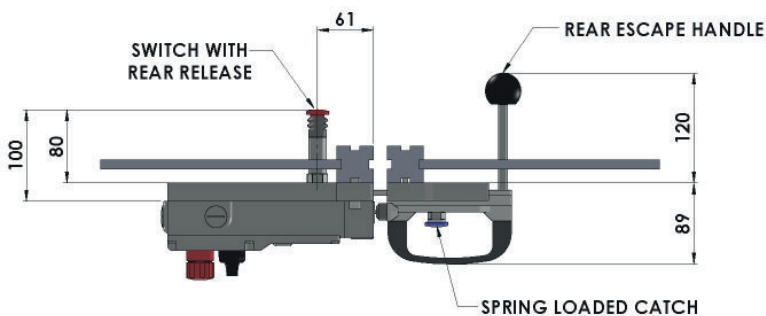
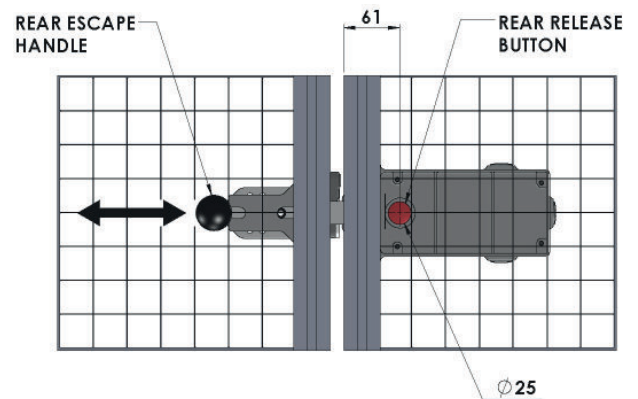
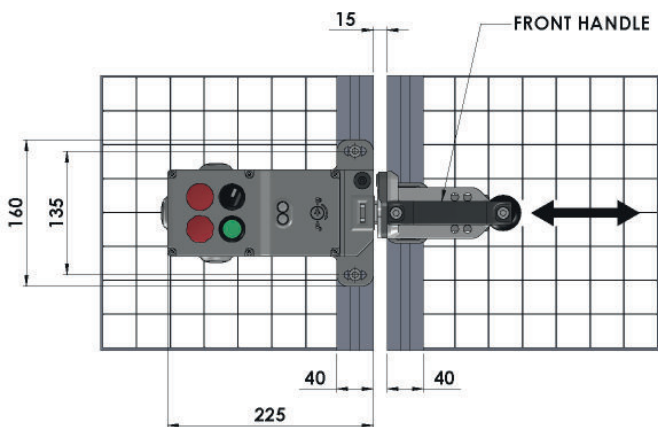
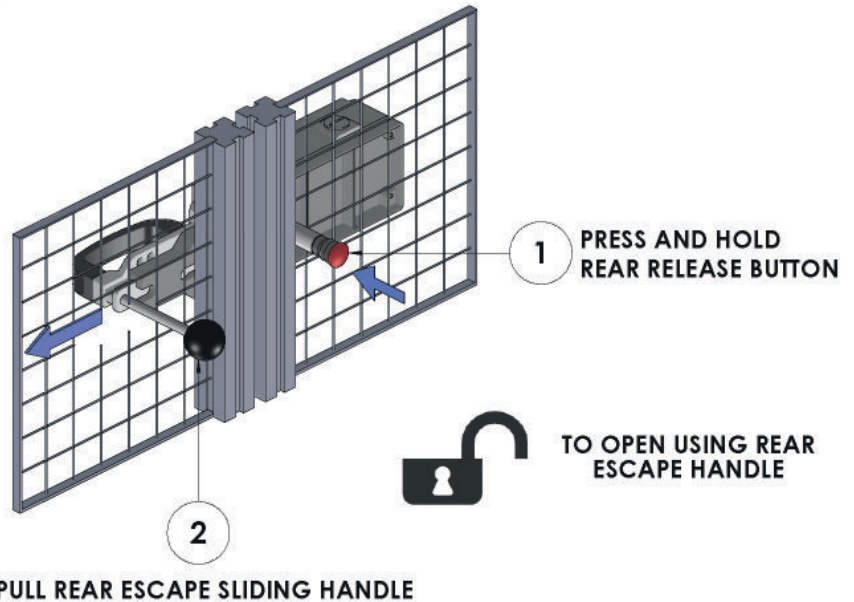
## APPLICATION EXAMPLE:

4 STATION (UGB4) with Front Sliding Handle, Rear Escape Button and Rear Escape Sliding Handle.  
Fitted with Spring Loaded Catch (optional) – to prevent accidental closing after opening of the guard.

VIEWED FROM OUTSIDE GUARDED AREA



VIEWED FROM INSIDE GUARDED AREA



DESCRIPTION	SALES NUMBER
UGB4-KLT-SS-RFID-RR	
With LID Manual Override, or	521002
With NO Manual Override	521004
UGB4-SFH-SS (Sliding Front Handle)	522002
Rear Release Handle (Stainless Steel)	211005
Spring Loaded Catch (Stainless Steel)	211006

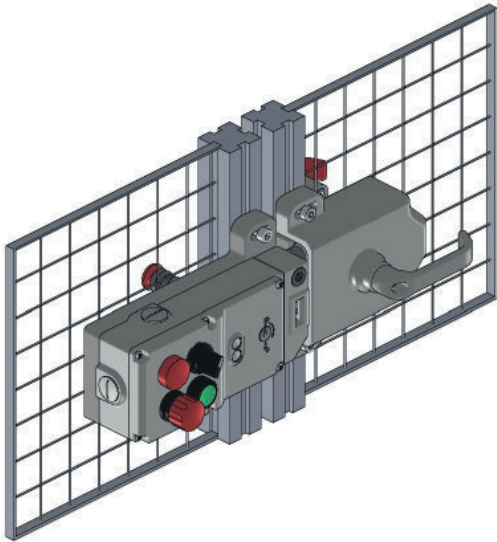
**ORDER SEPARATELY:**  
22mm Push Buttons, Switches, Lamps - See P72.

# Universal Gate Box with Safety Interlocking TYPE: UGB4-KLT

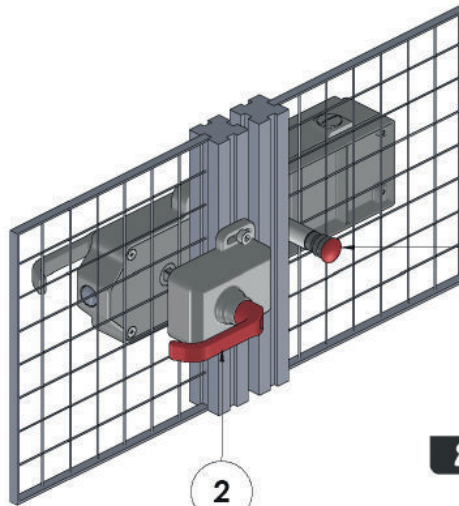
## APPLICATION EXAMPLE:

4 STATION (UGB4) with Front Rotary Handle, Rear Escape Button and Rear Escape Rotary Handle.

VIEWED FROM OUTSIDE GUARDED AREA



VIEWED FROM INSIDE GUARDED AREA



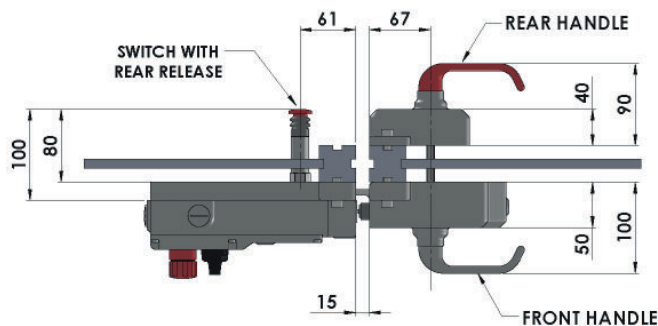
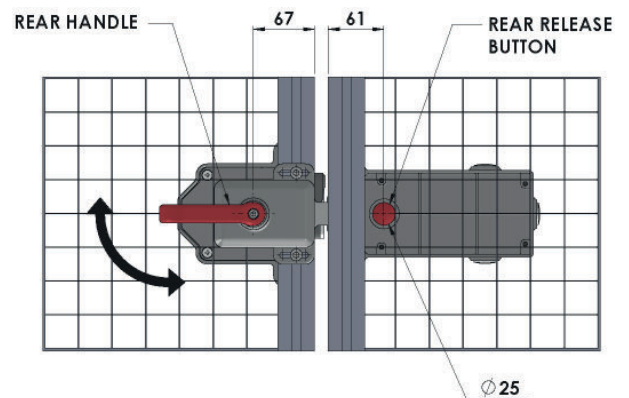
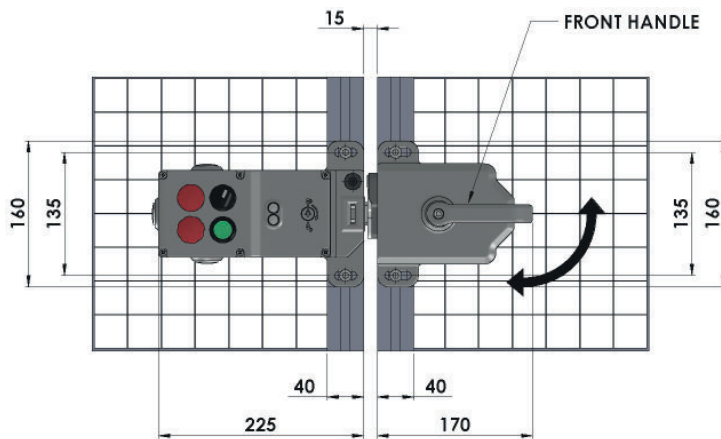
1 PRESS AND HOLD REAR RELEASE BUTTON



TO OPEN USING REAR HANDLE

2

TURN REAR HANDLE ANTI-CLOCKWISE



DESCRIPTION	SALES NUMBER
UGB4-KLT-SS-RFID-RR With LID Manual Override, or With NO Manual Override	521002
UGB4-RFH-SS (Rotary Front Handle)	522004
UGB-RERH-SS (Rear Escape Rotary Handle)	522005

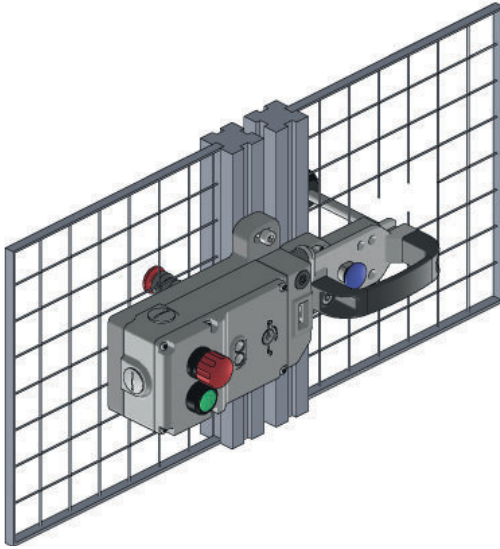
**ORDER SEPARATELY:**  
22mm Push Buttons, Switches, Lamps - See P72.

# Universal Gate Box with Safety Interlocking TYPE: UGB2-KLT

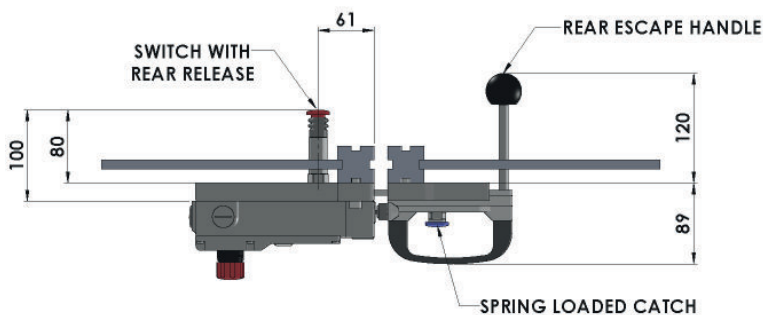
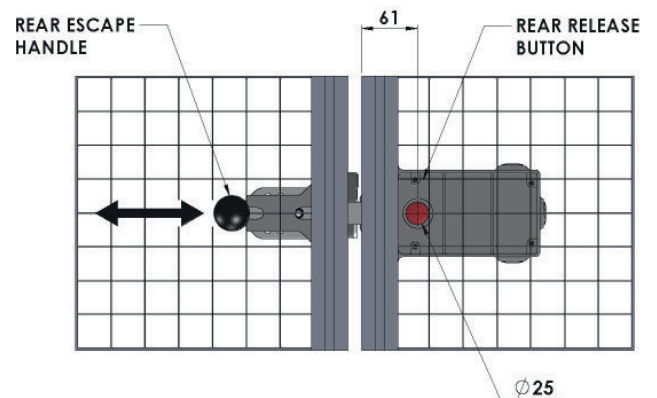
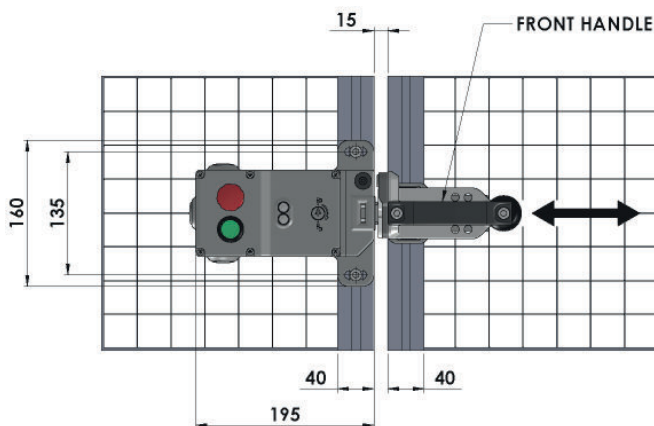
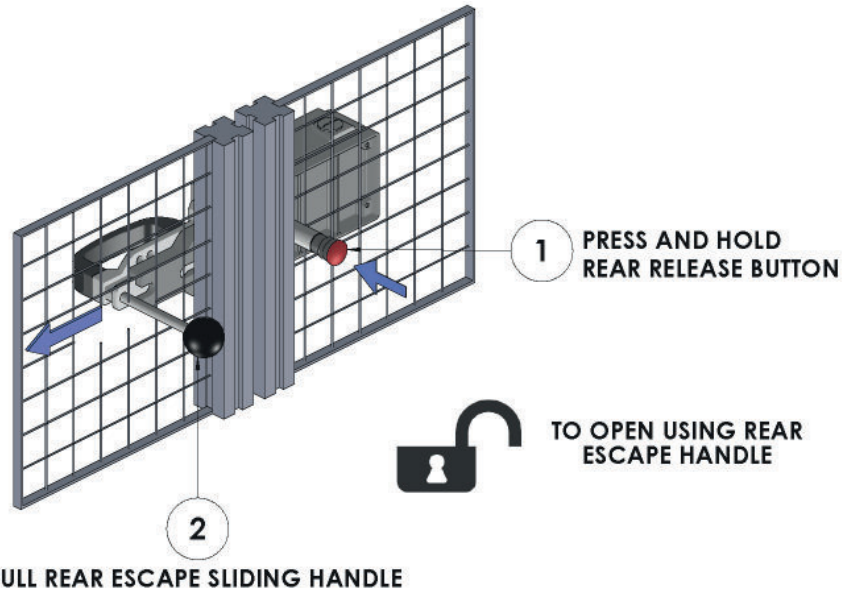
## APPLICATION EXAMPLE:

2 STATION (UGB2) with Front Sliding Handle, Rear Escape Button and Rear Escape Sliding Handle.  
Fitted with Spring Loaded Catch – to prevent accidental closing after opening of the guard (optional).

VIEWED FROM OUTSIDE GUARDED AREA



VIEWED FROM INSIDE GUARDED AREA



DESCRIPTION	SALES NUMBER
UGB2-KLT-SS-RFID-RR	
With LID Manual Override, or	520002
With NO Manual Override	520004
UGB2-SFH-SS (Sliding Front Handle)	522001
Rear Release Handle (Stainless Steel)	211005
Spring Loaded Catch (Stainless Steel)	211006

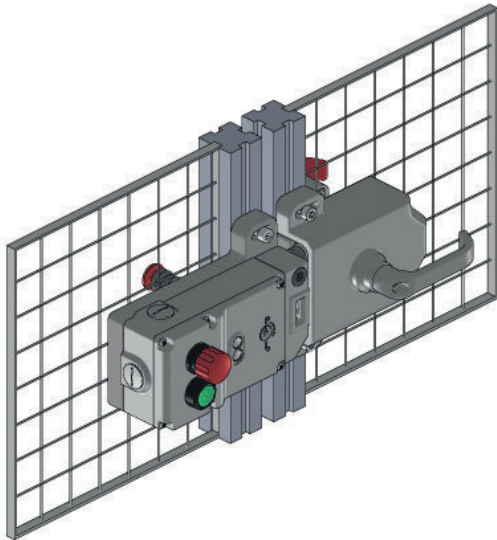
**ORDER SEPARATELY:**  
22mm Push Buttons, Switches, Lamps - See P72.

# Universal Gate Box with Safety Interlocking TYPE: UGB2-KLT

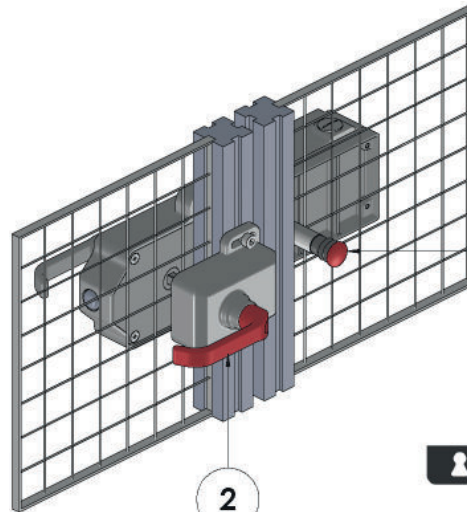
## APPLICATION EXAMPLE:

2 STATION (UGB2) with Front Rotary Handle, Rear Escape Button and Rear Escape Rotary Handle.

VIEWED FROM OUTSIDE GUARDED AREA



VIEWED FROM INSIDE GUARDED AREA



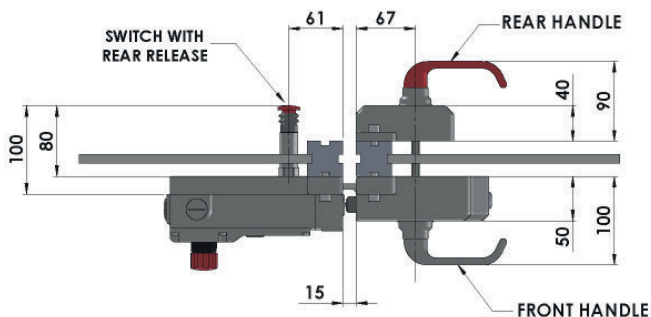
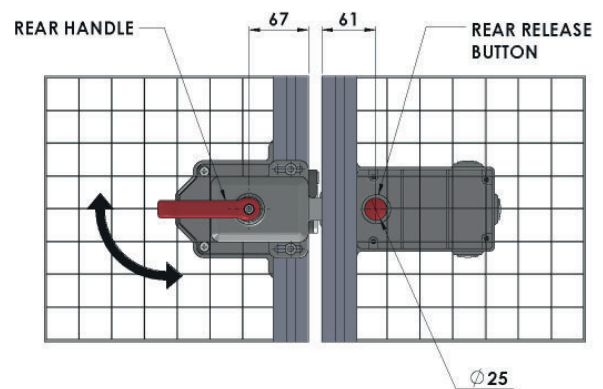
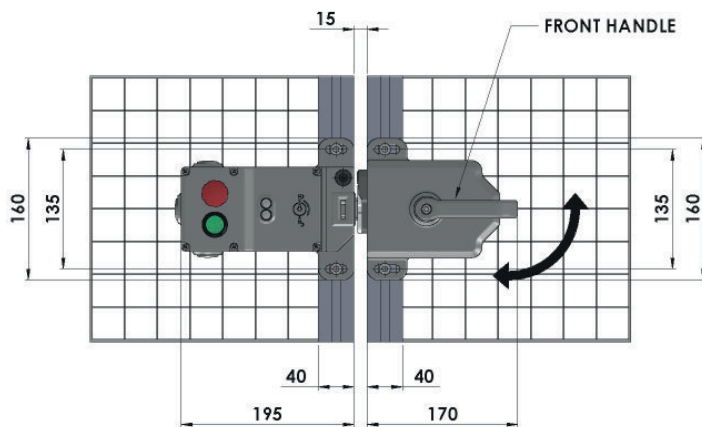
1 PRESS AND HOLD REAR RELEASE BUTTON



TO OPEN USING REAR HANDLE

2

TURN REAR HANDLE ANTI-CLOCKWISE



DESCRIPTION	SALES NUMBER
UGB2-KLT-SS-RFID-RR With LID Manual Override, or With NO Manual Override	520002 520004
UGB2-RFH-SS (Rotary Front Handle)	522003
UGB-RERH-SS (Rear Escape Rotary Handle)	522005

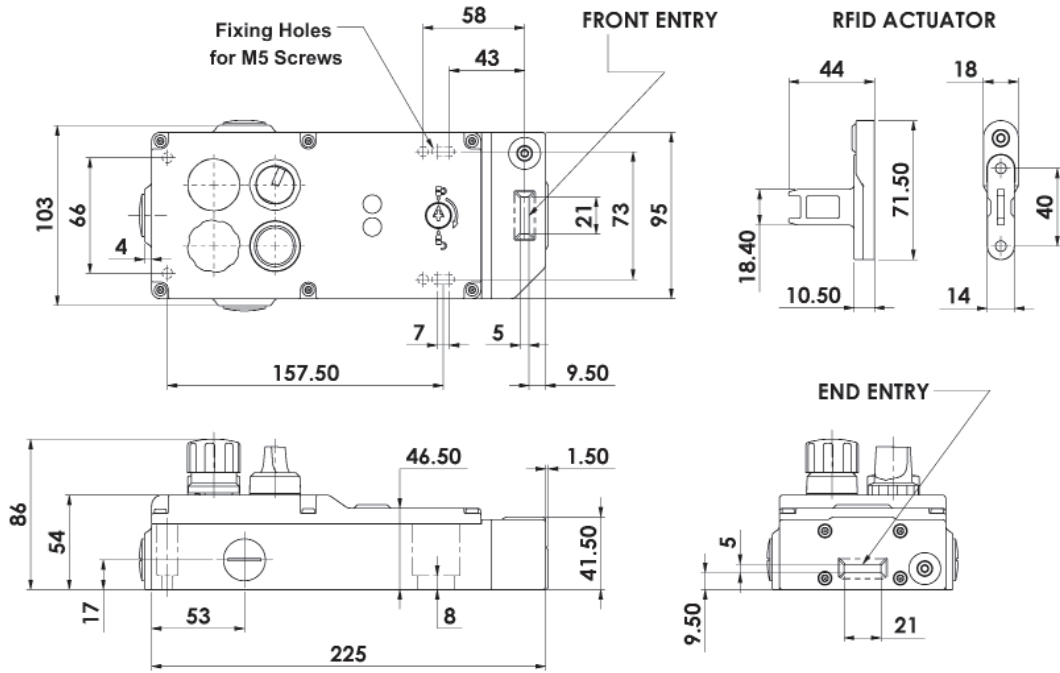
**ORDER SEPARATELY:**  
22mm Push Buttons, Switches, Lamps - See P72.



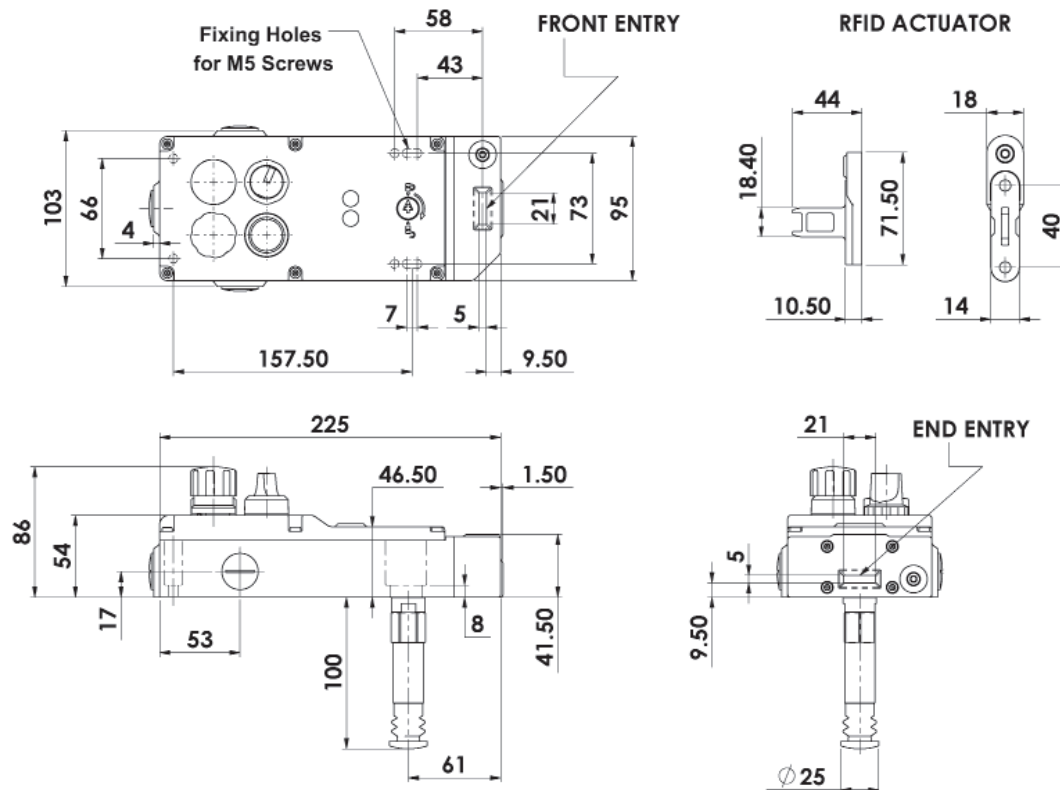
# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## PRODUCT DIMENSIONS:

TYPE: UGB 4-KLT-SS-RFID



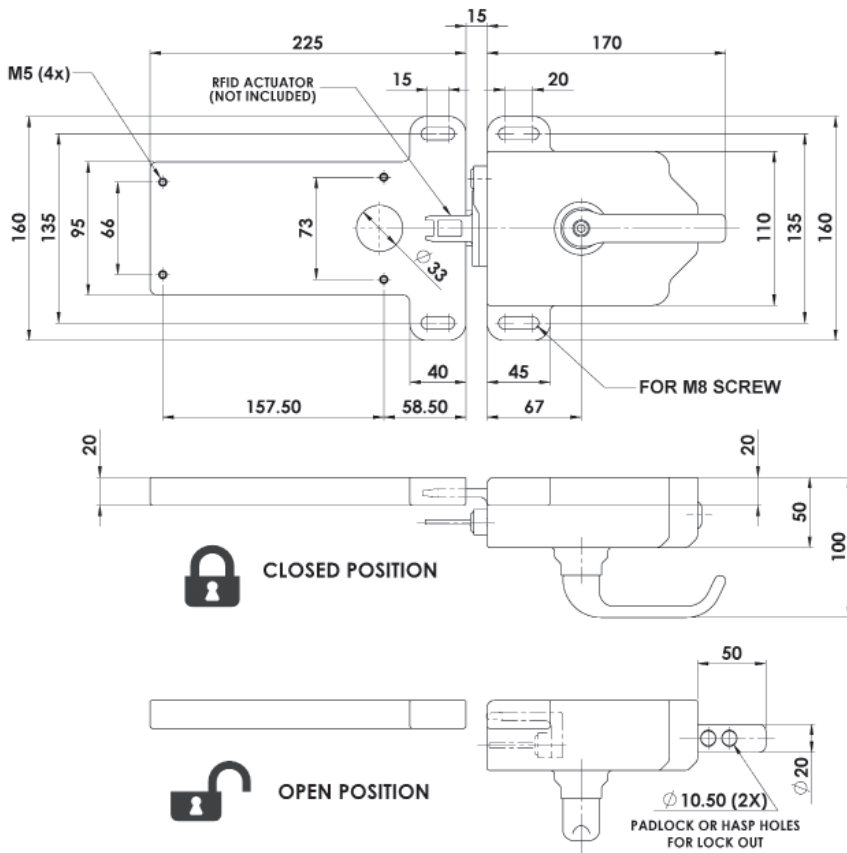
TYPE: UGB 4-KLT-SS-RFID-RR (Rear Release)



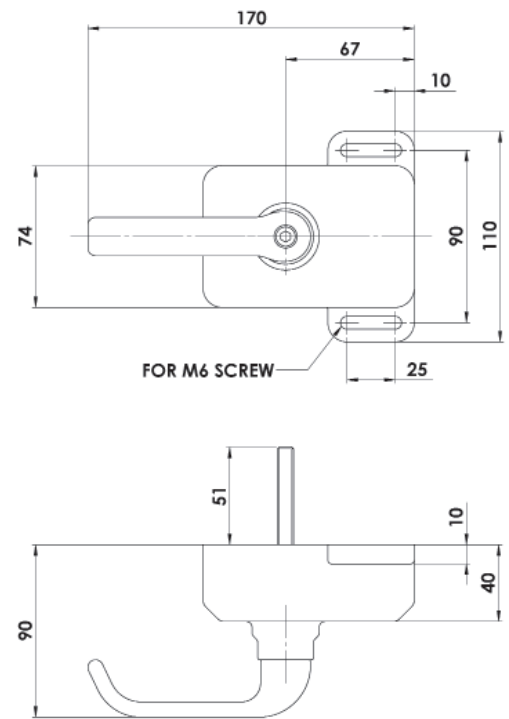
# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## PRODUCT DIMENSIONS:

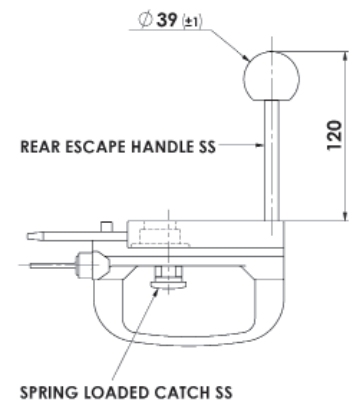
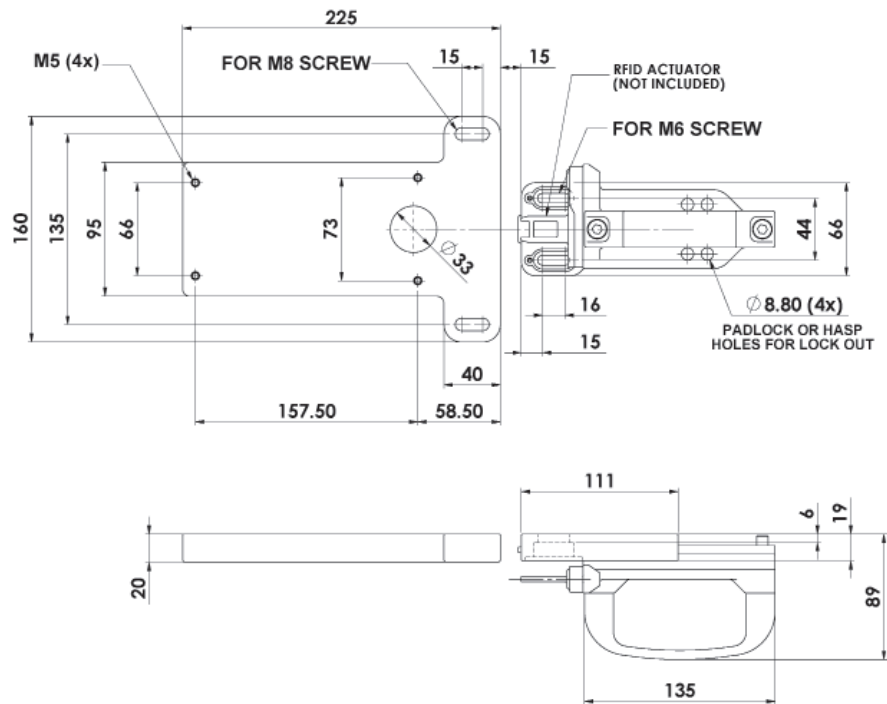
TYPE : UGB 4- ROTARY HANDLE SS (4 x APP)



TYPE : UGB-ROTARY REAR HANDLE



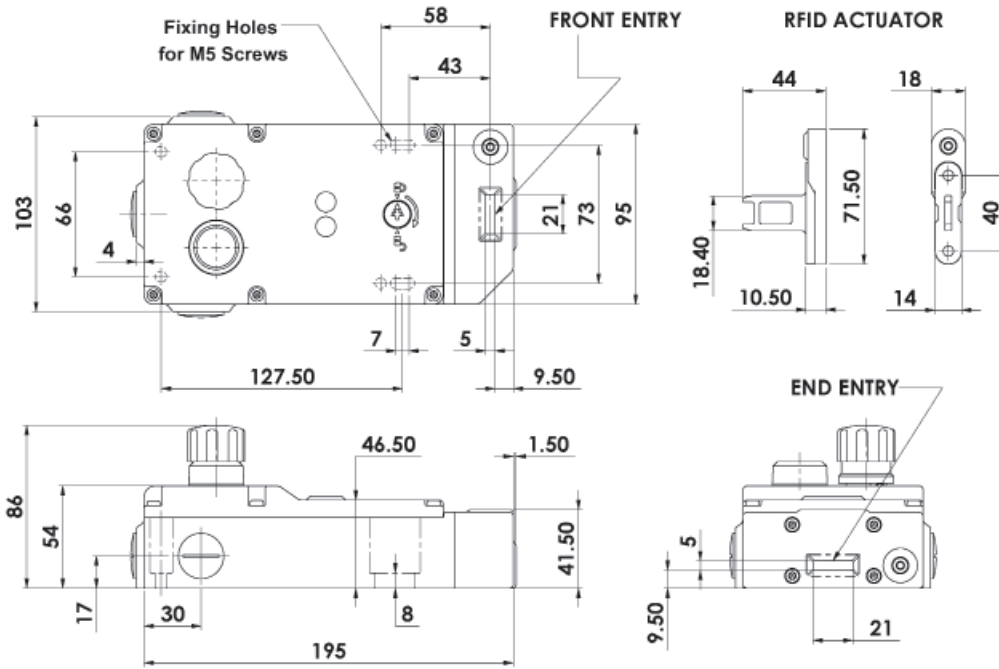
TYPE : UGB 4 SLIDING HANDLE SS (4 x APP)



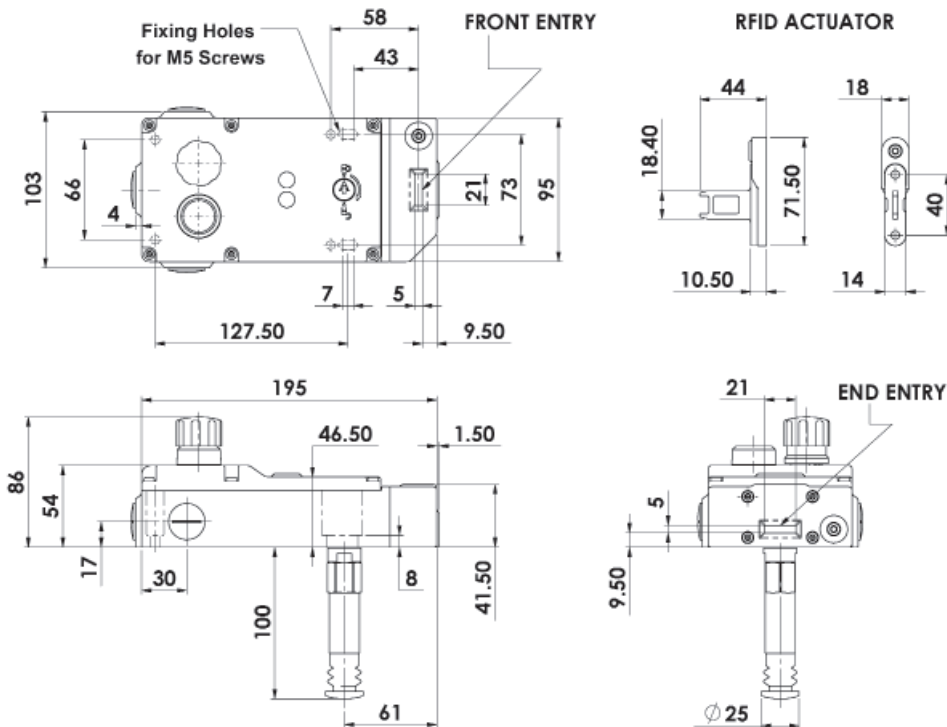
# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## PRODUCT DIMENSIONS:

TYPE: UGB 2-KLT-SS-RFID



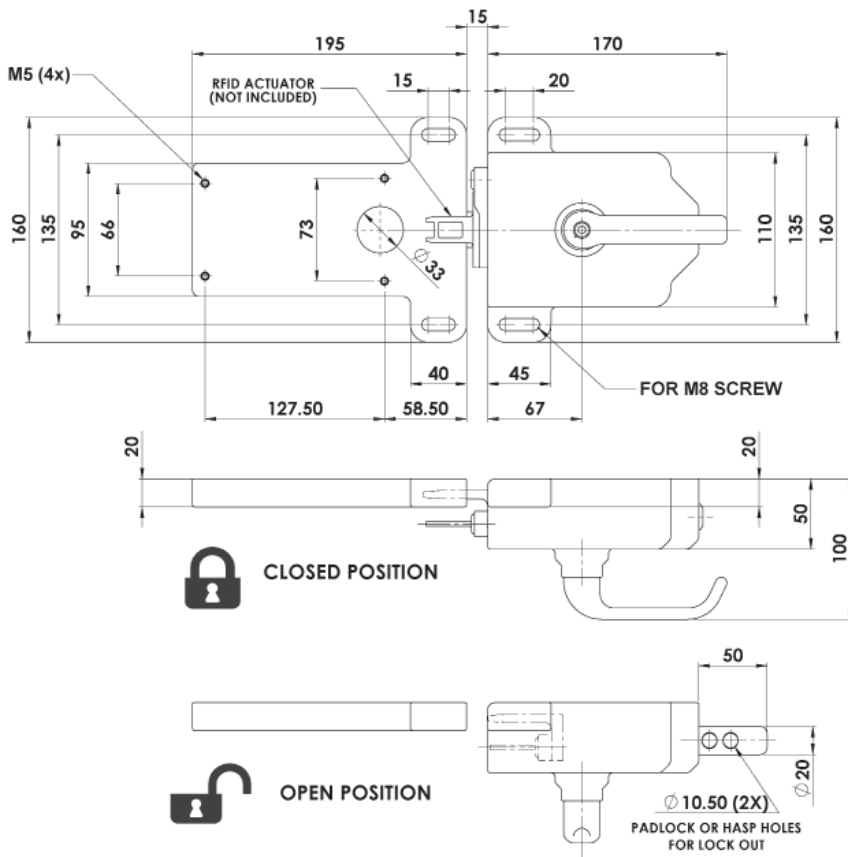
TYPE: UGB 2-KLT-SS-RFID-RR (Rear Release)



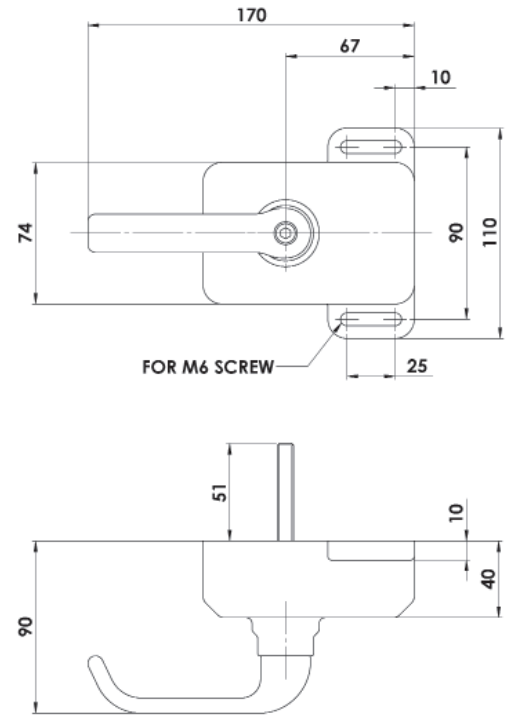
# Universal Gate Box with Safety Interlocking TYPE: UGB-KLT

## PRODUCT DIMENSIONS:

TYPE : UGB 2- ROTARY HANDLE SS (2 x APP)



TYPE : UGB-ROTARY REAR HANDLE



TYPE : UGB 2 SLIDING HANDLE SS (2 x APP)

