1. COMPANY INFORMATION:

1.1. ADDRESS:

1.1.1. 4220 Duncan Ave,
Suite 201
St. Louis, Missouri 63110

1.2. PHONE NUMBER: 314-750-8962

1.3. EMAIL: info@humindustrial.com

2. TITLE: Installation instructions of HUM sensor to 4415 series valves.

3. SCOPE: All 4415 series valves.

4. PURPOSE OF UNIT: Monitoring the Pneumatic Valve for Hopper Cars to verify the valve is closed before the train moves or the hopper is refilled.

5. DISCUSSION:

5.1. TOOLS REQUIRED:

5.1.1. 9/64” Hex Wrench

5.1.2. 5/32” Hex Wrench

5.1.3. 3/16” Hex Wrench

5.1.4. HUM Sensor Kit

5.2. MAGNET INSTALLATION:

5.2.1. Locate the INTERLOCK ENDCAP. Shown in Figure 1.

5.2.2. Using 5/32” hex wrench, remove the ¼-20 BUTTON HEAD SCREW and RUBBER WASHER from the end of the INTERLOCK INDICATOR.

5.2.3. Discard both.

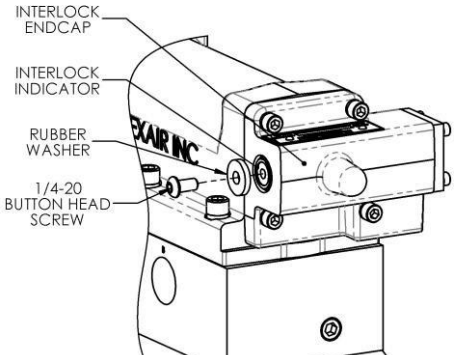


Figure 1

5.2.4. Using the new parts provided in the kit insert the new BUTTON HEAD SCREW through the center hole of the MAGNET and the new RUBBER WASHER as shown in Figure 2.

5.2.5. Thread the assembly onto the end of the INTERLOCK INDICATOR and tighten.

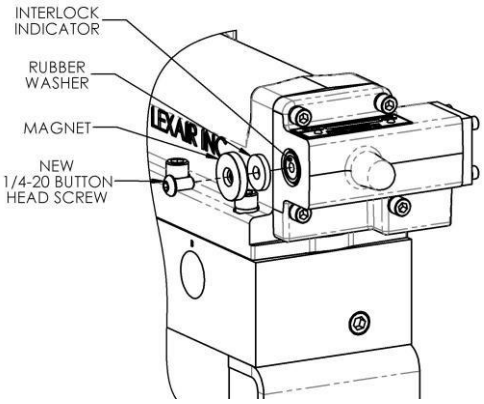


FIGURE 2

5.3. SENSOR INSTALLATION

5.3.1. Locate the INDICATOR COVER on the opposite side from the INDICATOR. See Figure 3.

5.3.2. Using the 9/64" hex wrench, remove the two rear most #8-32 SOCKET HEAD SCREWS with the associated lock washers and retain for subsequent assembly.

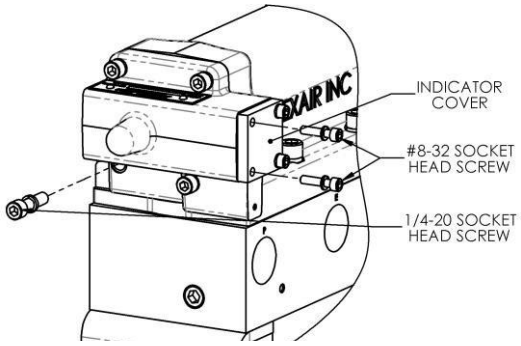


Figure 3

5.3.3. Using the 3/16" hex wrench, remove the lower left ¼-20 SOCKET HEAD SCREW with associated lock washer and retain for subsequent assembly.

5.3.4. Install the HUM SENSOR to the end of the of the INTERLOCK END CAP as shown in Figure 4.

5.3.5. Loosely install the previously removed ¼-20 and #8-32 SOCKET HEAD SCREWS with lock washers.

5.3.6. Once in place tighten all three SOCKET HEAD SCREWS.

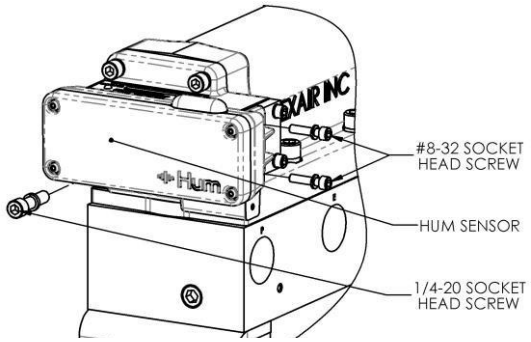


Figure 4

6. TECHINCAL DETAILS

6.1. DEVICE LABEL DETAILS:
Hum Industrial Model # HI24030101
Class I, Div. 2 Groups A,B,C,D
Temperature Code: T6
T_{amb}: -20°C to 40°C
Electrical Rating: 100mA @ 3.0v
IP64 Rated
Explosion Hazard: Do Not Open Device. No user replaceable or serviceable parts.
Avertissement: Risque D'explosion. Ne Pas Ouvrir. Aucune pièce remplaçable ou réparable

6.2. BATTERY REPLACEMENT INSTRUCTIONS: This device is not intended for on-site battery replacement. Any opening or tampering of the device will result in the void of all warranties. For device service, please contact HUM INDUSTIAL.

6.3. OPERATING INSTRUCTIONS: Once installed the device will start working automatically.

6.4. MAINTENANCE INSTRUCTIONS: The device does not require any maintenance, if there are any issues with the device, please contact Hum Industrial for service.

6.5. ENVIORNMENTAL SPECIFICATIONS:

Maximum Humidity: 100%

Maximum Altitude: 12,000 feet

Pollution Degree: 4 (Electrical Equipment for Outdoor Use)

Note: This device is designed to be used in outdoor locations, to withstand normal weather conditions, including wet locations.

6.6 WARNINGS:

The intended function of this device could be impaired if the equipment is used in a manner not specified by the manufacturer.

6.7 WIRELESS REGULATORY INFORMATION

6.7.1 FCC ID

FCC ID: 2BUPV-VS01
IC: 35176-VS01

6.7.2 FCC Compliance Statement

Changes or modifications not expressly approved by Hum Industrial Technology Inc. could void the user's authority to operate the equipment.

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

6.7.3 ISED Canada Compliance Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions: 1.This device may not cause interference. 2. This device must accept any interference, including interference that may cause undesired operation of the device.

L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : 1. L’appareil ne doit pas produire de brouillage; 2. L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

7. REVISION HISTORY:

REV	DATE	DISCRIPTION	CHKD	APRVD
A	03/15/2025	Document created	DAL	LC
B	04/22/2026	ADDED SECTION 6.7	LC	