IDEM Universal Gate Box

The IDEM Universal Gate Box features a type 4, high-coded RFID sensor, a robust mechanical locking function, and machine control functions in one heavy-duty housing.

These gate boxes can easily be fitted to access doors and offer optional rear release to reduce the risk of operators being trapped inside a hazardous area.

Users will benefit from the high flexibility of the safety gate system with 2- and 4-station models available, offering a wide variety of 22mm pilot device options.

Benefits
- Offers a high level of safety for both personnel and plant protection
- Highest protection against manipulation and defeat
- Suitable for left- or right-hinged gates
- Maximum flexibility thanks to the 2- and 4-station models
- Reduced installation and maintenance costs

Features
- 90-degree fixed head
- 3000N holding force
- 24VDC to unlock
- Two NC safety outputs
- Two status outputs
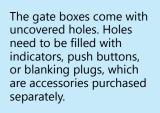- Two status LEDs
- IP65
- Optional sliding and rotary handles

UGB2-525001

UGB2-525002

UGB4-526001

IDEM Universal Gate Box Selection Guide

Part Number	Price	Body Material	Lock Type	Actuator Type	Rear Release	Switch Configuration	Drawing
UGB2-525001	$;-068!l:	Die-cast aluminum	Solenoid 24VDC to unlock	Tongue (key) interlock Uniquely coded RFID	No	2 station	PDF
UGB2-525002	$;068!n:				Yes	2 station	PDF
UGB4-526001	$;068!o:				No	4 station	PDF
UGB4-526002	$;068!p:				Yes	4 station	PDF

- The pilot devices are sold separately and must be fitted by the end user.
- There is a terminal block inside the UGB-KLTM for connecting the safety circuit and lock functionality.
- Please note that the UGB boxes are shallow. Therefore, only IDEM 22mm pushbuttons are recommended.

The gate boxes come with uncovered holes. Holes need to be filled with indicators, push buttons, or blanking plugs, which are accessories purchased separately.

Examples of Universal Gate Box Complete Assemblies

IDEM Pushbuttons

IDEM Pushbuttons

UGB4-527004-R

UGB4-526002

UGB-527005-R

UGB2-527001

UGB2-525002

GB-210006

GB-210005

IDEM Universal Gate Box Pushbuttons and Indicators

IDEM Universal Gate Box Specifications	
Safety Classification and Reliability Data	
Switching Reliability (B10d)	2.5M operations at 100mA load
Category According to EN ISO 13849-1	Up to Category 4 with Safety Relay
Performance Level According to EN ISO 13849-1	Up to PLe depending upon system architecture
IEC 632061	Up to SIL3 depending upon system architecture
Safety Data - Annual Usage	8 cycles per hour / 24 hours per day / 365 days
MTTFd	1100 years
Agency Approvals	cULus, E258676, CE
Electrical and General Specifications	
Rated Insulation Voltage	500VAC
Contact Terminals	Plated brass; conductor 16 AWG to 28 AWG; 0.7 N•m [6 lb in] torque
Supply Voltage	21.6 to 26.4 VDC
Solenoid Wattage (Terminal S+)	12W (max 500mA)
Switch Wattage (Terminal R+)	1.2 W (max 50mA)
Locking Holding Force	3,000N
Maximum Switching Current	Safety contacts 2.5A @24VDC, 6A @ 120VAC, 3A @ 240VDC (720VA break) Auxiliary contacts max 230V@0.5A
Maximum Approach/Withdrawal Speed	600 mm/s [23.62 in/sec]
Enclosure Protection	IP67
Operating Temperature	-25°C to +40°C [-13°F to +104°F]
Vibration	IEC 68-2-6, 10-55 Hz + 1Hz
Lid Screws/Torque	Stainless steel; T20 Torx; 1.5 Nm [1.11 lb•ft]
Recommended Mounting Screws/Torque	Gate box without handles: M5; 4 N•m [2.95 lb•ft] Gate box with handles: M6, 4 N•m [2.95 lb•ft]
Head Screws/Torque	Stainless steel; T20 Torx; 1N•m [0.74 lb•ft]

IDEM Universal Gate Box Pushbuttons and Indicators

522341 **522331** **522334** **522335** **522352** **522351** **522235**

Pushbutton Selection Guide

Part Number	Price	Description	Barrel Size	Contacts	Action	Operator Type	Operator Color	LED Voltage	Voltage Regulation	IP Rating	Drawing
522341	$;68!s:			2 NC	Momentary	Flush	Green	–	–	IP65	PDF
522332	$;;68!t:			1 NO, 1 NC	Momentary	Flush	Green	–	–	IP65	PDF
522331	$;68!u:	Compact pushbutton		1 NO, 1 NC	Momentary	Flush	Red	–	–	IP65	PDF
522334	$;68!v:			1 NO, 1 NC	Momentary	Flush	Blue	–	–	IP65	PDF
522335	$;68!y:		22mm	1 NO, 1 NC	Momentary	Flush	Black	–	–	IP65	PDF
522352	$;68!z:	Compact illuminated pushbutton		1 NC	Momentary	Flush	Green	24 VAC/VDC	Full voltage	IP65	PDF
522351	$;;68!]:			1 NC	Momentary	Flush	Red	24 VAC/VDC	Full voltage	IP65	PDF
522235	$;68!#:	Compact emergency stop pushbutton		2 NC	Twist to release	Mushroom	Red	–	–	IP54	PDF
522236	$;;68!!:			1 NO, 1 NC	Twist to release	Mushroom	Red	–	–	IP54	PDF

Illuminator Selection Guide

Part Number	Price	Description	Barrel Size	Operator Color	Light Function	LED Voltage Rating	Voltage Regulation	IP Rating	Drawing
522433	$;;68![:			Green	Permanent	24 VAC/VDC	Full voltage	IP65	PDF
522432	$;68!_:			Red	Permanent	24 VAC/VDC	Full voltage	IP65	PDF
522431	$;68!?:	Compact indicating	22mm	Yellow	Permanent	24 VAC/VDC	Full voltage	IP65	PDF
522434	$;;68!,:			Blue	Permanent	24 VAC/VDC	Full voltage	IP65	PDF
522435	$68?0:			White	Permanent	24 VAC/VDC	Full voltage	IP65	PDF

522433 **522432**

522431 **522434**

522451

522452

522435

Pushbutton Accessories Selection Guide

Part Number	Price	Description	Barrel Size	Drawing
522451	$;68!k:	Legend holder	22mm	PDF
522452	$;68!x:	Blanking plug	22mm	PDF

IDEM Universal Gate Box Pushbuttons and Indicators

IDEM UGB Push Button and Indicator General Specifications				
	Emergency Stop Push Button	*Flush Push Button*	*Illuminated Push Button*	*Pilot Light*
Device Mounting	Fixing Hole 0.89 in [22.5 mm] IEC 60947-1			
Fixing Mode	Fixing nut beneath head tightend to 17.7 - 21.24 lbf•in [2 - 2.4 N•m]			
Contact Operation	Snap action	Slow break		N/A
Contact Tightening Torque	7.08 - 10.62 lbf•in [0.8 - 1.2 N•m]			
Maximum Connection Wire Size	2 x 1.5mm^2 [16 AWG] with cable end 2 x 2.5 mm^2 [14 AWG] without cable end			
Minimum Connection Wire Size	1 x 0.34 mm^2 [21 AWG]			0.22 mm^2 [23 AWG]
Mechanical Durability	100,000 cycles	1,000,000 cycles	300,000 cycles	N/A
Ui Rated Insulation Voltage	250V (IEC 60947-1)			
Ui Rated Impulse Withstand Voltage	4kV	4kV	4kV	6kV
I_e Rated Operational Current (IEC 60947-5-1)	0.1 A @ 250 V (DC-13, R300) 0.22 A @ 125 V (DC-13, R300) 0.75 A @ 240 V (AC-15, C300) 1.5 A @ 120 V (AC-15, C300)	0.1 A @ 250 V (DC-13, R300) 0.22 A @ 125 V (DC-13, R300) 0.3 A @ 240 V (AC-15, C300) 0.6 A @ 120 V (AC-15, C300)		N/A
Electrical Durability	1,000,000 Cycles (DC-13, 0.30 A, 24V, 216,000 cycles/min, 0.5 IEC 60947-5-1 appendix C) 1,000,000 Cycles (AC-15, 0.03 A, 230V, 216,000 cycles/min, 0.5 IEC 60947-5-1 appendix C) 1,000,000 Cycles (AC-15, 0.09 A, 240V, 108,000 cycles/min, 0.5 IEC 60947-5-1 appendix C)			N/A
Electrical Reliability	$\lambda < 5 \times 10^{-7}$) 17 V 5 mA (IEC 60947-5-4)	$\lambda <= 10^{-6}$ 17 V 5 mA (IEC 60947-5-4)	$\lambda <= 10^{-6}$ 17 V 5 mA (IEC 60947-5-4)	N/A
LED Signal type	N/A	N/A	Steady	Steady
LED Supply Voltage	N/A	N/A	19.2 - 30 VDC 21.6 - 26.4 VAC	19.2 - 30 VDC 21.6 - 26.4 VAC
LED Current Consumption	N/A	N/A	18 - 27 mA	20 - 27 mA
LED Service Life	N/A	N/A	70,000h at rated voltage and 77°F [25°C]	
Storage Temperature	-40 to 158°F [-40 to 70°C]			
Operating Temperature	-13 to 158°F [-25 to 70°C]			
Electrical Shock Protection Class	Class II (IEC 61140)			N/A
Over Voltage Category	N/A	N/A	N/A	Class II (IEC 60536)
NEMA Degree of Protection	NEMA 12 (UL 50 E) NEMA 3 (UL 50 E)	NEMA 12 (UL 50 E) NEMA 3 (UL 50 E)	NEMA 12 (UL 50 E)	NEMA 4 (UL 50 E) NEMA 12 (UL 50 E)
Vibration	5G / 2-500 Hz (IEC 60068-2-6)			
Shock	15G, 11ms	50G, 11ms 30G, 18ms	50G, 11ms 30G, 18ms	50G, 11ms

IDEM Universal Gate Box Accessories

IDEM's gate bolts are engineered with rugged die-cast metal and steel construction and are capable of handling shearing forces of up to 10,000N (F1Max) for securing large, hinged doors.

These gate bolts are designed for ease of installation on hinged or sliding guards using four M6 mounting bolts, without requiring additional brackets or door handles.

They are also designed to be impervious to misalignment damage, ensuring long-lasting performance.

Operators must manually close the guard, eliminating the possibility of accidental closure.

Part Number	Price	Description	Handle Type	Door Type	Fits	Drawing
UGB2-527003-R	$;068!q:	Handle and mounting plate	Rotary	Right hand	UGB series 2-station universal gate boxes	PDF
UGB2-527003-L	$06a4y:	Handle and mounting plate	Rotary	Left hand	UGB series 2-station universal gate boxes	PDF
UGB4-527004-R	$;068!g:	Handle and mounting plate	Rotary	Right hand	UGB series 4-station universal gate boxes	PDF
UGB4-527004-L	$06a4v:	Handle and mounting plate	Rotary	Left hand	UGB series 4-station universal gate boxes	PDF
UGB-527005-R	$;068!h:	Rear escape handle	Rotary	Right hand	UGB series universal gate boxes	PDF
UGB-527005-L	$06a4x:	Rear escape handle	Rotary	Left hand	UGB series universal gate boxes	PDF
UGB2-527001	$;-068!i:	Handle and mounting plate	Slide	–	UGB series 2-station universal gate boxes	PDF
UGB4-527002	$;-068!j:	Handle and mounting plate	Slide	–	UGB series 4-station universal gate boxes	PDF
GB-210005	$06uq:	Rear escape handle	Slide	–	Sliding handle and mounting plate	PDF
GB-210006	$06us:	Spring-loaded catch	Slide	–	Sliding handle and mounting plate	PDF

IDEM Universal Gate Box Specifications

UGB2-527003-R

UGB4-527004-L

UGB-527005-R

UGB2-527001

GB-210005

GB-210006