In this picture you see the vacuum switch with the wire connector attached. The transmission connector. (This is a 3 wire connector. I remove the B and C wires because they are not needed.)



The round piece with the blue end is a vacuum restrictor. Sometimes this is needed to regulate vacuum if erratic tcc engagement occurs. This goes into the vacuum hose attaching to the vacuum switch. Blue end toward vacuum source.

And a 36 psi governor pressure switch. 36 is too low. I would try a 48 first.

One last thought, Your original case connector in the transmission may or may not be correct for the wire connector. If you need one, GM# 12015026

Your trans may not have the governor pressure switch. There were a few different wiring schematics for the the 350. But the location for one is there.

What I'm showing is how I would do it from scratch with no original wiring.

Look at the pressure switch in the pic, you will see a number 36 stamped on it. If your trans has the switch and you can't read the number, there are testers that can apply air pressure and see what psi the switch closes. Probably would have to go to a trans shop.

And yes, just the lone negative wire coming off the solenoid would go to the pressure switch. Even though the switch has two terminals, only one terminal is used.