

PULSE SENSOR

CCS-T4647600

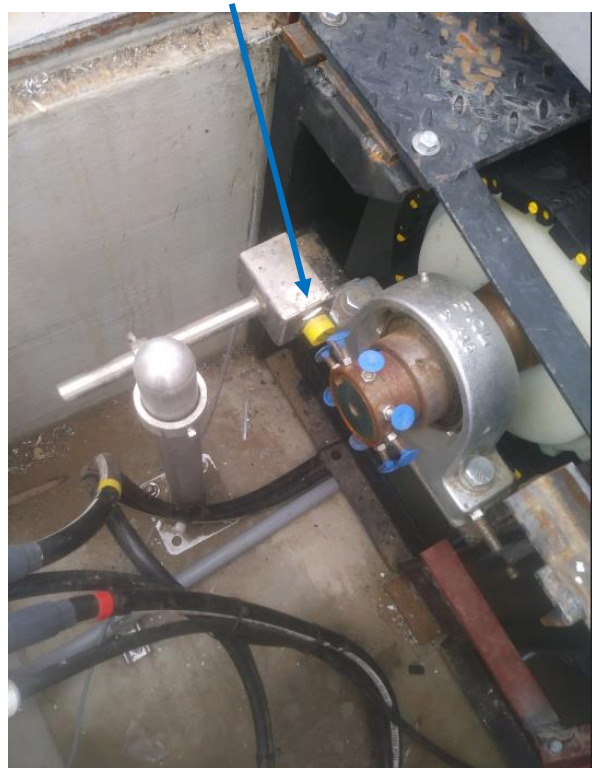


What is the pulse sensor?

- The pulse sensor is one of the most important sensors in the wash
- It is sometimes referred to as the heartbeat of the wash
- It is an inductive proximity sensor which means it detects metal objects (flags) to send a signal to the controller

Location:

- For belt conveyor washes the sensor is located at the end of the wash on the driver's side in the footwell. (See picture below)
- For chain and roller conveyors the pulse sensor is either located in the conveyor hydraulic tank, or at the end of the wash near the drive sprocket



How does it work:

- The pulse sensor works by detecting metal objects (flags) to send a signal, this signal is seen by the plc and used to determine vehicle length when the photo eyes are blocked, and control timing throughout the entire wash.

- We typically use an 8-flag system on our belt conveyor (some systems have 4) these flags are read by the sensor and it is very important that all flags are there and secure



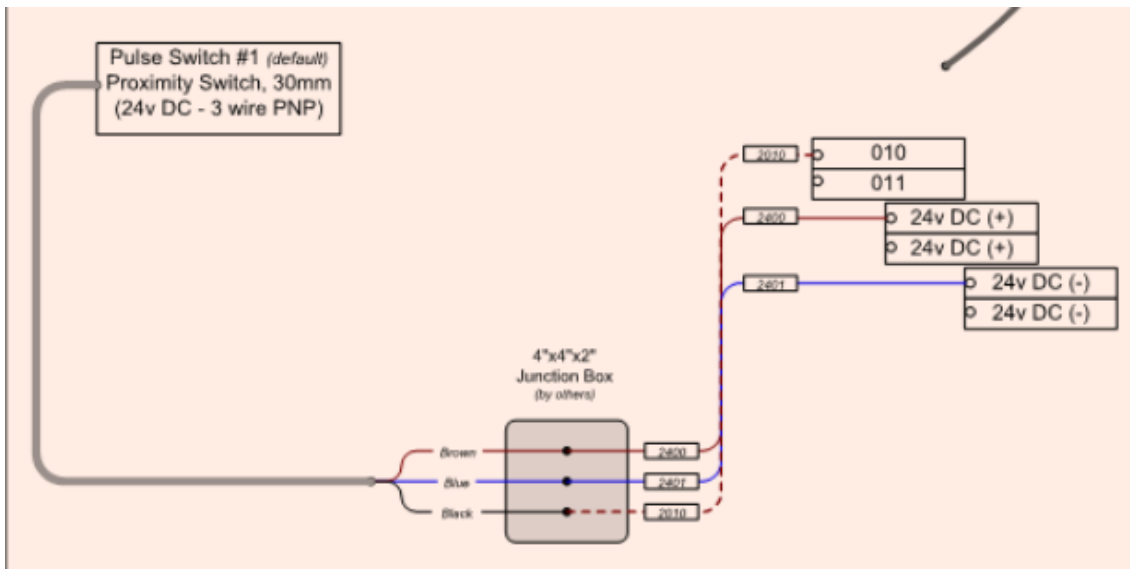
Helpful hints:

- The sensor detects the metal flags, it is important to make sure the sensor is adjusted properly, the sensor should be within $\frac{1}{4}$ of an inch from hitting the flag, be mindful when adjusting, because if the sensor hits the flag it could damage the sensor.
- If you notice that the timing in your wash starts out okay but gets worse as a vehicle progresses through your tunnel, you could have possibly lost a flag (possibly broken or wiggled loose) another way you can see this is by looking at your PLC in the MCC Cabinet if you look at input 09 you should see it flashing while the wash is running. If you notice it flashes smoothing than skips a beat this could be its way of showing you that its not reading one of the flags. (remember it's called the heartbeat of the wash for a reason it should be smooth and rhythmic.

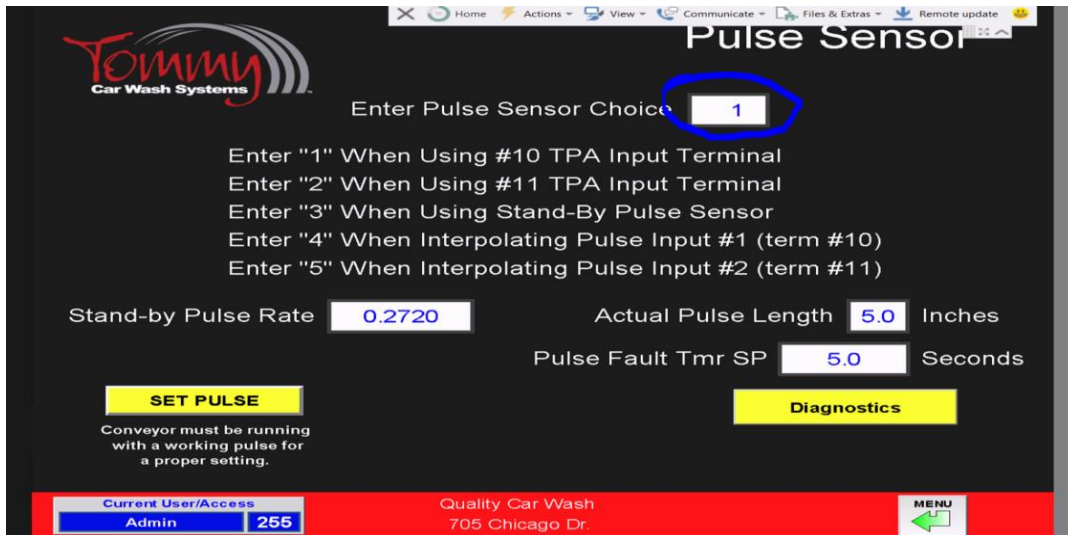
Input card



- There are different types of sensors listed on our website it is important that you order the correct one, for anyone with a Tommy controller the correct one is part number CCS-T4647600 the other way you can tell is by the color of the wires it will be a 3-wire cord with a blue, brown, and black.
- Here is a standard Tommy controller wiring diagram for how the pulse sensor is typically wired. Refer to your wiring manual to confirm.



- You can bypass the pulse sensor if it were ever to fail by logging into your controller and going to the pulse sensor menu, while in the pulse sensor menu change the “Enter Pulse Sensor Choice” number from a number “1” to a number 3 this will put you into Stand-by Pulse. If after changing this your timing still isn’t correct you may need to adjust the “Stand-by Pulse Rate” going bigger with the number will slow everything in the tunnel down and going smaller with the number will speed everything in the tunnel up.
- Make sure that every time you change your belt speed you press the “Set Pulse” button to keep the most accurate “Stand-by Pulse Rate”



Turck Inductive Loose Chain/ Pulse Sensor

Part Number: CCS-T4647600

Description: Turck Inductive Loose Chain/Pulse Sensor NI15-G30-AP6X (PNP)

Site Map: Tommy Store > Guardian / Wash Command > Sensors

Price: \$93.03



Detailed Description

Loose Chain and Pulse Sensor -Turck PNP Proximity 3 wire -30mm, three wire, 24 V DC



Specifications

- Brand/Series : NI15 Series
- Current, Consumption : 200 mA (Max.)
- Current, Switching : 200 mA
- Dimensions : 2.362" L
- Frequency, Switching : 500 Hz
- Function : Proximity
- IP Rating : IP67
- Material, Housing : Brass
- Mounting Type : M30 Threaded
- Output : PNP-NO
- Range, Measurement : 15 mm
- Supply Voltage : 30 VDC
- Technology : Inductive
- Temperature, Ambient, Maximum : -25 °C
- Temperature, Ambient, Minimum : +70 °C
- Termination : 3-Wire Cable
- Type : Inductive