

# IDEM UGB-NET Series Networked Universal Gate Boxes



IDEM's UGB-NET Series networked universal gate boxes provide integrated Ethernet/IP with CIP Safety™ as well as 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. They also allow the option to include a rear escape mechanism which is used to reduce the risk of operators being trapped inside a guarded area.

The benefits of using CIP Safety include a reduced number of components, less wiring, fewer cabinets, faster installation, and faster commissioning. It's possible to view the health of each module and other status information through messaging.

## Benefits

- Offers a high level of safety for both personnel and plant protection
- Highest protection against manipulation and defeat

## Features

- Preconfigured and ready to use out of the box
- Fixed head – 90-degree dual entry
- 3000N holding force
- Power to unlock
- Six status LEDs
- IP65
- Optional rotary handles with mounting plates
- Device webserver for status, configuration and diagnostics
- Three preinstalled illuminated pushbuttons and one preinstalled illuminated E-stop
- Includes five lenses for illuminated pushbutton customization



## IDEM UGB-NET Series Networked Universal Gate Boxes Selection Guide

Part Number	Price	Door Type	Rear Release	Port Protocol(s)	Body Material	Lock Type	Actuator Type	Drawing
<a href="#">UGB-NET-528101</a>	\$2,970.00	Right-hand	No	CIP Safety	Die-cast aluminum	Communication initiated solenoid 24VDC to unlock	Tongue (key) interlock with uniquely coded RFID	<a href="#">PDF</a>
<a href="#">UGB-NET-528102</a>	\$3,081.00	Right-hand	Yes					<a href="#">PDF</a>
<a href="#">UGB-NET-528105</a>	\$2,970.00	Left-hand	No					<a href="#">PDF</a>
<a href="#">UGB-NET-528106</a>	\$3,081.00	Left-hand	Yes					<a href="#">PDF</a>

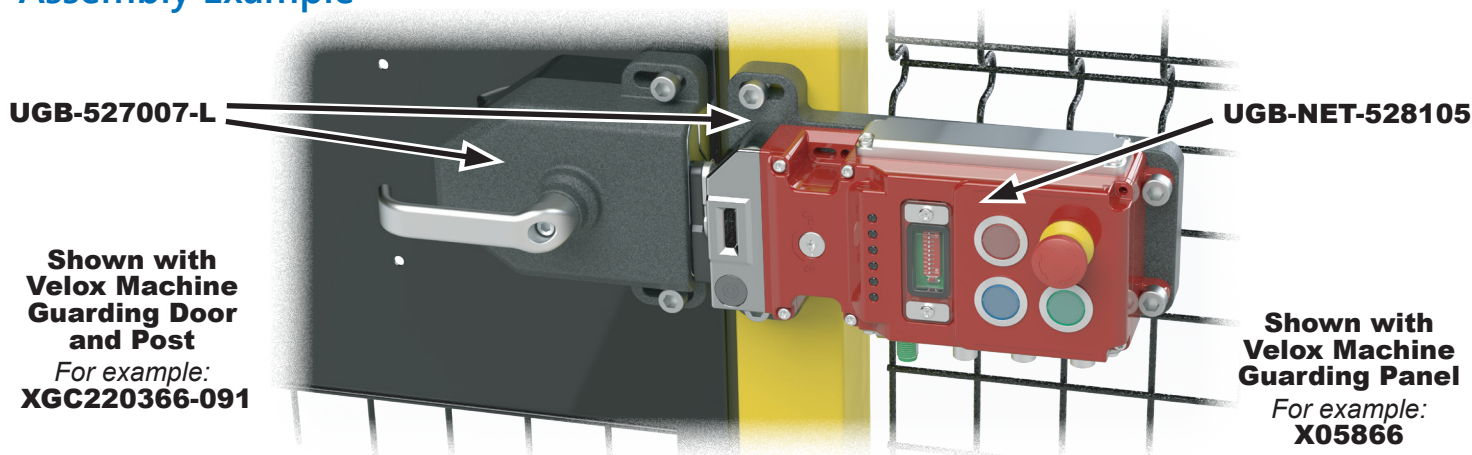


**UGB-NET-528101**  
Right-hand without rear release



**UGB-NET-528106**  
Left-hand with rear release

## Assembly Example



# IDEM UGB-NET Series Networked Universal Gate Boxes



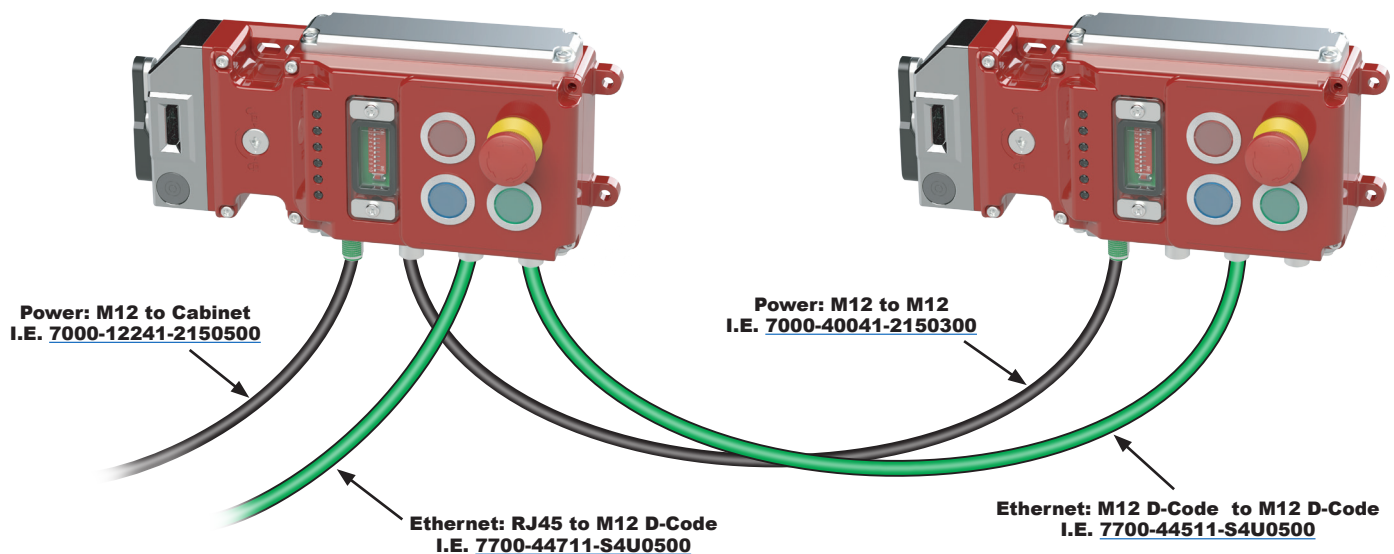
## Connections



Power			
Power Male		Power Female	
Male A-Code M12		Female A-Code M12	
1 (Brown)	+24V	1	+24V
2 (White)	0V	2	0V
3 (Blue)	0V	3	0V
4 (Black)	+24V	4	+24V
5 (Green/Yellow)	Ground	5	Ground
Pins 1 and 4 internally connected Pins 2 and 3 internally connected			

Ethernet			
Link 1		Link 2	
Female D-Code M12		Female D-Code M12	
1	TX+	1	TX+
2	RX+	2	RX+
3	TX-	3	TX-
4	RX-	4	RX-

## Convenient Wire-In-Series Example



# IDEM UGB-NET Series

## Networked Universal Gate Boxes



### IDEM UGB-NET Series Networked Universal Gate Boxes Safety Classification and Reliability Data

<b>Performance Level According to EN ISO 13849-1</b>	PLe
<b>Safety Integrity Level According to IEC 62061</b>	SIL 3
<b>Safety Data – Annual Usage</b>	8 cycles per hour, 24 hours per day, 365 days per year
<b>Mission Time</b>	20 years
<b>B10<sub>d</sub></b>	Guard locking = $2.5 \times 10^6$ Lock monitoring = $2.5 \times 10^6$ Emergency stop = $1.7 \times 10^5$
<b>MTTF<sub>d</sub></b>	Guard locking = 2500 years (high) Lock monitoring = 2500 years (high) Emergency stop = 110 years (high)
<b>Diagnostic Coverage</b>	99%
<b>PFH<sub>d</sub></b>	Guard locking = $7.3 \times 10^{-10}$ (0.7% of SIL 3) Lock monitoring = $7.3 \times 10^{-10}$ (0.7% of SIL 3) Emergency stop = $2.3 \times 10^{-9}$ (2.3% of SIL 3)
<b>Actuator Coding Level</b>	Type 4 (RFID), high (according to ISO 14119)
<b>Device Response Time</b>	36ms
<b>Agency Approvals</b>	CE, TÜV, cULus

### IDEM UGB-NET Series Networked Universal Gate Boxes Electrical and General Specifications

<b>Supply Voltage</b>	20.4 to 26.4 VDC
<b>Max Current</b>	600mA
<b>Maximum Locking Holding Force</b>	3000N
<b>Enclosure Protection</b>	IP65
<b>Operating Temperature</b>	-5 to 40°C [23 to 104°F]
<b>Storage Temperature</b>	-30 to 85°C [-22 to 185°F]
<b>Vibration</b>	Tested according to IEC 60068-2-6
<b>Shock</b>	Tested according to IEC 60068-2-27
<b>Torque for Lid and DIP Switch Cover Screws</b>	1.5 N•m [1.11 lb•ft]
<b>Recommended Mounting Screws/Torque</b>	4.0 N•m [2.95 lb•ft]

# IDEM UGB-NET Series Networked Universal Gate Box Accessories



IDEM's gate handles are designed for ease of installation on hinged doors 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.

## IDEM UGB-NET Series Networked Universal Gate Boxes Accessories Selection Guide

Part Number	Price	Description	Handle Type	Door Type	Fits	Drawing
<a href="#"><u>UGB-527007-R</u></a>	\$297.00	Handle and mounting plate	Rotary	Right-hand	UGB-NET series networked gate boxes	<a href="#"><u>PDF</u></a>
<a href="#"><u>UGB-527007-L</u></a>	\$297.00	Handle and mounting plate	Rotary	Left-hand	UGB-NET series networked gate boxes	<a href="#"><u>PDF</u></a>



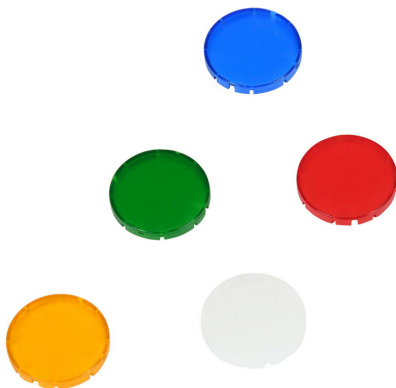
[UGB-527007-R](#)



[UGB-527007-L](#)

## IDEM UGB-NET Series Replacement Lenses Selection Guide

Part Number	Price	Description	Included Colors	Fits
<a href="#"><u>528550</u></a>	\$14.50	Replacement lens covers	Red, yellow, blue, white, and green (one of each)	UGB-NET series networked gate boxes



[528550](#)

### IDEM UGB-NET Replacement Lens Installation

To install a new lens, align the two tabs on the lens with the two keyways on the unit and press into place.

Removing these lenses may result in breakage of the lens, so before installation be sure to confirm the configuration you would like.



### Lens Removal

To remove the lens, align a small screwdriver with the tab and pry the lens up. If the lens should be broken in the process, note that we offer replacement lenses (part number 528550).

**NOTE:** The 22mm operators are factory installed and are not field replaceable. Thus, use care when replacing lenses.

# Safety Products



*Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.*

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