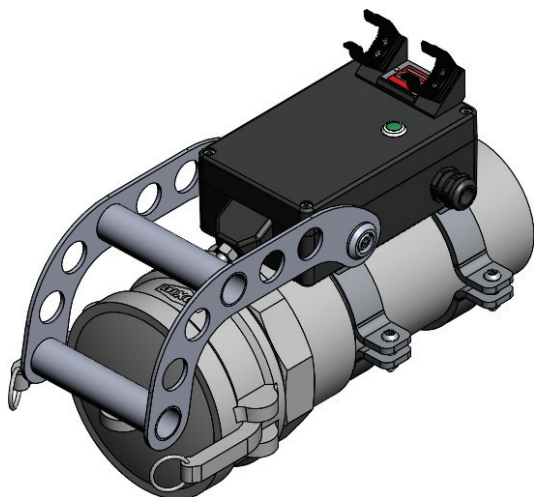


Type CIS Coupler Interlock System



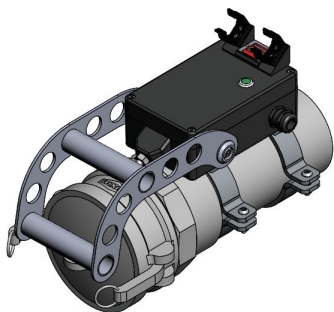
KIRK Type CIS Coupler Interlock System is an electromechanical interlock that is suitable for controlling access to tubular bulk material transfer systems, such as those used for silo storage. The Type CIS is designed for 2"-6" tubing systems. The electronic unit is available with a standard gate that blocks access to the tubing coupler. An electronic control system signal will unlock the CIS unit, and notify the operator to lift the gate, granting access to remove the tube coupling cover for material transfer. A sensor notifies the control system if a cover or mating coupler is in place, and the CIS unit provides status of the gate position. The gate is lowered when the transfer is complete, and the CIS will reset to a locked state.

OPERATION

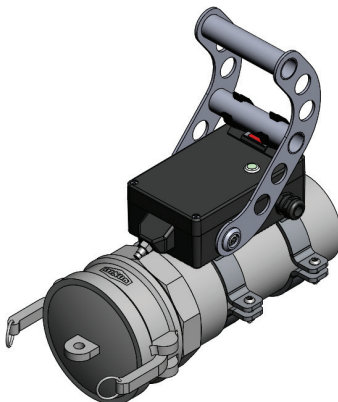
KIRK Type CIS Coupler Interlock System is keyless and utilizes a 24VDC signal from the control system to unlock the gate and notify personnel with an LED indicator. The Type CIS is suitable for 2"-6" tubular bulk material transfer systems.

Type CIS electro-mechanical interlock

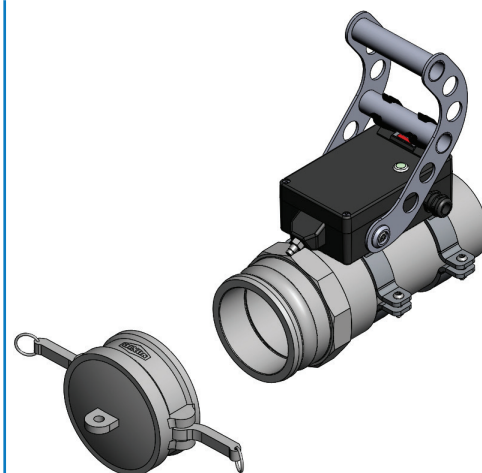
- 1** Gate is down and locked, restricting access to the coupling cover. LED is off.



- 2** Electronic signal is received from control system, unlocking gate and illuminating LED. Gate lifted and secured in retaining clips



- 3** Tube end coupler cover can now be removed for material loading/unloading.




Type CIS Coupler Interlock System



USAGE


KIRK Type CIS should be used on material transfer tubing systems that have electronic controls and couplers. With a proper control system, the CIS ensures that only the desired tube can be accessed for material transfer, reducing the risk of material cross-contamination. It is the responsibility of the user to monitor their control system and feedback given by the CIS to maintain the integrity of the system.

 KIRK CIS products are not intended to serve as a security barrier to the material tubing system, but rather a component in a larger access control system.

No hazardous substances were used in the manufacturing of the product. The product can be disposed of in standard waste receptacles.

INSTALLATION

KIRK Type CIS is provided with a set of clamps designed for the application tubing size specified at the time of ordering. The upper clamp will be mounted to the CIS module and should NOT be removed. The lower clamp will be shipped attached to the upper clamp and must be removed at time of installation. With the lower clamp removed, the CIS unit is placed with the upper clamp on the tube and the lower clamp placed around the opposite half of the tube. Included fasteners hold the clamp halves together, and the CIS unit is positioned on the tube to bring the sensor within .25" (6mm) of the coupler cover. Tighten the fasteners using an alternating pattern to prevent binding. Gaps between the upper and lower clamps should be equal. Complete the installation by wiring the CIS according to system requirements.

 All interlocks and interlock systems must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical files.

MAINTENANCE

KIRK Type CIS product is designed with minimal maintenance required. Use of stainless steel and bronze-oil bushings require no lubrication. Due to mechanical vibrations associated with bulk material transfers, a periodic check of all exposed fasteners is recommended. If equipment refurbishment is desired, please contact Kirk Key for additional technical documentation.

Type CIS Coupler Interlock System



TECHNICAL DATA

Type CIS	
Activation	Solenoid released gate
Visual Signal	Green LED, IP67
Control Signals	2 NO/NC Switches, Cover/Coupling Sensor
Enclosure	Diecast Aluminum, Gasketed, EMI-RFI Protection
Mounting	316SS Semi-circle clamps around tubing, Tamper-resistant fasteners
Gate Material	316 Stainless Steel
Connection	Watertight Gland
Weight*	6.0 lbs

* Weight of CIS does include mounting hardware

APPLICATION

The KIRK Type CIS Coupler Interlock System is an electromechanical interlock that is suitable for controlling access to tubular bulk material transfer systems, such as those used for silo storage.

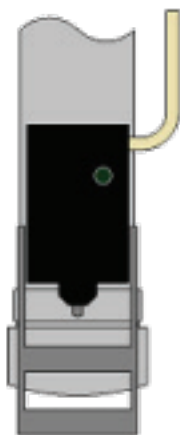
Initial system status: Type CIS is not energized and gate is locked down over the coupler cover.

To begin bulk material transfer, a signal from a 24VDC control system is sent to the Type CIS. The LED indicator light is illuminated on the Type CIS and the solenoid unlocks the CIS. The gate on the Type CIS can now be manually lifted and retained by the 2 holding clips atop the CIS unit.

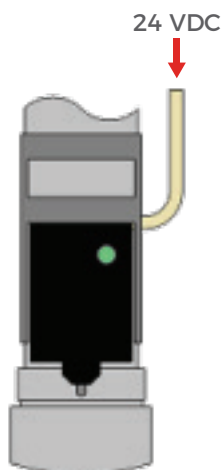
When the gate is lifted, 2 switches change state in the CIS. A sensor signals the control panel when a cover or hose is connected to the silo tubing.

When bulk material loading is complete, the cover is put back onto the silo tubing and the gate is manually locked back down in place over the cover.

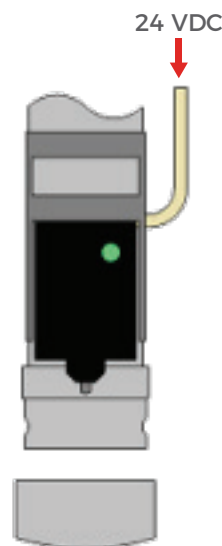
NOT ENERGIZED
COVER ON GATE
DOWN



ENERGIZED
COVER ON
GATE UP



ENERGIZED
COVER OFF
GATE UP



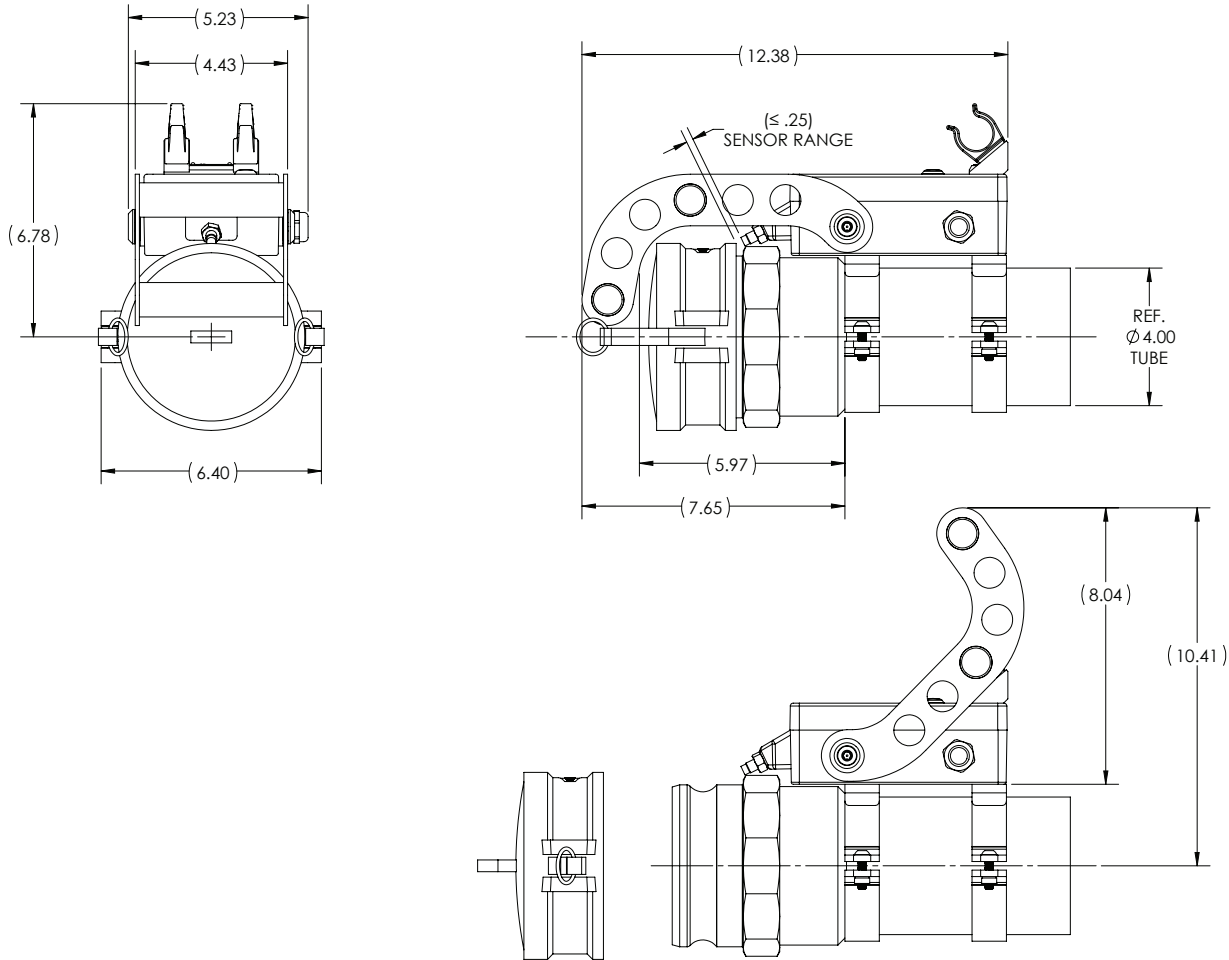
Type CIS Coupler Interlock System



DRAWING

Dimensions: in inches

Type CIS



ORDER INFORMATION

To order a Type CIS, please use the part number configuration below, indicating in column 10 the diameter of tubing the CIS will be mounted on.

Column **10** Tube Diameter options (in inches) 2, 3, 4, 5, 6

	1	2	3	4	5	6	7	8	9	10
Part number	S	C	I	-	E	2	S	0	T	

CONTACT INFORMATION

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