



Installing the Hall Effect Meter Roll Sensor

Begin by removing all of the current meter roll sensor components leaving only the wiring (20) and conduit ends (21) as shown in *Figure 1*.

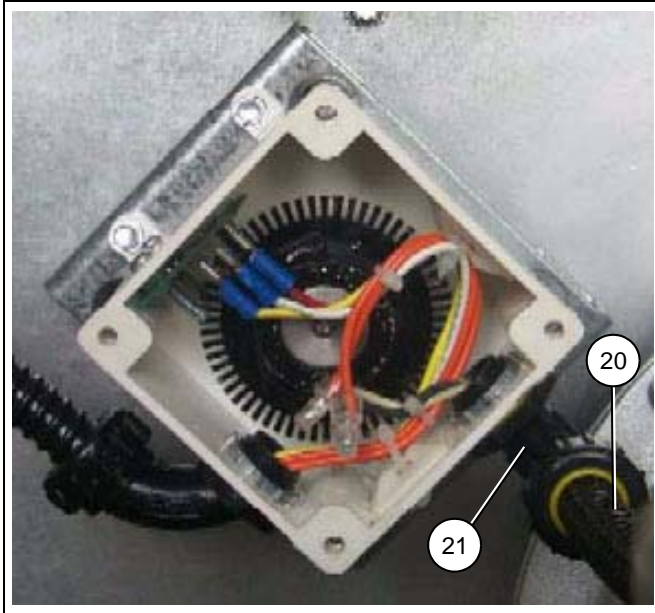


Figure 1

Ref #	Description
20	Conduit, 1/2" Flexible Non-Metal
21	Connector, 1/2" Electric No-Metal 90°

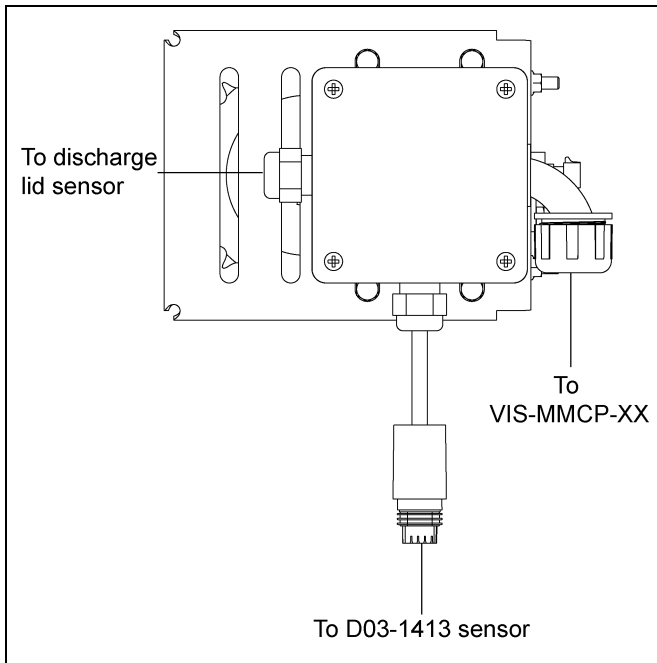


Figure 2 4" Hall Effect Meter Roll Sensor Wiring (D04-1375)

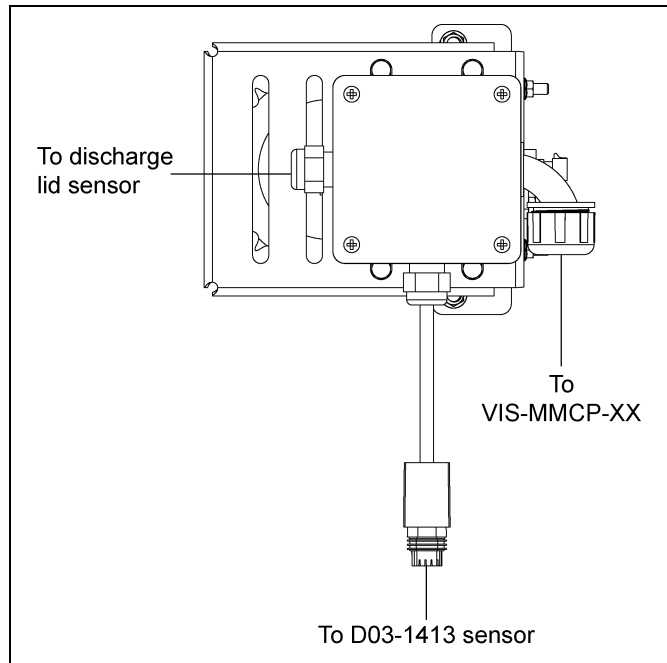


Figure 3 7" Hall Effect Meter Roll Sensor Wiring (D04-1374)



Hall Effect Meter Roll Sensor Installation

Installing the Hall Effect Meter Roll Sensor (Continued)

1. Begin by installing the mounting bracket (1) (4" or 7") to the meter roll bearing assembly with 5/16"-18 flange nuts (2). Do not tighten fully down yet.
2. Next install the sprocket (6) onto the meter roll shaft. **NOTE:** *You will not use the key that is included with the sprocket.* Again do not tighten fully at this time.
3. Next install the hall effect sensor (3) into the mounting bracket (1) using 1/4"-20 x 3/4" bolts (4) and 1/4"-20 nylock nuts (5).
4. Center the sprocket (6) with the sensor (3) and tight down the set screws. Adjust the hall effect bracket (1) with sensor (3) installed, so the gap between the sensor and 30 tooth wheel is approximately 1/16" and fully tighten the nuts from [Step 1](#).
5. Attach the white conduit box (10) to the sprocket cover (8) with 1/4"-20 x 3/4" bolts (4) and 1/4"-20 lock nuts (5).
6. Attach the cord connectors (11) to the bottom and left side of the box.
7. Attach 90° conduit connector (14) to the right side of the box.
8. Re-attach the wire coming from the discharge lid to the cord connector on the left side of the box.
9. Re-attach the conduit coming from the rear junction box to the 90° conduit connector on the right side of the box.
10. Re-attach wired connections from the discharge lid to their wires coming from the rear junction box using supplied the crimp connectors (FH-6998).
11. Insert cable assembly (D03-1416) into the cord connector located on the bottom of the box and connect wires as follows:
 - a. RED - Red (J4-05) (12V +)
 - b. GREEN - Black with white stripe (J4-03) (12V -)
 - c. WHITE - Blue (J4-04) (Pulsed return from sensor)
 - d. BLACK - Not used (Directional output)
12. Once all connections are complete and system has been tested for correct operation, attach cover (17) with gasket (16) using #10-24 x 1" screws (18) and #10-24 nuts (15).

Update Vision software to 2.07 with supplied USB thumb drive by inserting into the USB socket located in the bottom of the Vision display.

1. Select **GET SOFTWARE** button on the first start-up screen.
2. After the files are copied to Vision control, select the **INSTALL SOFTWARE** button.

Turn ON MC dipswitch located on the display I/O board in the lower control box. This will activate the software algorithm necessary for different sprocket configuration.

Add 2.4K resistor on Main I/O board between J4-05 and J4-04 (12 VDC + and meter roll sensor input).

4" Hall Effect Meter Roll Sensor Package Parts List (D04-1375)

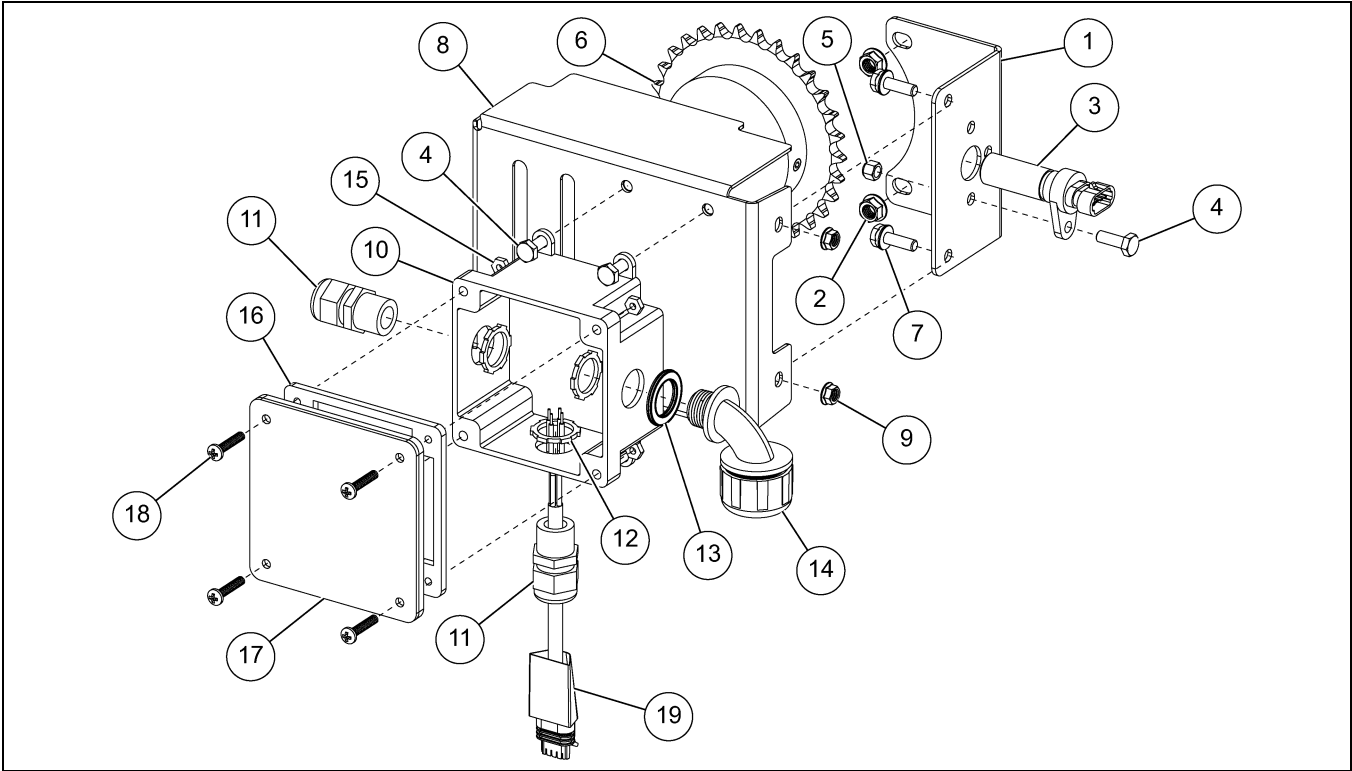


Figure 4 4" Hall Effect Meter Roll Sensor Package Parts

4" Hall Effect Meter Roll Sensor Package Parts List (D04-1375)

Ref #	Part #	Description	Qty
1	D01-3780	Bracket, 4" Meter Roll Hall Sensor	1
2	S-3611	Nut, Flange 5/16"-18 YDP Grade 2	2
3	D03-1413	Sensor, Hall Effect Cherry #SD101201	1
4	S-8244	Bolt, HHCS 1/4"-20 x 3/4" ZN Grade 5	5
5	S-7025	Nut, Nylock 1/4"-20 ZN Grade 5	5
6	D02-0029	Sprocket, #4030 x 1" with Keyway	1
7	S-8680	Bolt, Flange 1/4"-20 x 3/4" ZN Grade 5	2
8	D01-3784	Cover, Meter Roll Hall Sensor	1
9	S-7215	Nut, Flange 1/4"-20 Zinc	2
10	D04-1427	Drilled Box Hall Effect Meter Roll Sensor	1
11	FH-1310	Connector, Cord Heyco #3231 Replaces: 006-1235-8	2
12	FH-1309	Nut, Lock 1/2" with Pipe Threads	3
13	D03-1389	Ring, Sealing 1/2" Heyco 3260	1
14	D03-1325H	Connector, 1/2" Electric 90° Heyco # H8610	1
15	S-7931	Nut, Hex #10-24 SS - 304 or 316 SSS-7931	4
16	FLX-2690	Gasket, Electrical Box 4" x 4"	1
17	FLX-2689	Cover, Electrical Box	1
18	S-995	Screw, MS #10-24 x 1" SS	4
19	D04-1341	Cable Assembly, Hall Effect Sensor (D03-1413)	1
N/S	D03-1416	Resistor, CF, 2.4K Ohms, 1/4W, 5% Tolerance	1
N/S	FH-6998	Insulator, 18 Gauge Crimp Connection	3

Hall Effect Meter Roll Sensor Installation

7" Hall Effect Meter Roll Sensor Package Parts List (D04-1374)

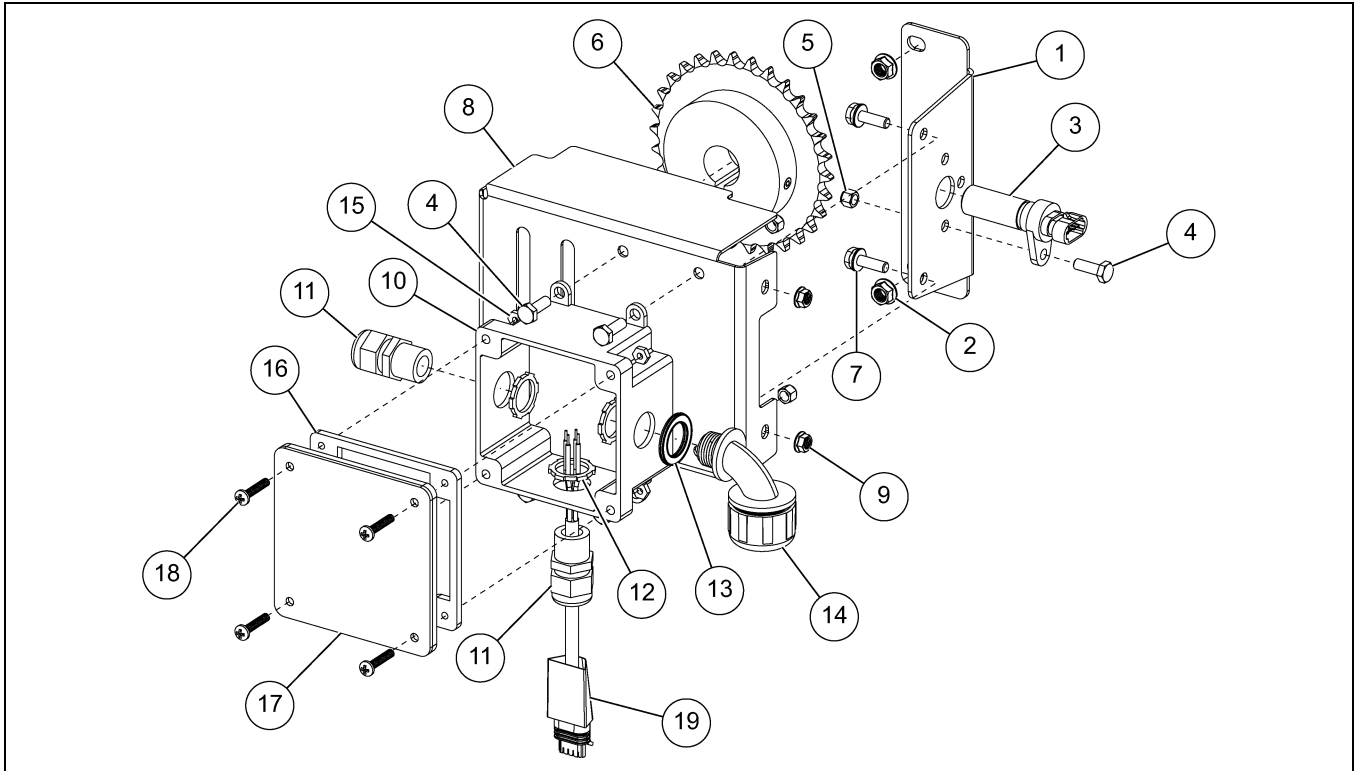


Figure 5 7" Hall Effect Meter Roll Sensor Package Parts

7" Hall Effect Meter Roll Sensor Package Parts List (D04-1374)

Ref #	Part #	Description	Qty
1	D01-3781	Bracket, 7" Meter Roll Hall Sensor	1
2	S-3611	Nut, Flange 5/16"-18 YDP Grade 2	2
3	D03-1413	Sensor, Hall Effect Cherry #SD101201	1
4	S-8244	Bolt, HHCS 1/4"-20 x 3/4" ZN Grade 5	5
5	S-7025	Nut, Nylock 1/4"-20 ZN Grade 5	5
6	D02-0029	Sprocket, #4030 x 1" with Keyway	1
7	S-8680	Bolt, Flange 1/4"-20 x 3/4" ZN Grade 5	2
8	D01-3784	Cover, Meter Roll Hall Sensor	1
9	S-7215	Nut, Flange 1/4"-20 Zinc	2
10	D04-1427	Drilled Box Hall Effect Meter Roll Sensor	1
11	FH-1310	Connector, Cord Heyco #3231 Replaces: 006-1235-8	2
12	FH-1309	Nut, Lock 1/2" with Pipe Threads	3
13	D03-1389	Ring, Sealing 1/2" Heyco 3260	1
14	D03-1325H	Connector, 1/2" Electric 90° Heyco # H8610	1
15	S-7931	Nut, Hex #10-24 SS - 304 or 316 SSS-7931	4
16	FLX-2690	Gasket, Electrical Box 4" x 4"	1
17	FLX-2689	Cover, Electrical Box	1
18	S-995	Screw, MS #10-24 x 1" SS	4
19	D04-1341	Cable Assembly, Hall Effect Sensor (D03-1413)	1
N/S	D03-1416	Resistor, CF, 2.4K Ohms, 1/4W, 5% Tolerance	1
N/S	FH-6998	Insulator, 18 Gauge Crimp Connection	3