

Replacement of the Fisher™ LCP100 with the LCP200 Local Control Panel without Fault Light Option

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Fisher™ LCP200 Local Control Panel
without fault light option

Management of Change

Management of Change (MOC) is a procedure used to proactively manage changes that have the potential to impact safety or the process within a plant. Evaluating new techniques for improving MOC approval procedures can have an impact on plant efficiency. Historically, upgrading obsolete products or replacing existing process control equipment had been delayed or abandoned due to the extensive paperwork involved in completing a complex MOC approval sheet.

Background

The Fisher™ LCP100 local control panel is used to open, close, or test safety shutdown valves communicating with a FIELDVUE™ DVC6200 SIS digital valve controller. The LCP200 local control panel includes significant improvements over the LCP100 model. It is housed in a stainless-steel, explosion-proof enclosure. It is also intrinsically-safe and suitable for use in various hazardous environments, including Zone 0 (certifications in progress). The device has added relay output (SPDT) capability, the Trip and Reset relay outputs are SIL 2-capable.

Question & Answer Checklist

- 1** **Q:** Does the proposed modification cause any changes to the piping and instrumentation diagram (P&ID)?
A: Not required for the base LCP200 device functionality. If the added relay output (SPDT) capability is used, then the P&ID needs to be updated with the additional wiring.
- 2** **Q:** Does the proposed modification change process chemistry, technology, or operating and control philosophies?
A: No.
- 3** **Q:** Does the proposed modification change how the existing plant is operated?
A: No.
- 4** **Q:** Does the proposed modification change process flows?
A: No.
- 5** **Q:** Does the proposed modification change existing pressure relief cases?
A: No.

- 6** **Q:** Does the proposed modification change the process description?
A: No changes are required for the base LCP200 functionality. If the relay output (SPDT) capability is used, then the operating procedure needs to be updated.
- 7** **Q:** Have the codes and standards to which the new equipment was designed changed?
A: The LCP200 is explosion-proof and intrinsically safe, so it complies with the appropriate requirements of hazardous area standards. See the product bulletin for details.
- 8** **Q:** Does the proposed modification introduce new equipment that requires spare parts, manuals, maintenance procedures, or training to teach maintenance best practices?
A: Yes. The instruction manual provides the details of spare parts and maintenance procedures.
- 9** **Q:** Does the proposed modification introduce new equipment items that require periodic predictive maintenance?
A: No.

Comparison of LCP100 and LCP200 Local Control Panels

The following information is intended to provide a general comparison between current Fisher LCP100 and LCP200 local control panels.

Dimensional Comparison

Take note of the dimensional and weight differences between the LCP100 and the LCP200 devices. The LCP200 device is about five times heavier than the LCP100 device, due to its explosion-proof stainless-steel enclosure. The dimensional differences are shown in Figure 1.

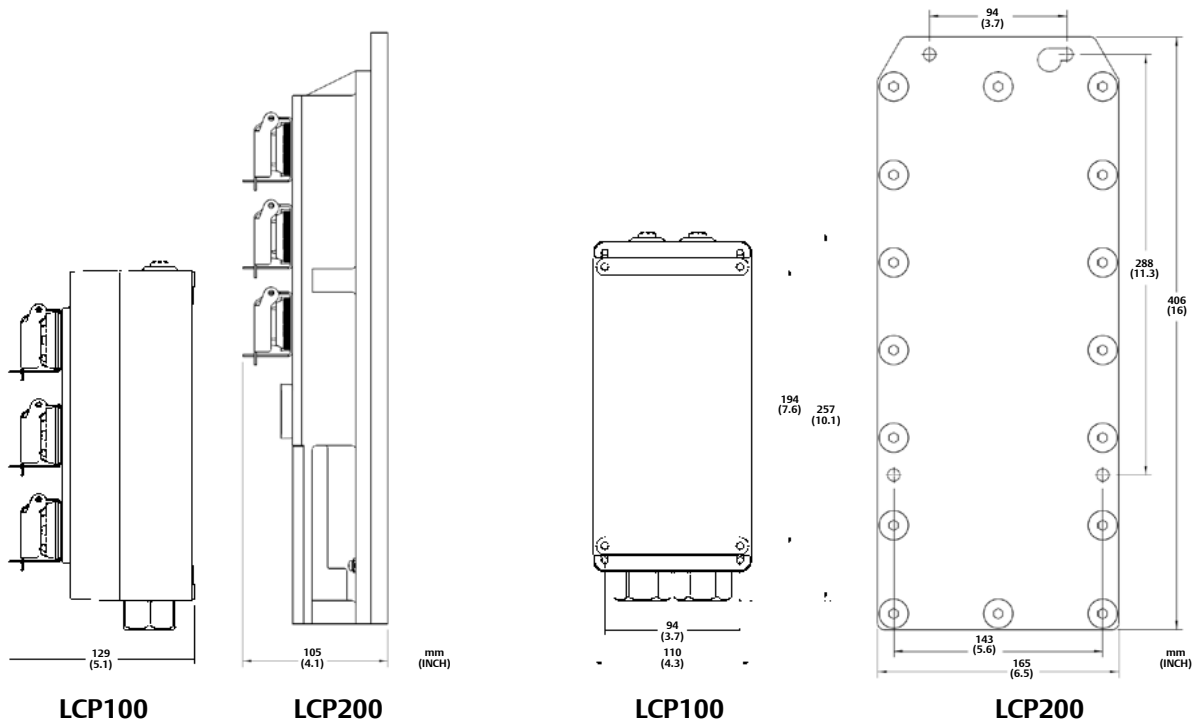


Figure 1: Dimensional Differences Between the LCP100 and LCP200 Local Control Panels

Mounting Comparison

An adapter kit is available to mount the LCP200 device using the mounting holes of the LCP100 panel, as shown in Figure 2.

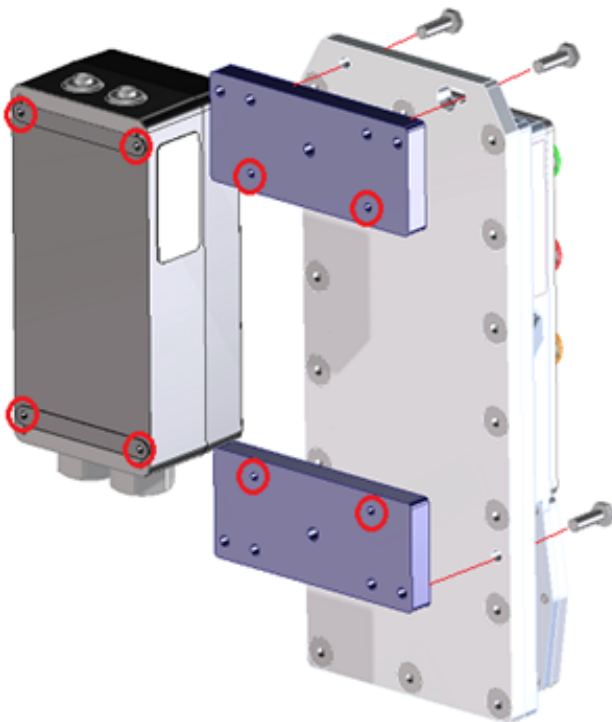


Figure 2: Mounting Kit for the LCP200 Local Control Panel

Conduit Entries

The conduit entry threads are integral to the body in the LCP200 device, unlike the external cable entries in the LCP100 panel. See Figure 3.



Figure 3: LCP100 and LCP200 Panel Side-by-Side Comparison

Buttons or Lights

The LCP200 device has blanks that can be installed in the place of unused buttons and lights. Any light can be blanked by using the blank kit available as a spare part. The lens caps are user-interchangeable.

Terminal Box & Relay

The LCP200 has a dedicated terminal box for making the terminal connections. Unlike the LCP100, the LCP200 does not have redundant terminals. A junction box may be required.

The LCP200 auto detects if 24V power is being applied and so there is no switch to be turned on when using Loop or 24V power.

The LCP200 has a NO – NC relay for the Trip and Reset buttons as well as a test relay for when the diagnostic is in progress. These relay contacts change state when the respective button is pressed or diagnostic is in progress.

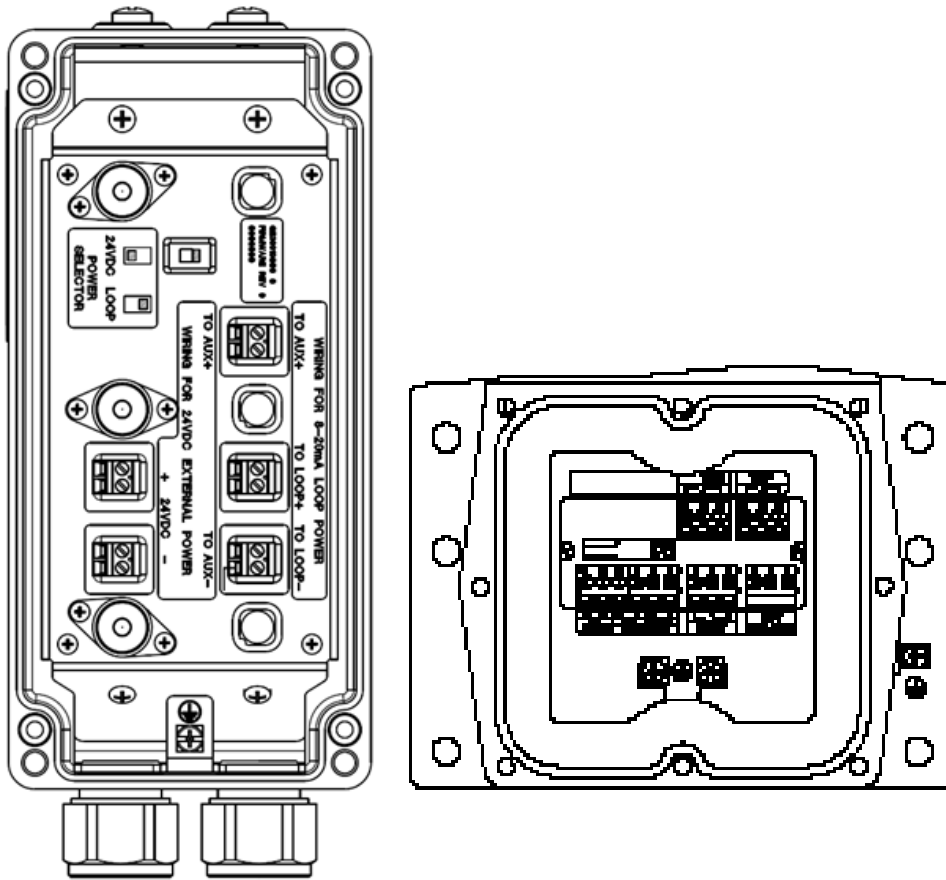


Figure 4: LCP100 and LCP200 Hardware Comparison

Additional Information

Magnet Warning

Do not take powerful magnets near the LCP200 control panel.

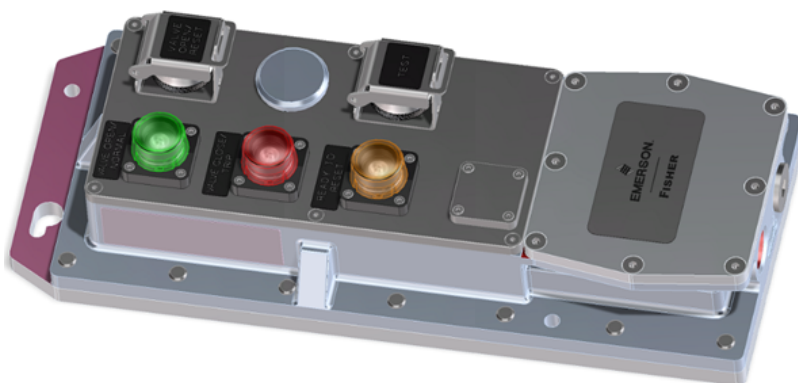


Figure 5: LCP200 Local Control Panel Warning

Connection

Two 3/4" NPT or M20 conduit entry from bottom of terminal box.

Available Configurations

Any or all of the buttons and lights can be blanked.

Conclusion

The LCP100 device has been proven in use for many operating years. The design philosophy of the new LCP200 panel maintains the behavior of the LCP100 device while adding functionality, thereby allowing for an easier product transition.

Please contact your [local Emerson sales office](#) for additional details or questions regarding the Fisher LCP200 local control panel.



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