State one condition under which the error signal of a feedback control system would not be the difference between the input and the output.

Step 1:

A feedback control system is made up of five fundamental parts: an input, a controlled process, an output, sensor components, and a controller and actuation devices. Figure 1 presents an illustration of these five elements. This type of technology is frequently referred to as closed-loop feedback control.

Step 2:

The discrepancy between the input variable and the feedback variable is referred to as the error signal.

If the difference between the input and the output is one circumstance in which the error signal of a feedback control system would not be that difference, then In the event that the feedback component is not unity

If the error signal is not the difference between input and output, by what general name can we describe the error signal?

Step 1: Answer

actuating signal

Step 2:

Reference input minus feedback signal equals the actuating signal. The control unit's input determines whether the output will be what is expected. The feedback action, which can be continuous or discontinuous, is the key distinction between open- and closed-loop systems.

The error signal is applied as an input to a controller in place of the direct input. So, the controller generates an actuation signal that the plant responds to. In this configuration, the control system's output is automatically modified until the desired reaction is obtained.