

# TF test report 3.11.2

**Test time: 03.07.2023**

**Model name: adm\_3\_8 (Threshold 0.8. Value limits 1/0 applied. Normalization applied.)**

**Model type: MLP**

**Model description:** 17x96x96x96x4 MLP to detect anomalies on 4 panels based on 4 x 10 temperature msmnts + 4 derivatives + 1 time. Tested on previously unseen data. Trained to detect sensor spikes, const regions, temp shifts and bumps. Removed prediction outputs.

**Model data size: NA**

## Test results:

**Accuracy on NO anomalies (0): 0.9962**

**Accuracy on ANOMALIES (1): 0.9369**

**recall: 0.9369**

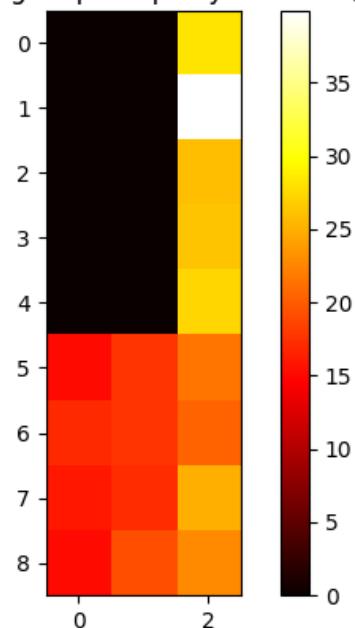
**precision: 0.9819**

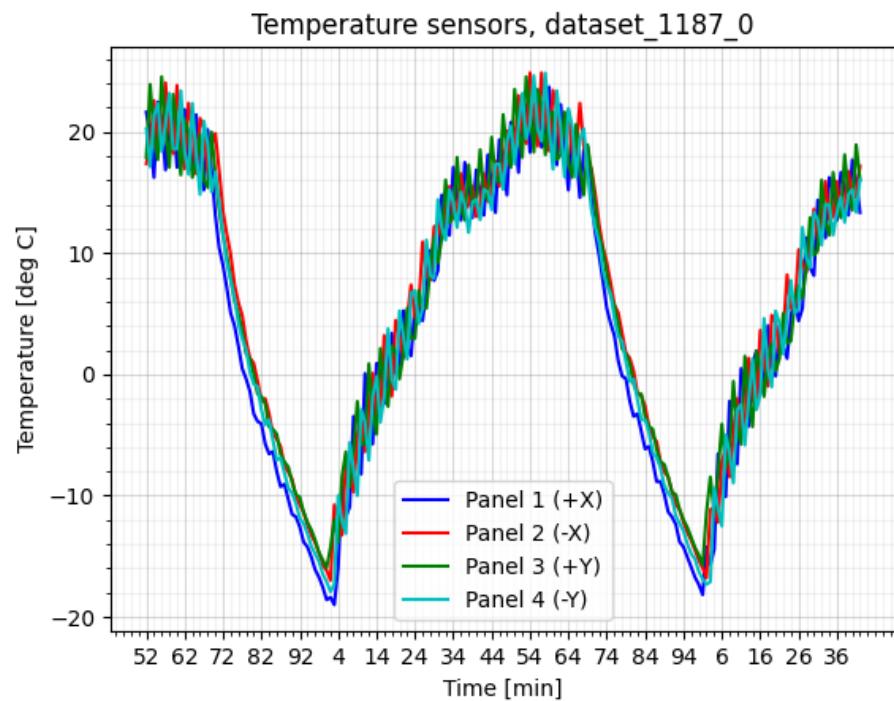
**F1 score: 0.9589**

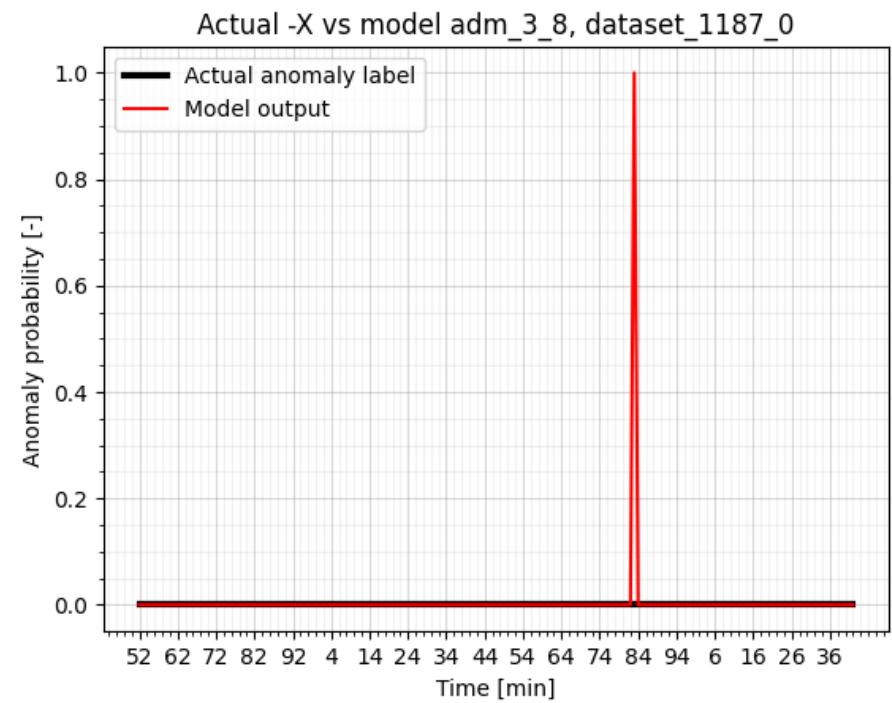
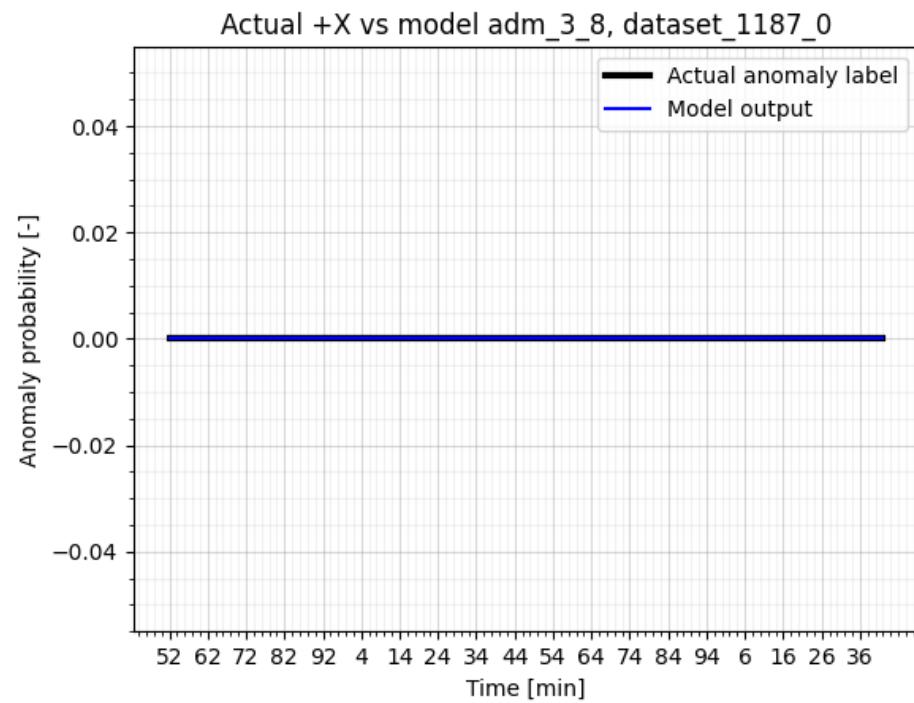
**False alarm rate: 0.0038**



Sum of abs. weights per inp. layer neuron, adm\_3\_8

Figure 0: a) model structure (made with <http://alexlenail.me/NN-SVG/index.html>) b) Input data weight comparison





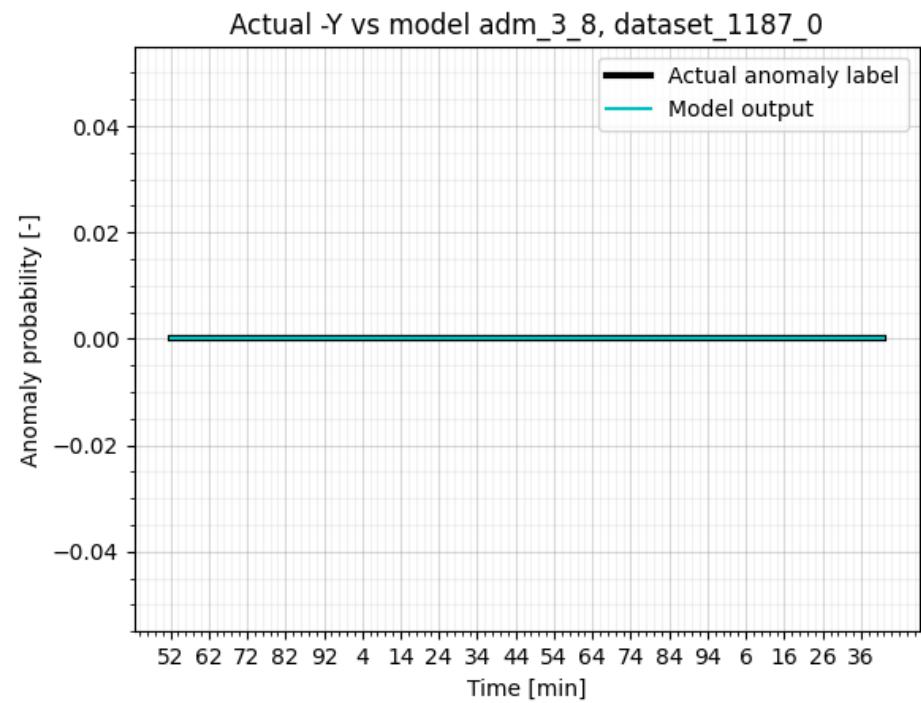
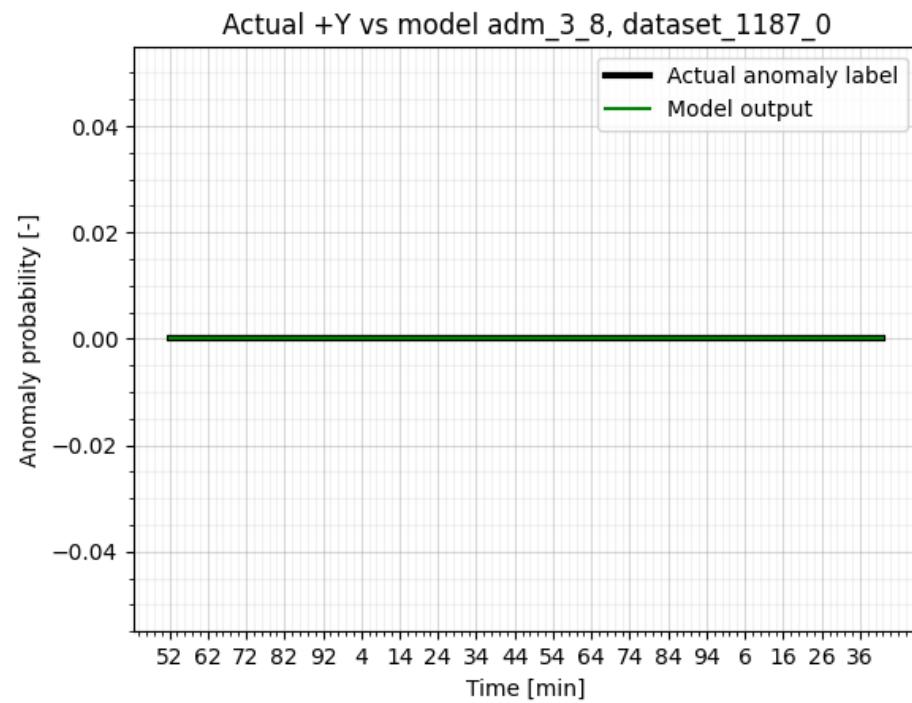
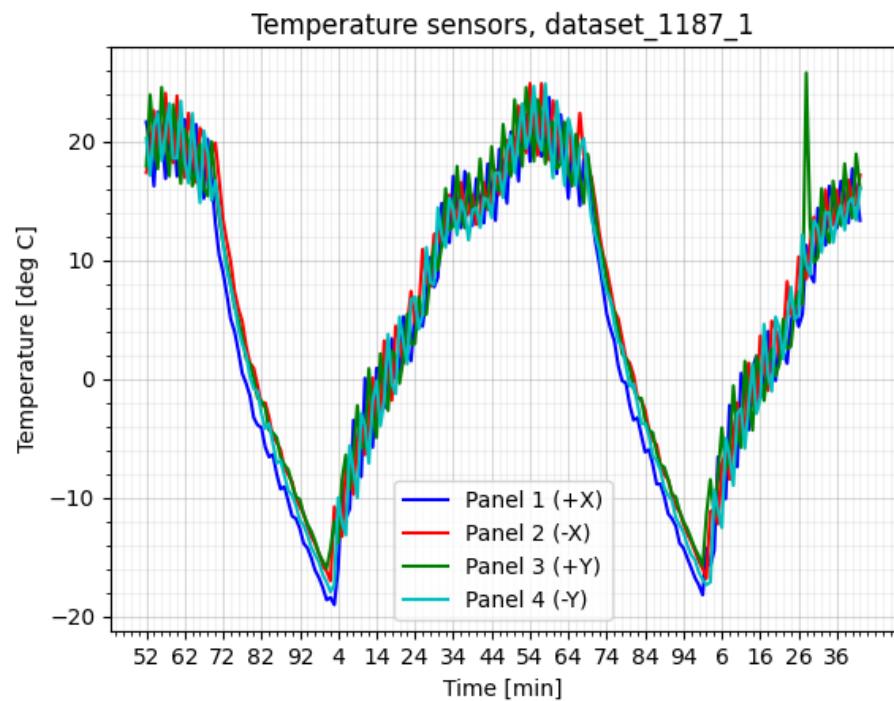
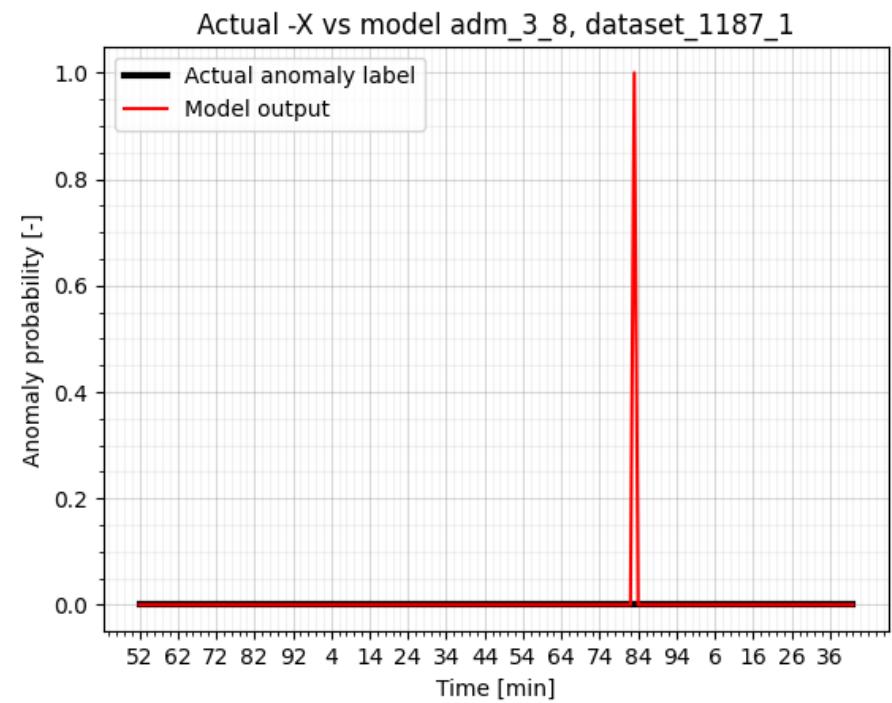
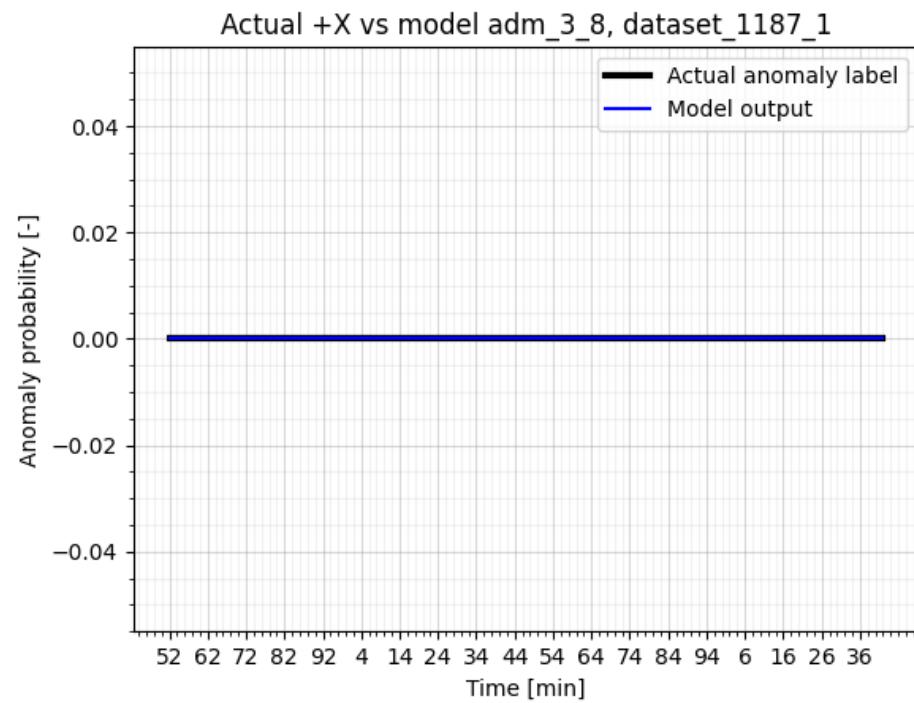


Figure 1: model inferences on dataset\_1187\_0\_mod1.png





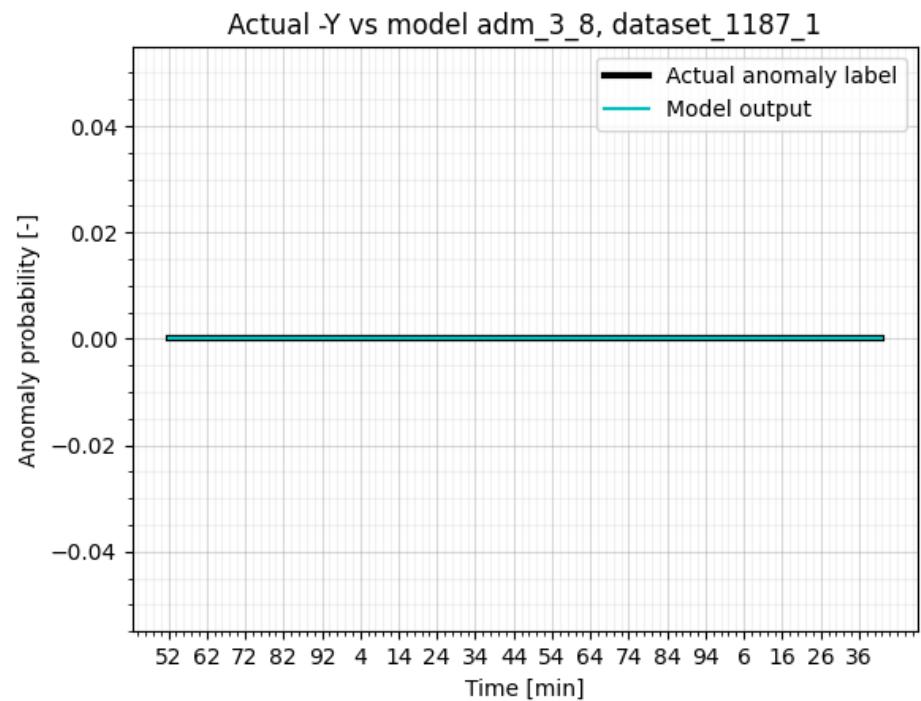
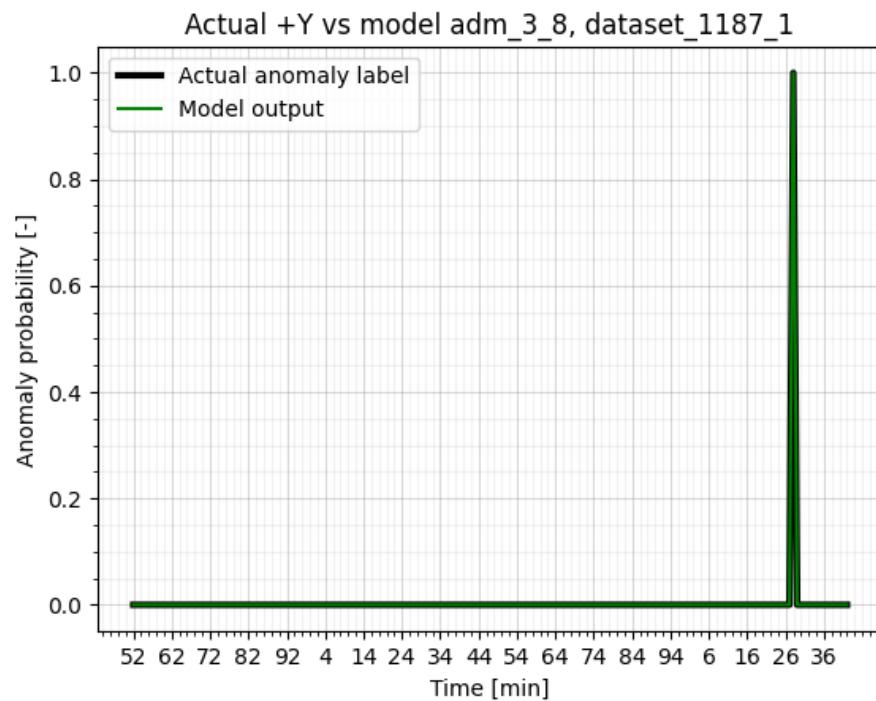
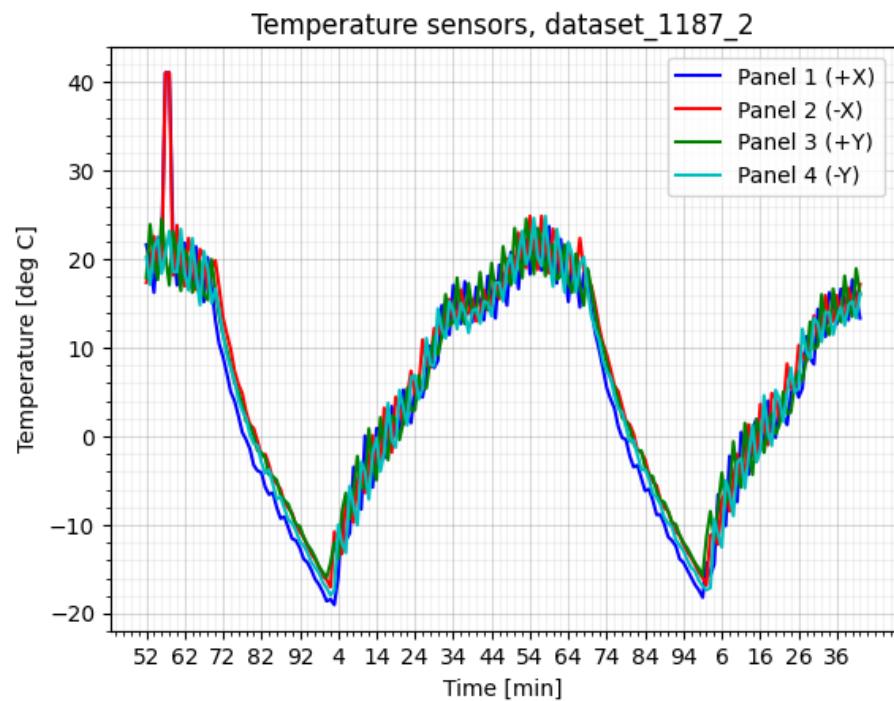
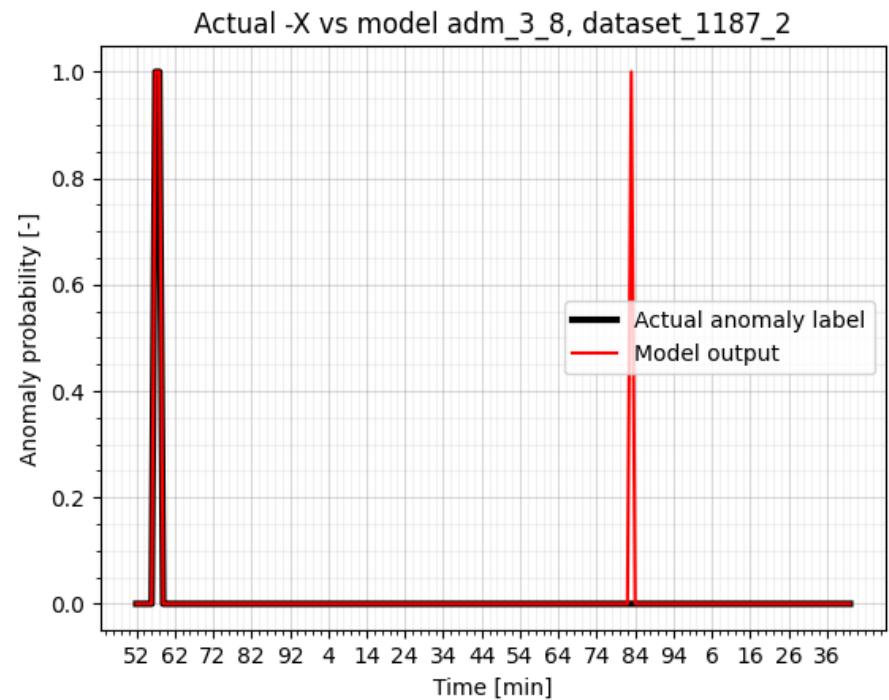
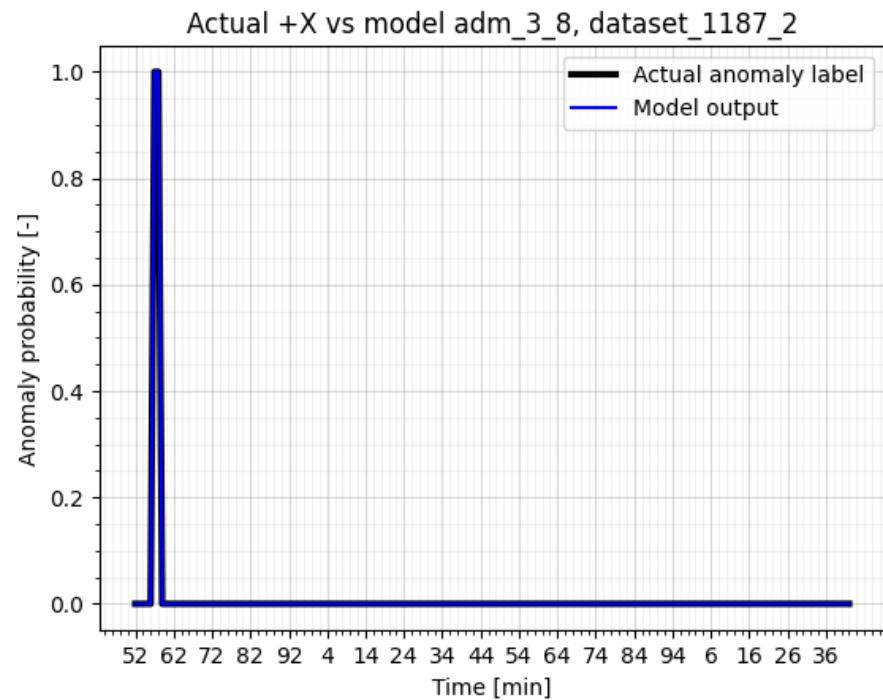


Figure 2: model inferences on dataset\_1187\_1\_mod1.png





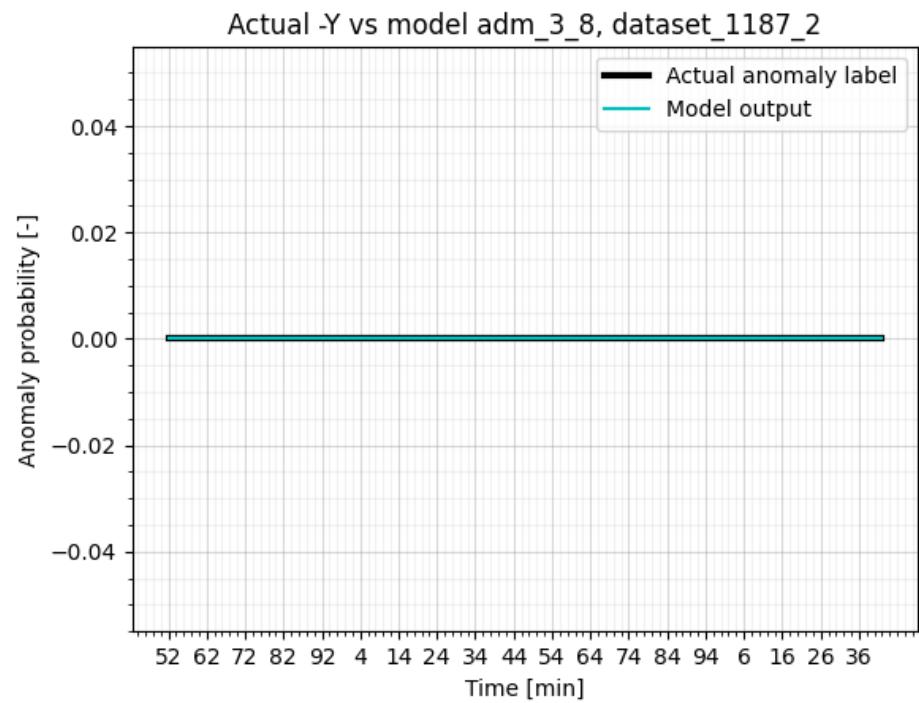
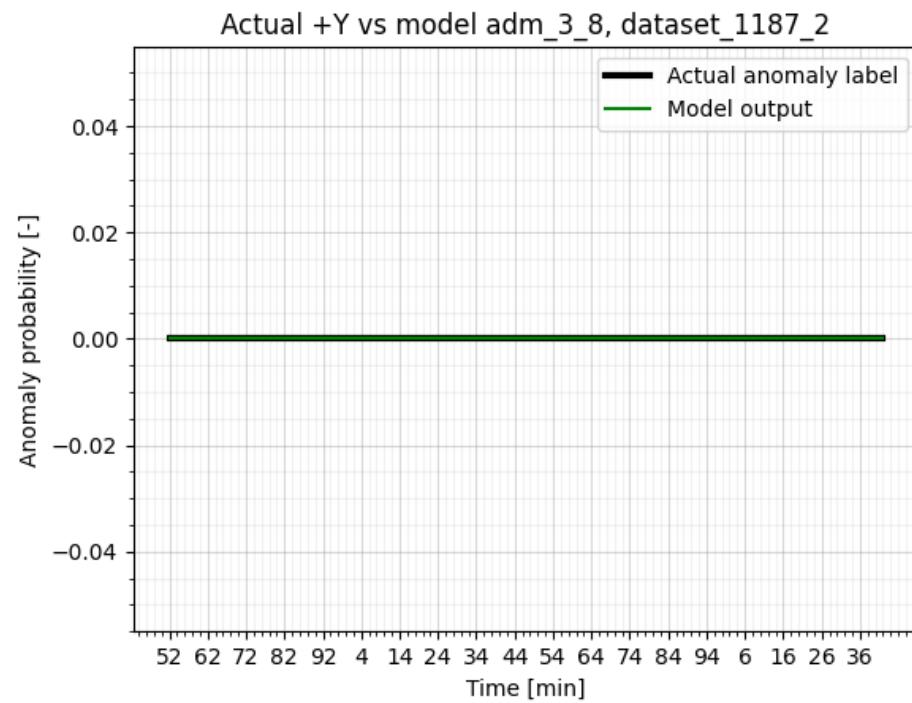
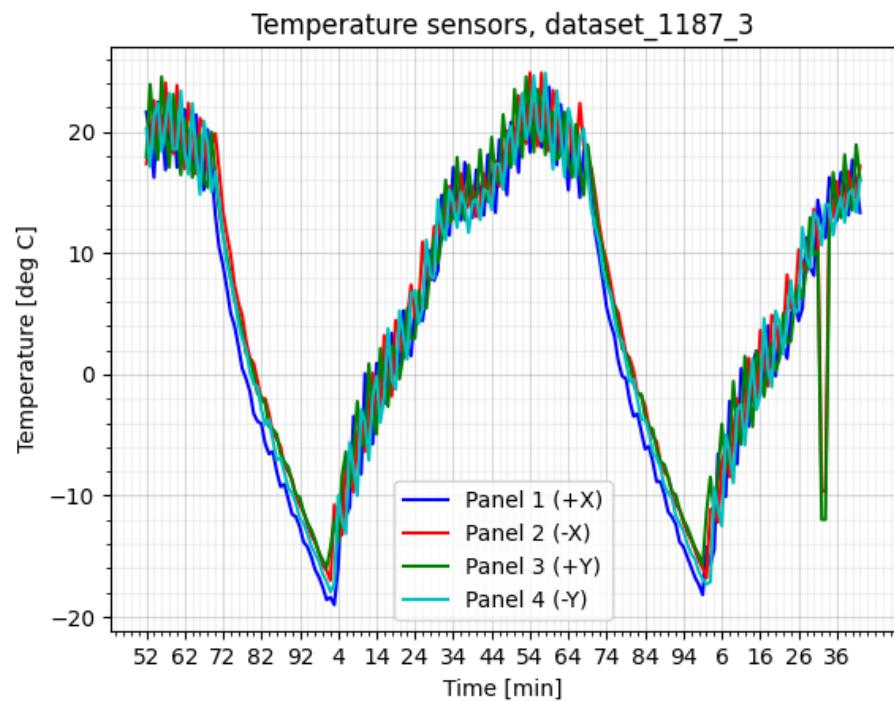
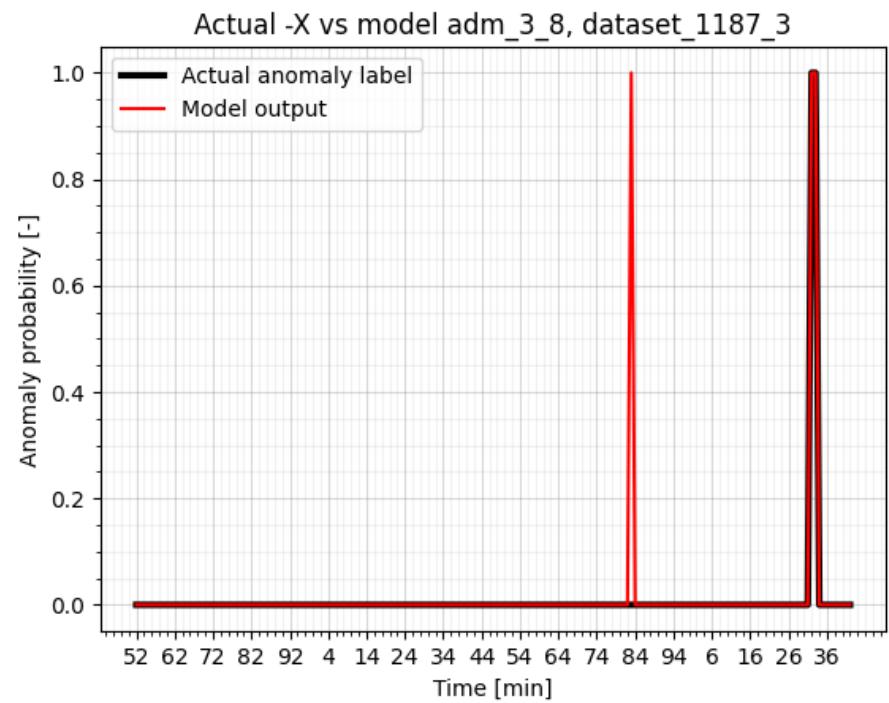
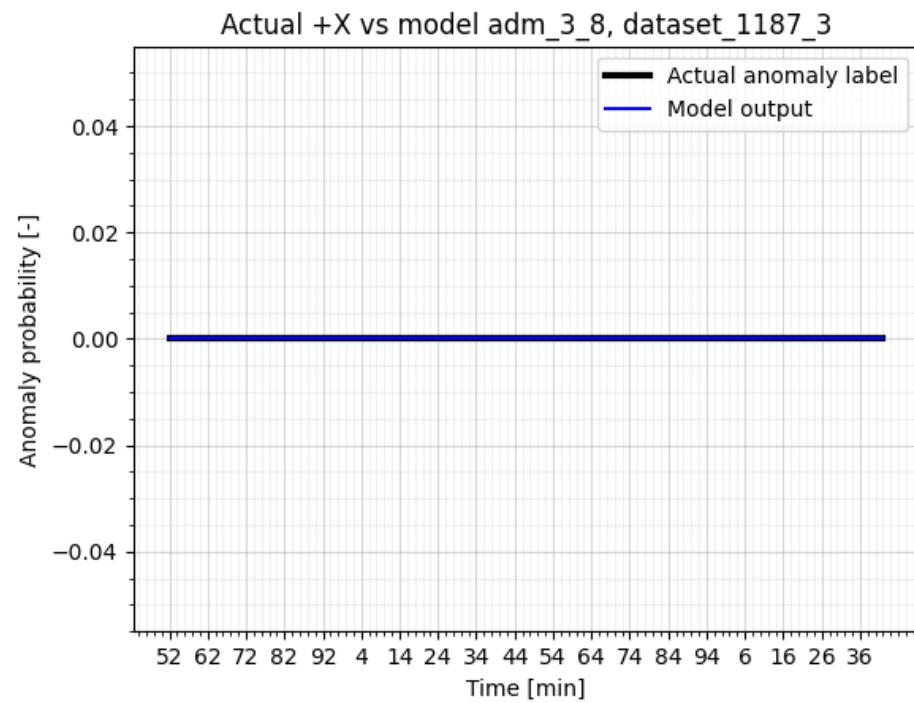


Figure 3: model inferences on dataset\_1187\_2\_mod1.png





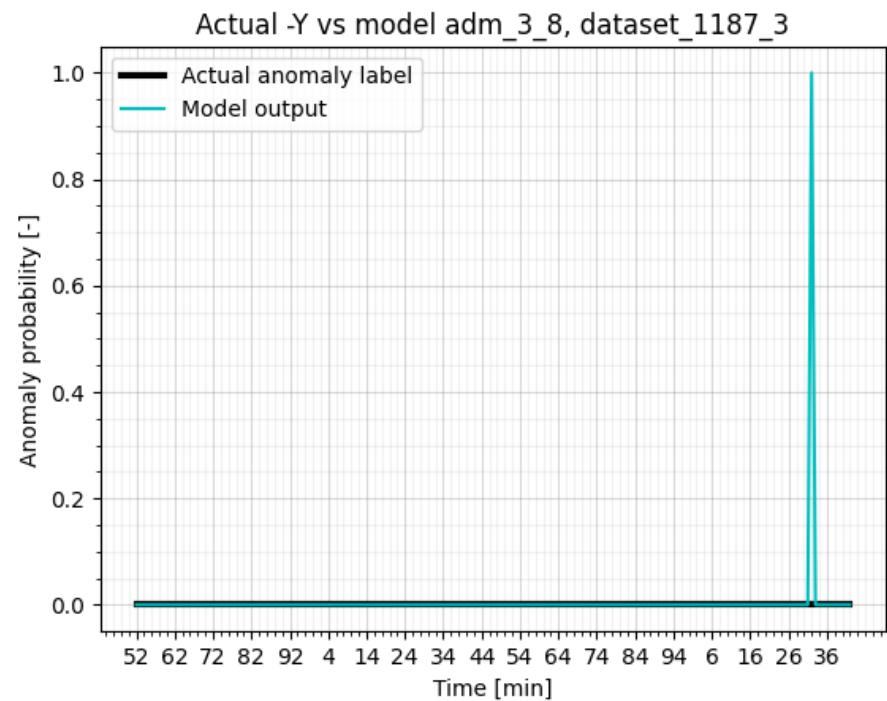
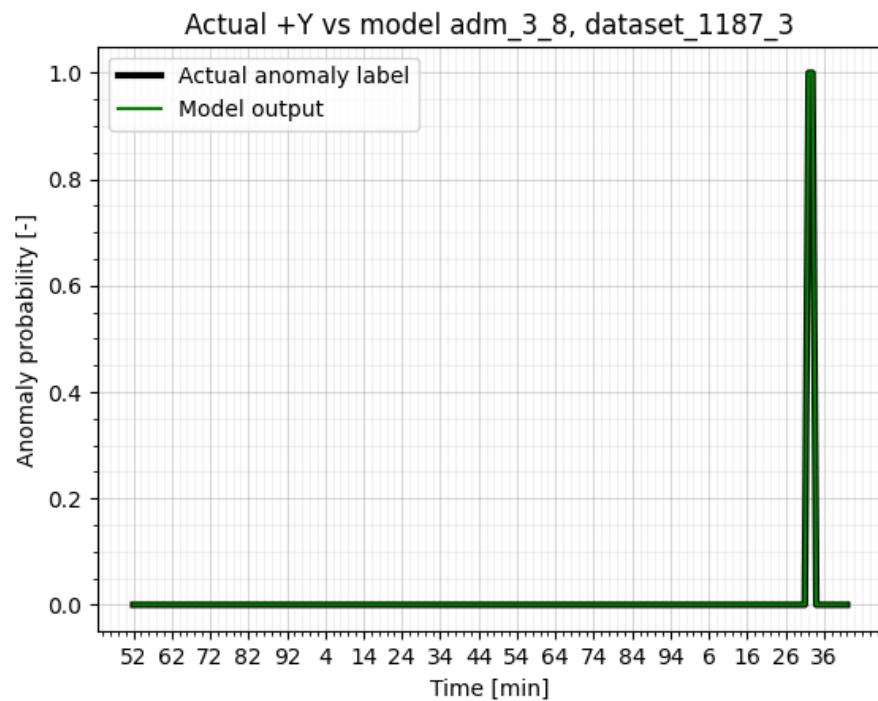
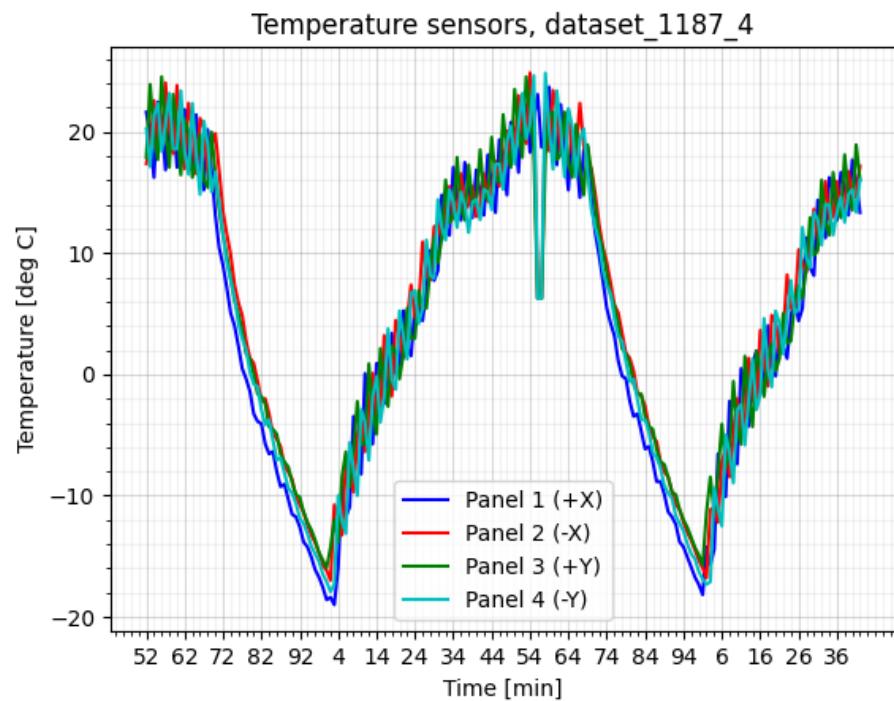
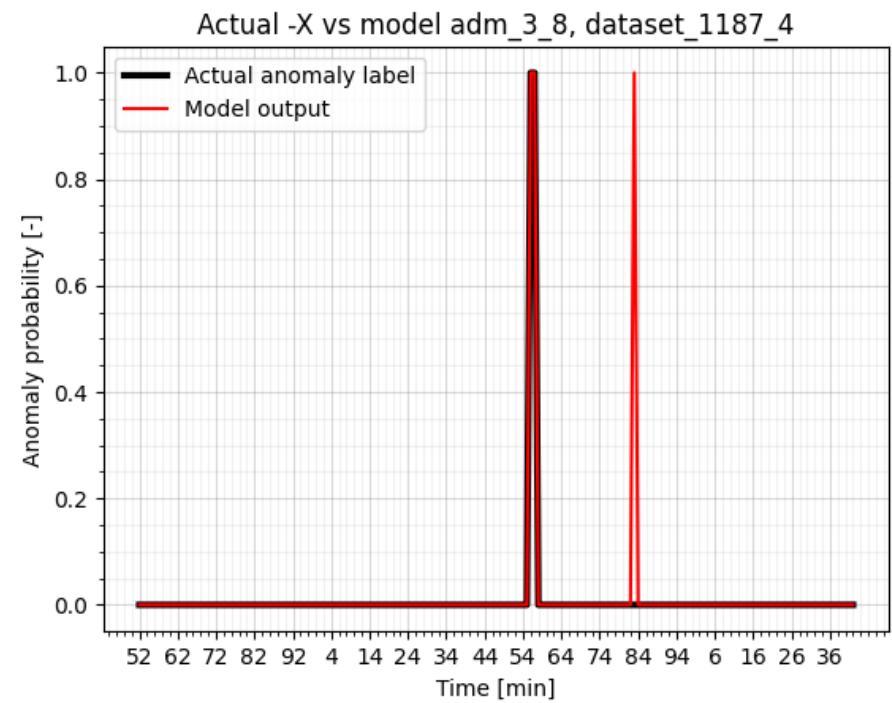
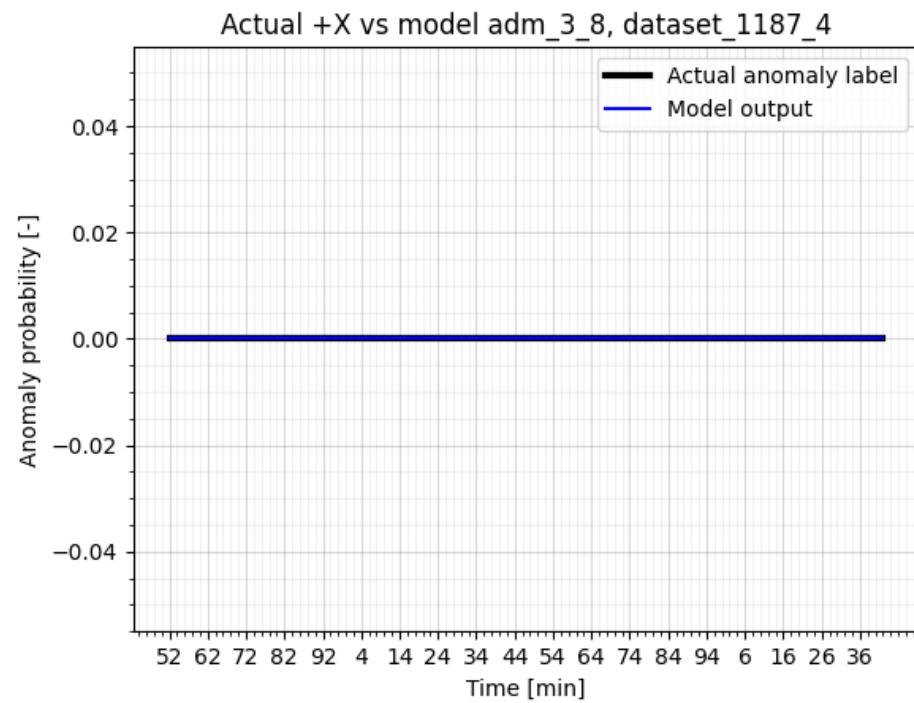


Figure 4: model inferences on dataset\_1187\_3\_mod1.png





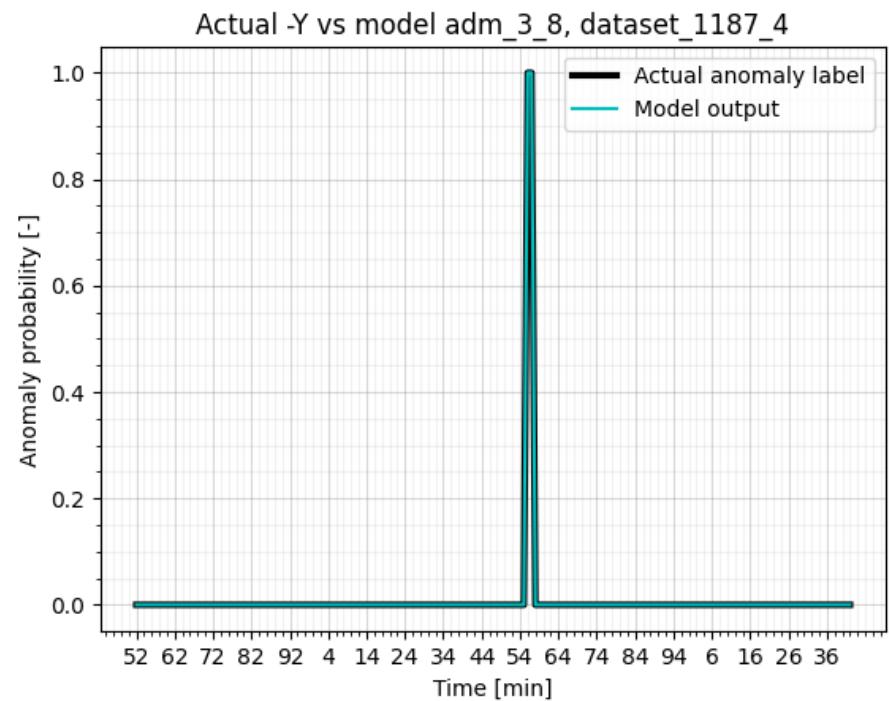
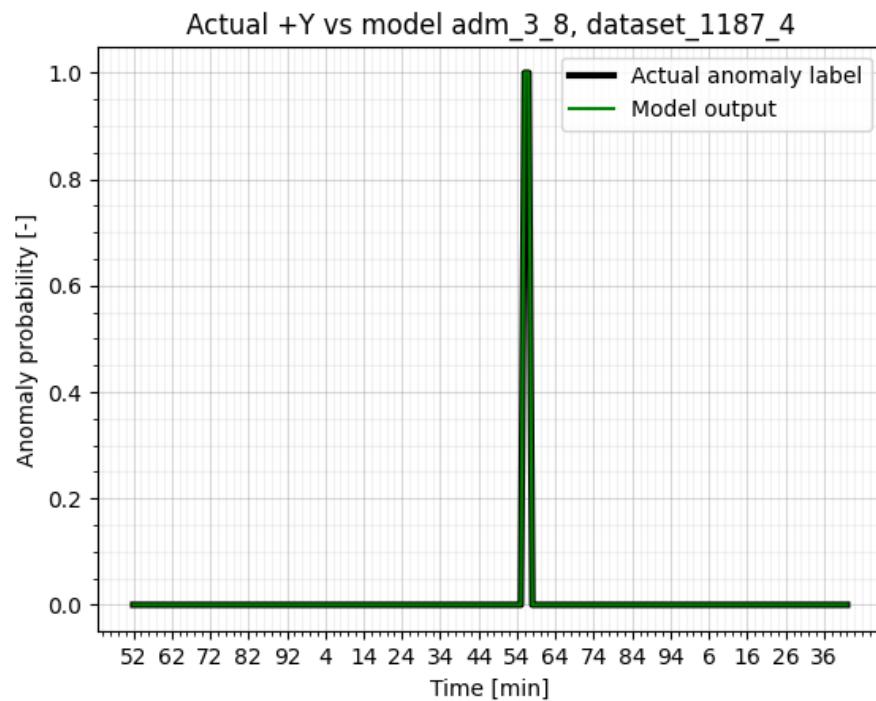
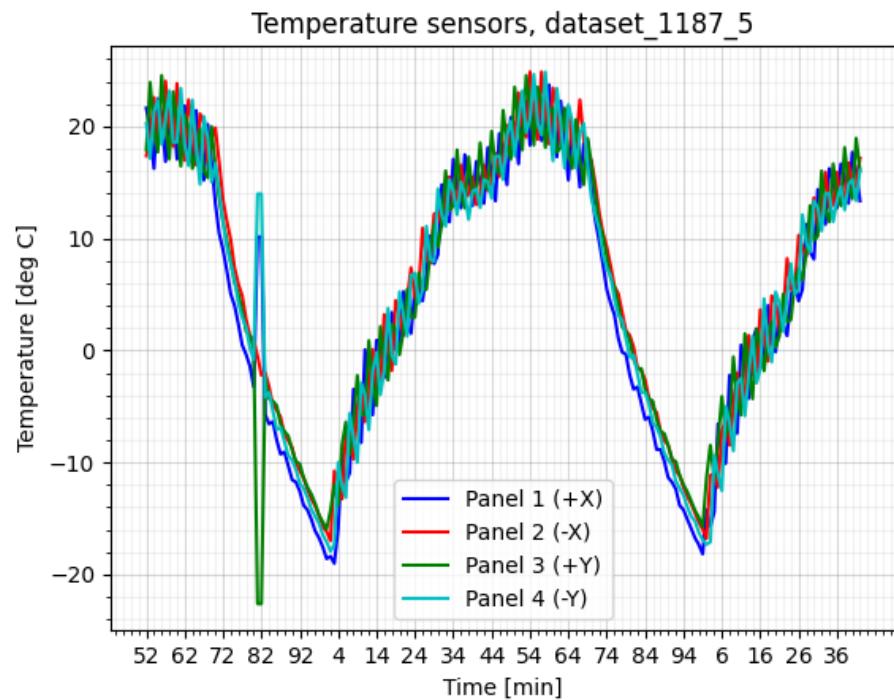
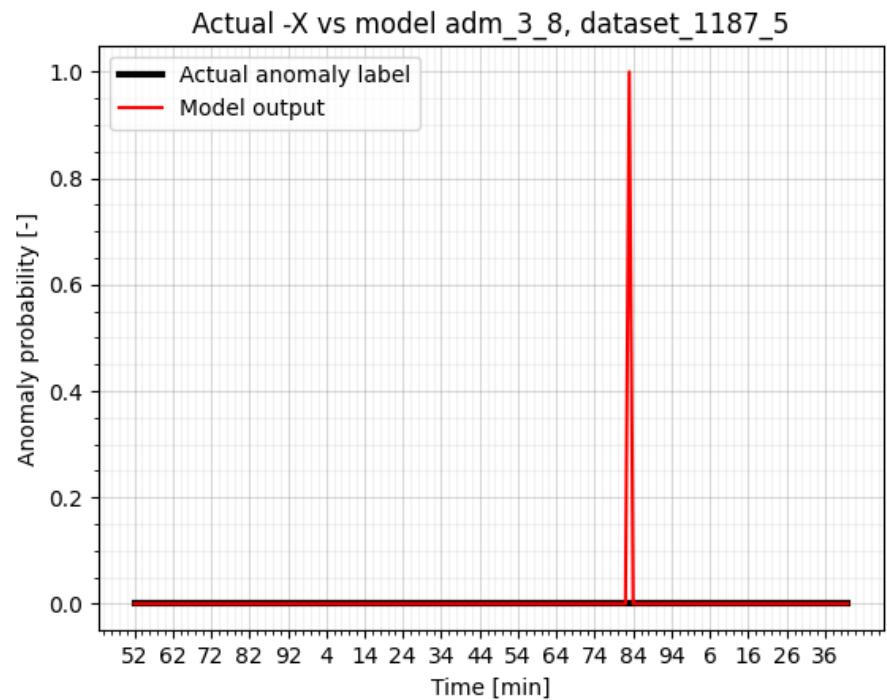
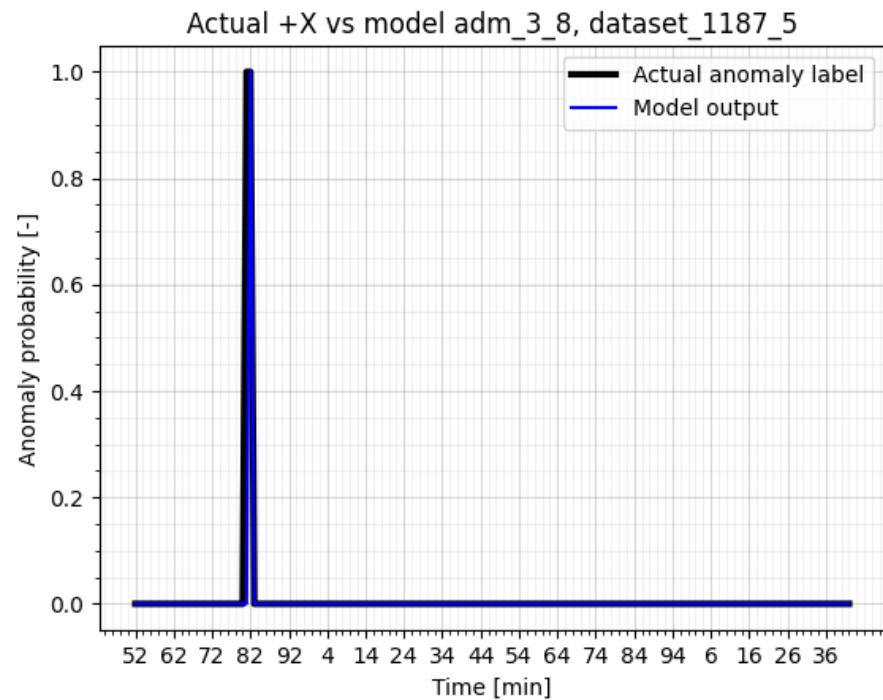


Figure 5: model inferences on dataset\_1187\_4\_mod1.png





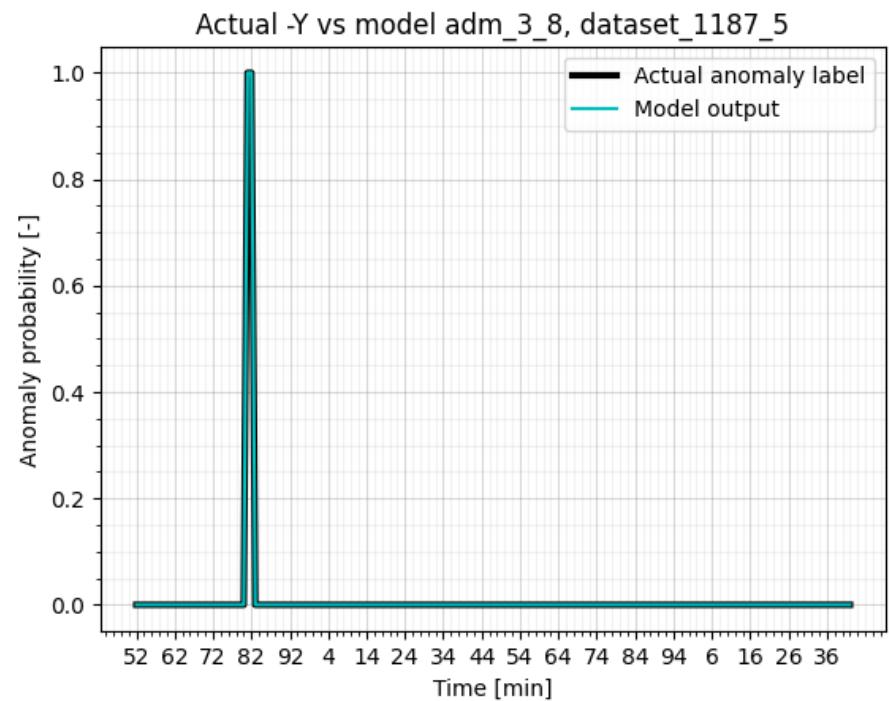
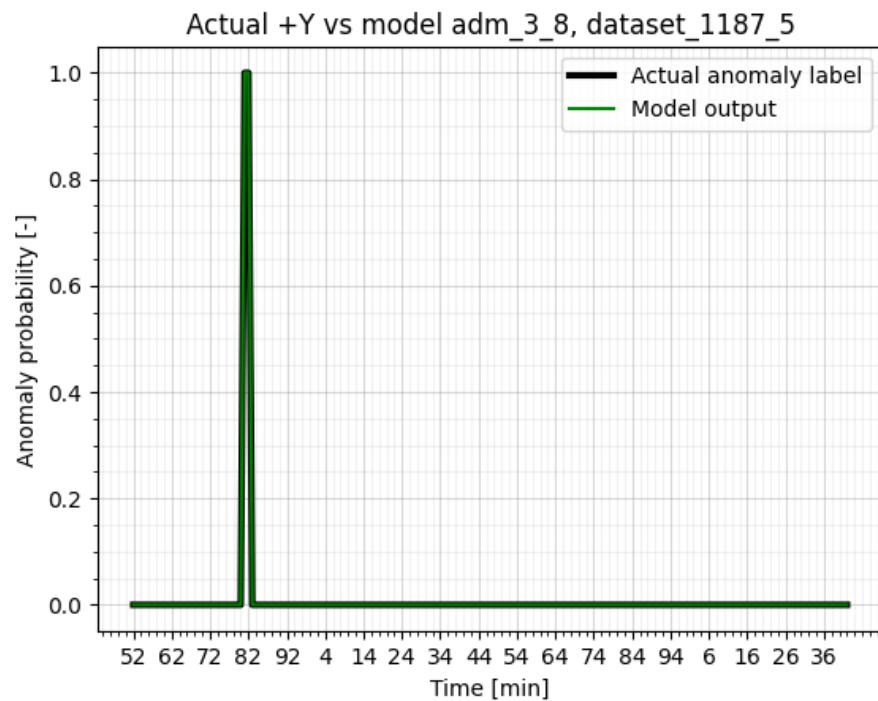
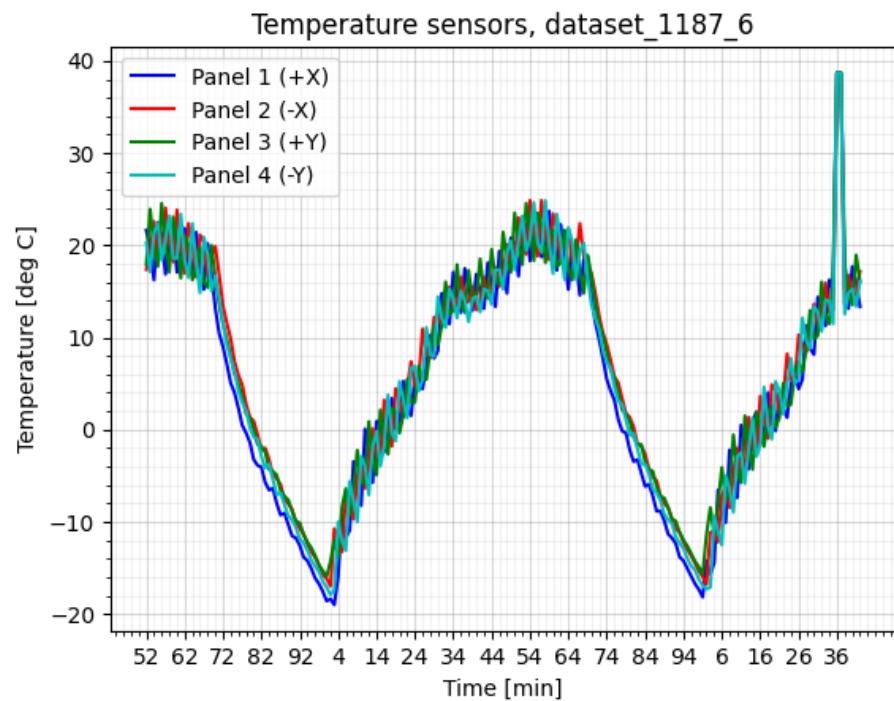
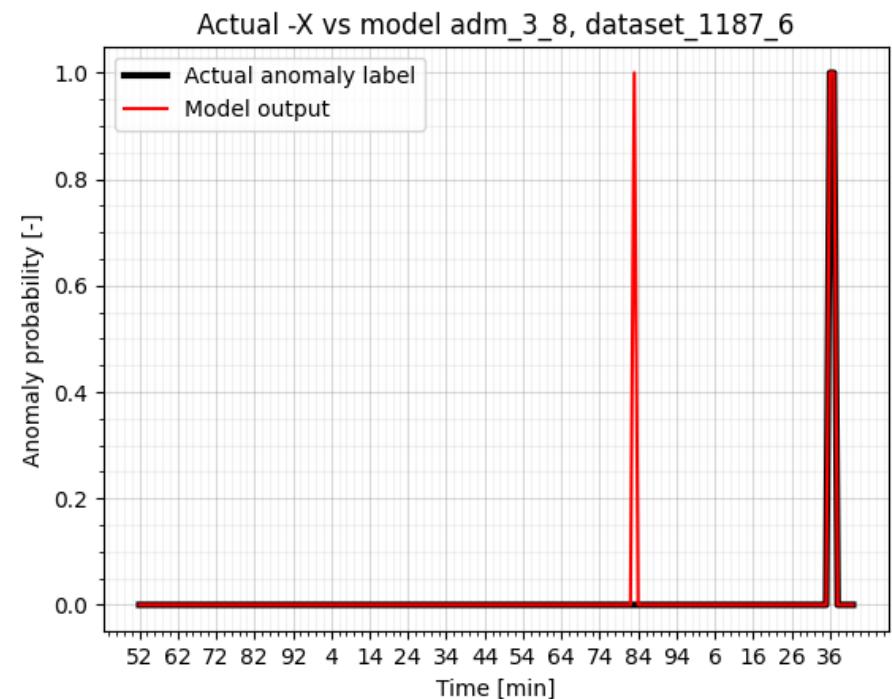
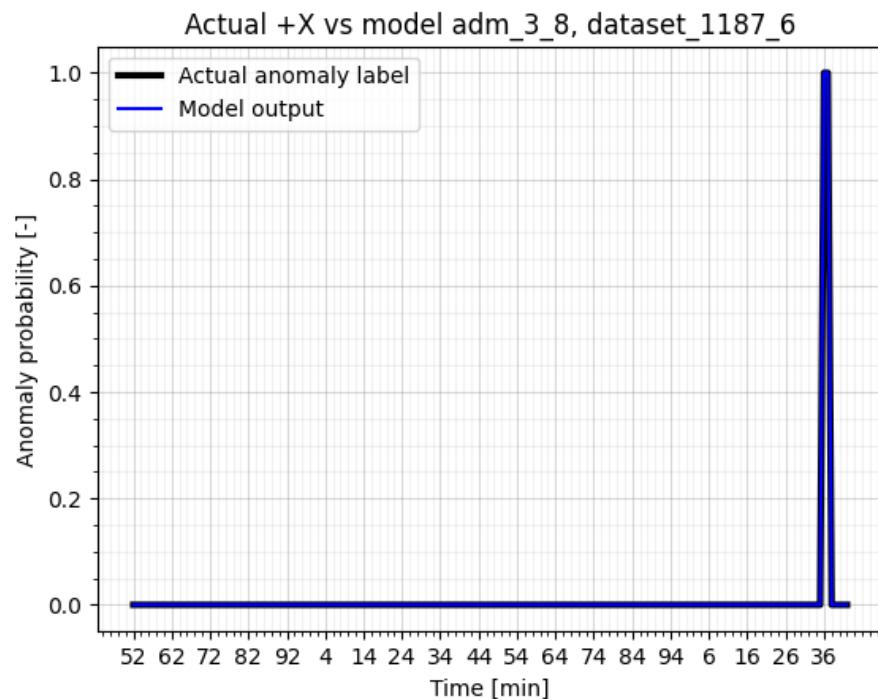


Figure 6: model inferences on dataset\_1187\_5\_mod1.png





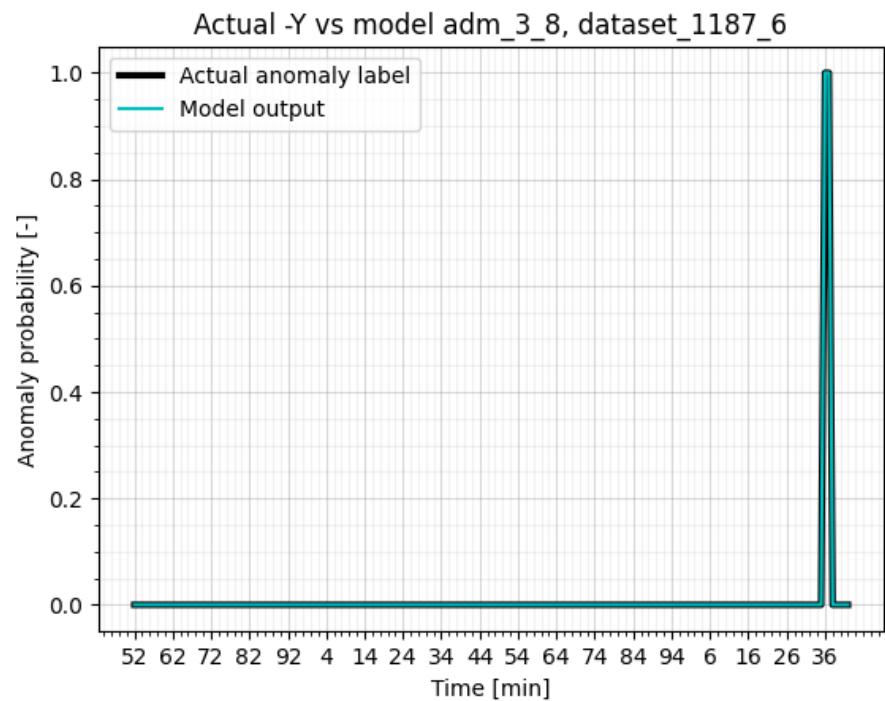
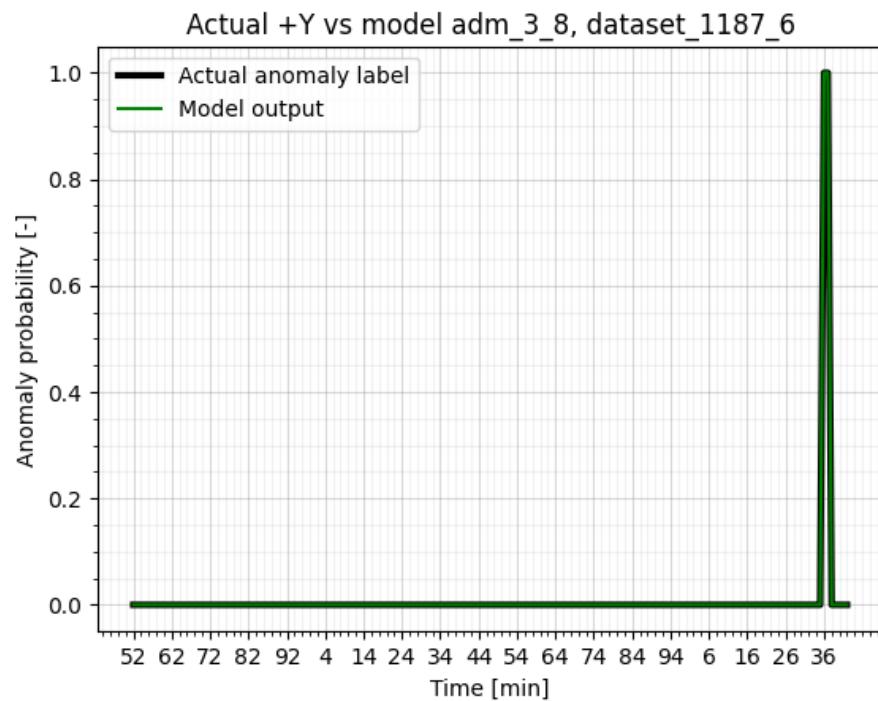
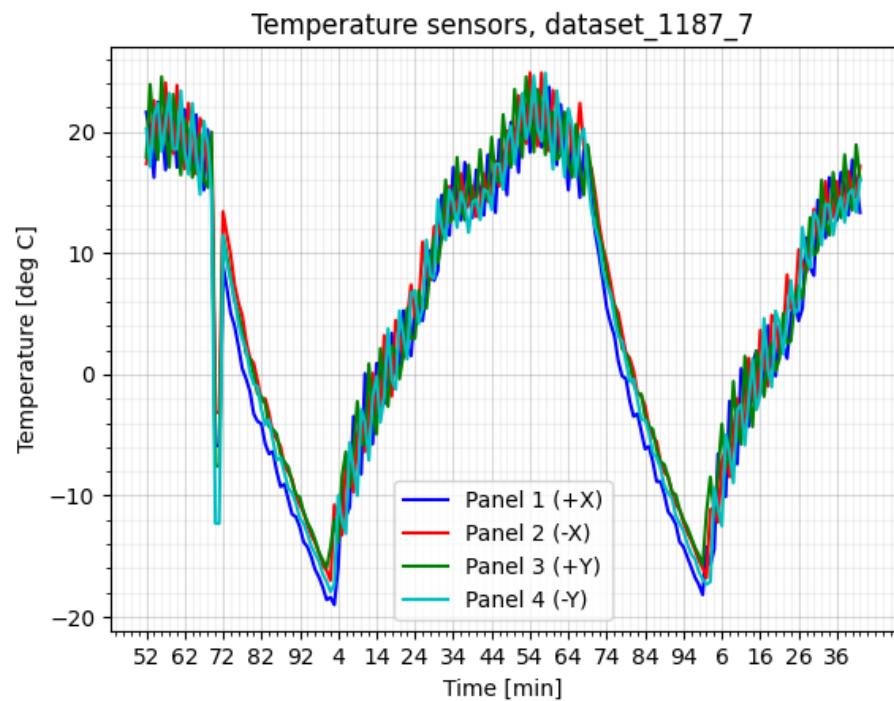
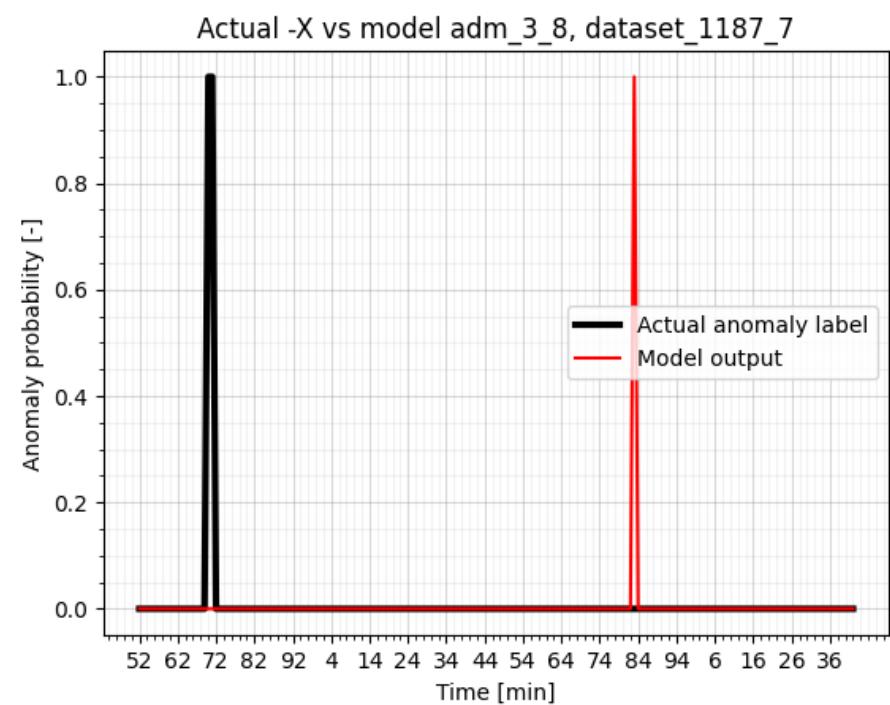
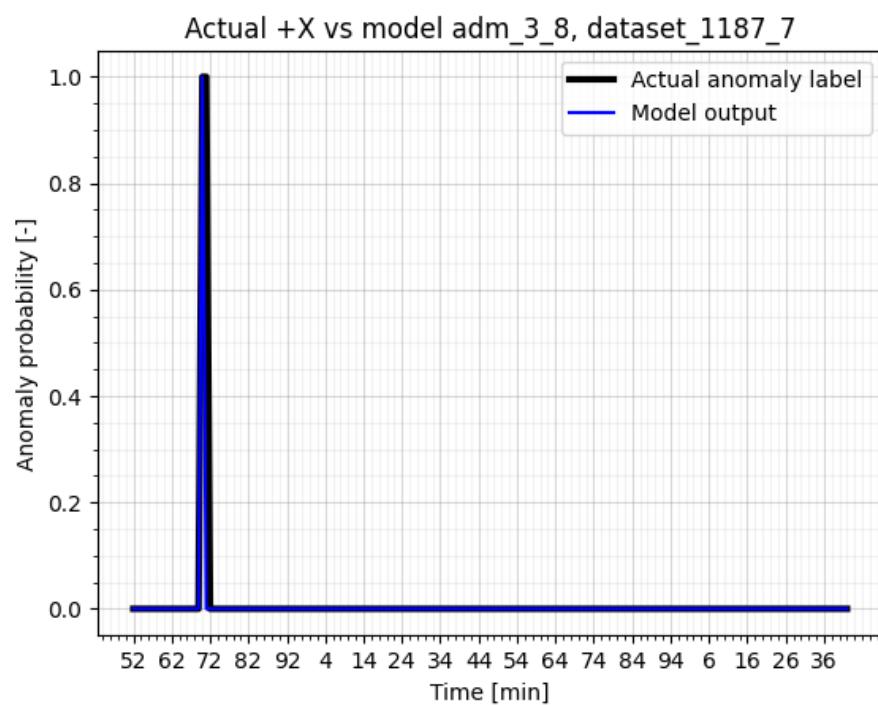


Figure 7: model inferences on dataset\_1187\_6\_mod1.png





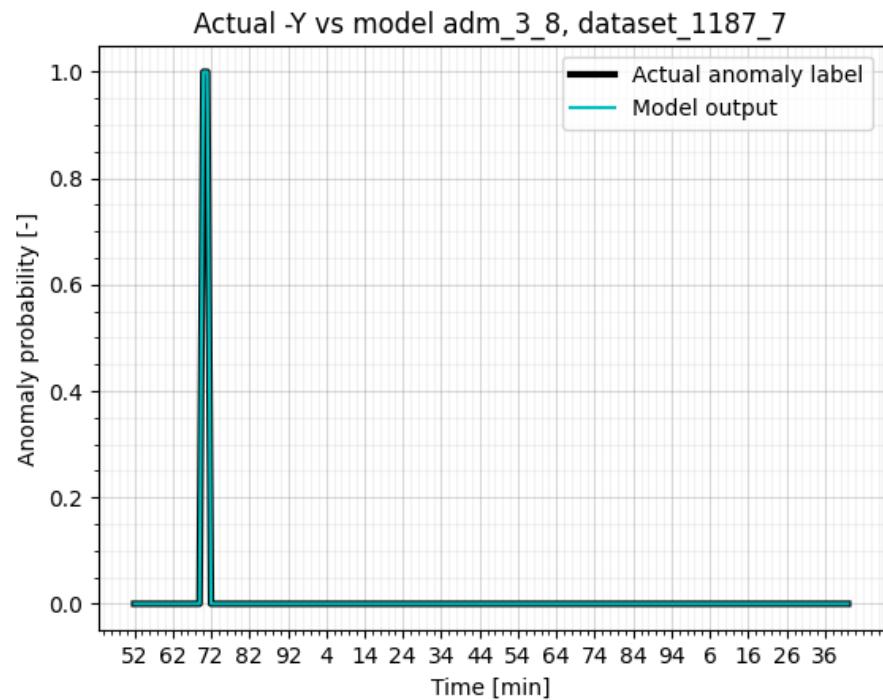
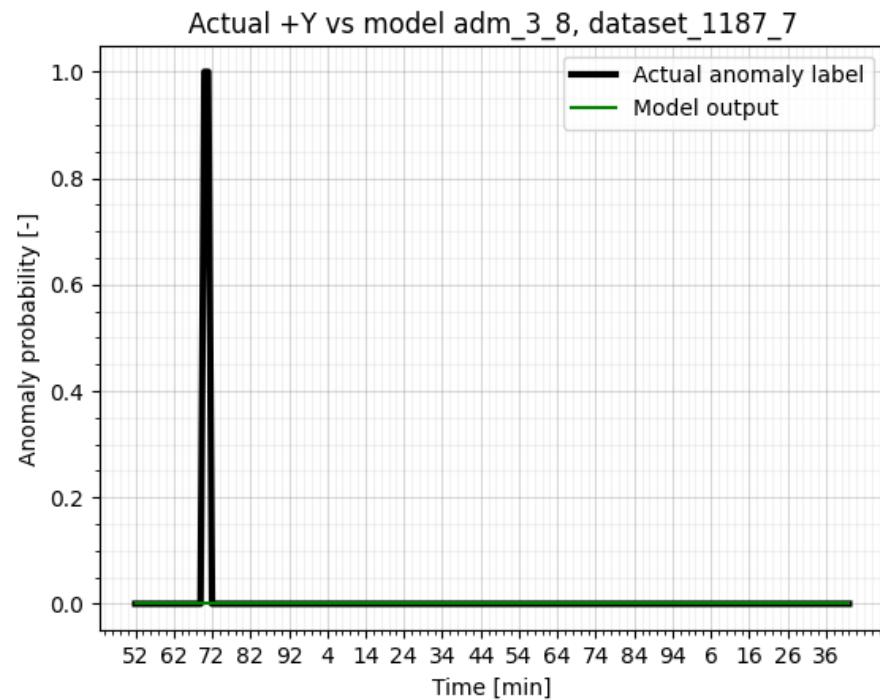
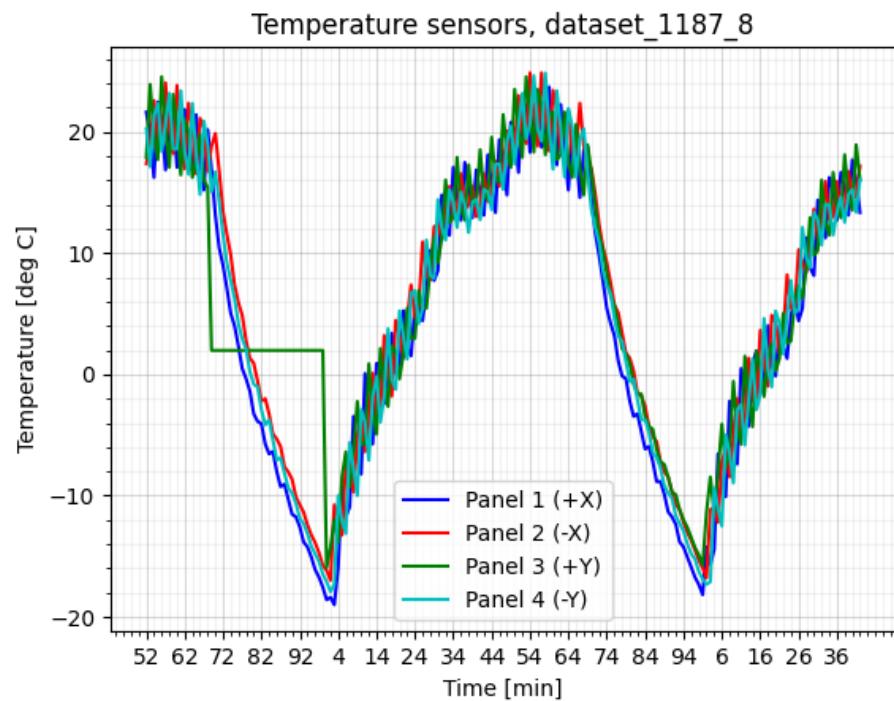
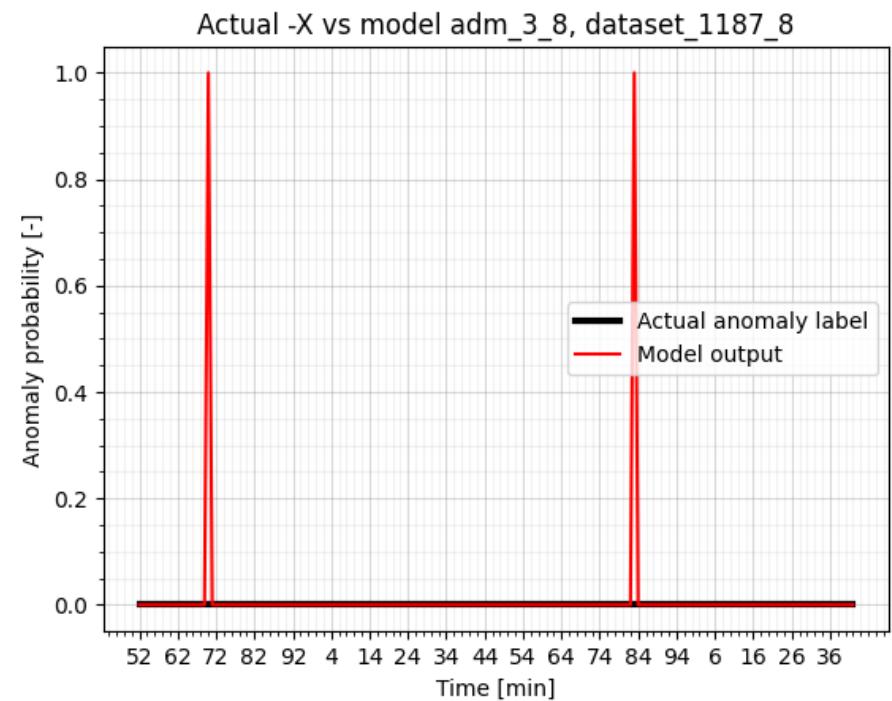
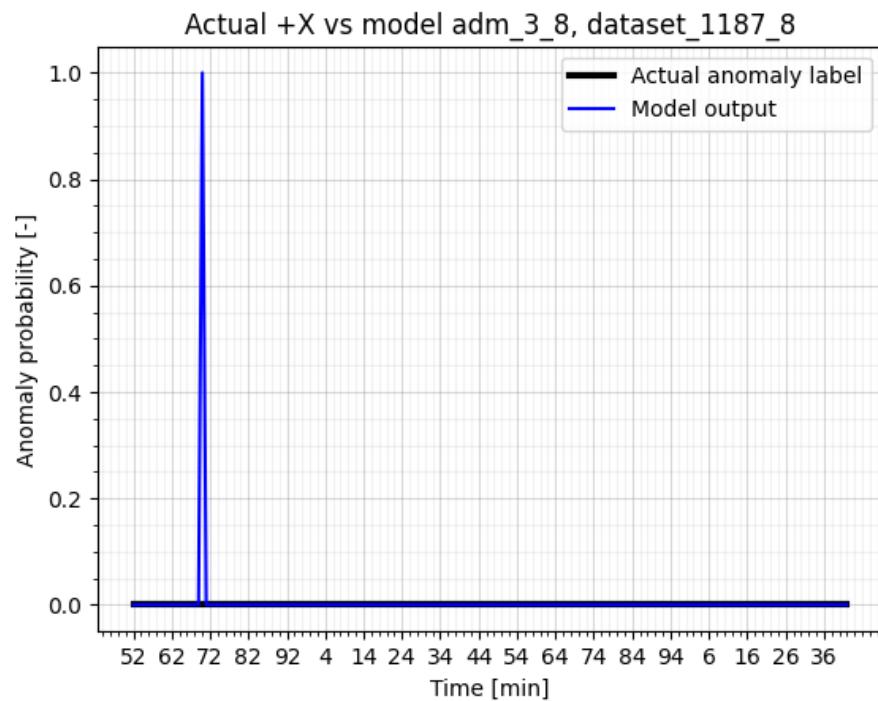


Figure 8: model inferences on dataset\_1187\_7\_mod1.png





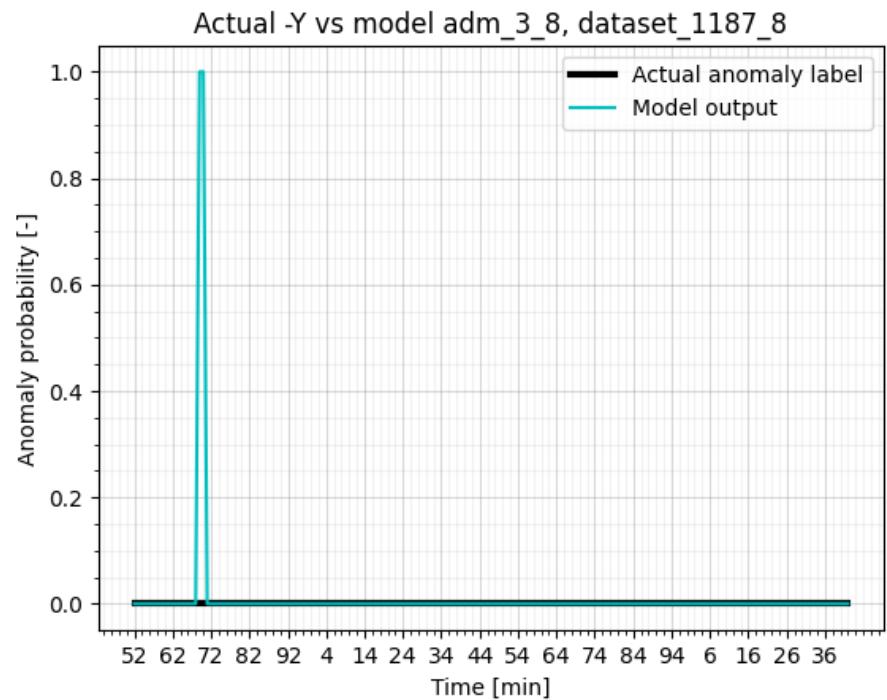
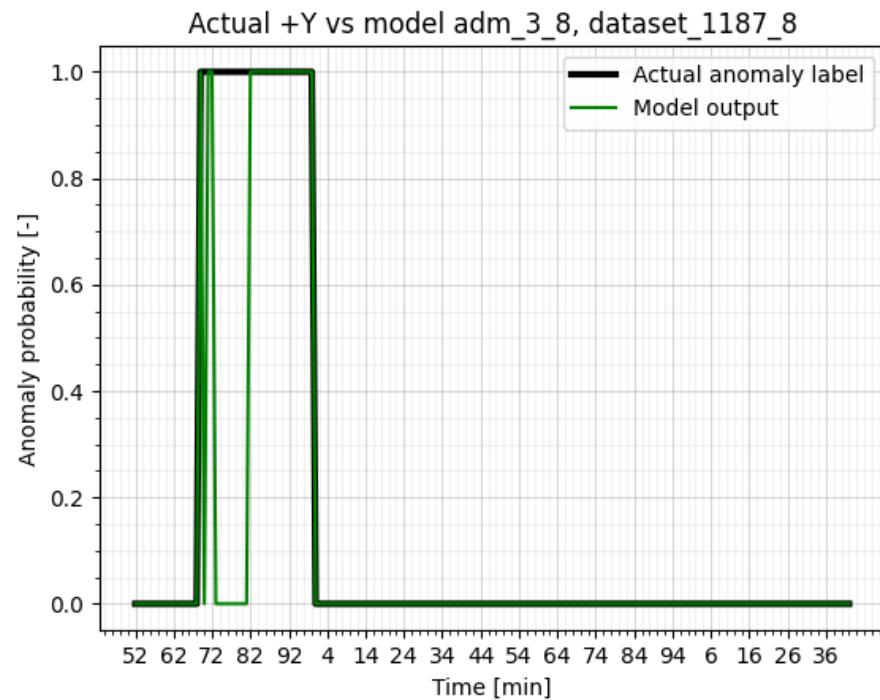
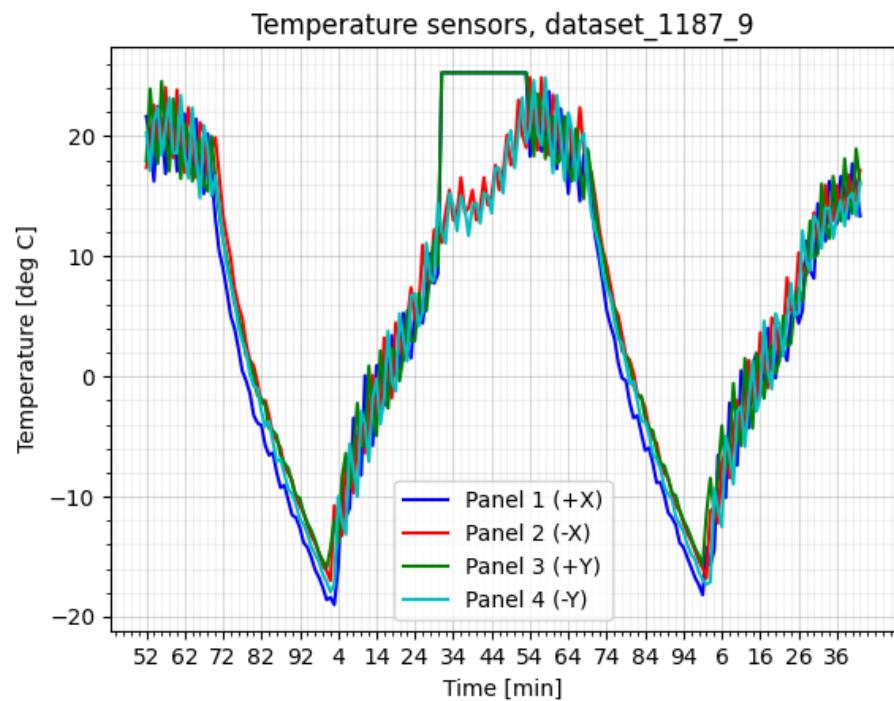
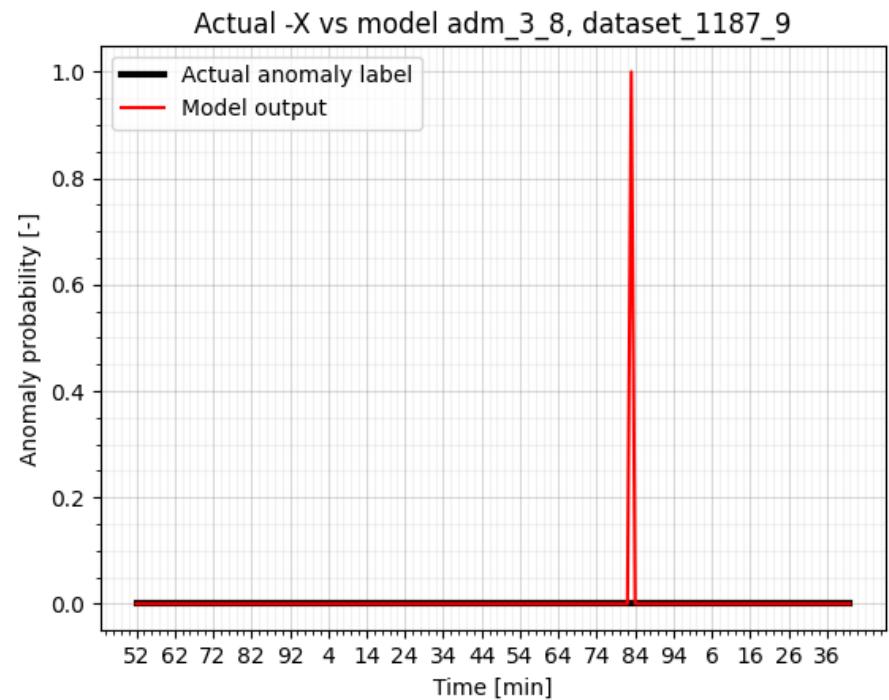
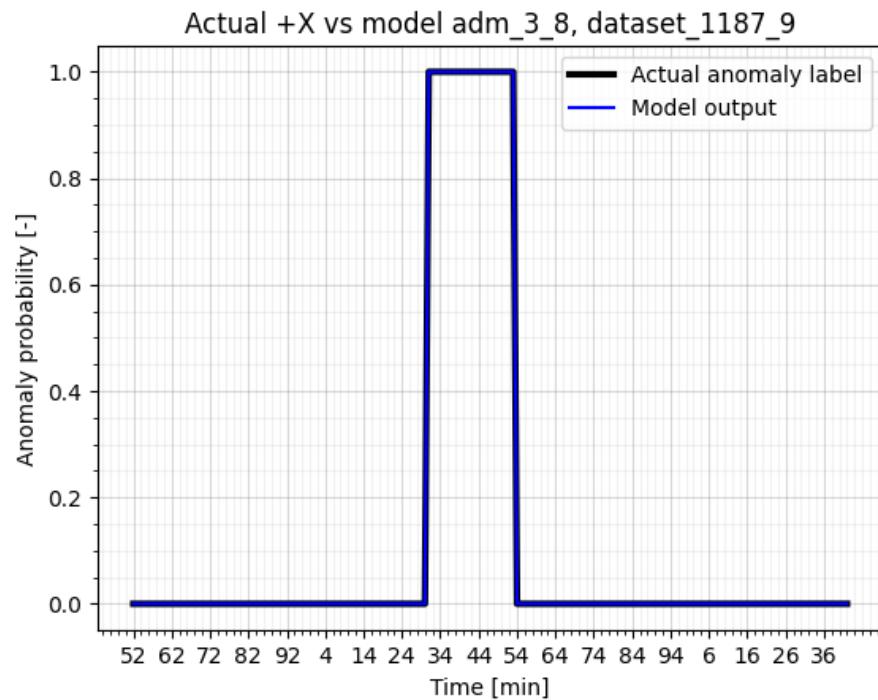


Figure 9: model inferences on dataset\_1187\_8\_mod1.png





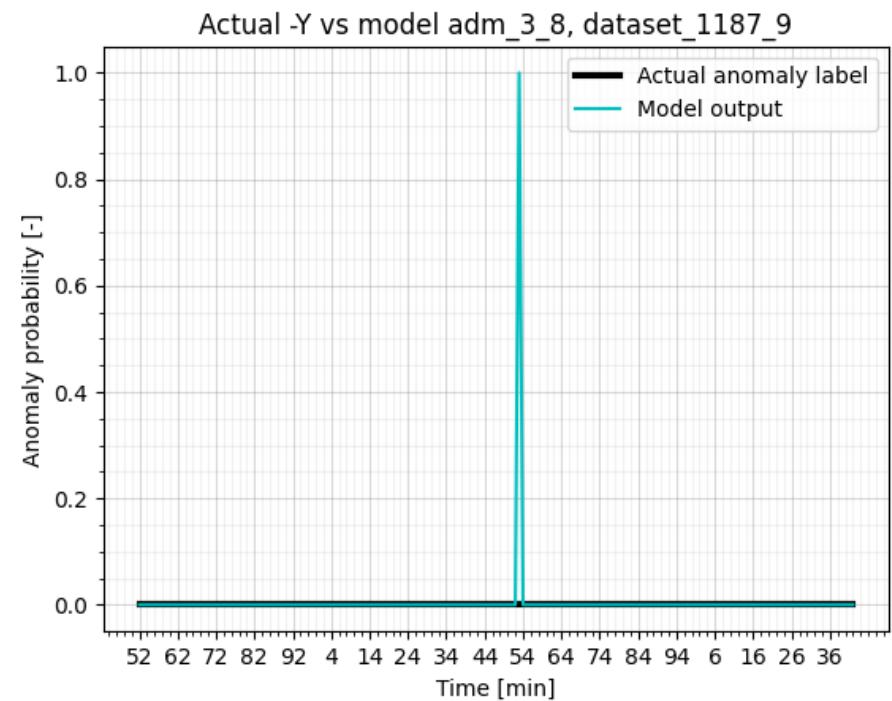
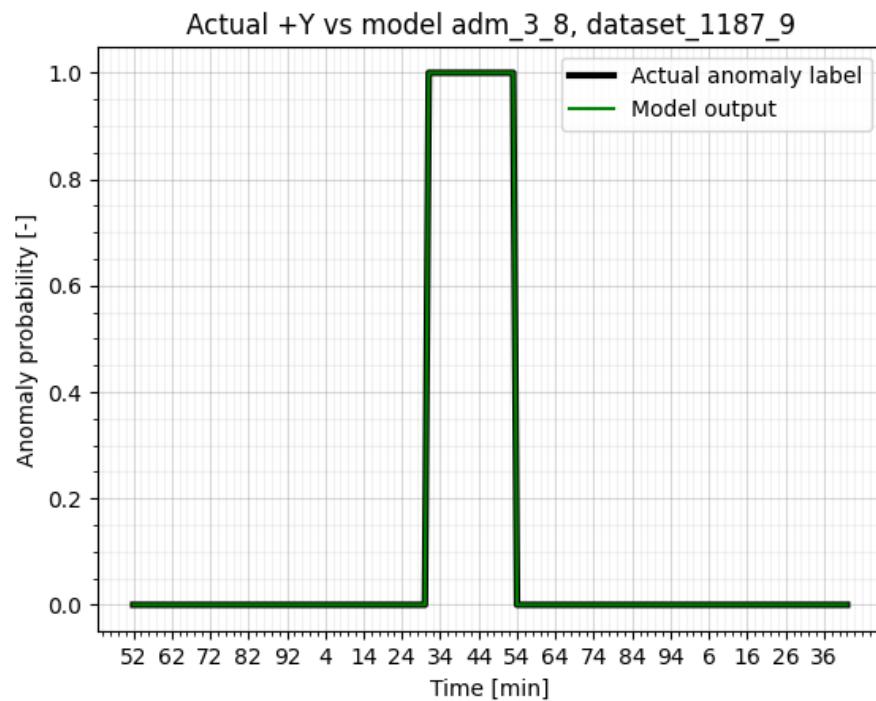
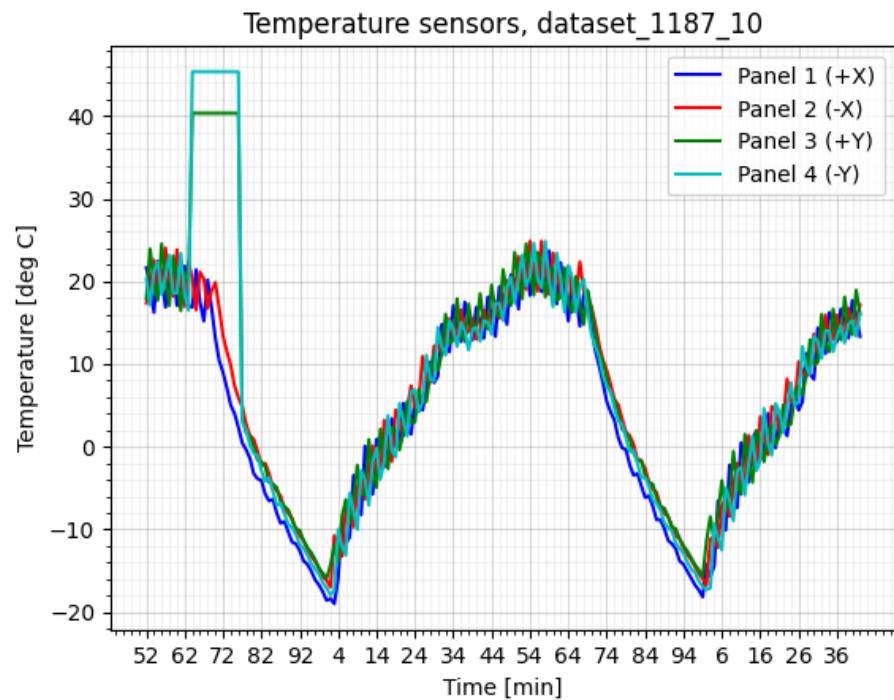
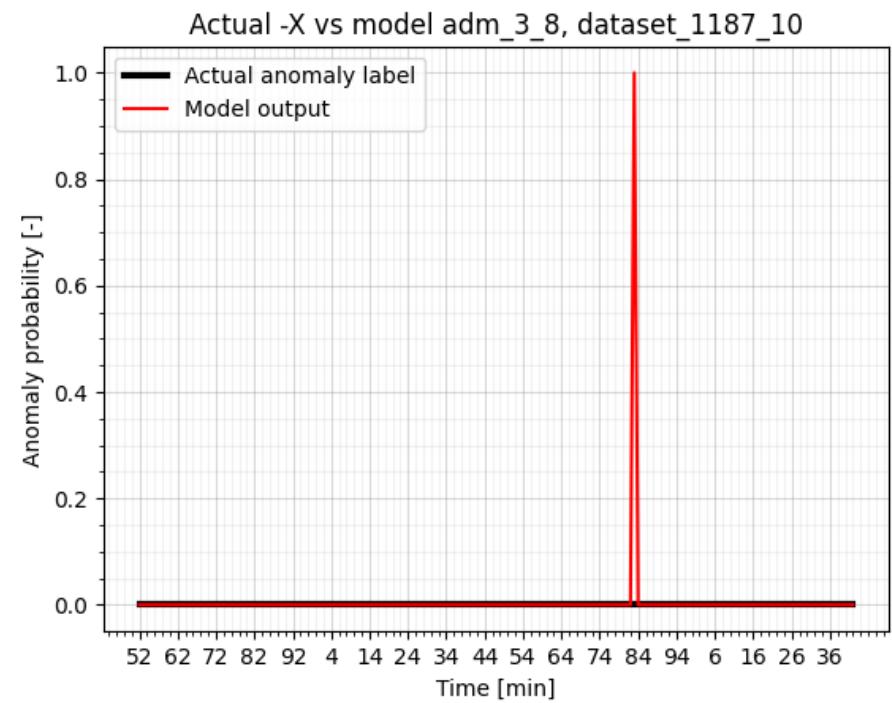
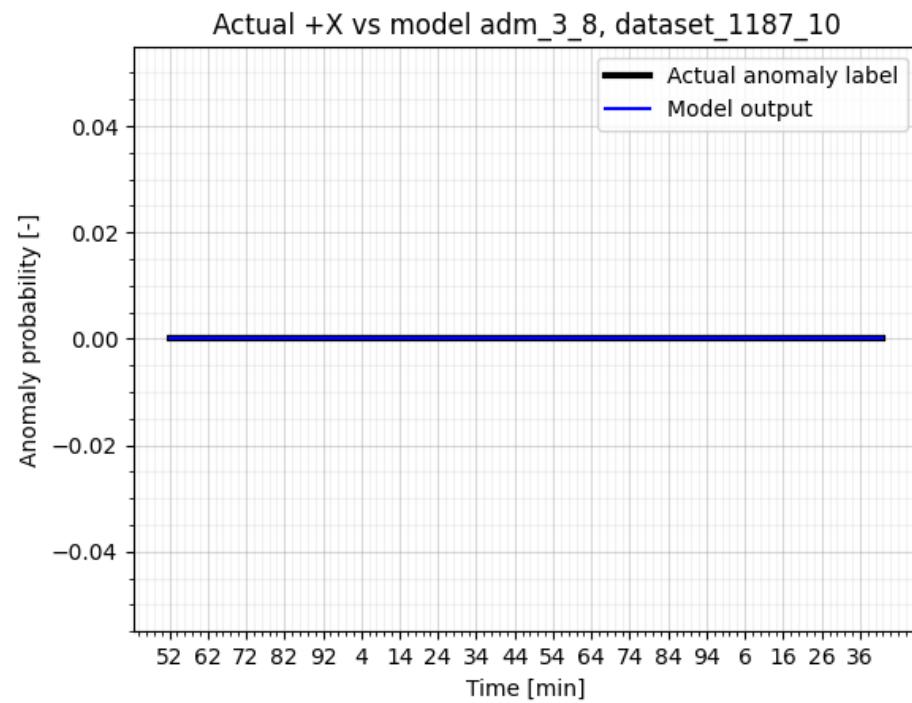


Figure 10: model inferences on dataset\_1187\_9\_mod1.png





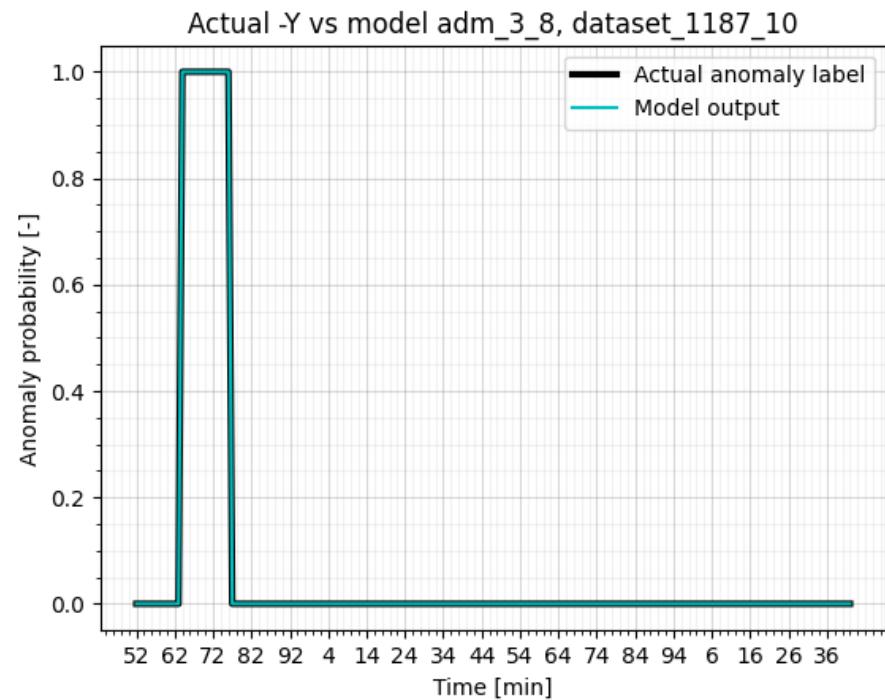
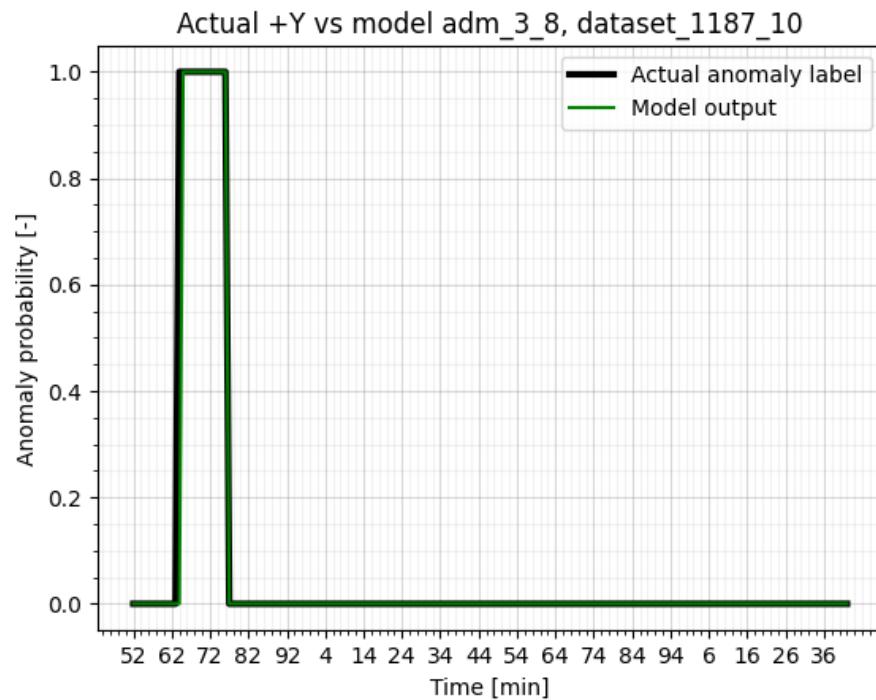
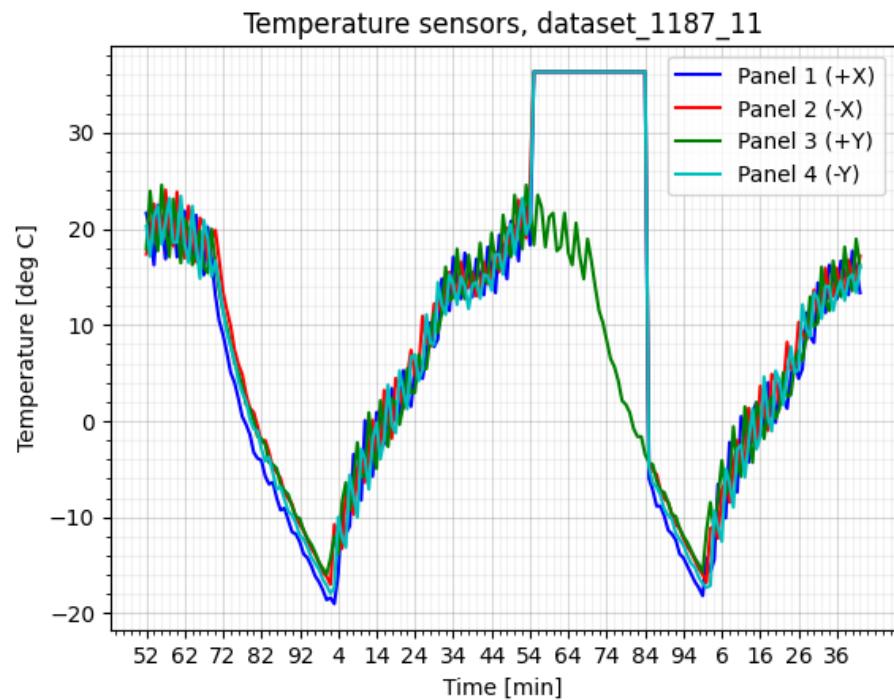
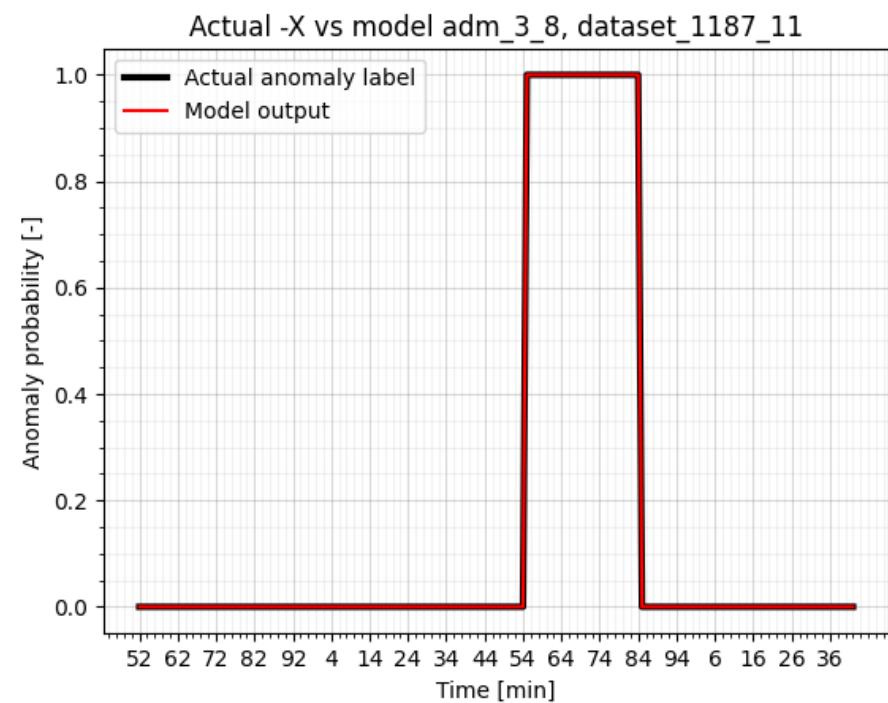
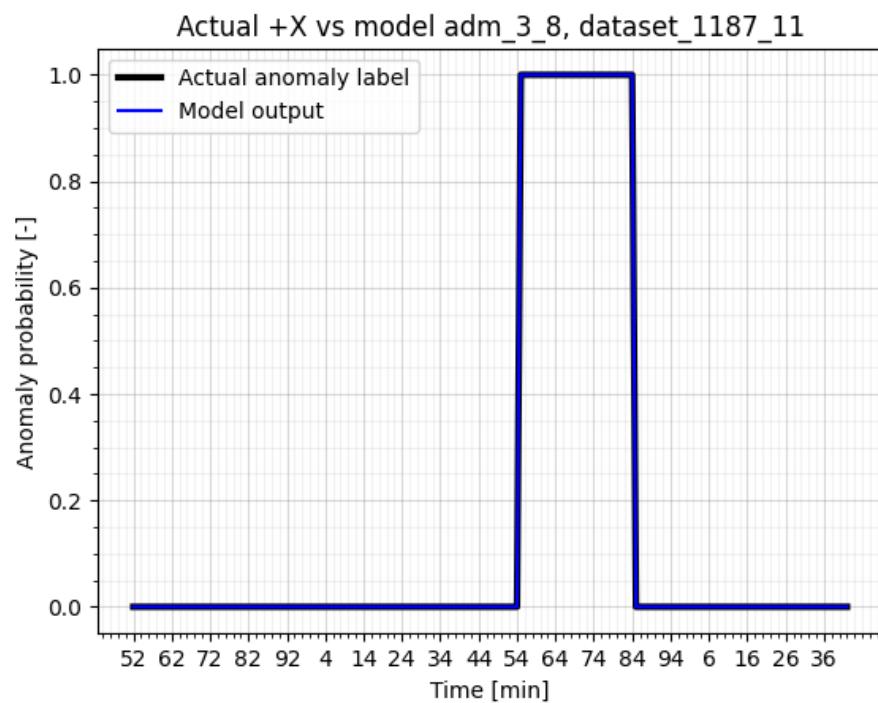


Figure 11: model inferences on dataset\_1187\_10\_mod1.png





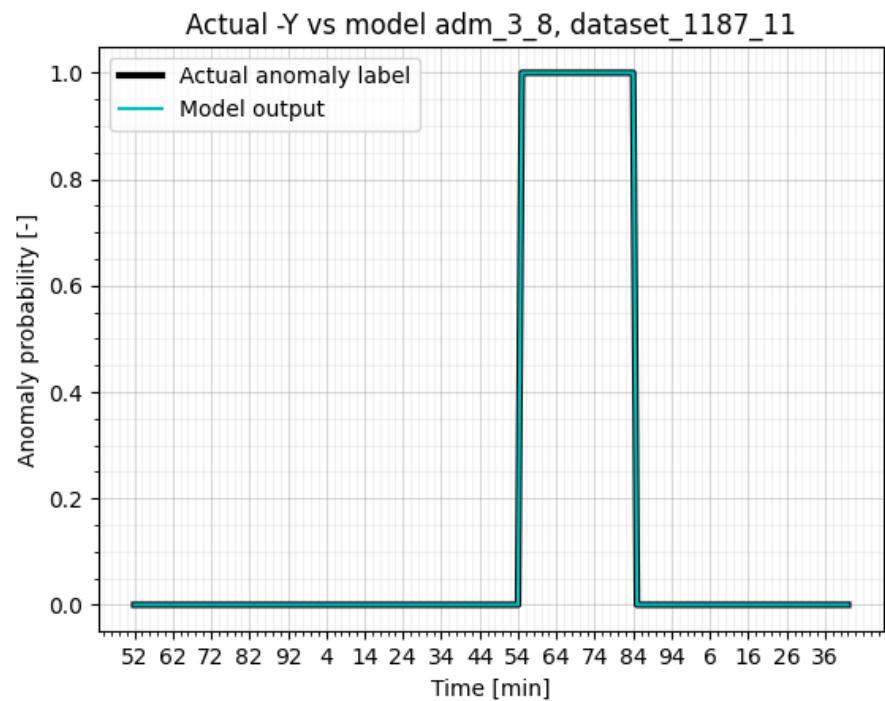
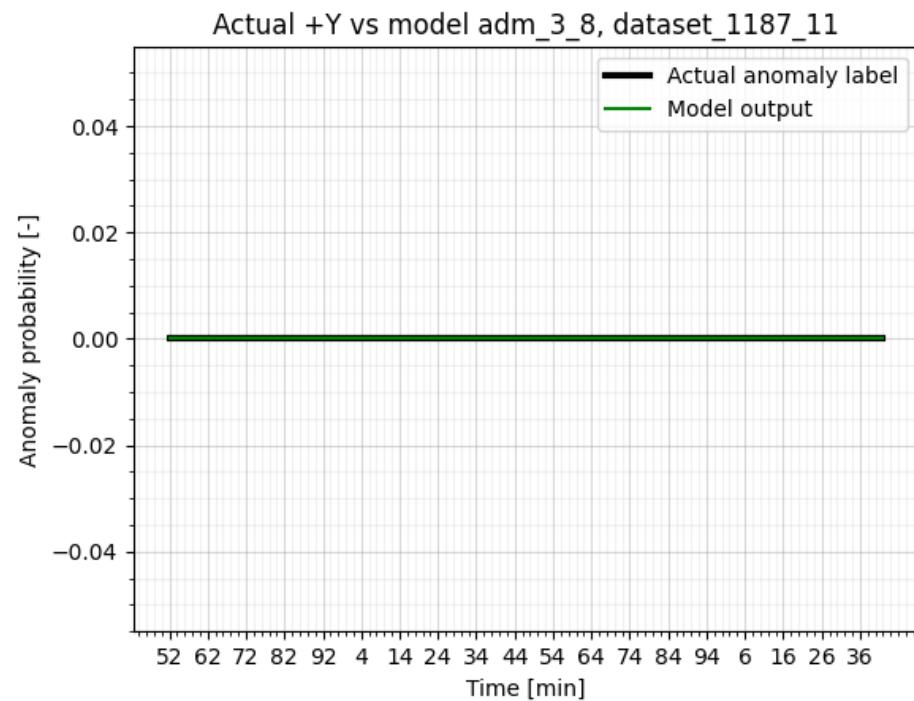
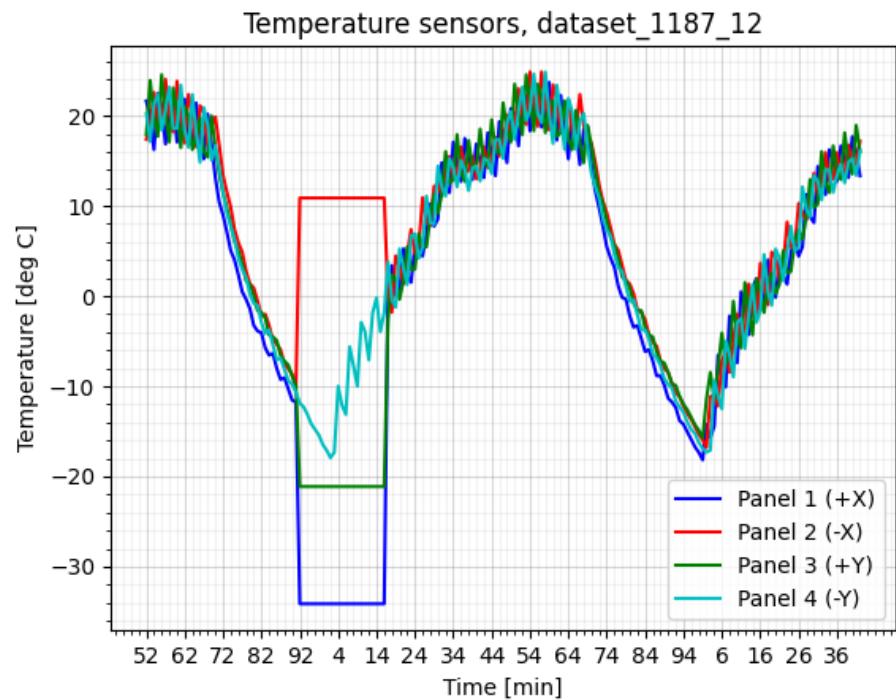
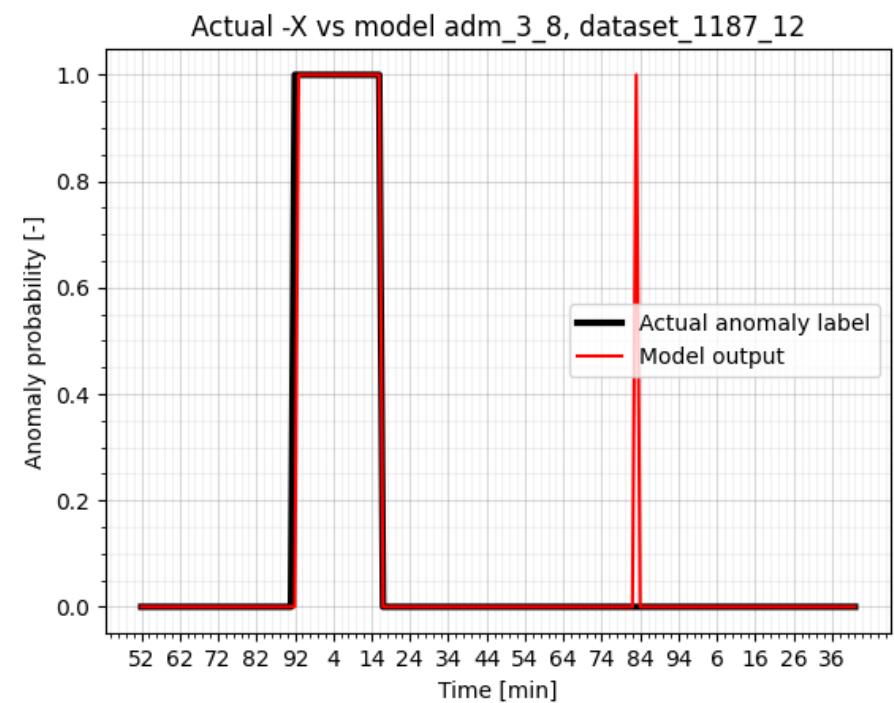
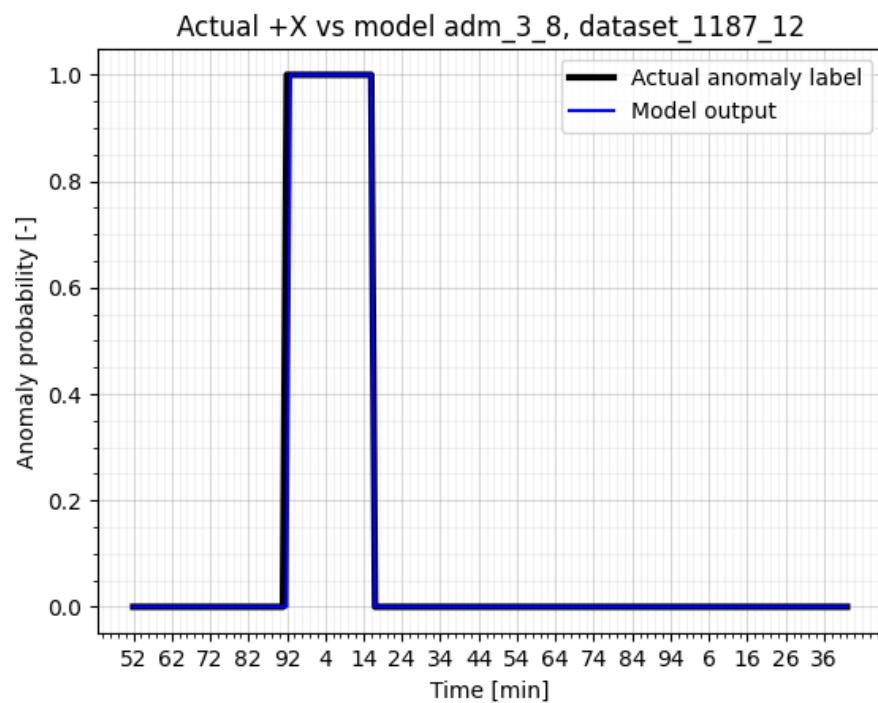


Figure 12: model inferences on dataset\_1187\_11\_mod1.png





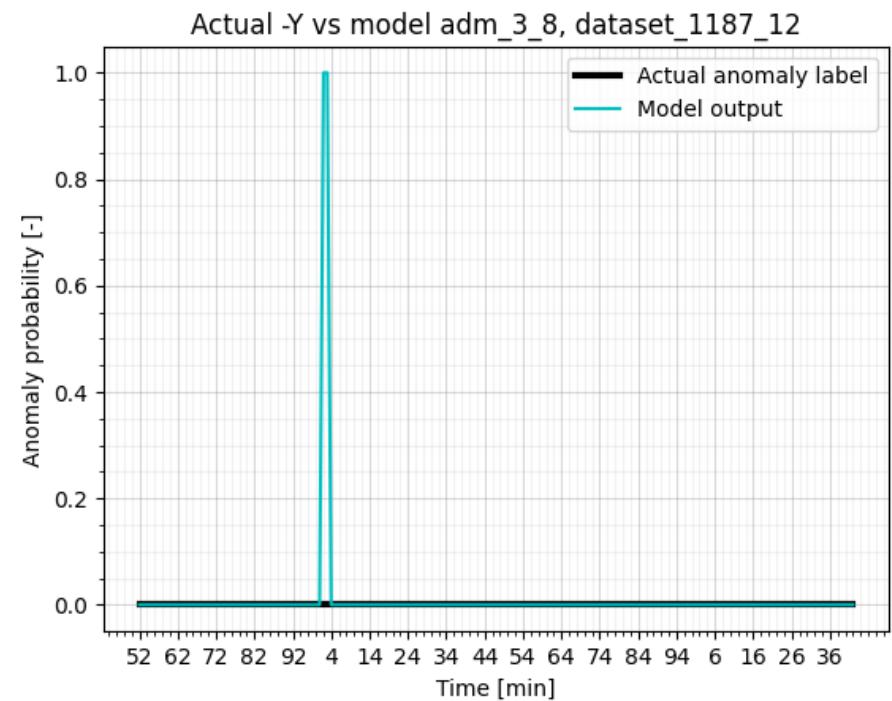
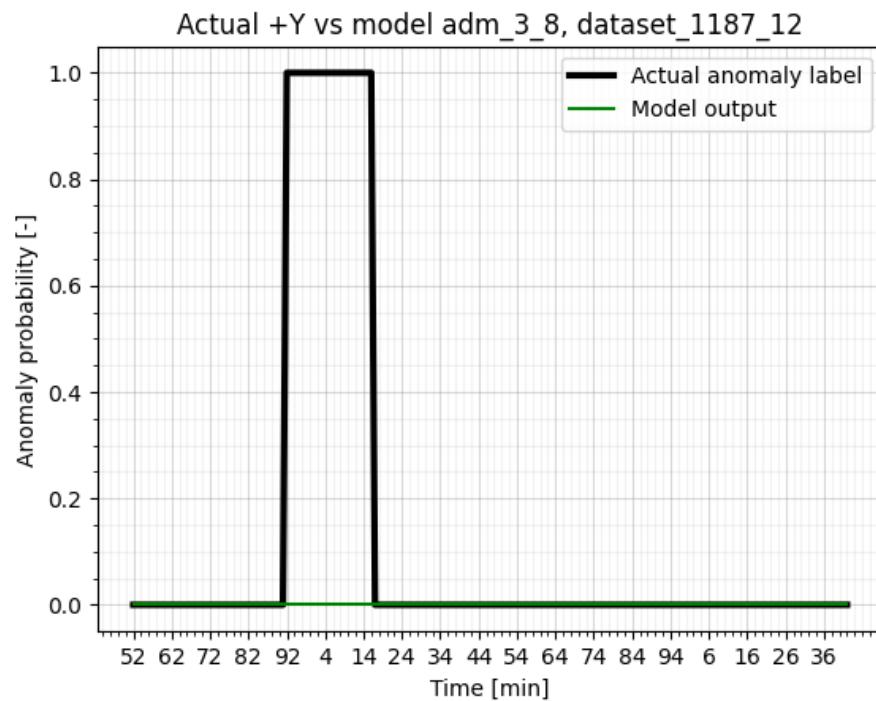
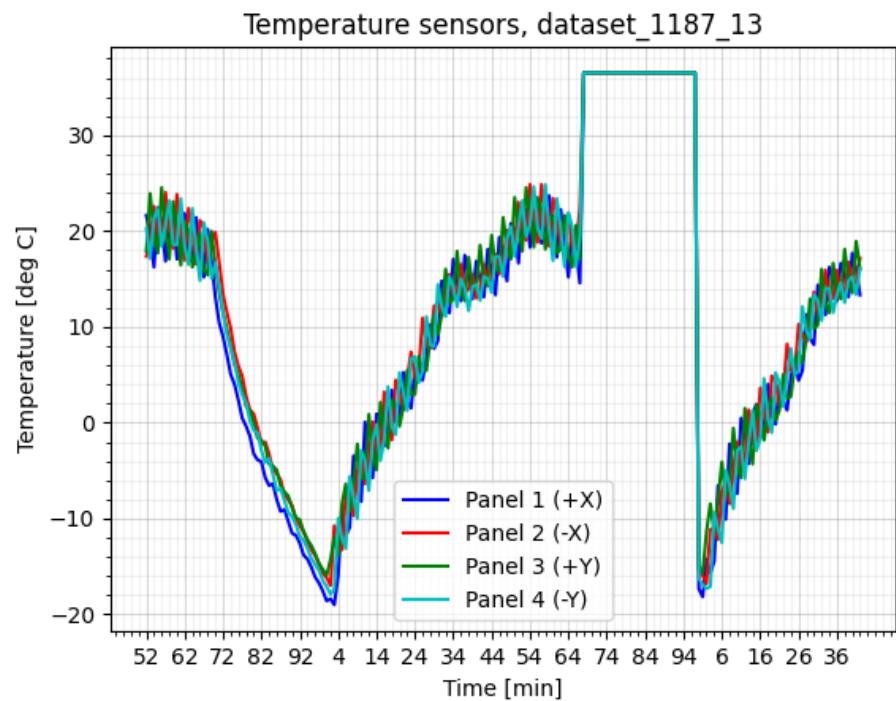
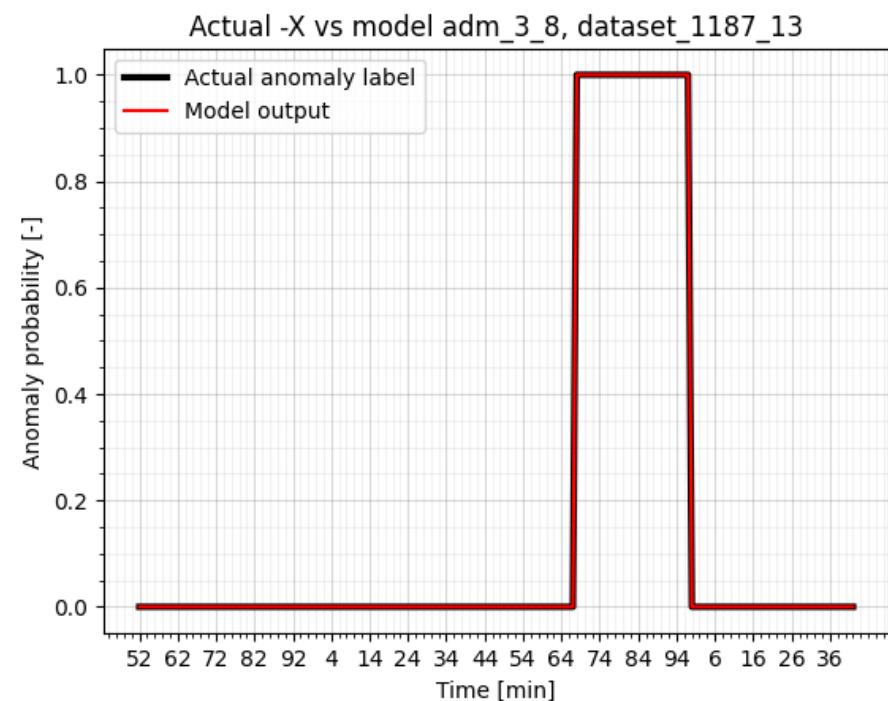
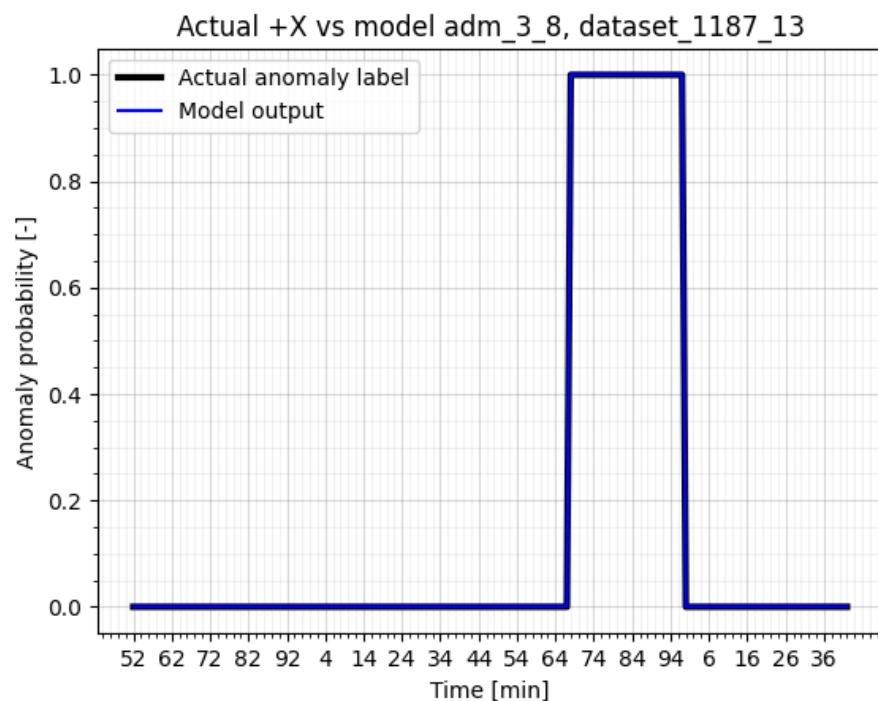


Figure 13: model inferences on dataset\_1187\_12\_mod1.png





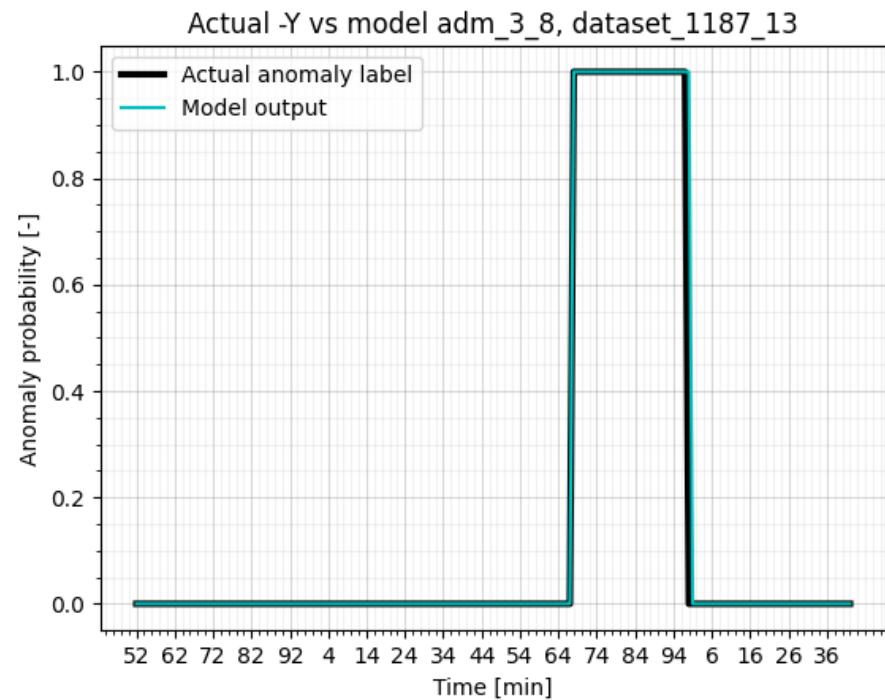
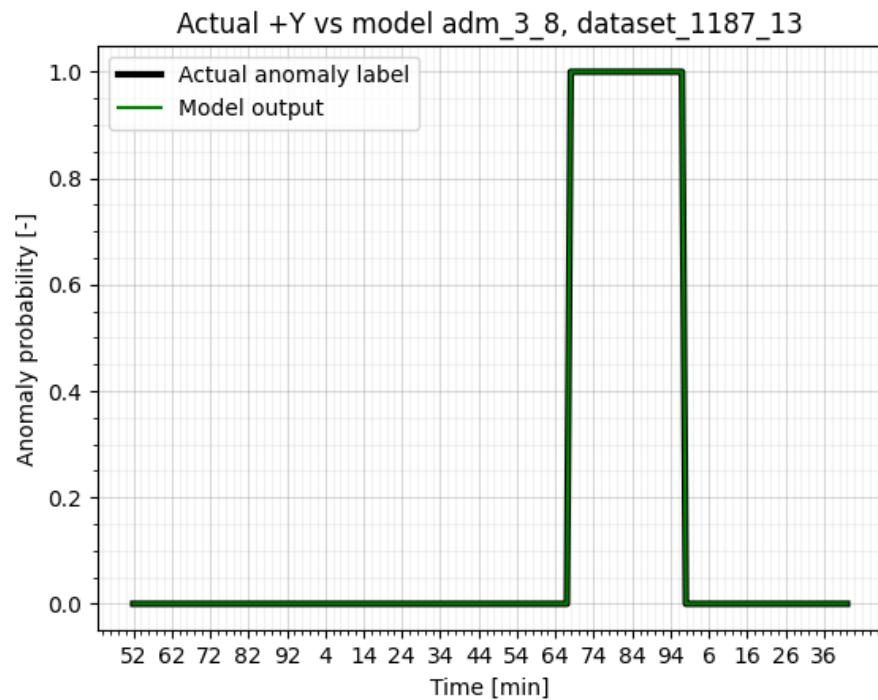
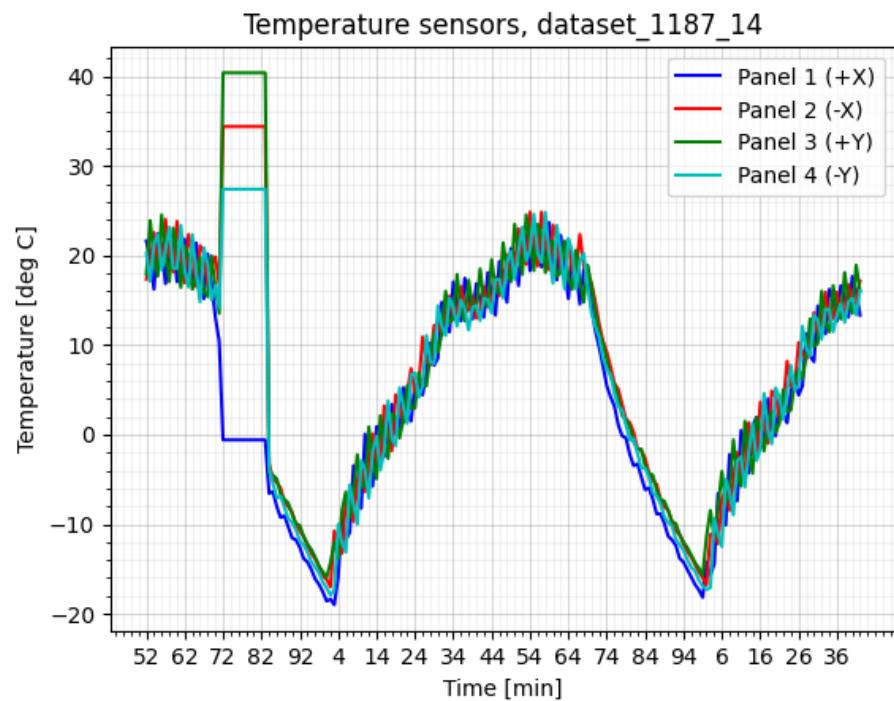
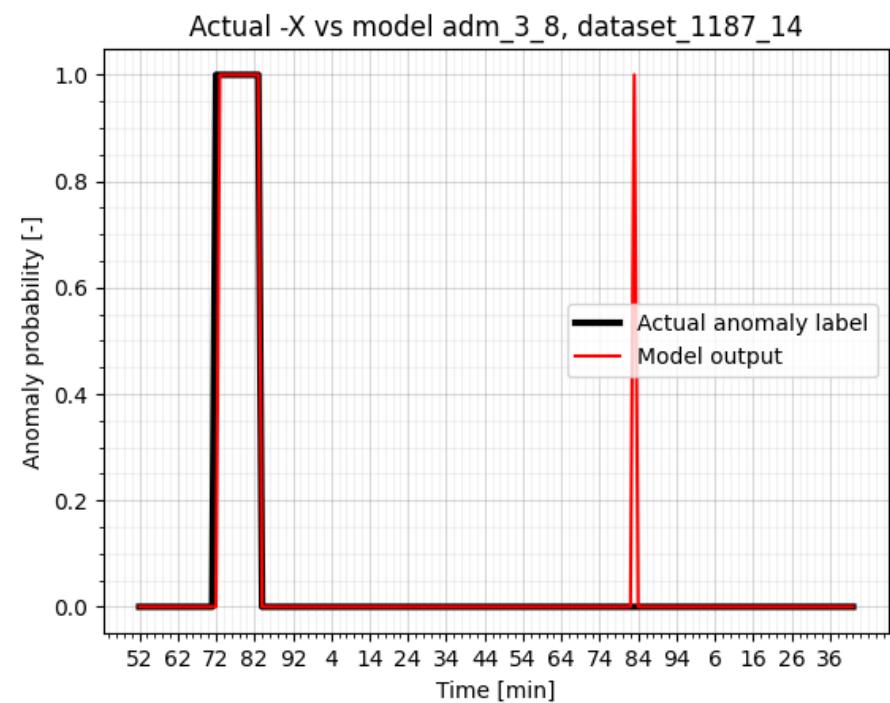
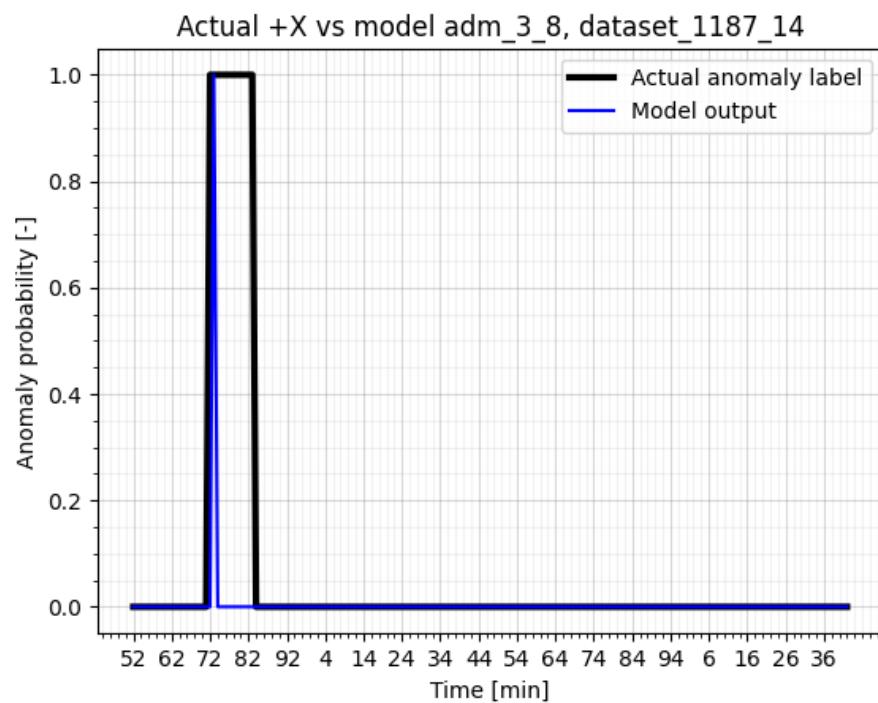


Figure 14: model inferences on dataset\_1187\_13\_mod1.png





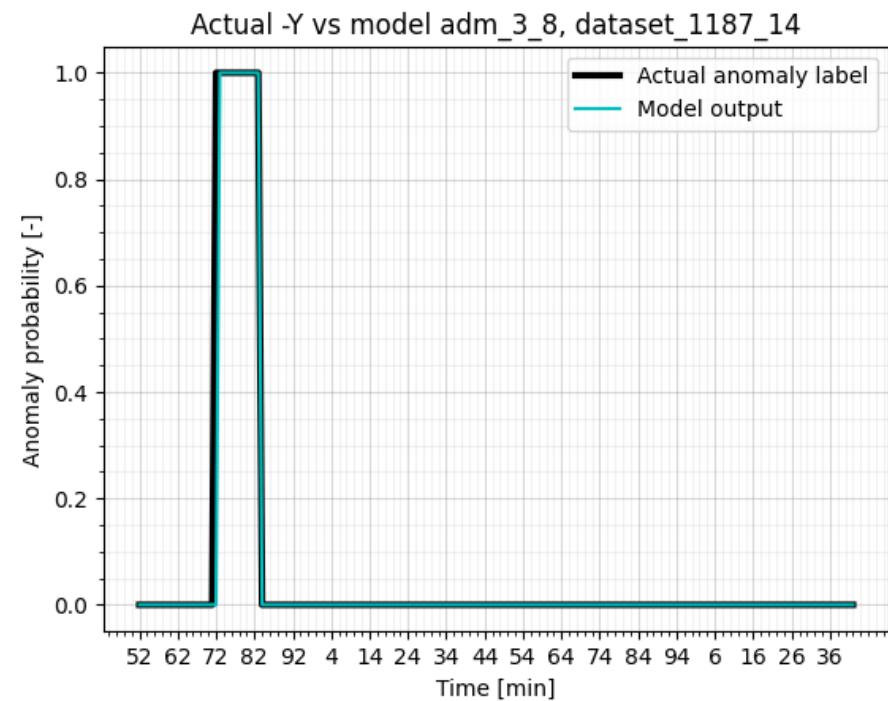
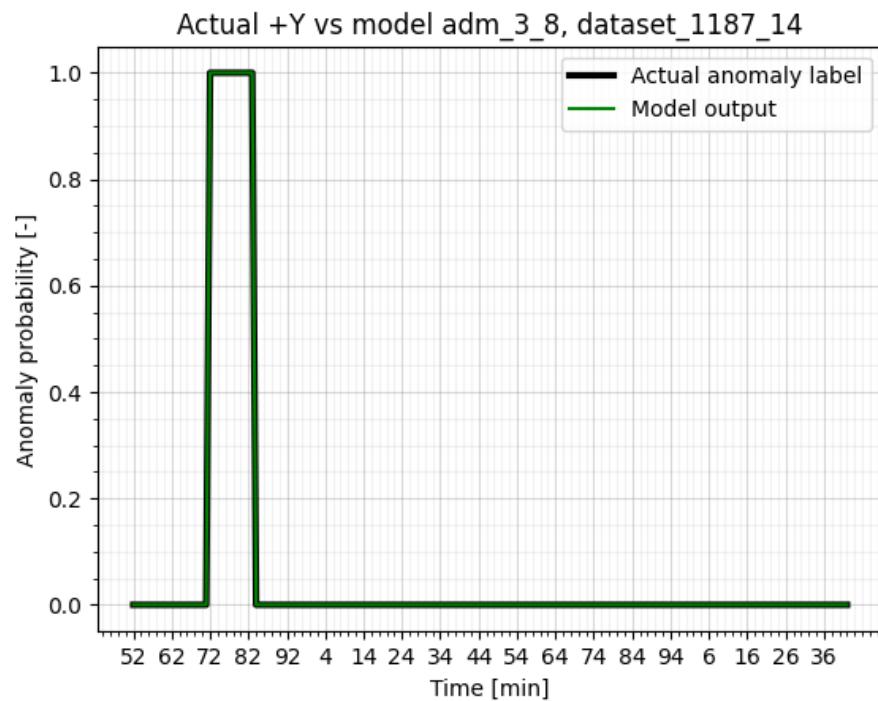
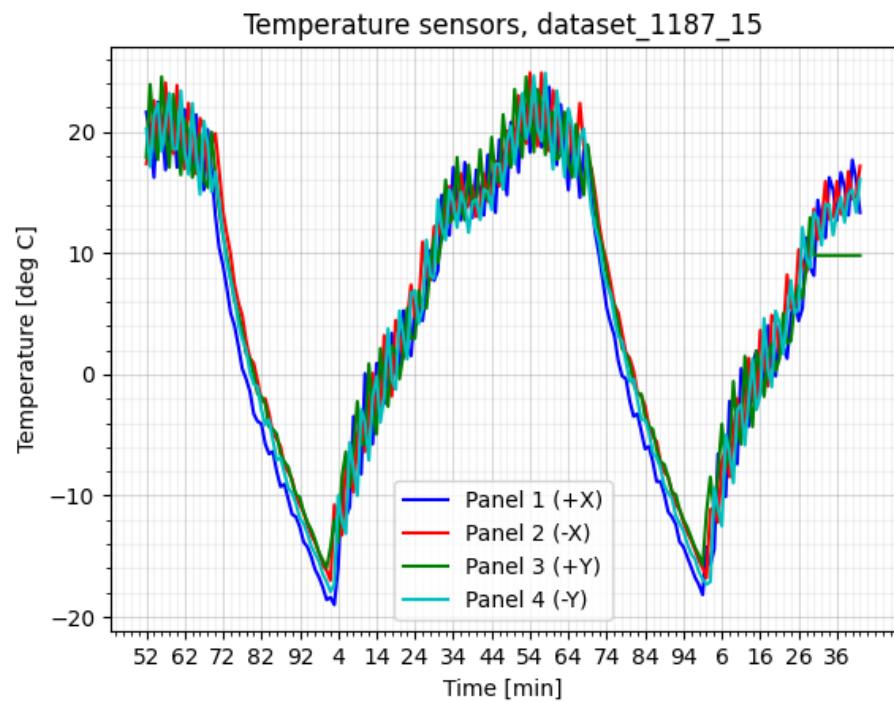
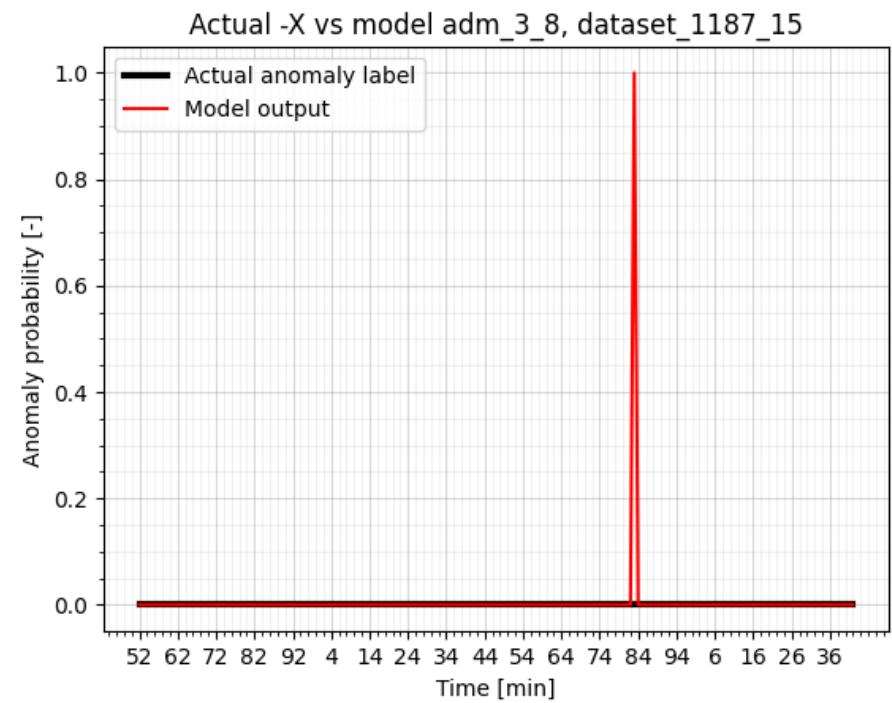
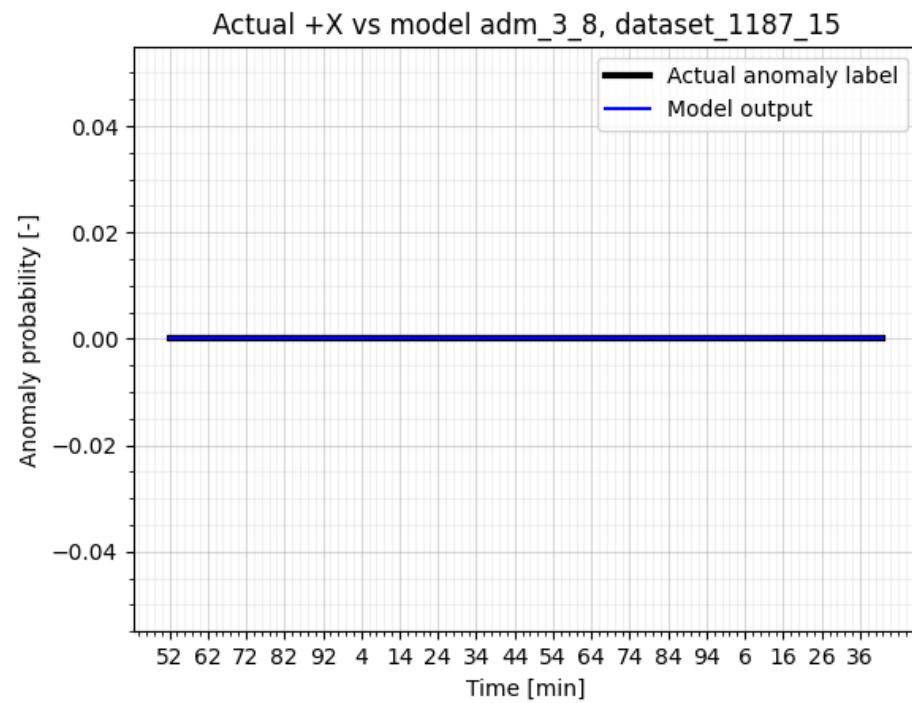


Figure 15: model inferences on dataset\_1187\_14\_mod1.png





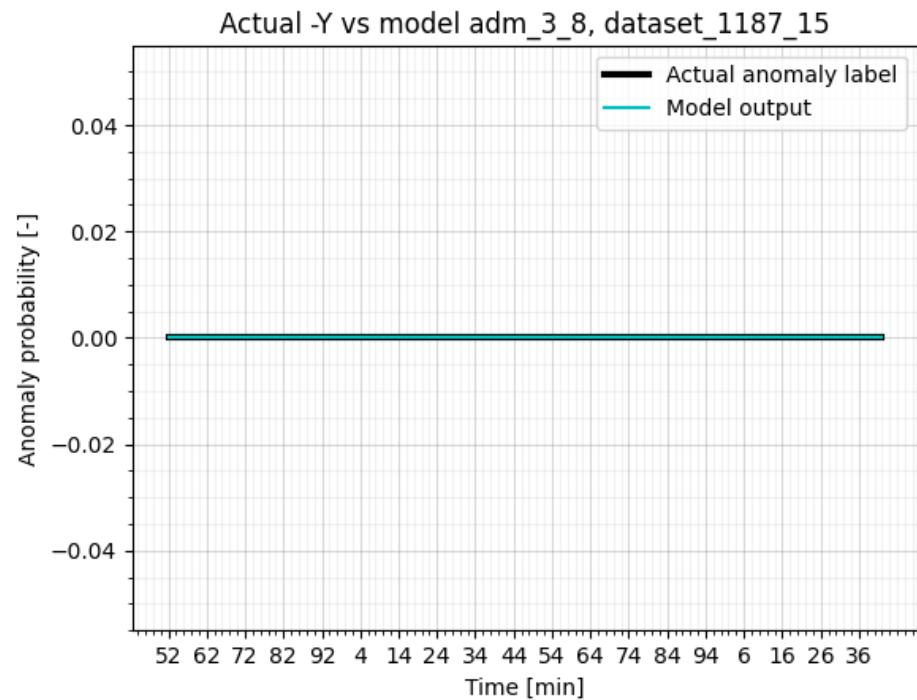
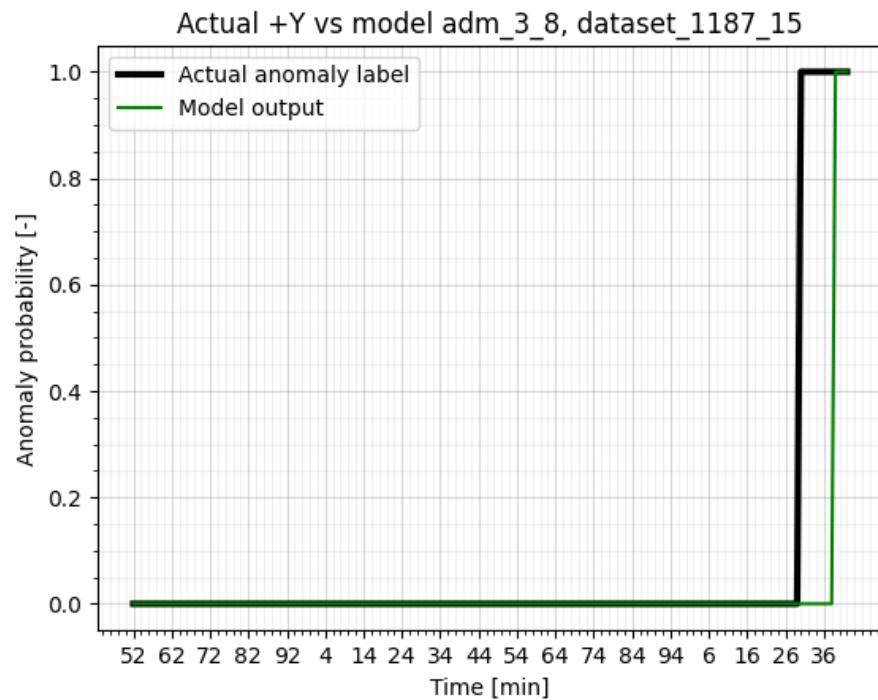
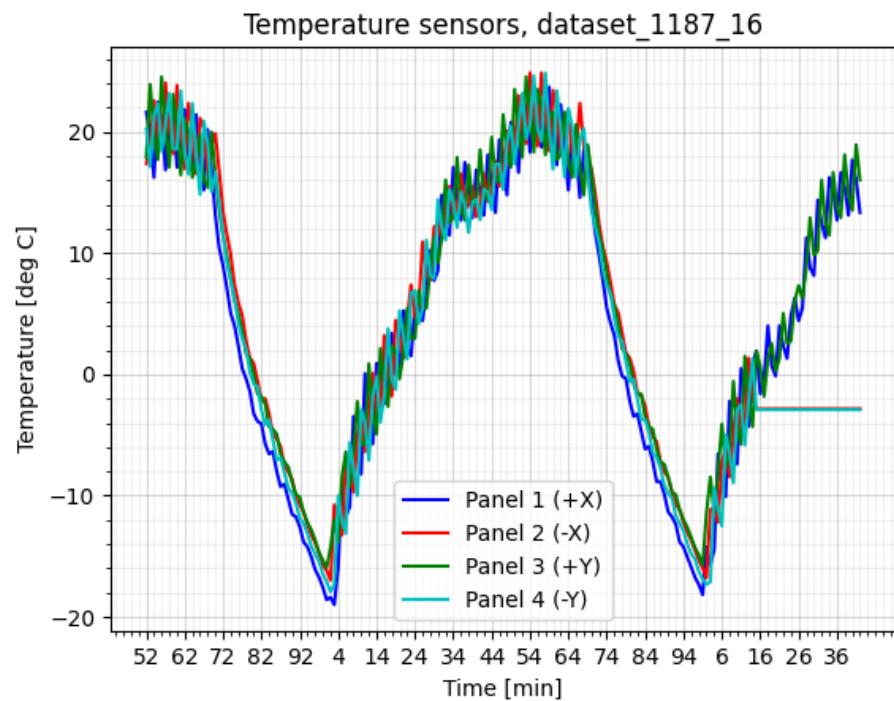
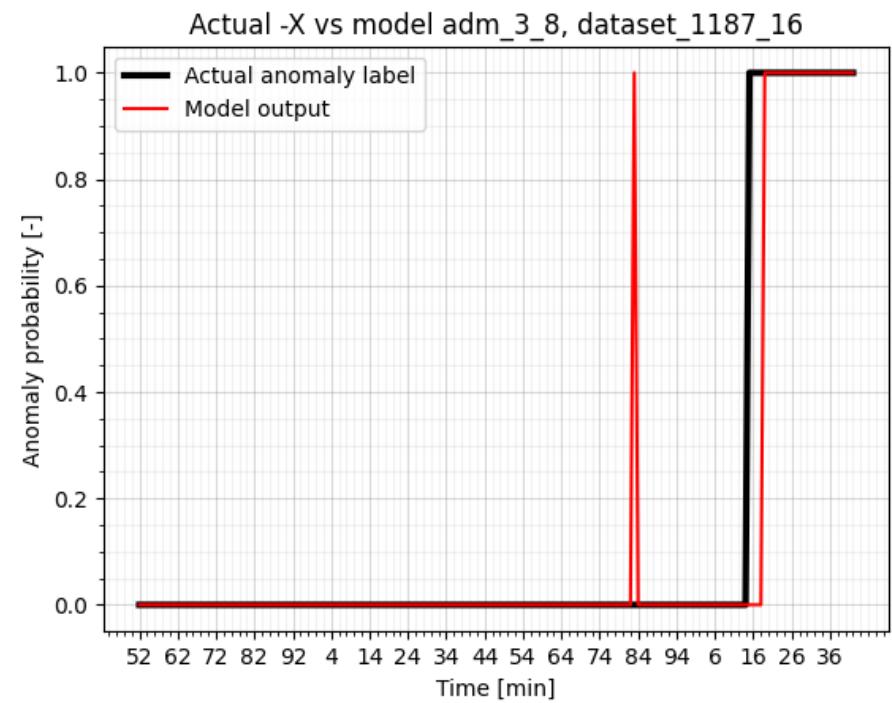
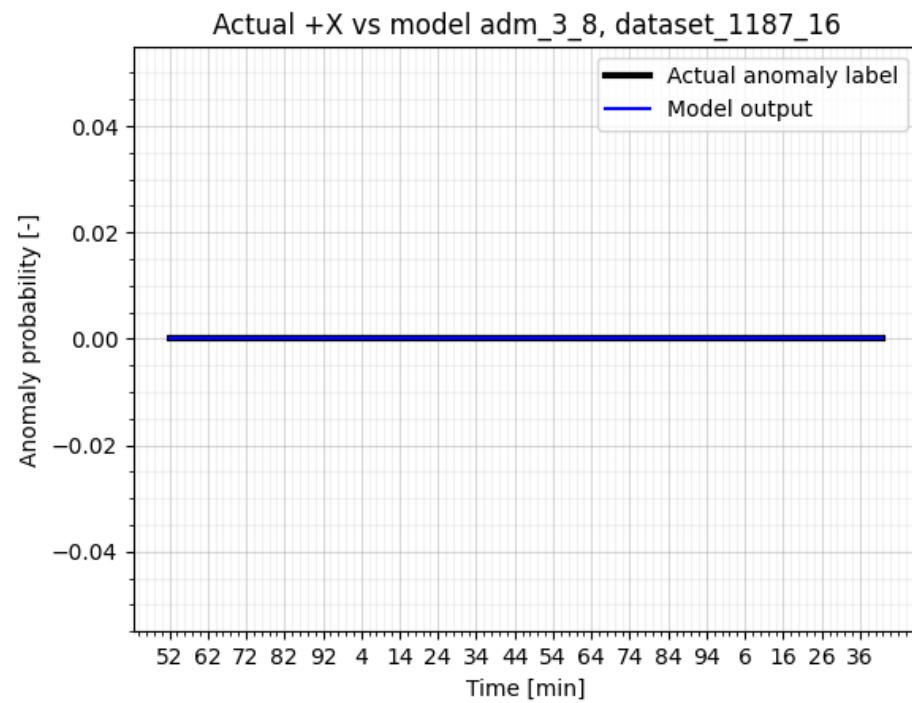


Figure 16: model inferences on dataset\_1187\_15\_mod1.png





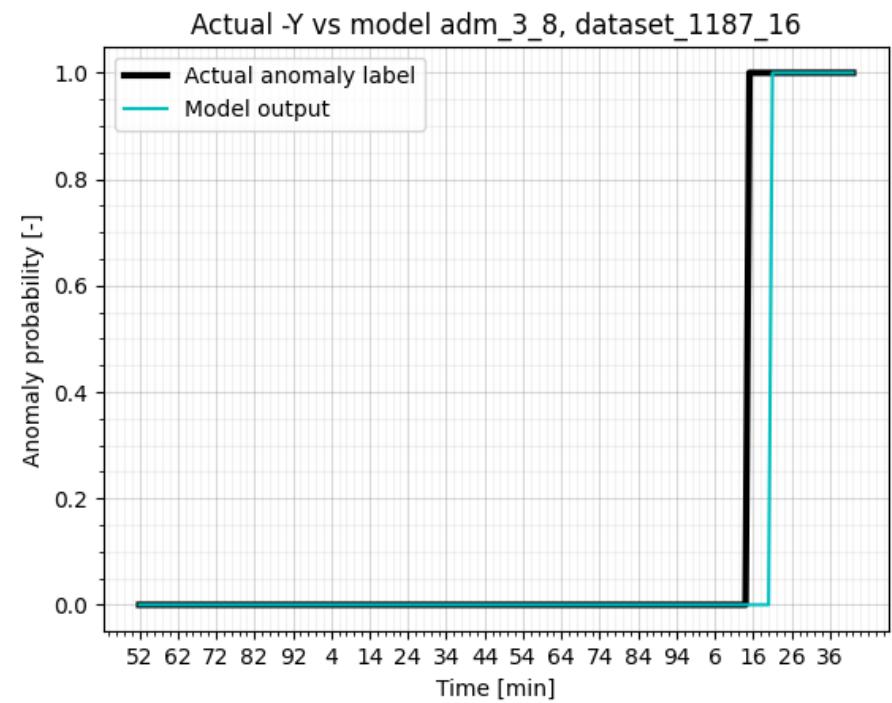
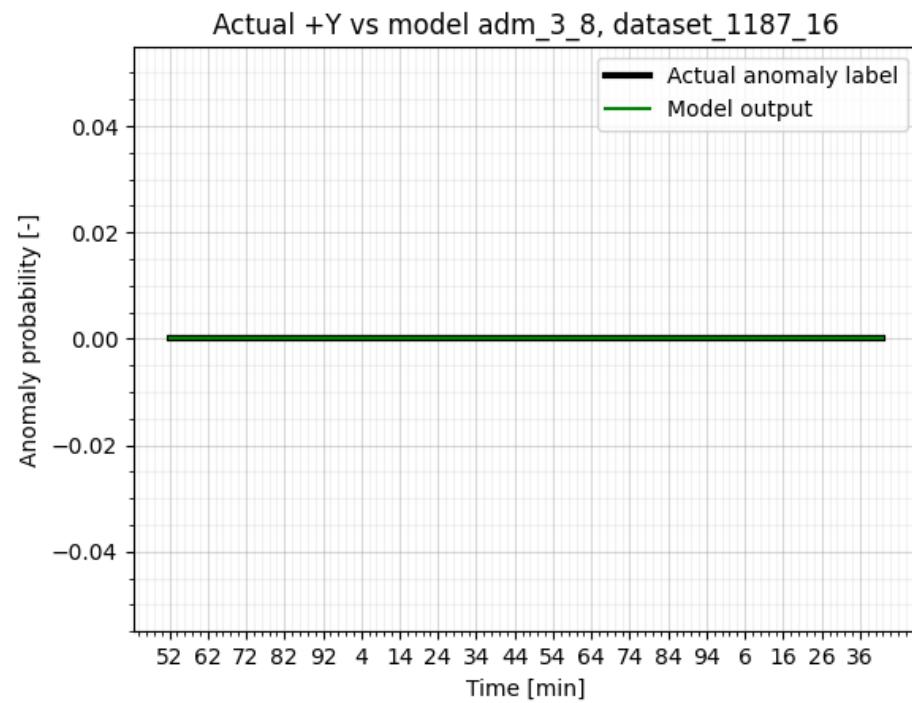
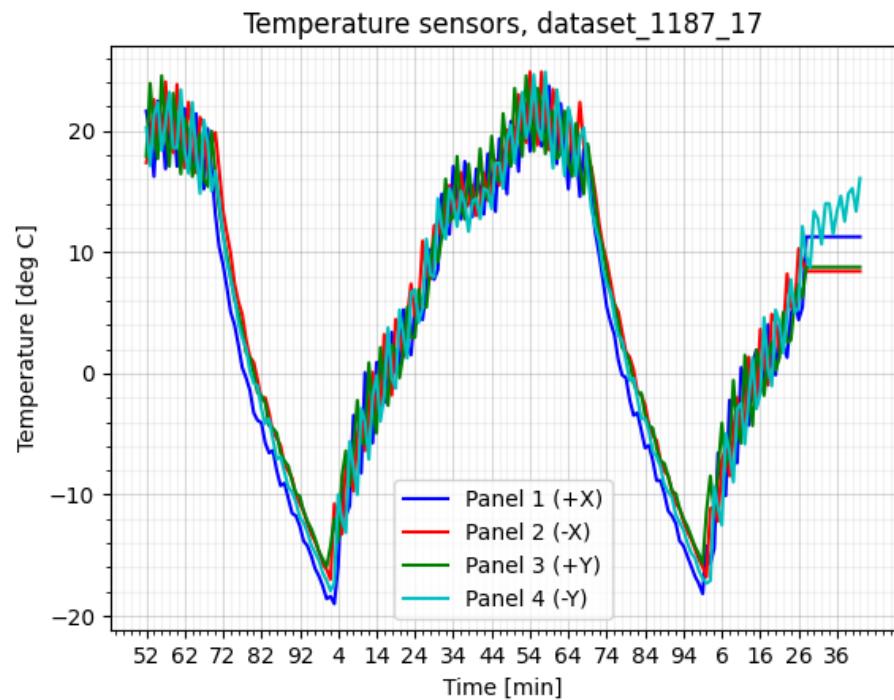
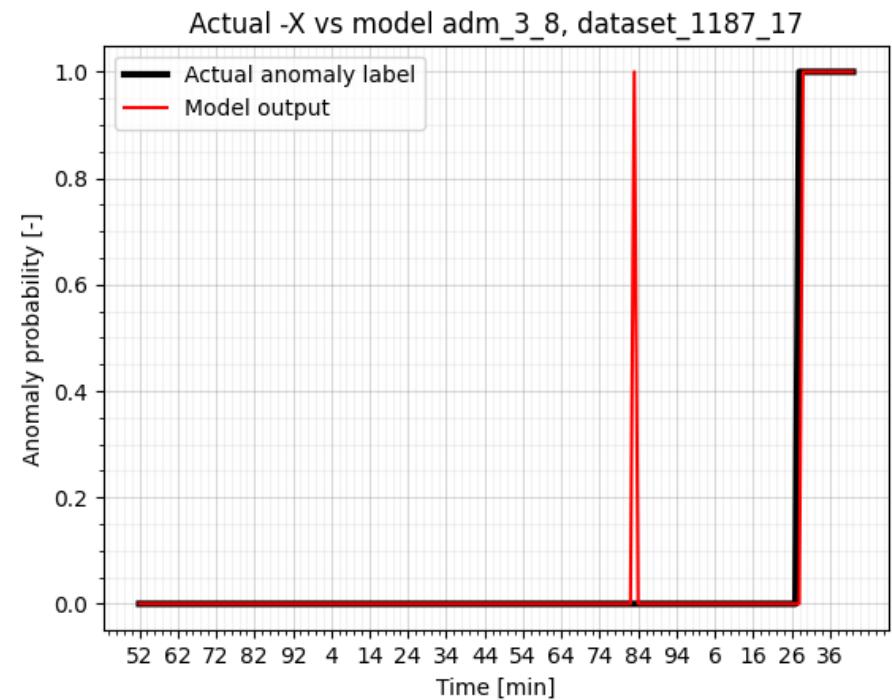
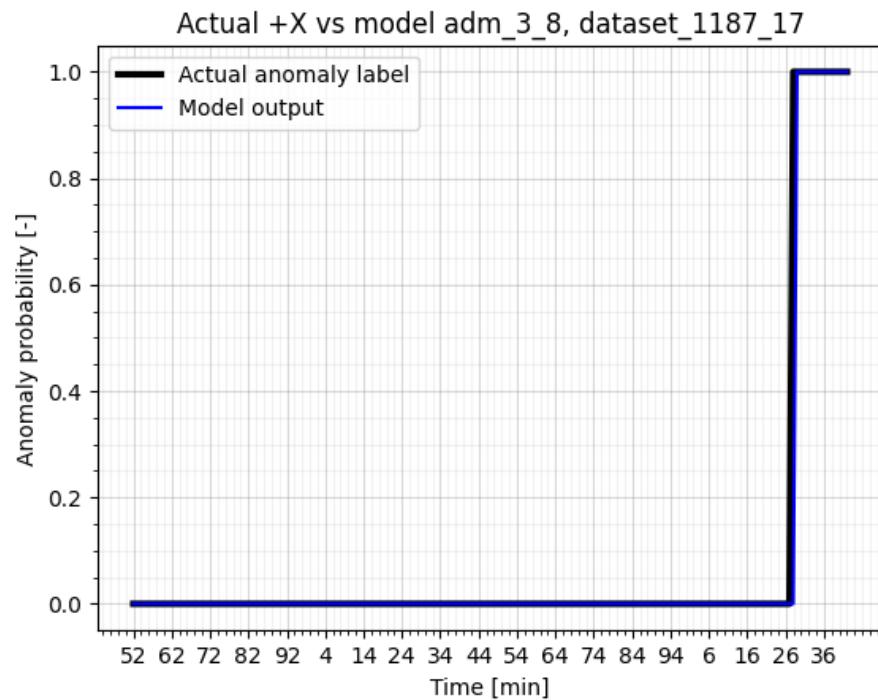


Figure 17: model inferences on dataset\_1187\_16\_mod1.png





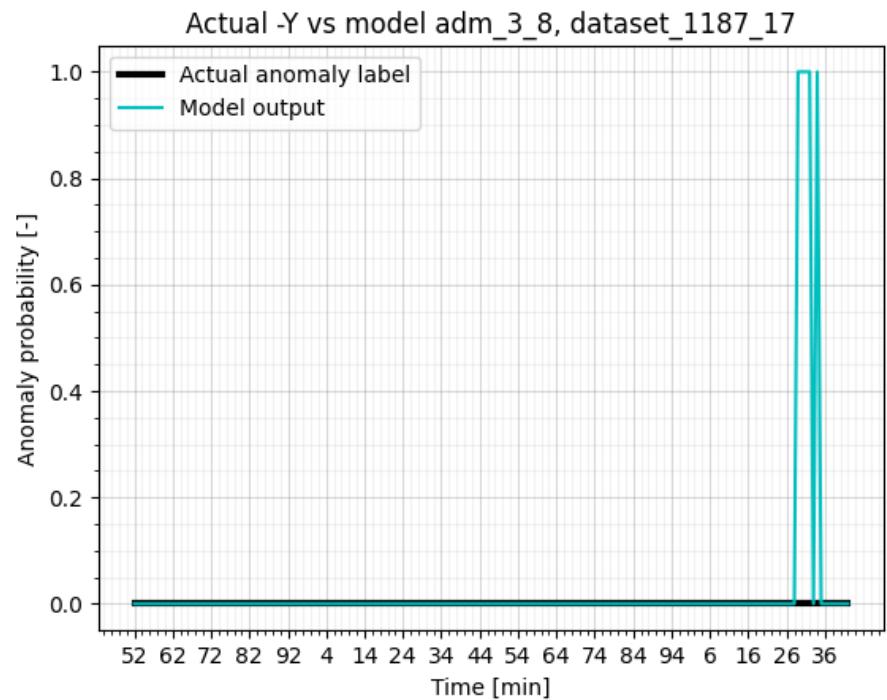
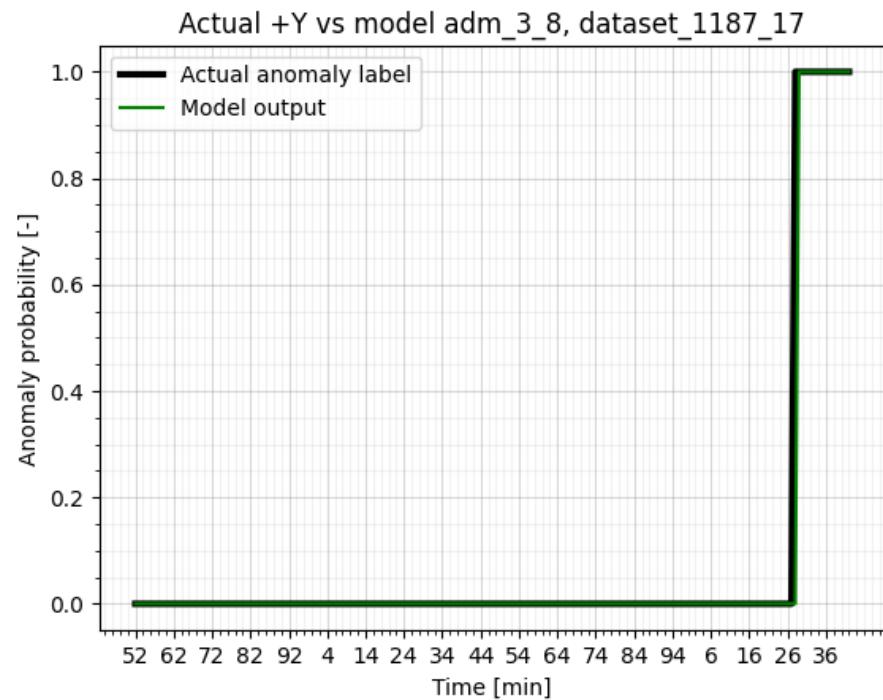
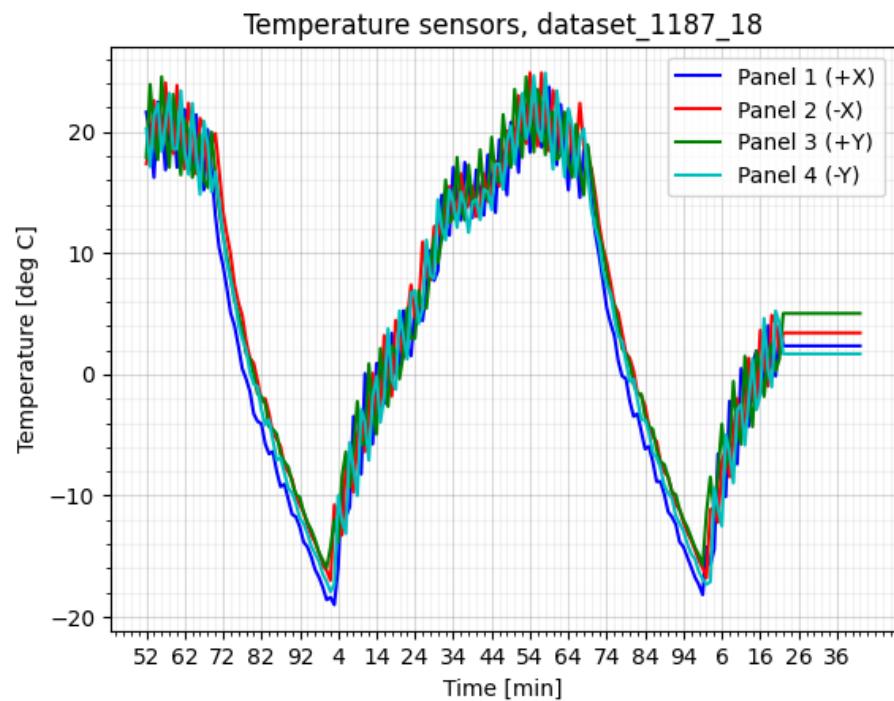
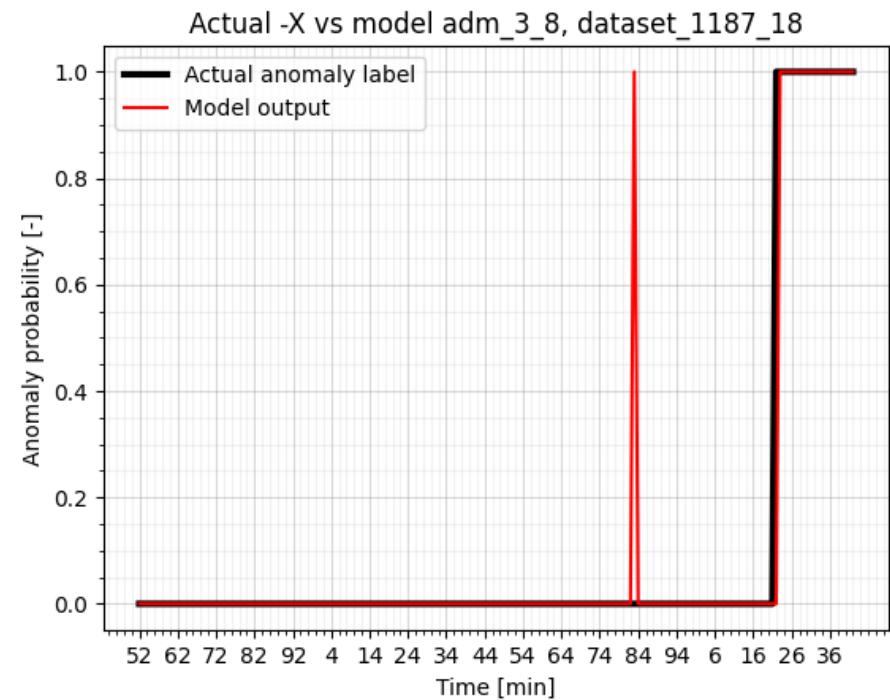
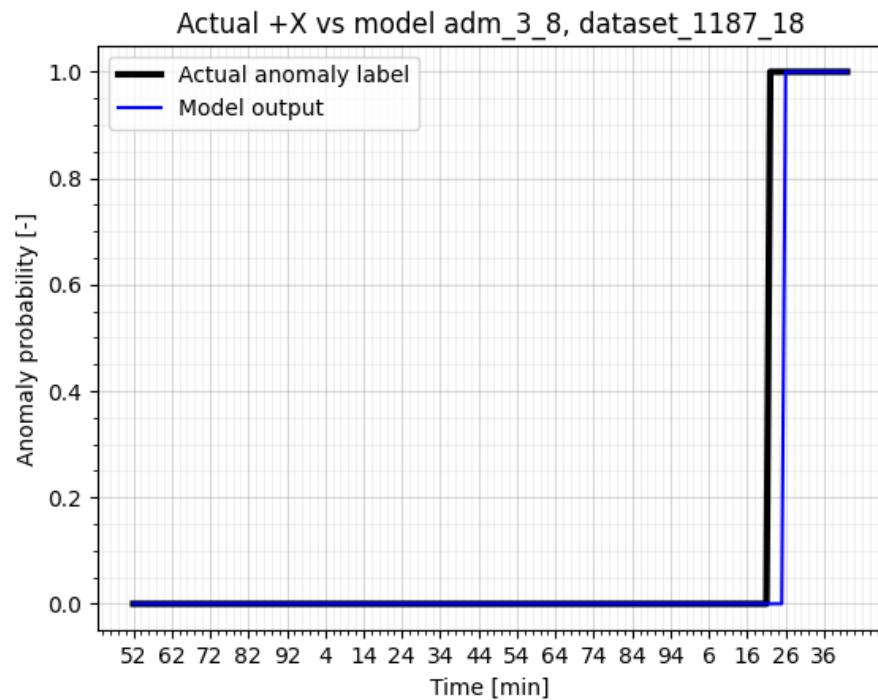


Figure 18: model inferences on dataset\_1187\_17\_mod1.png





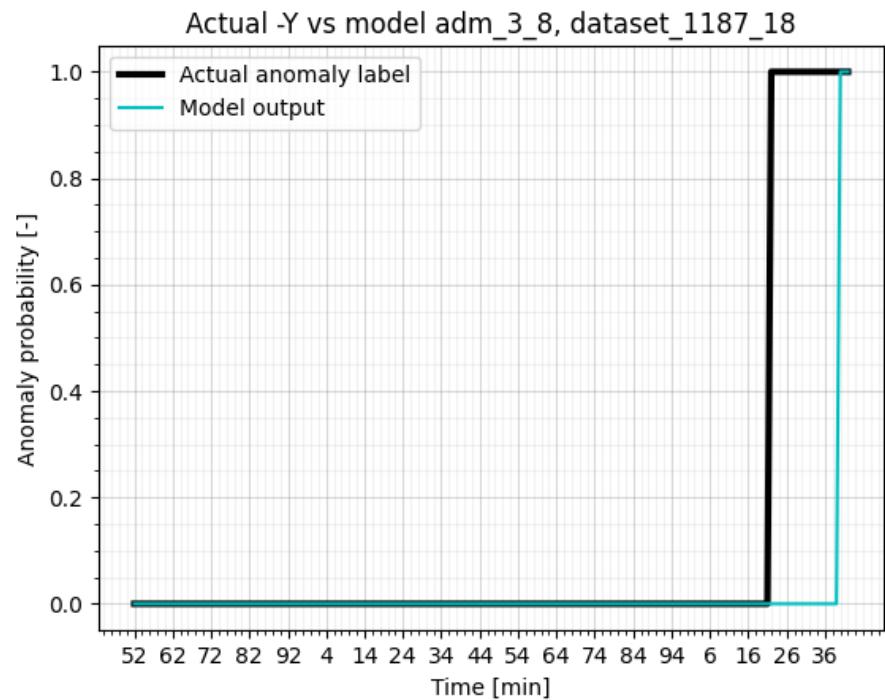
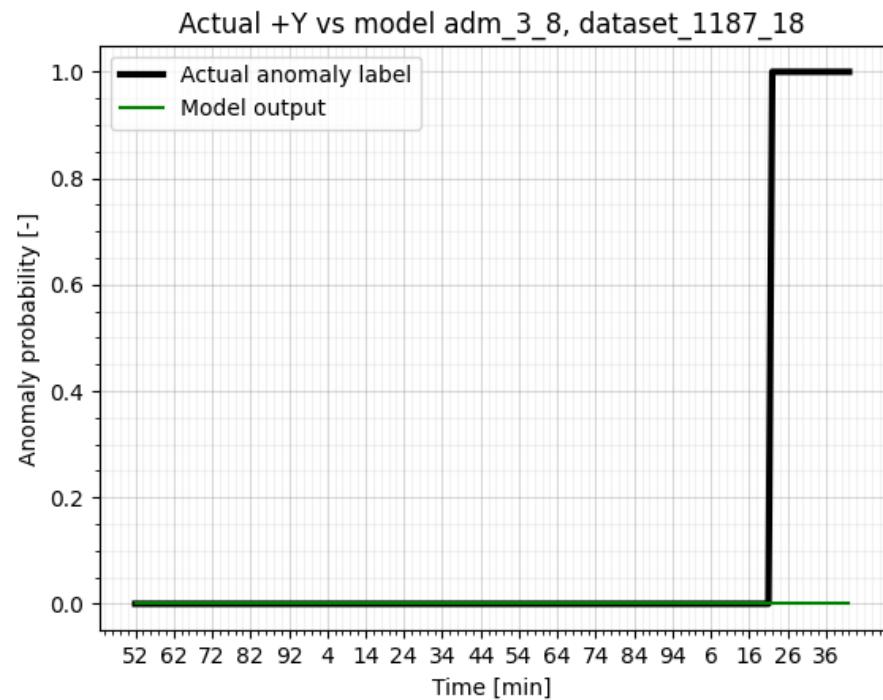
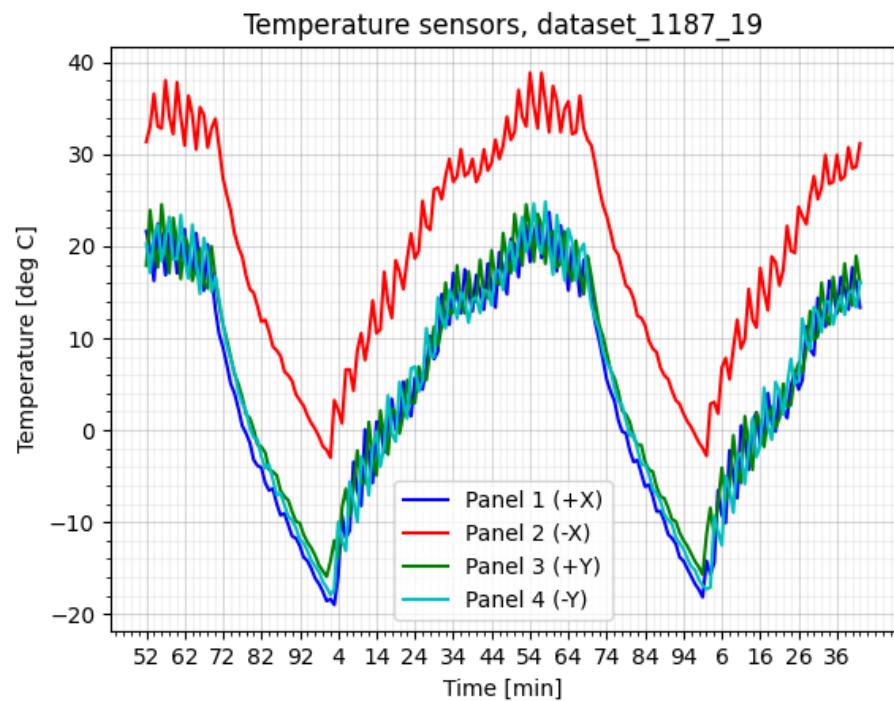
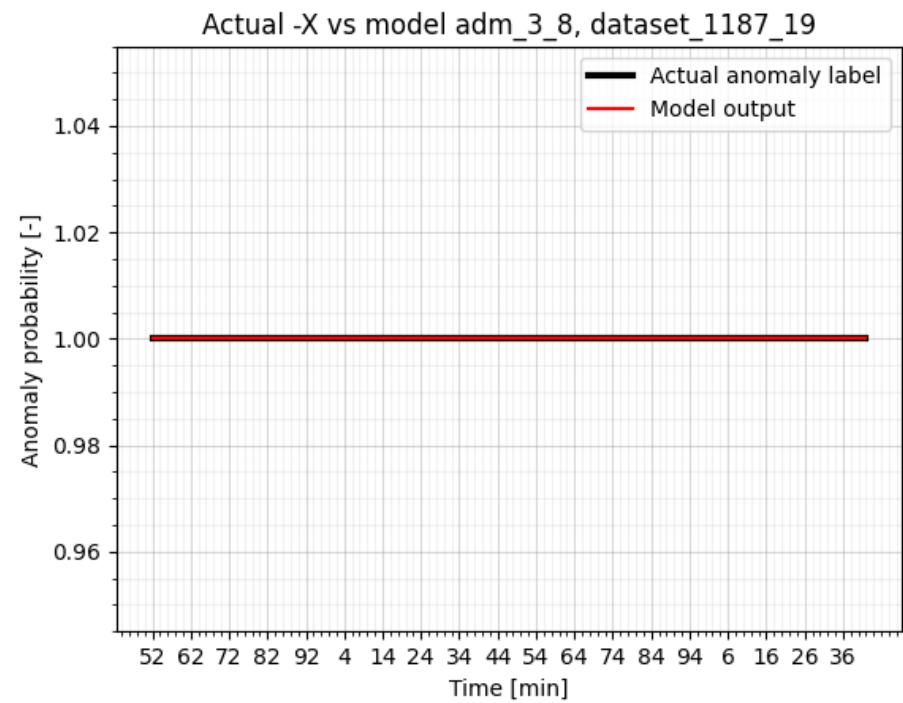
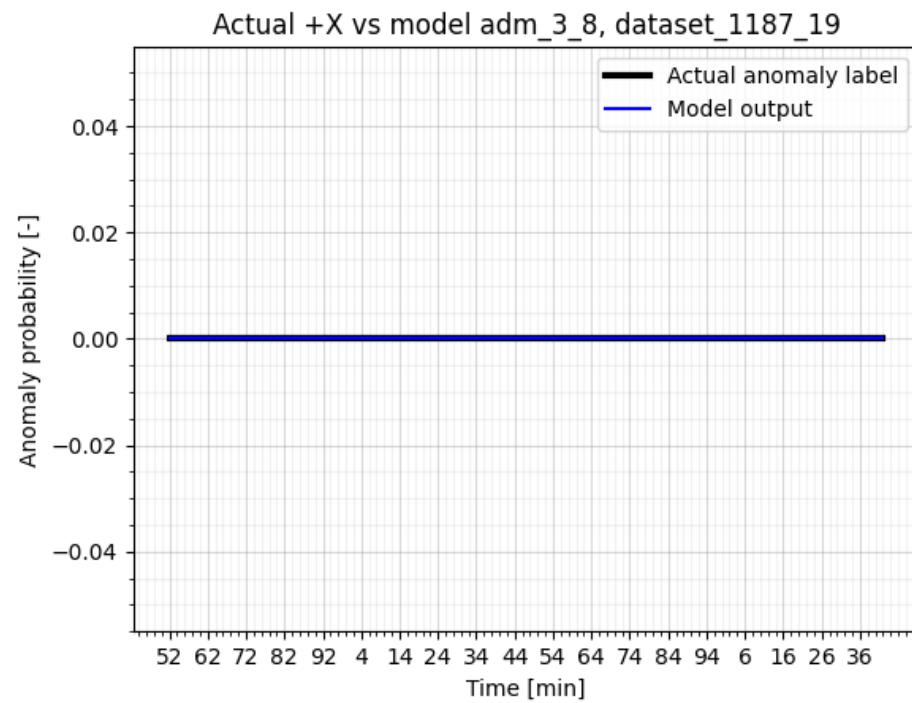


Figure 19: model inferences on dataset\_1187\_18\_mod1.png





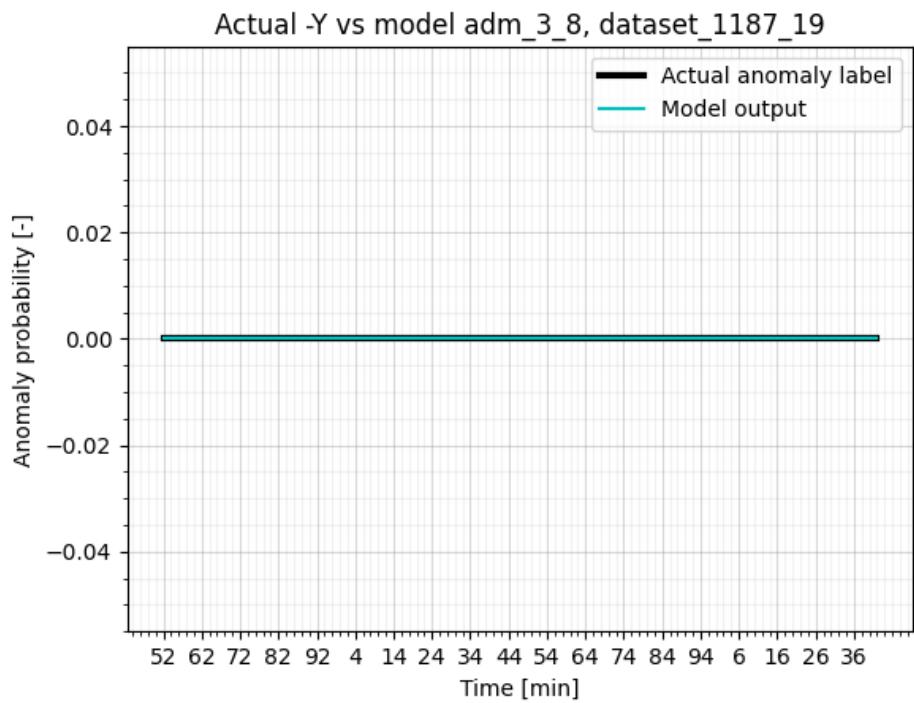
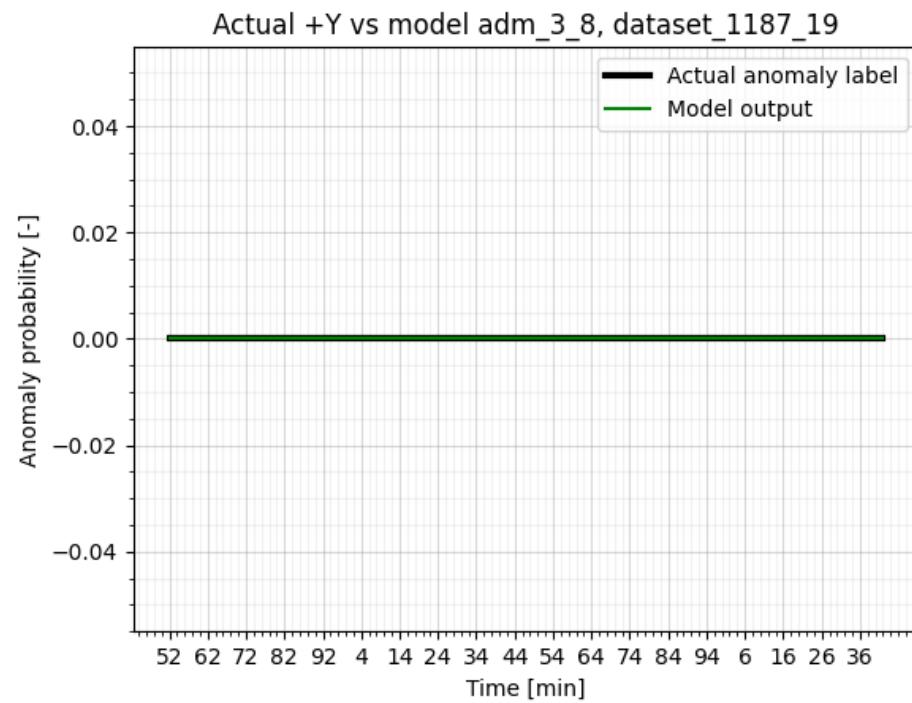
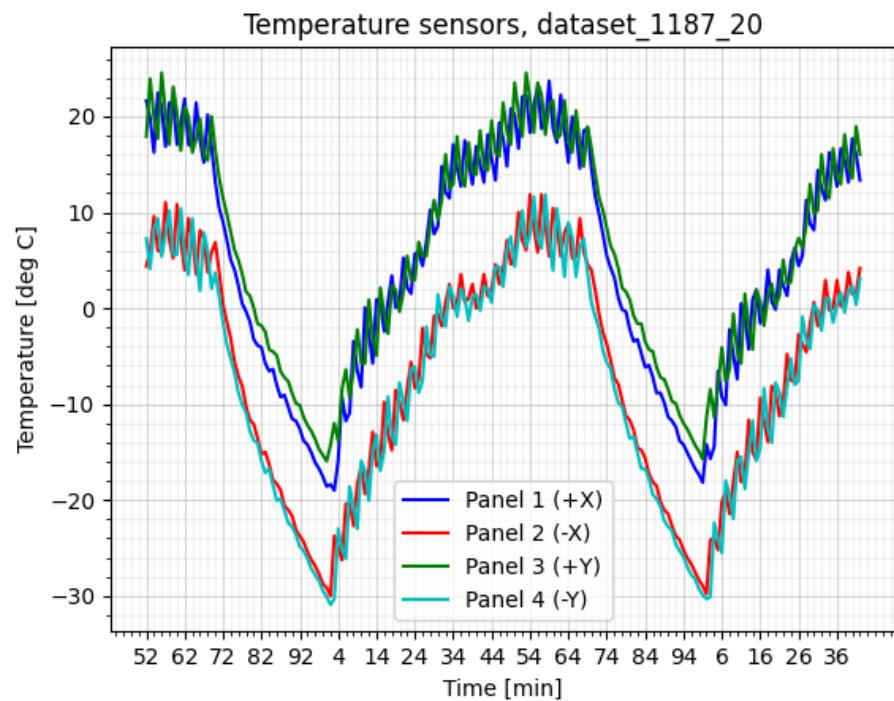
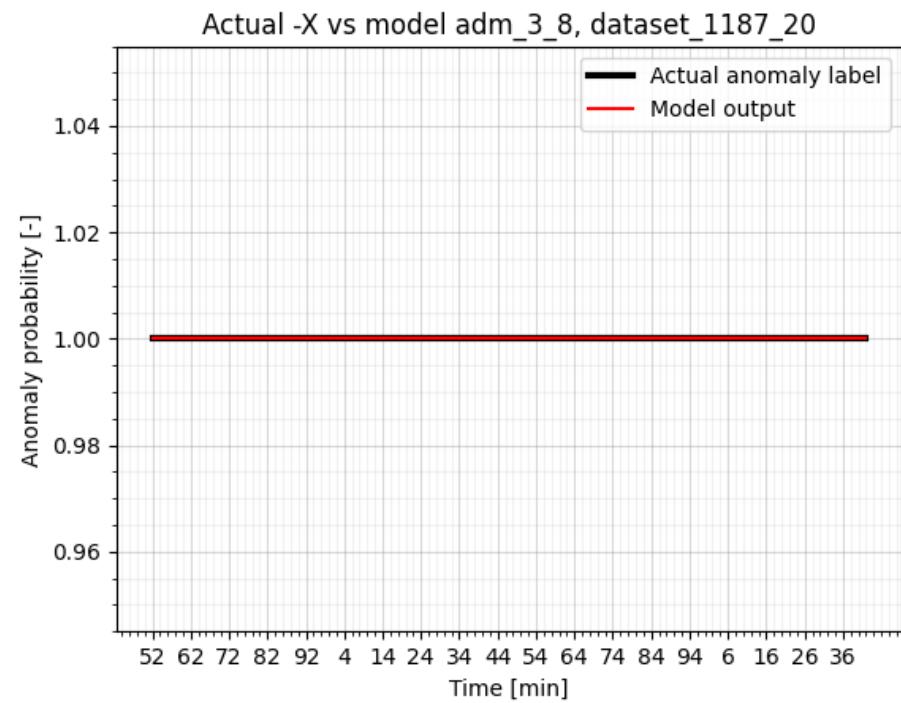
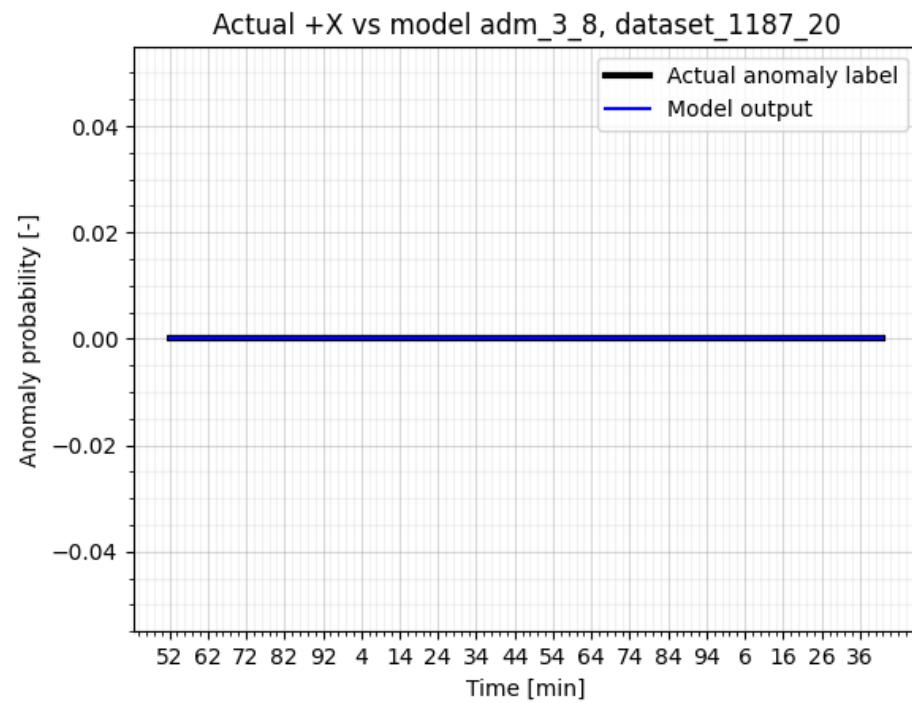


Figure 20: model inferences on dataset\_1187\_19\_mod1.png





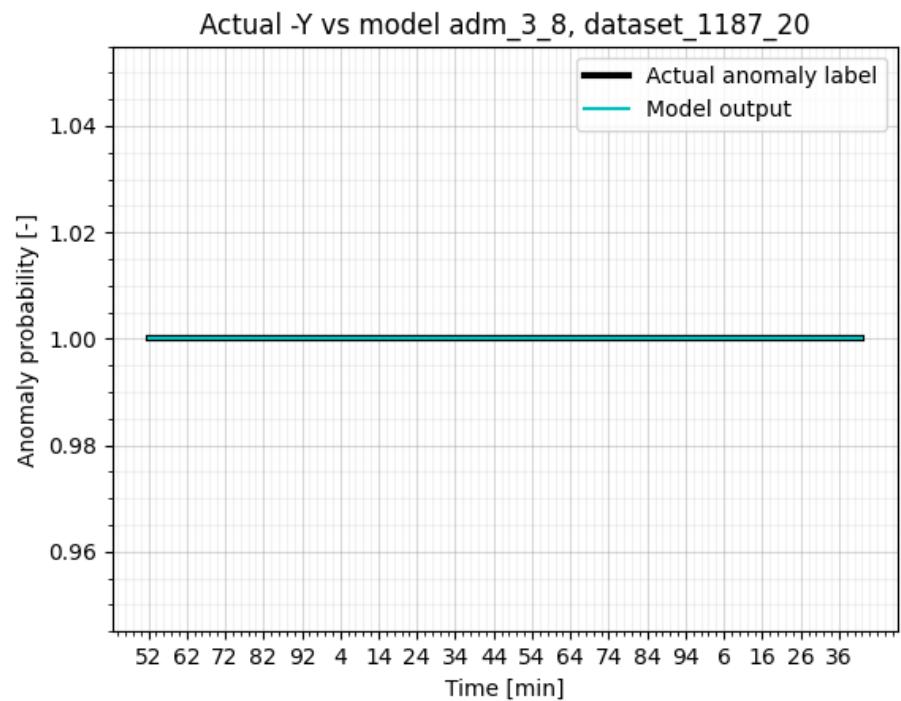
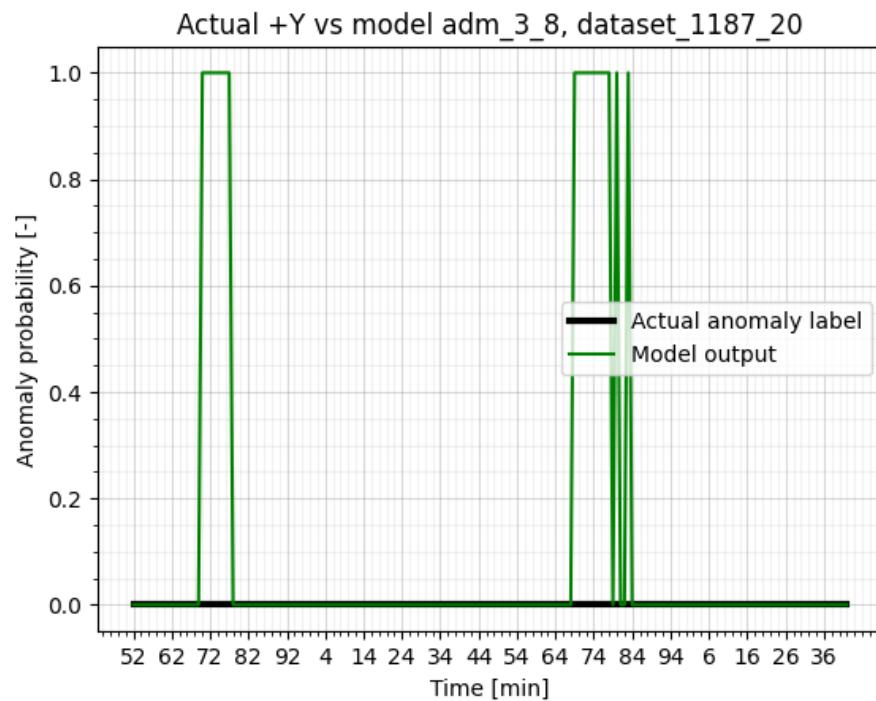
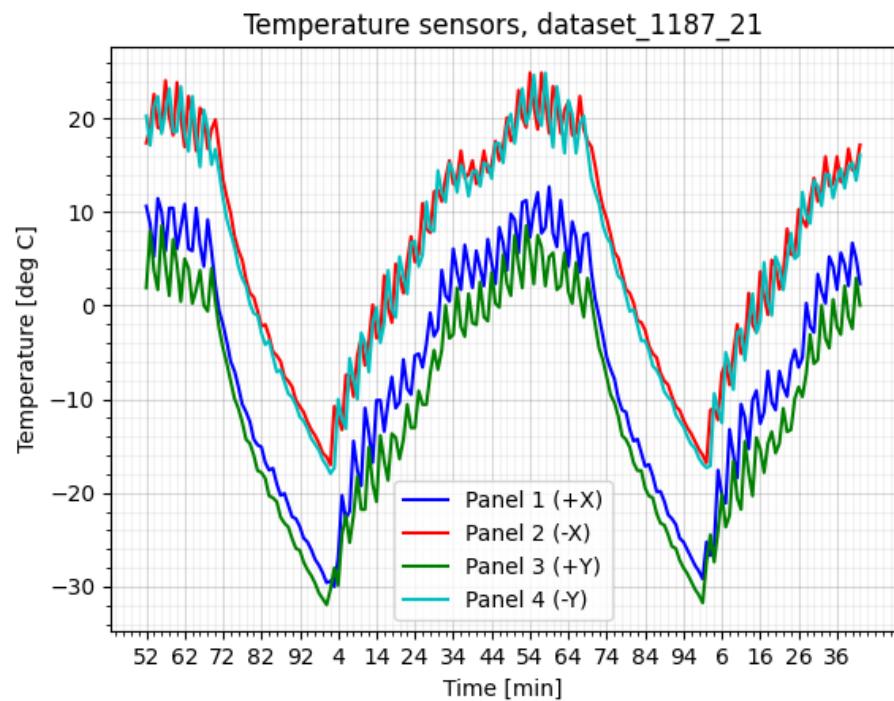
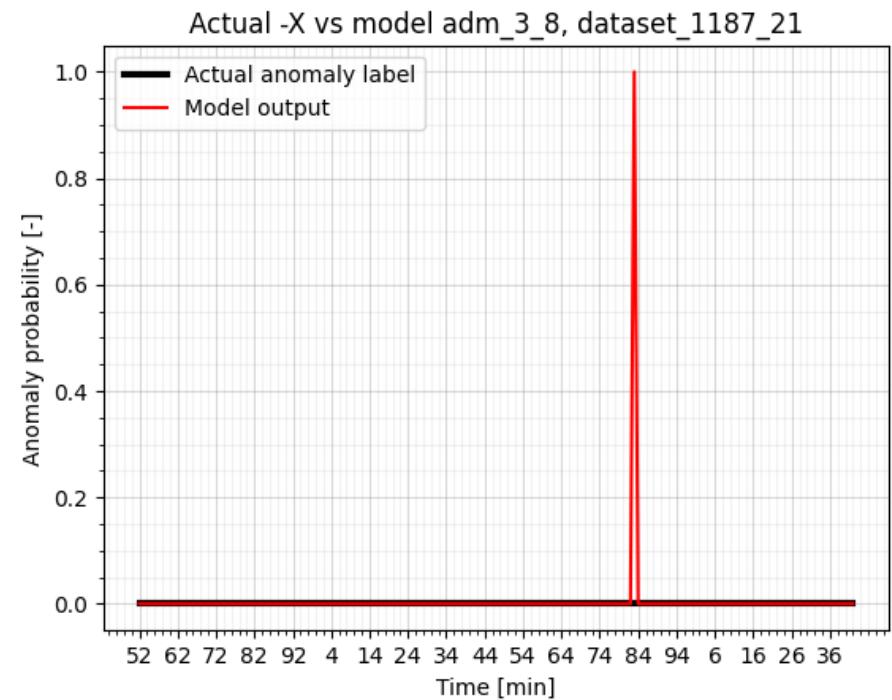
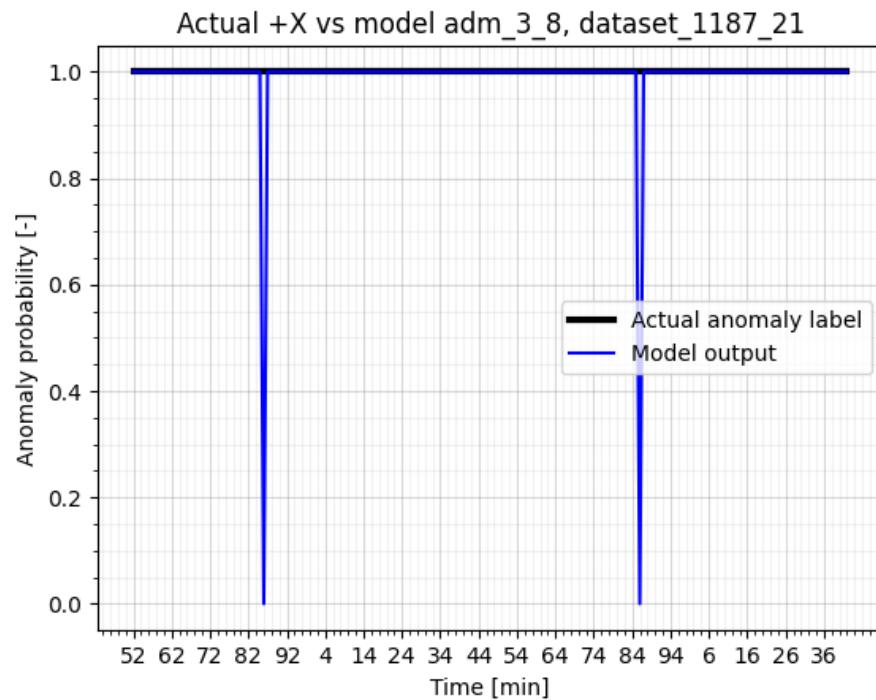


Figure 21: model inferences on dataset\_1187\_20\_mod1.png





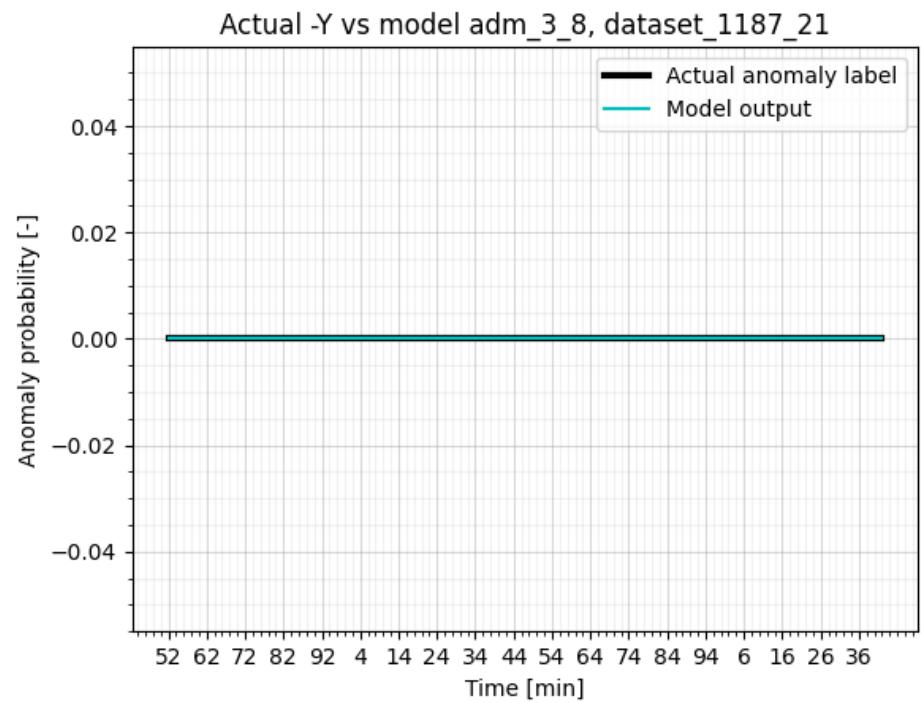
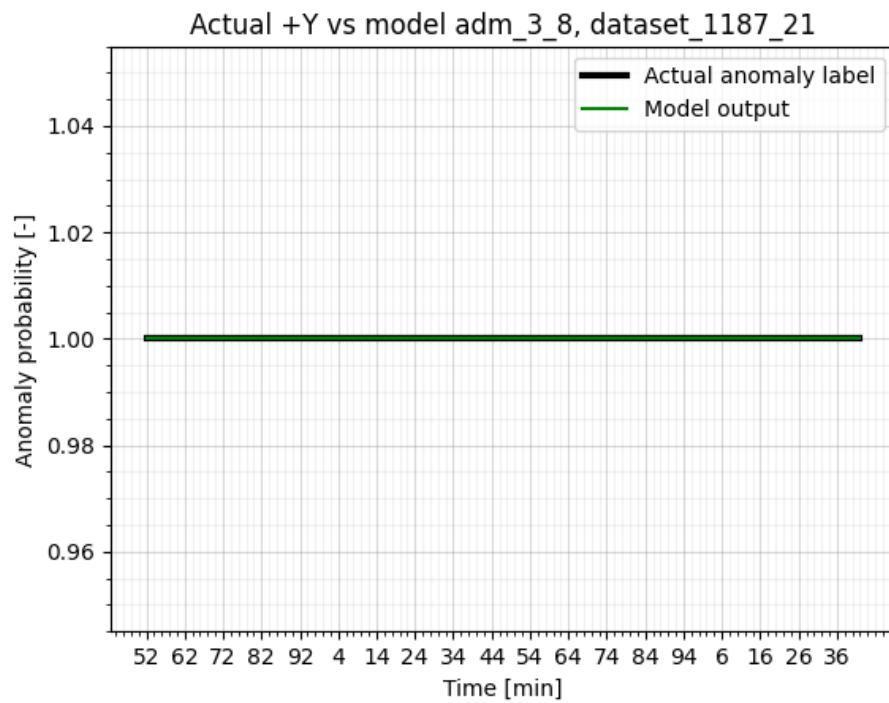
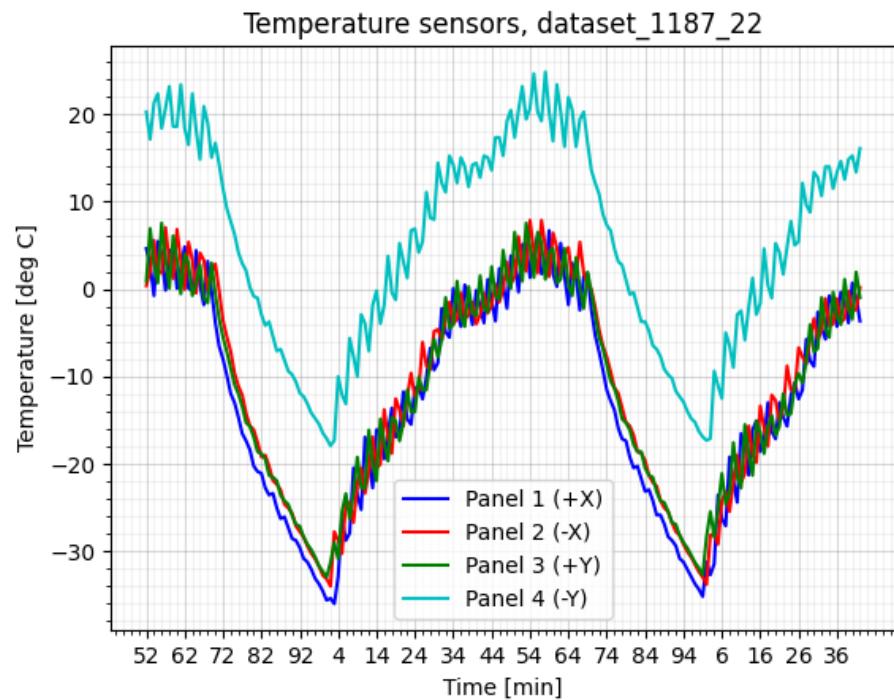
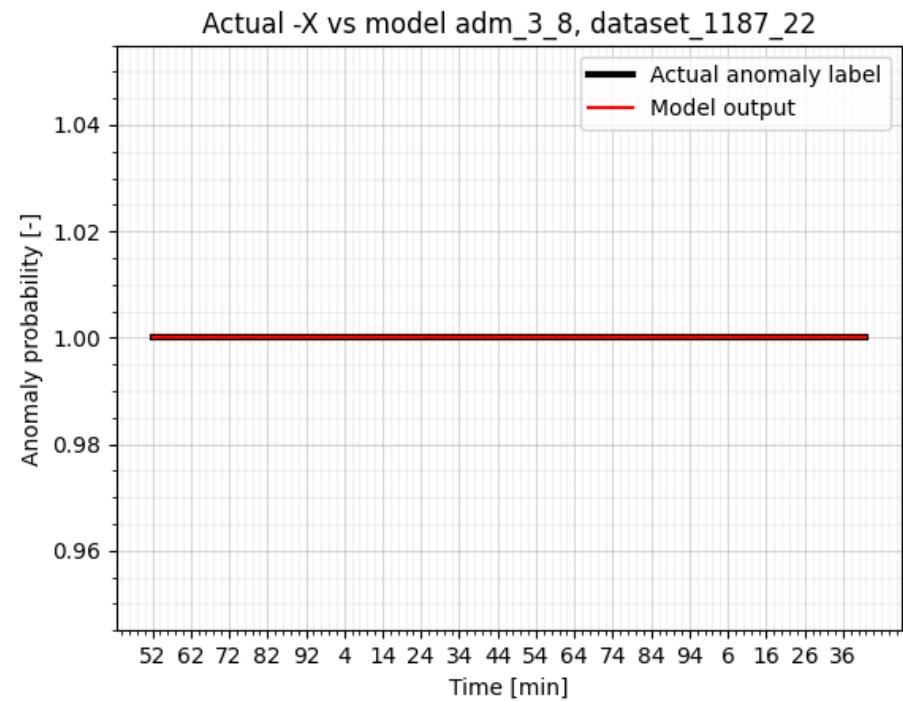
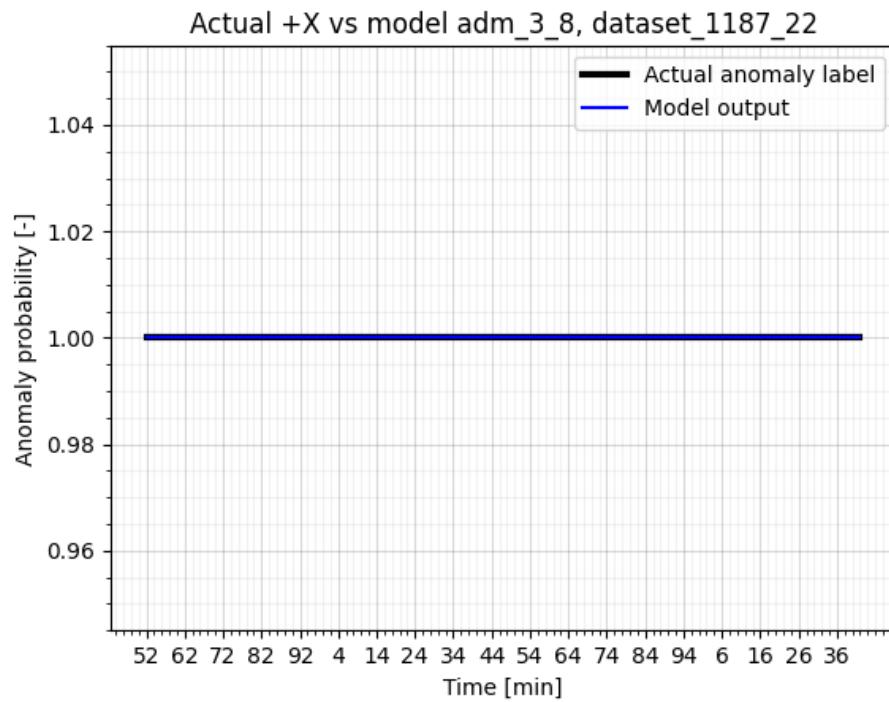


Figure 22: model inferences on dataset\_1187\_21\_mod1.png





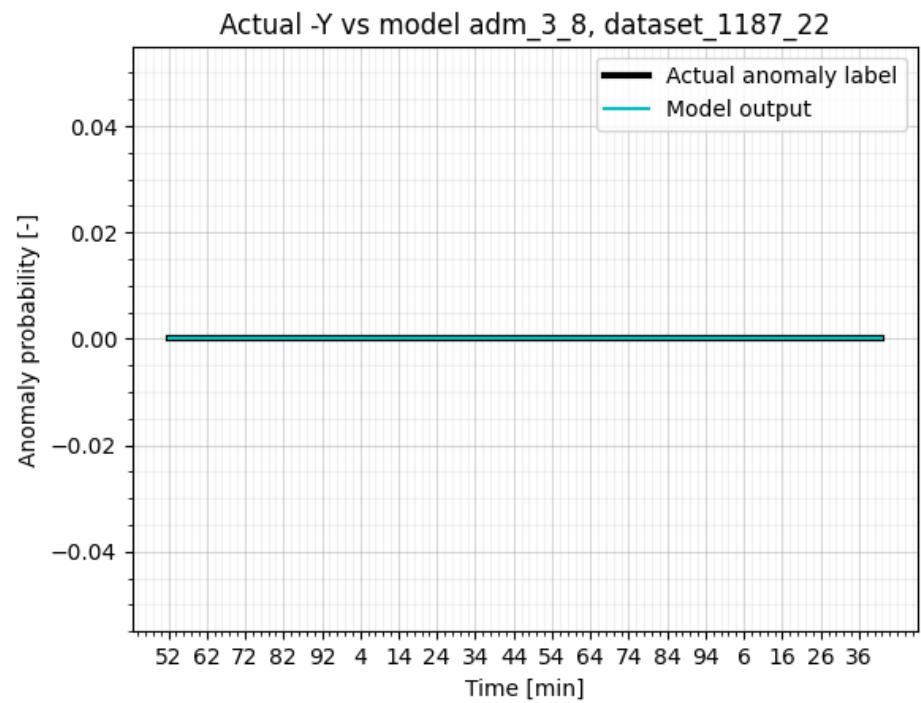
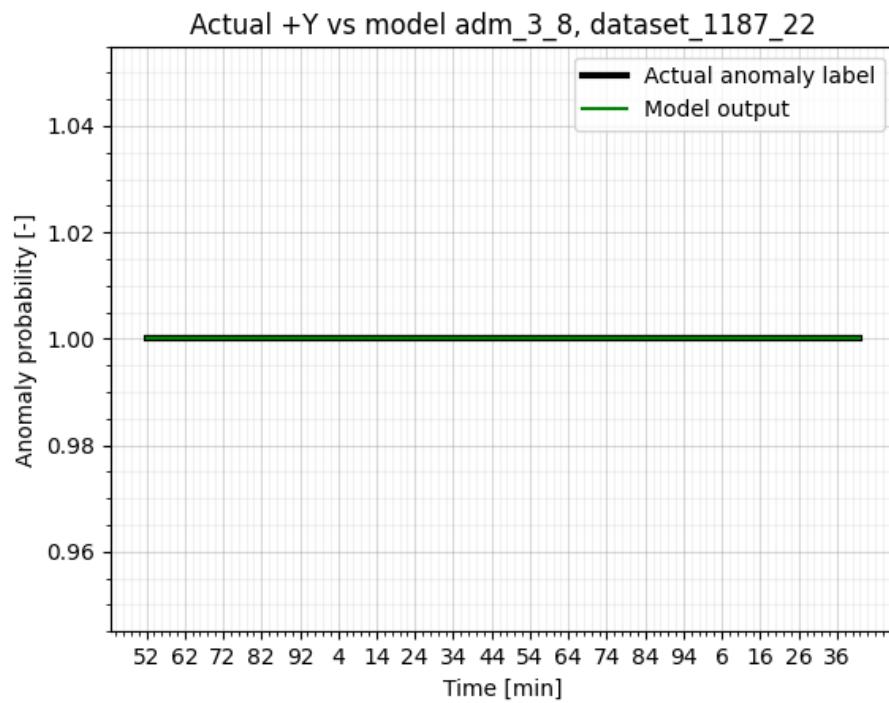
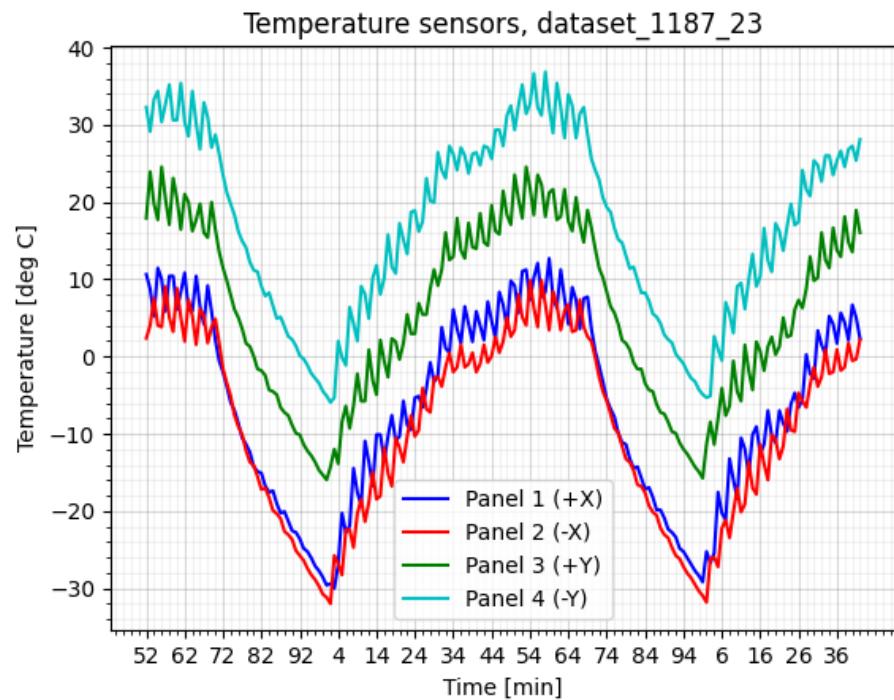
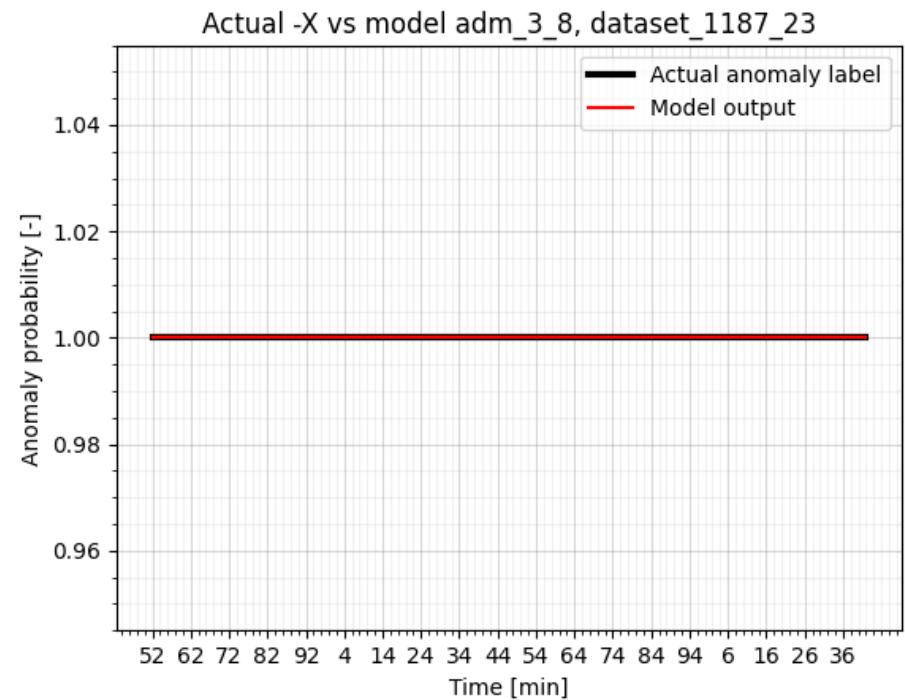
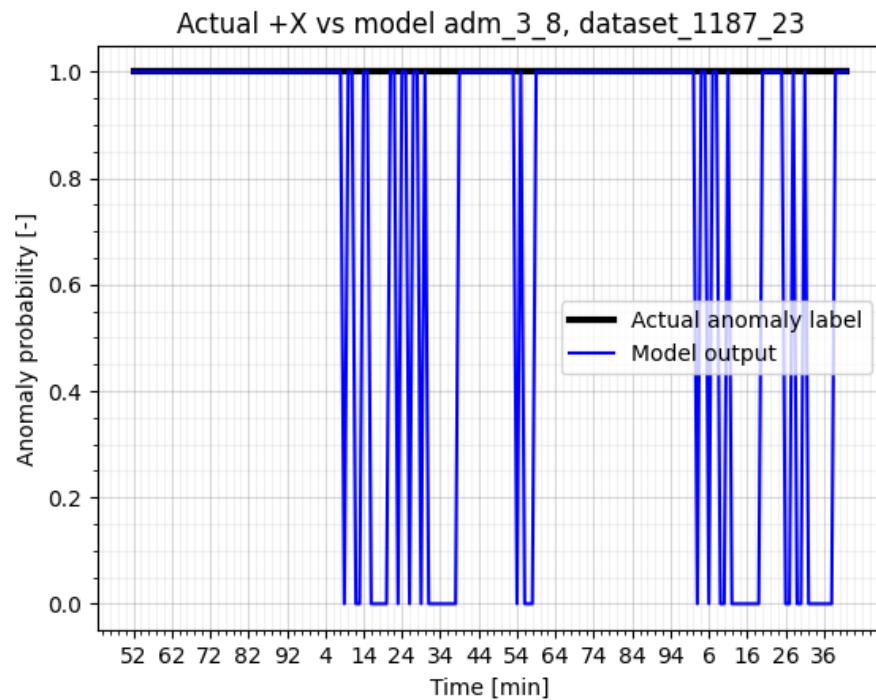


Figure 23: model inferences on dataset\_1187\_22\_mod1.png





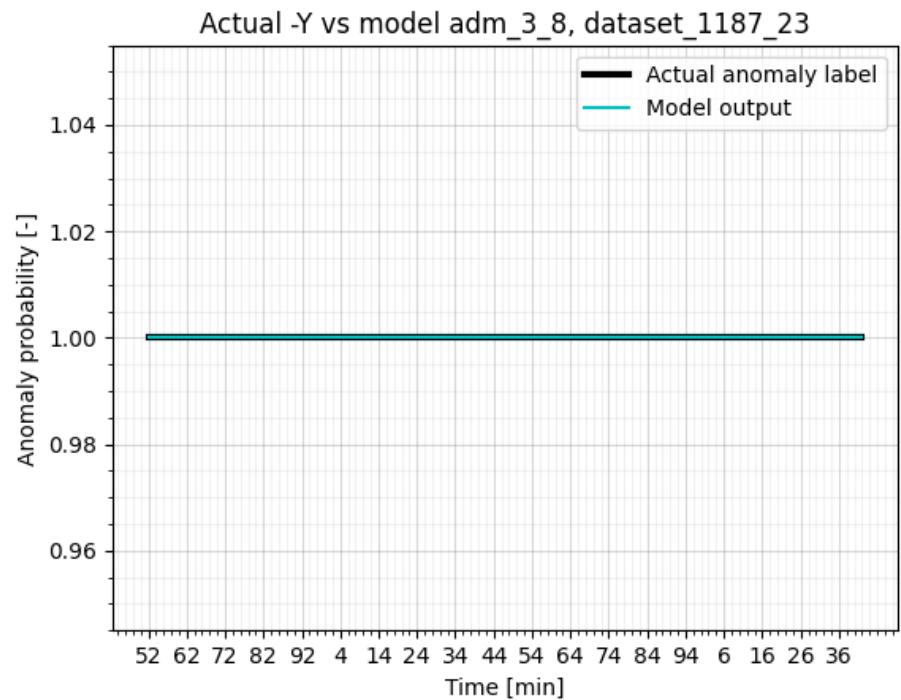
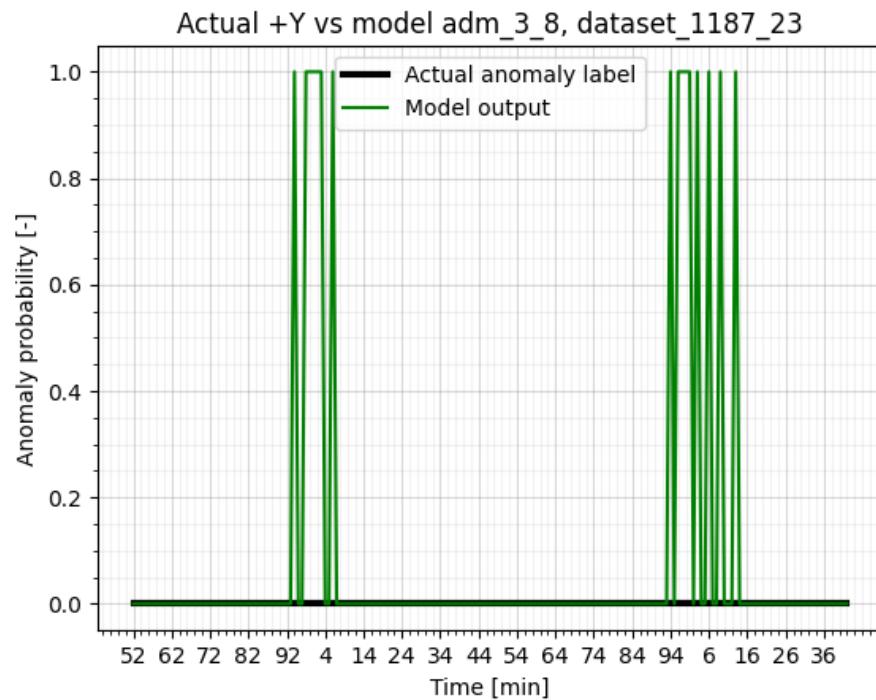
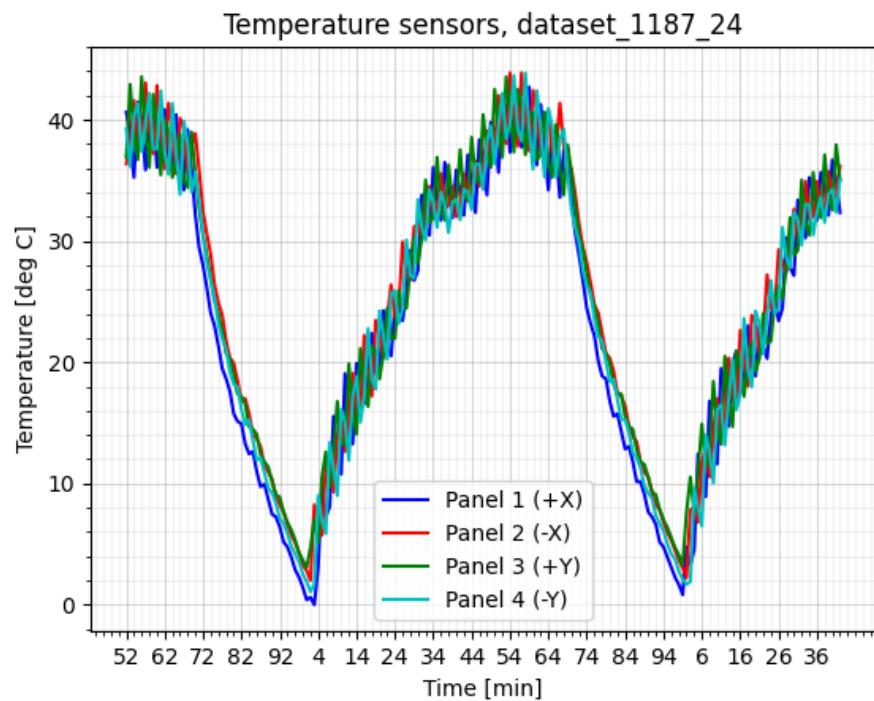
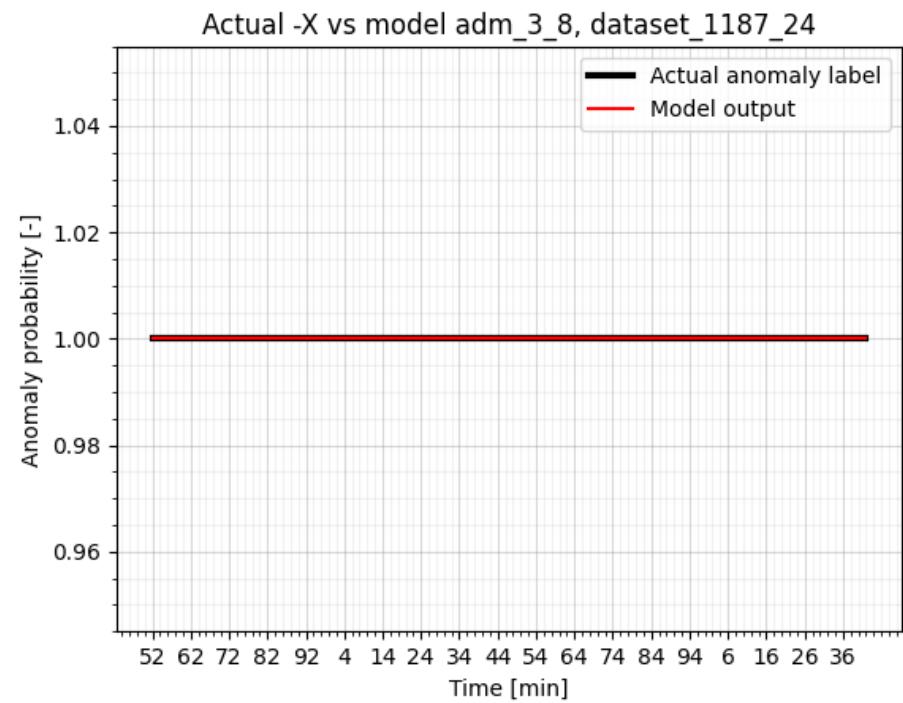
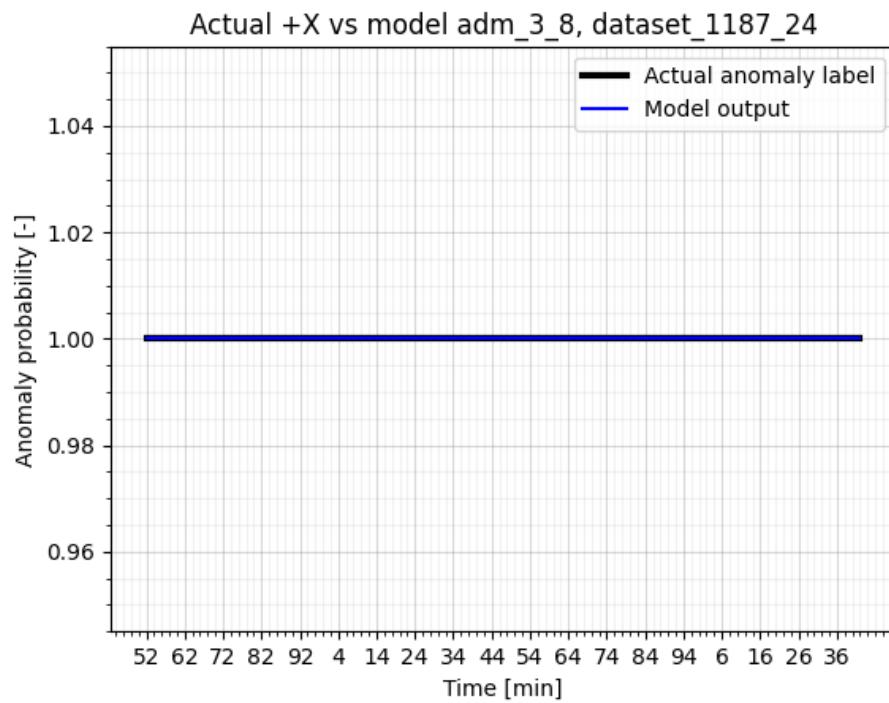


Figure 24: model inferences on dataset\_1187\_23\_mod1.png





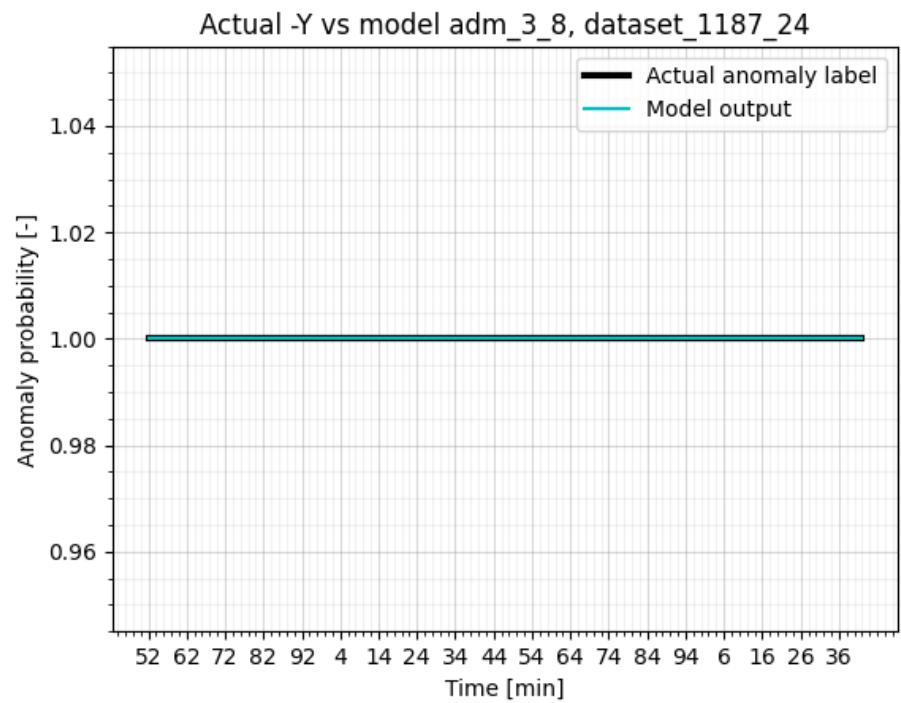
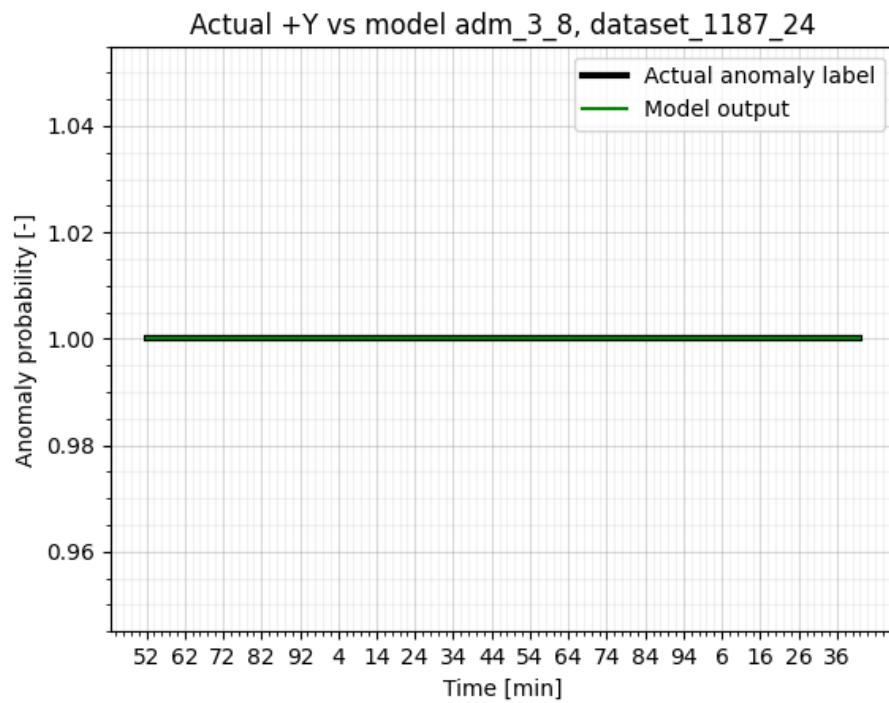
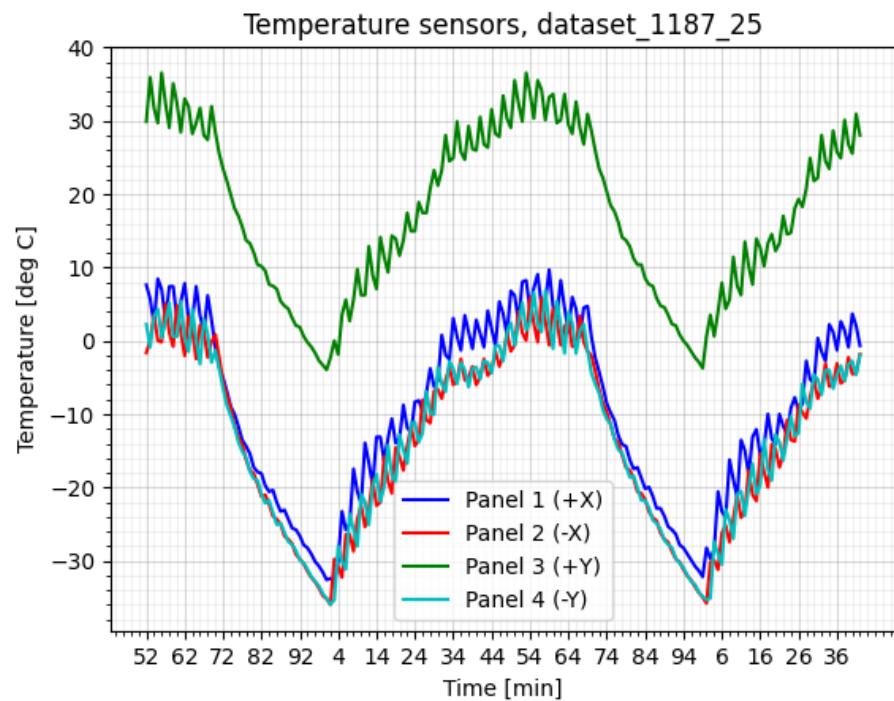
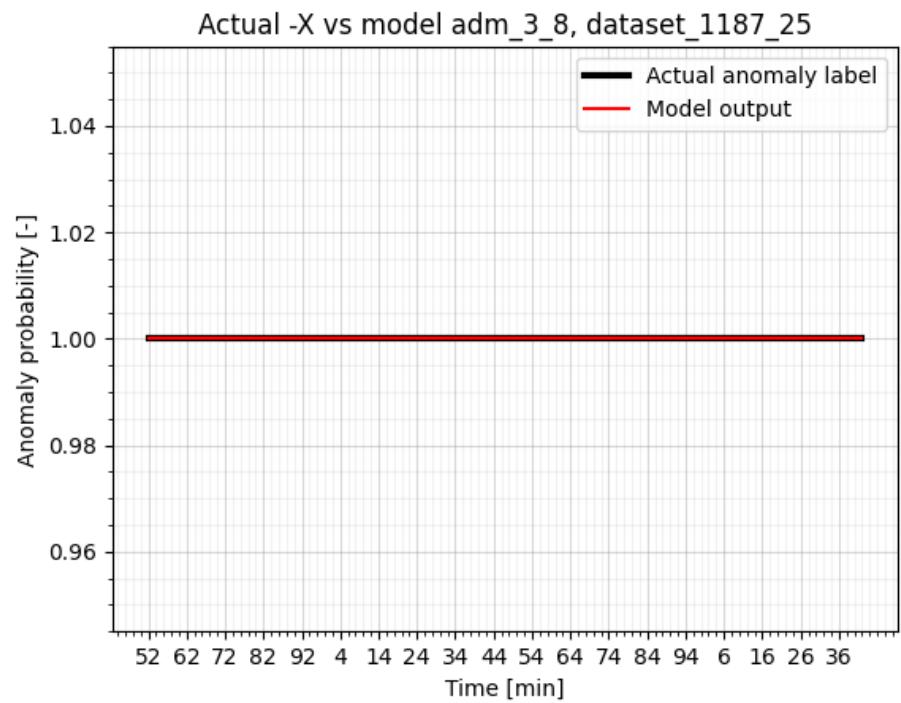
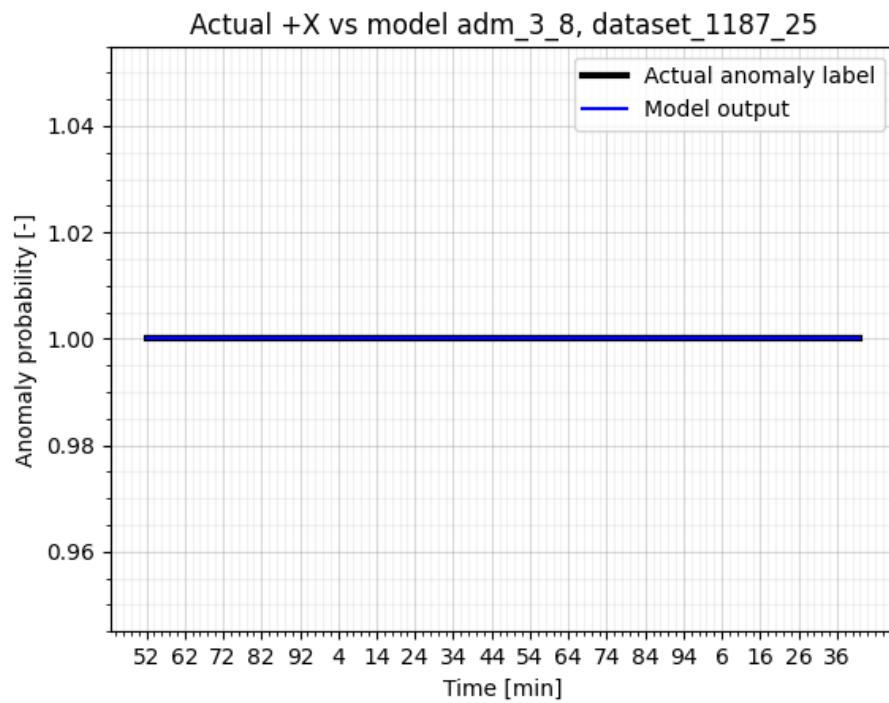


Figure 25: model inferences on dataset\_1187\_24\_mod1.png





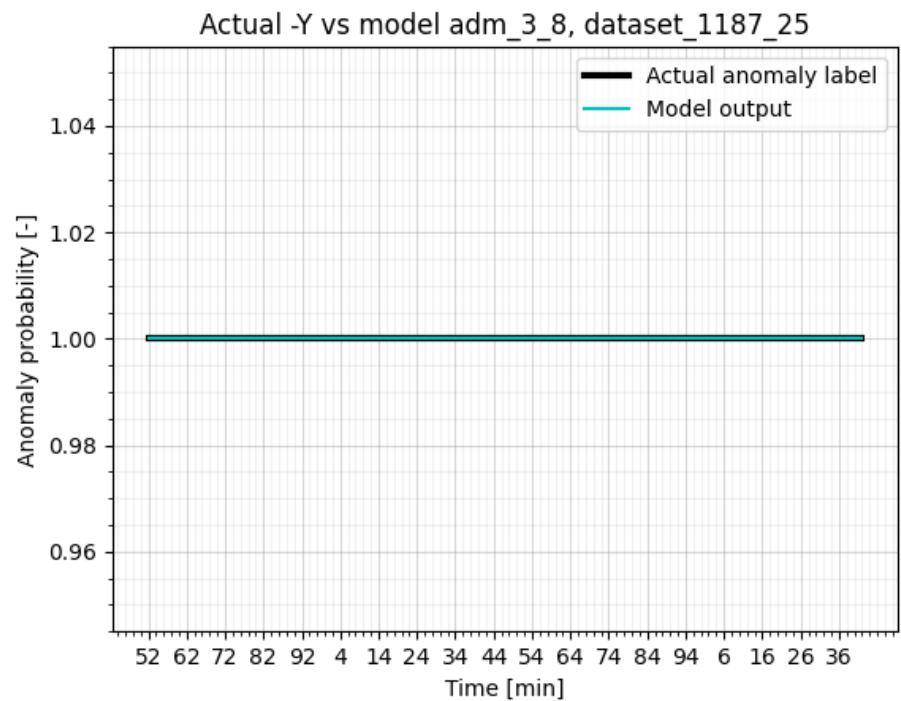
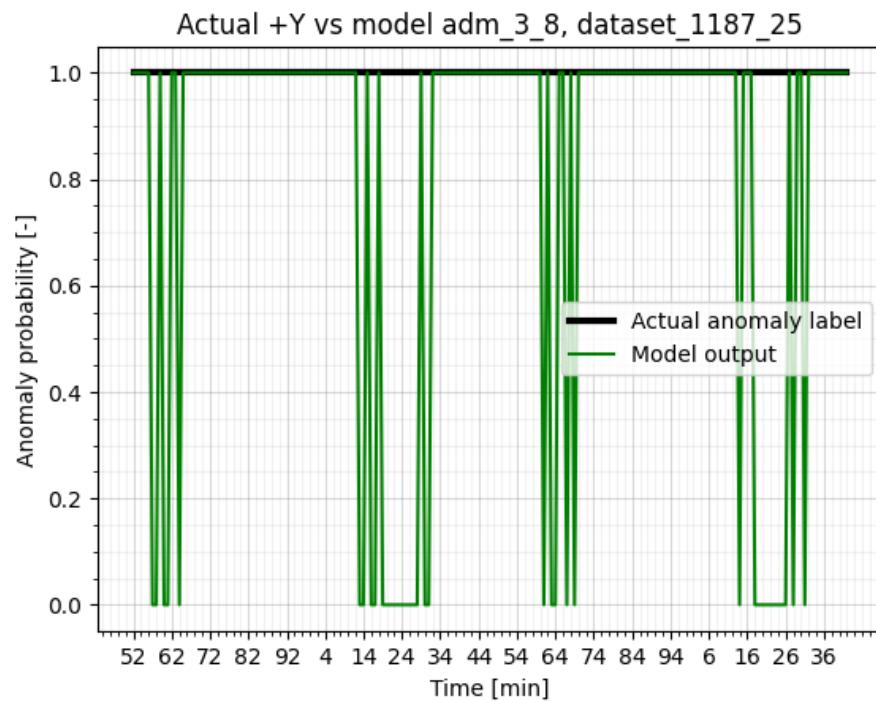
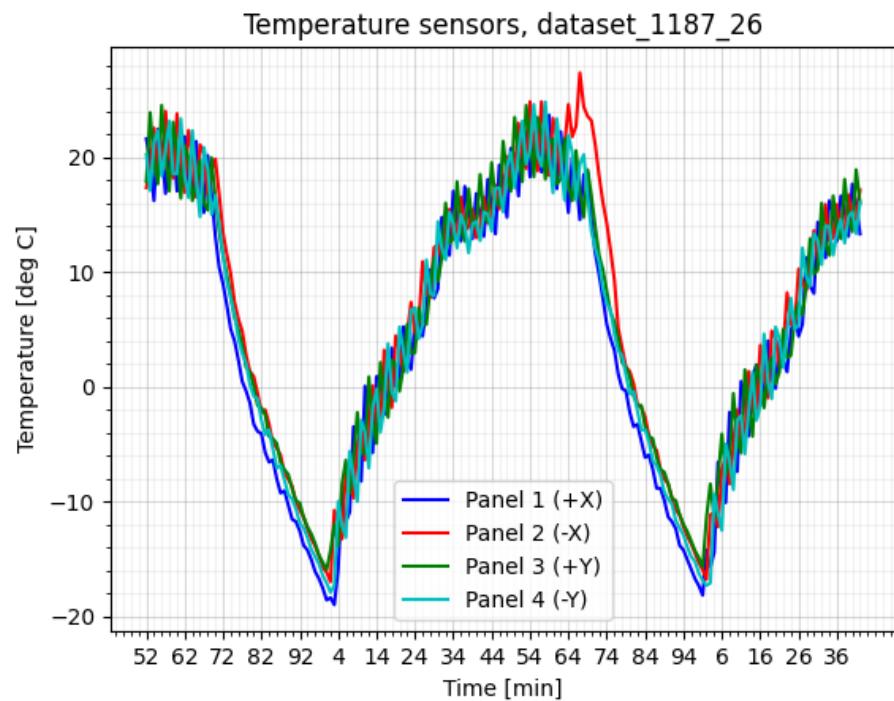
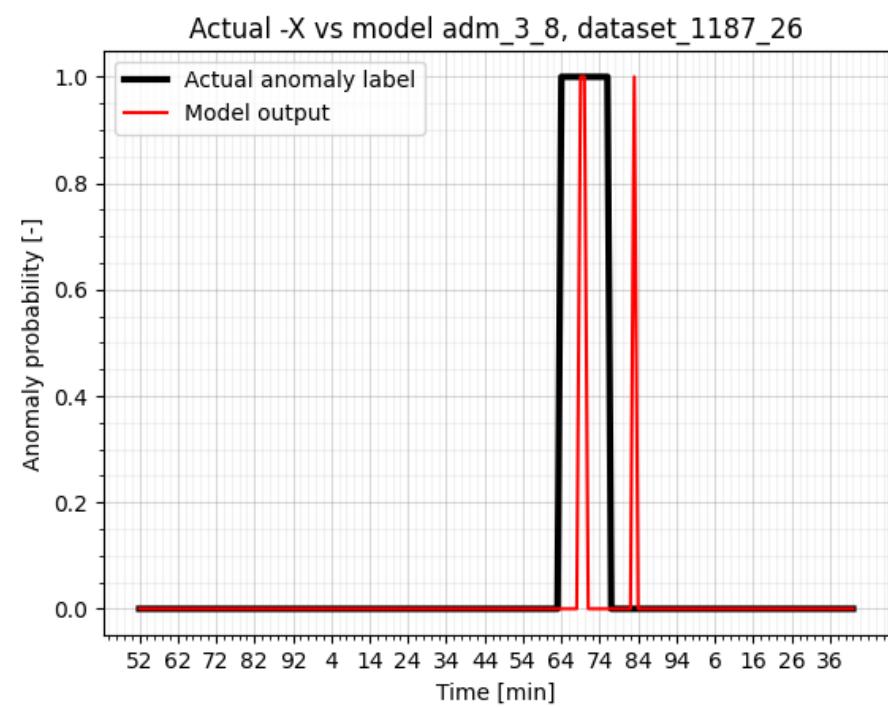
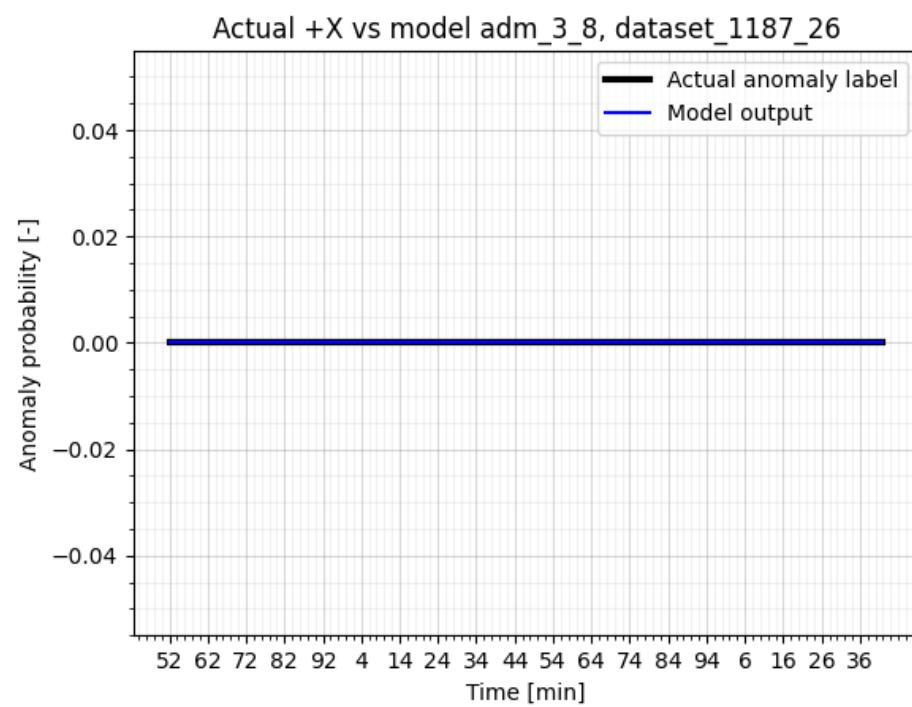


Figure 26: model inferences on dataset\_1187\_25\_mod1.png





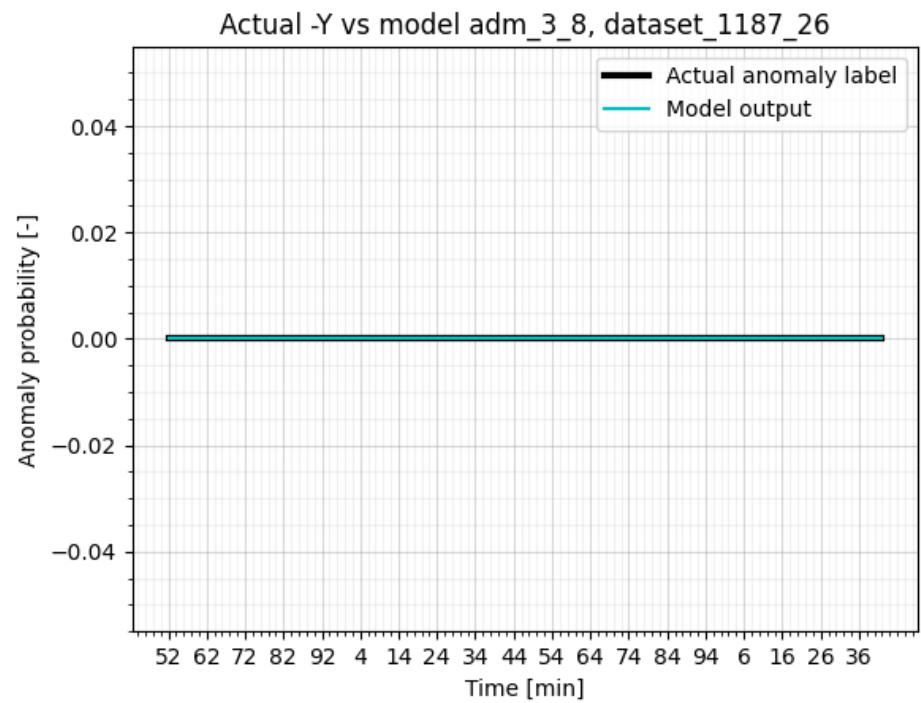
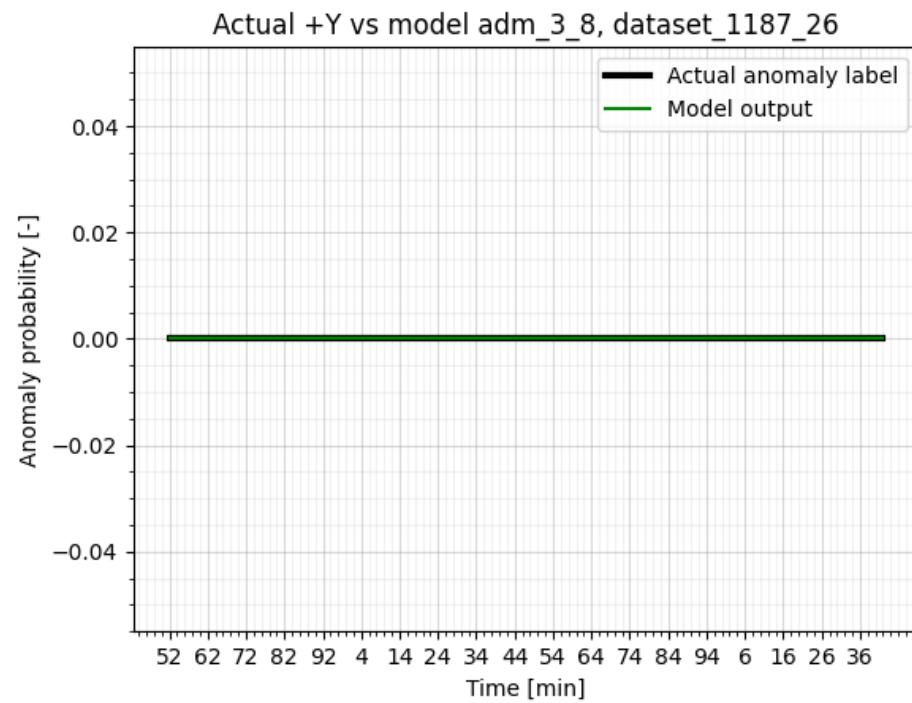
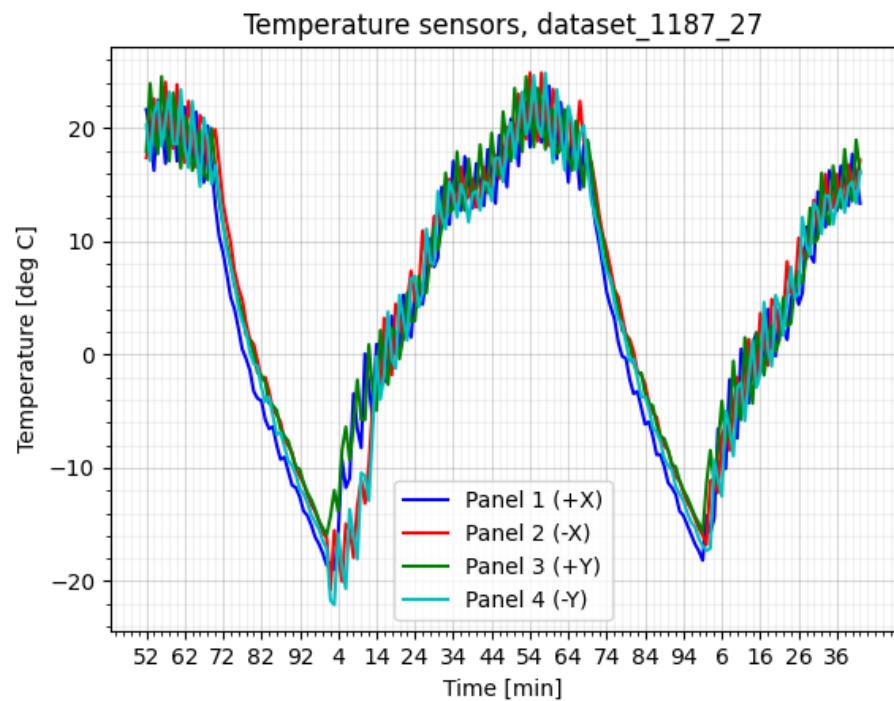
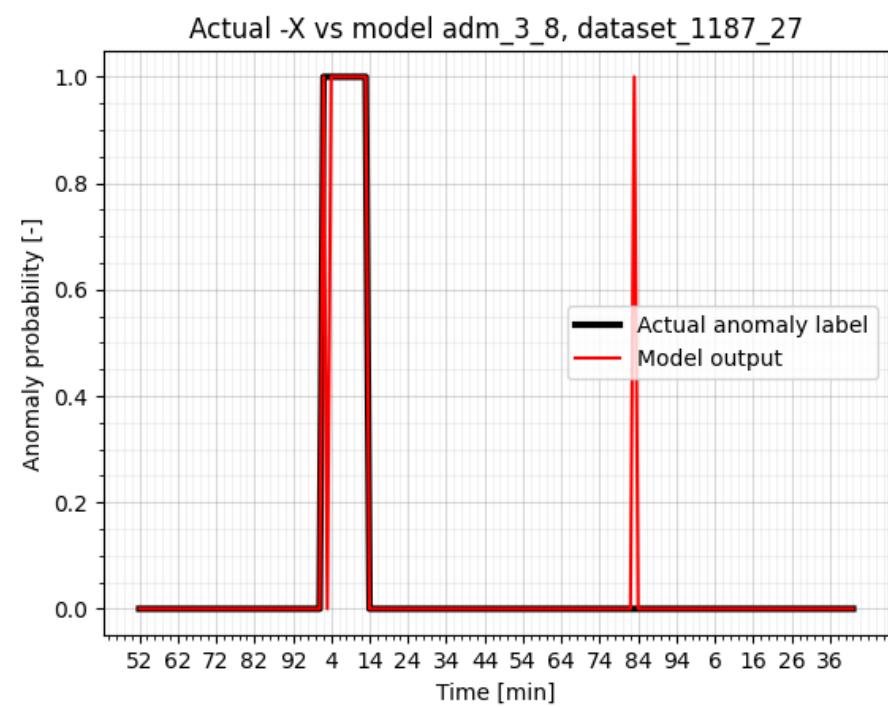
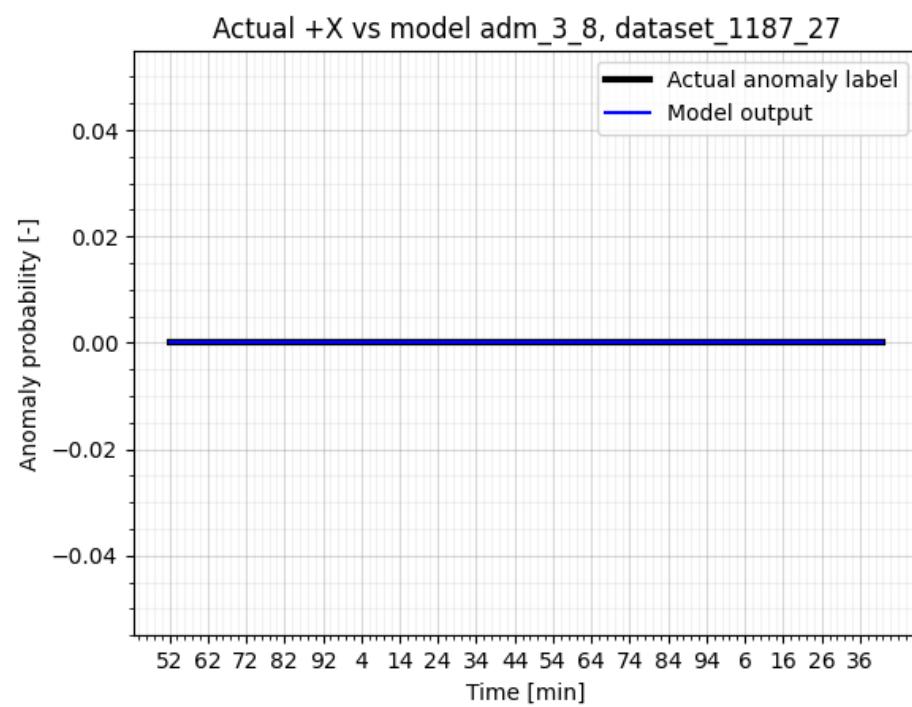


Figure 27: model inferences on dataset\_1187\_26\_mod1.png





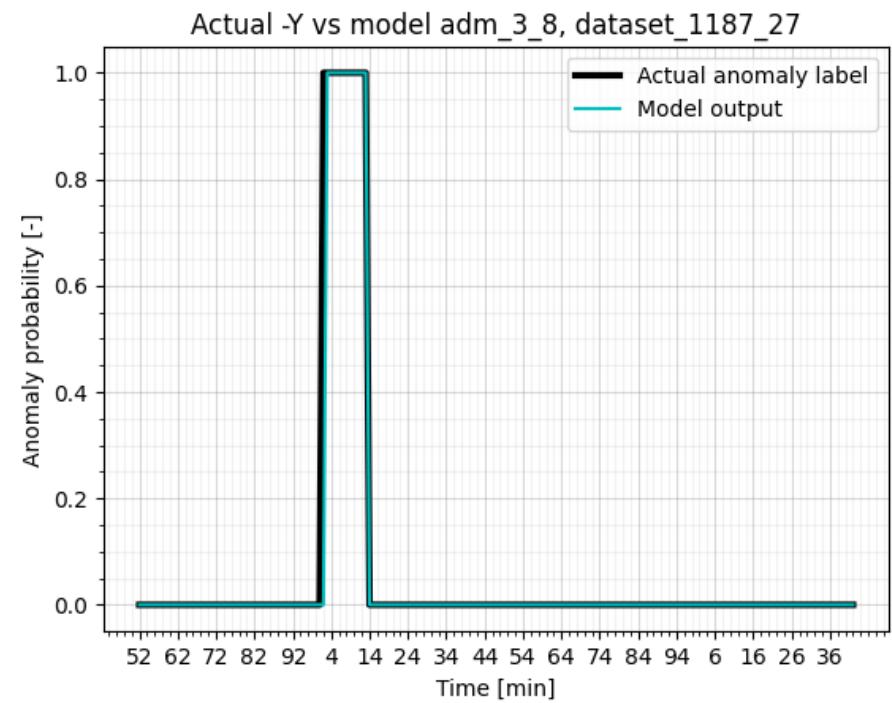
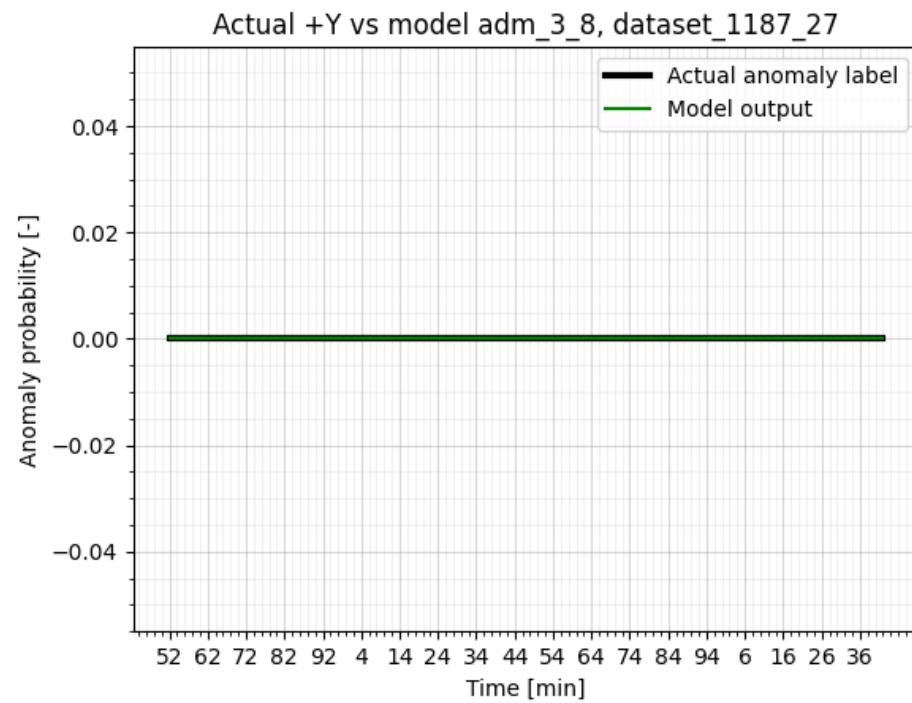
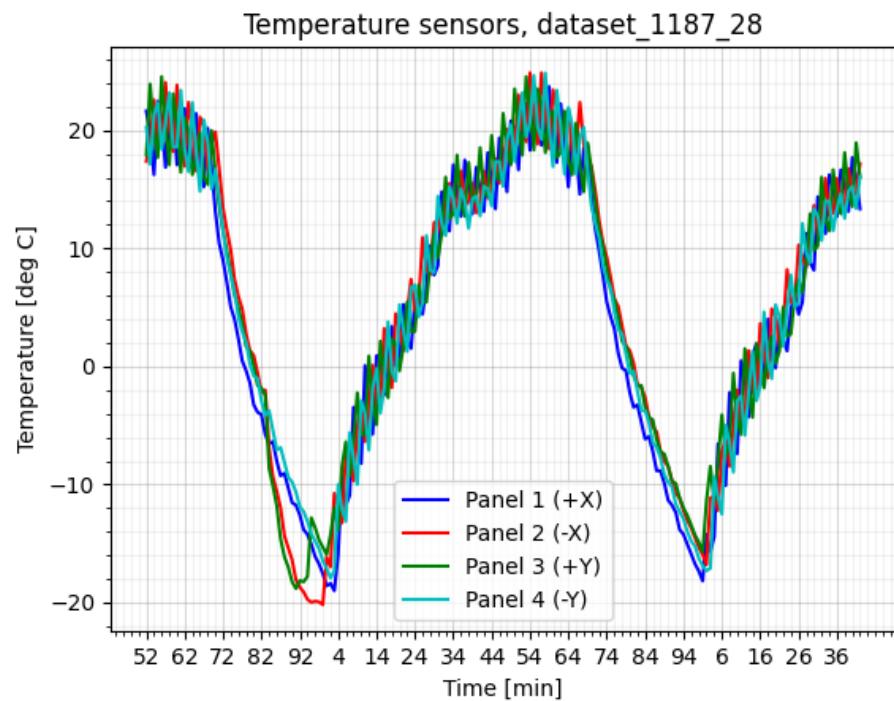
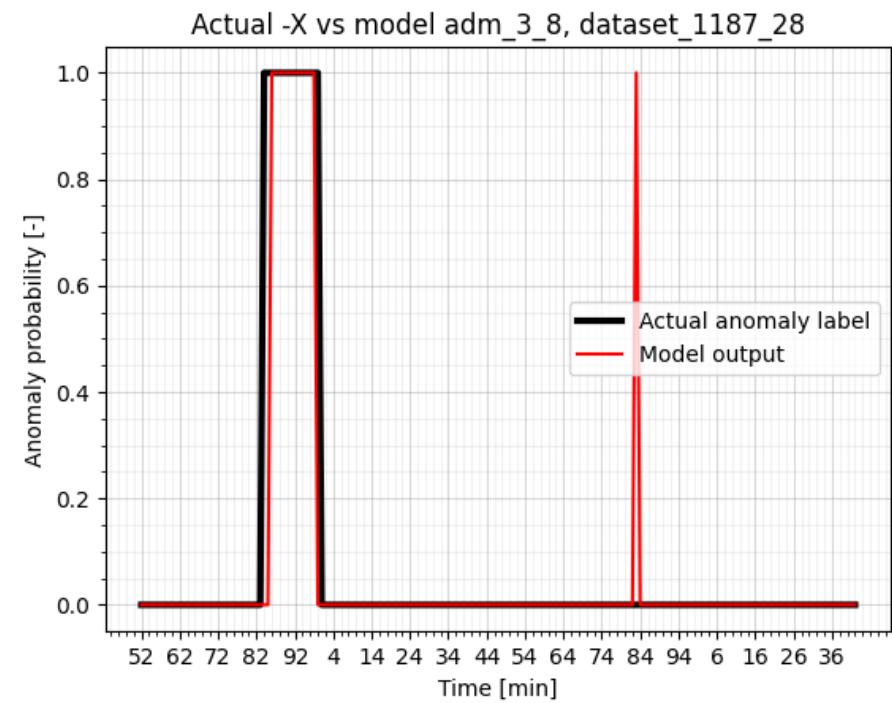
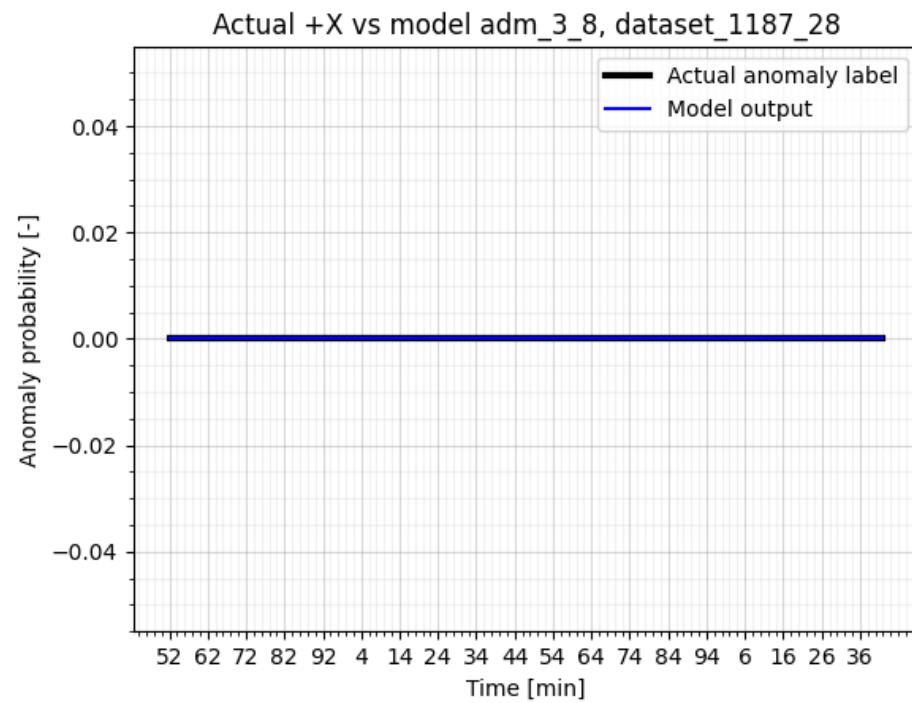


Figure 28: model inferences on dataset\_1187\_27\_mod1.png





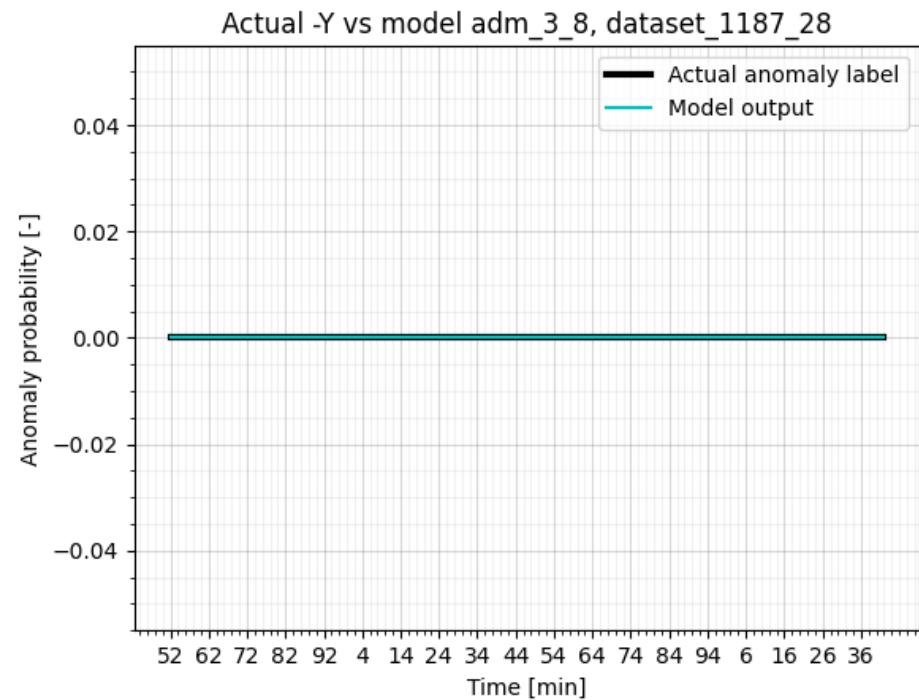
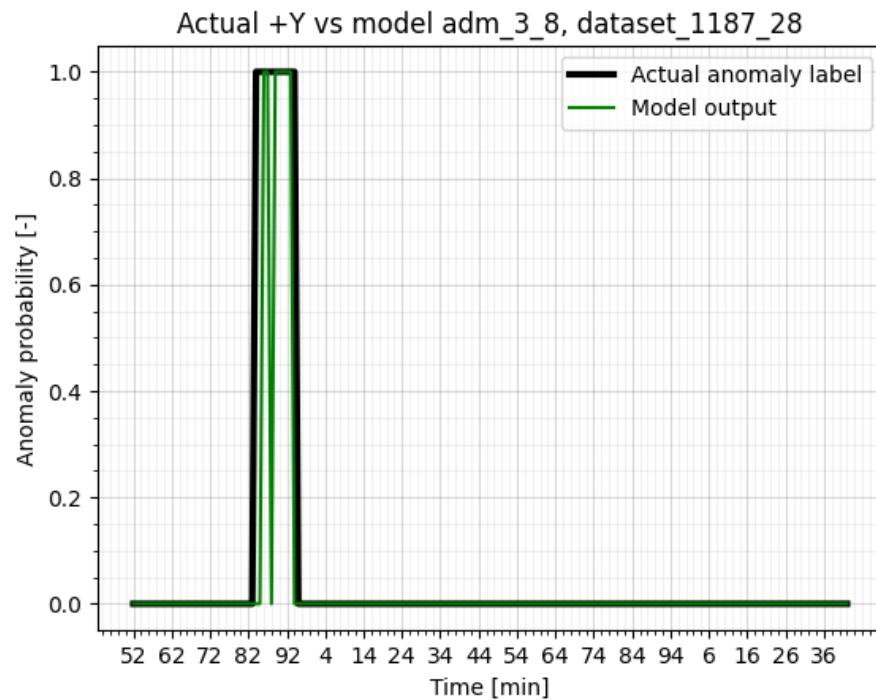
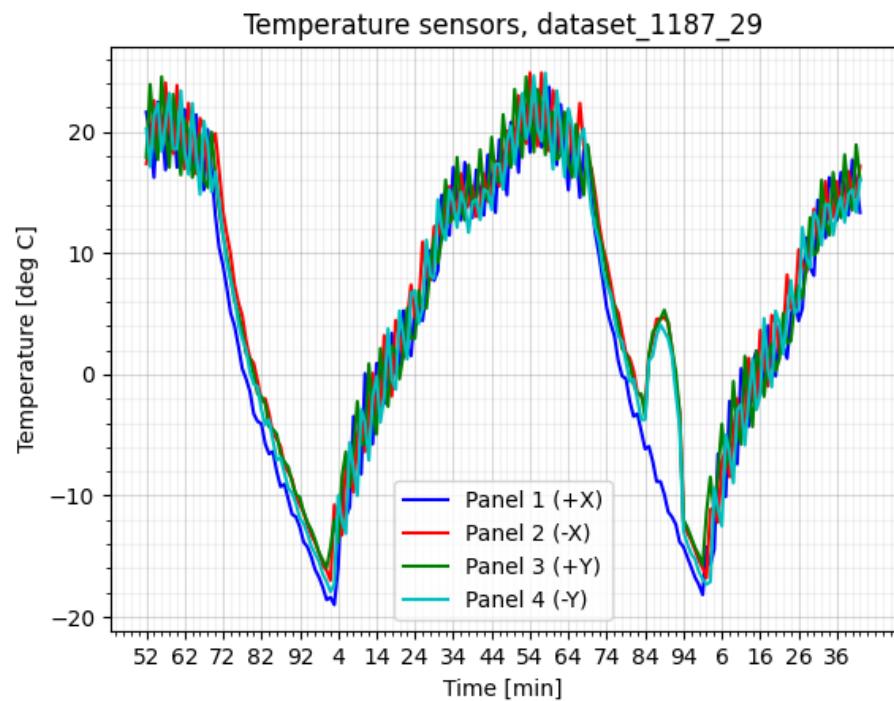
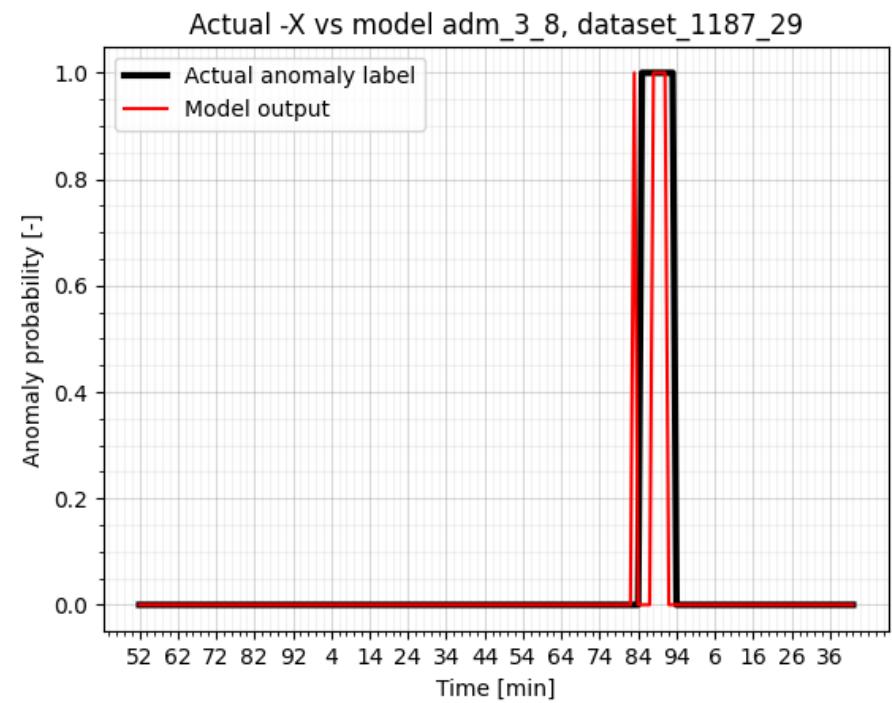
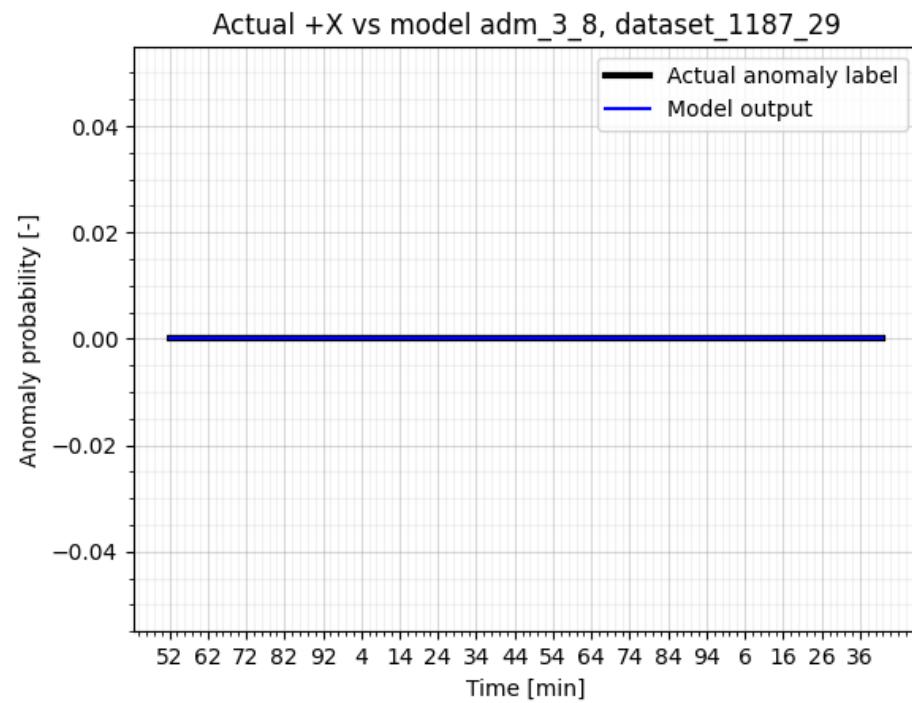


Figure 29: model inferences on dataset\_1187\_28\_mod1.png





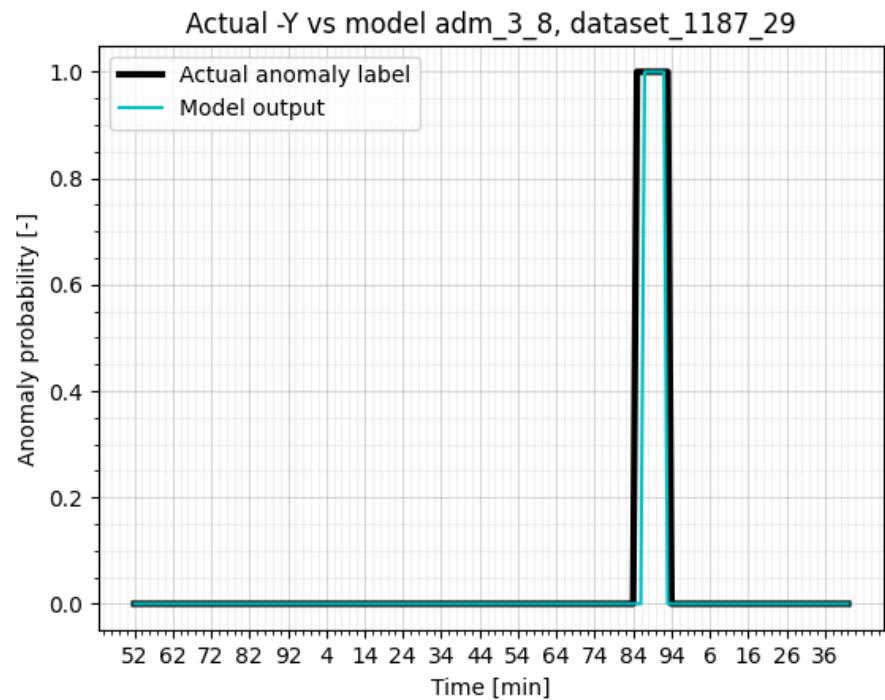
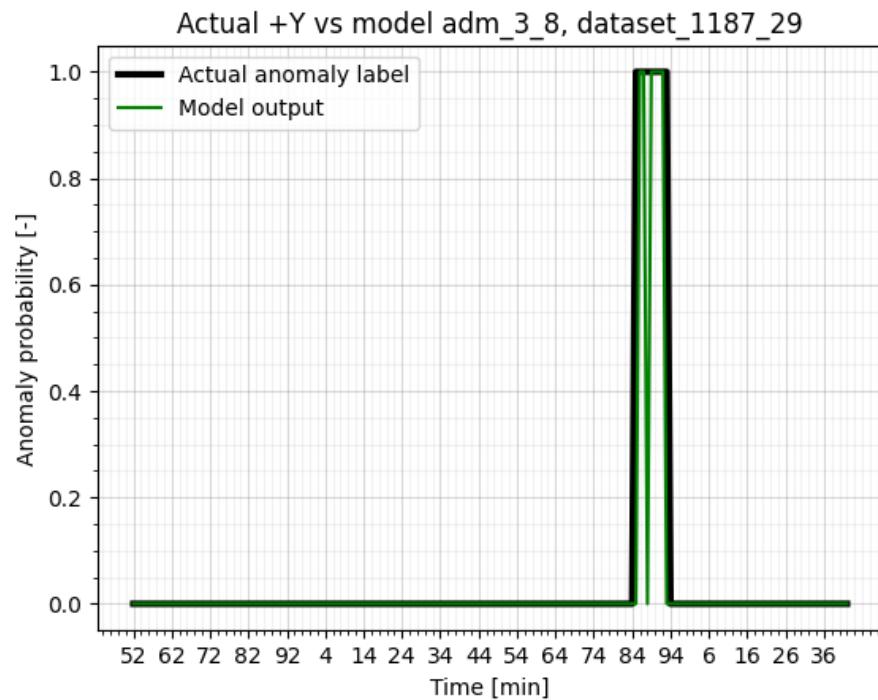
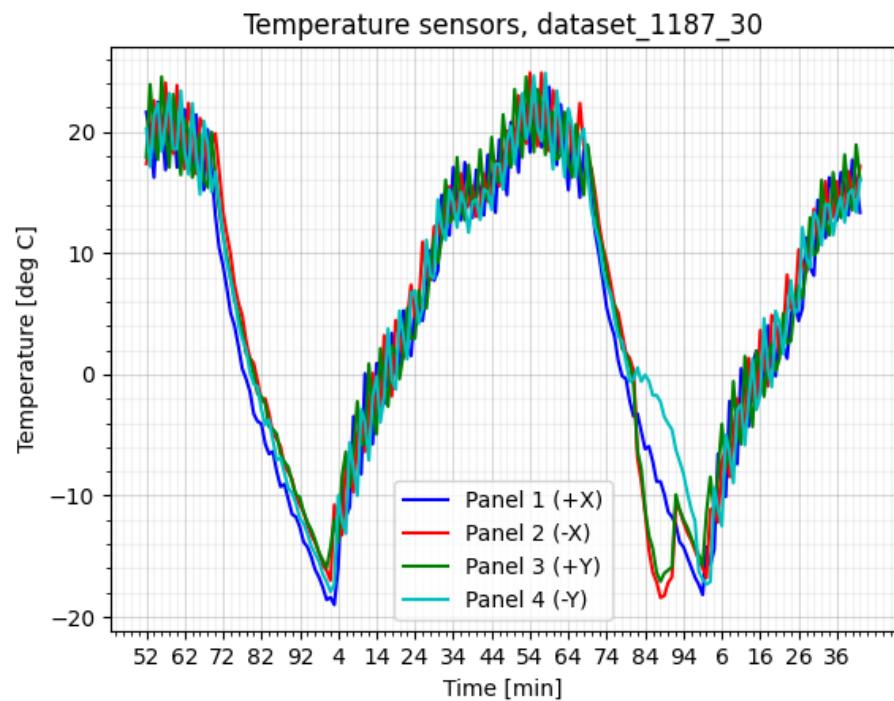
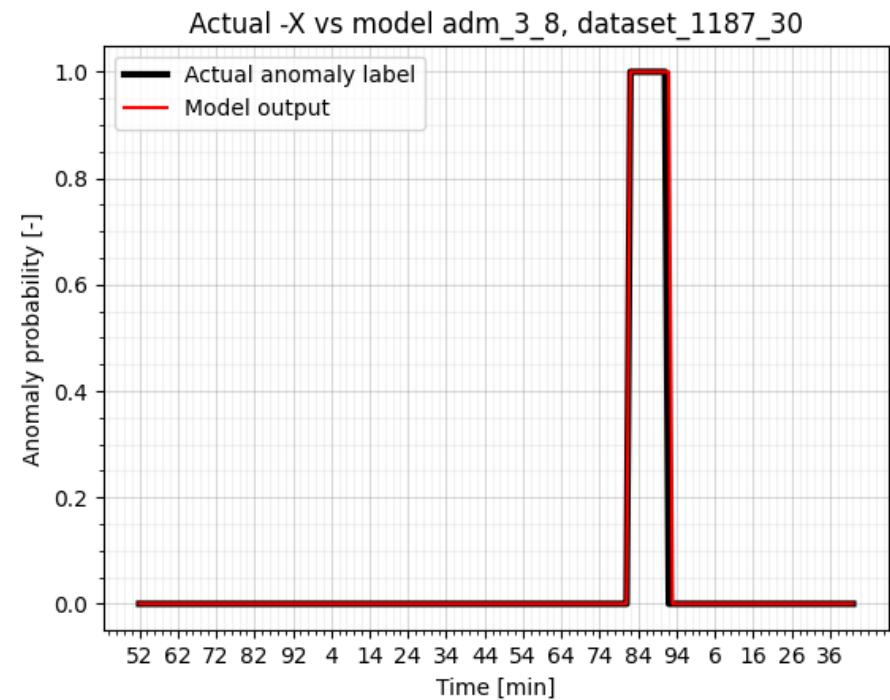
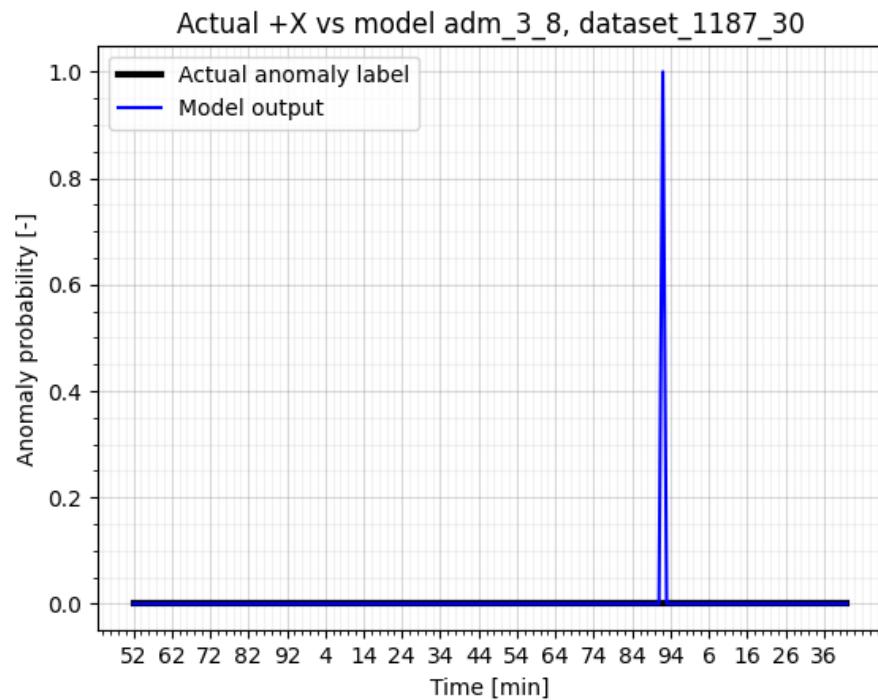


Figure 30: model inferences on dataset\_1187\_29\_mod1.png





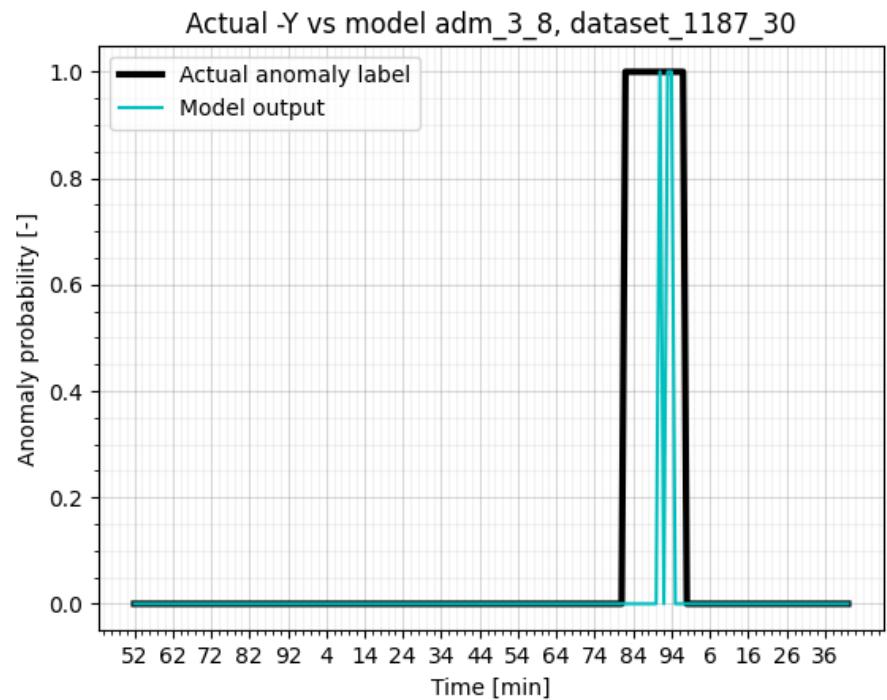
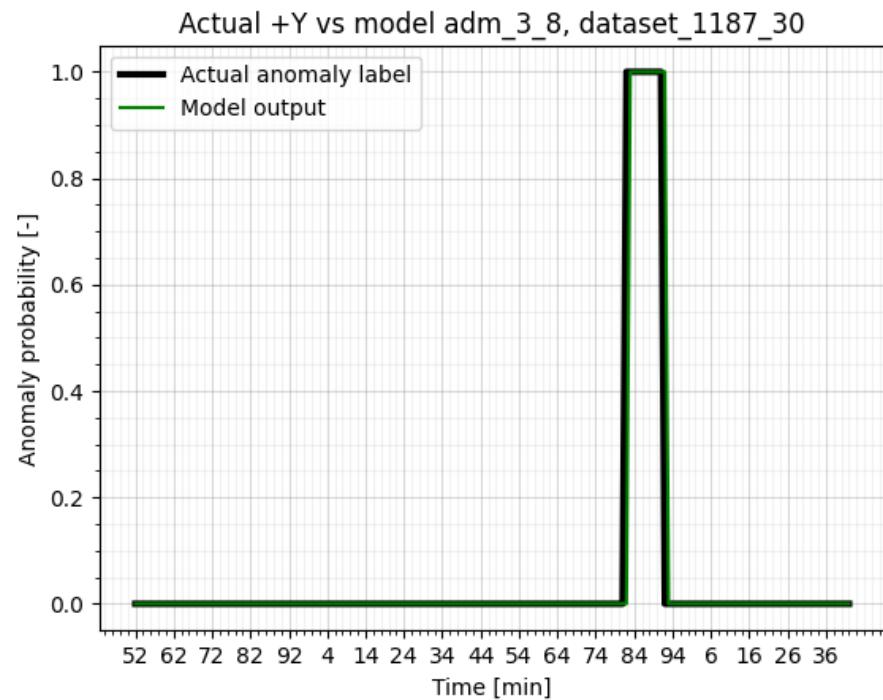
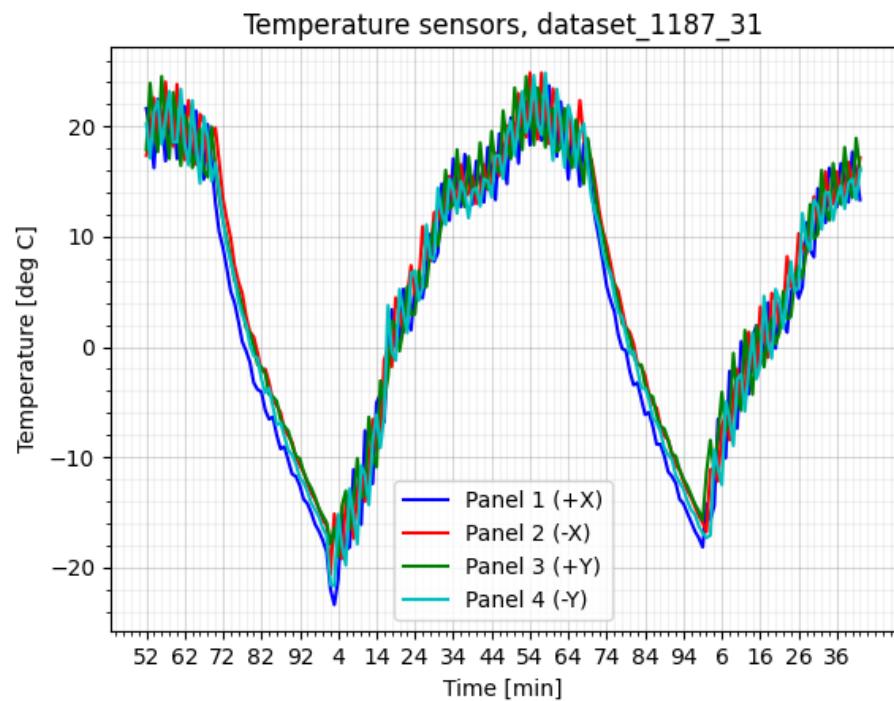
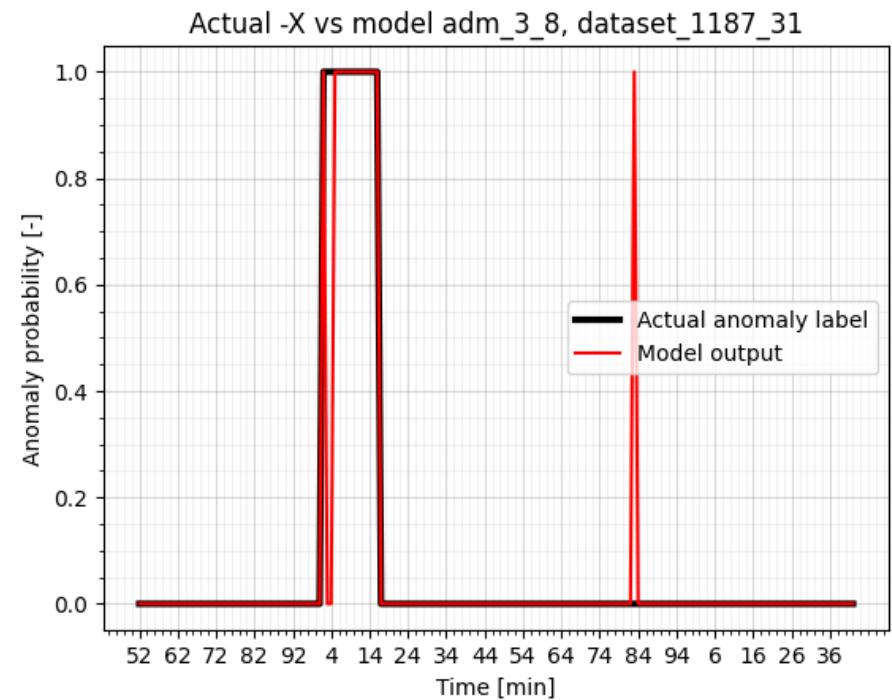
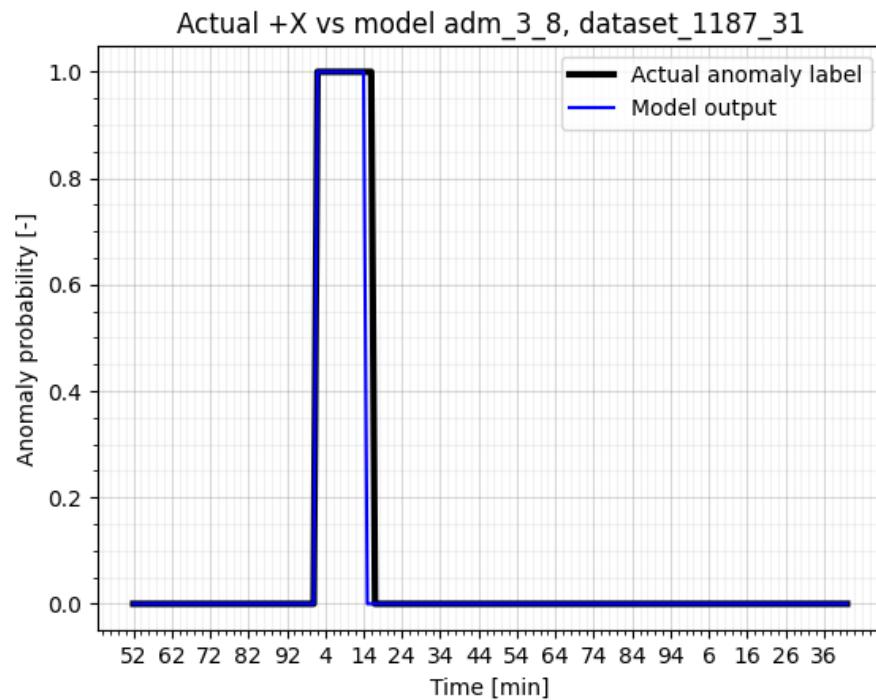


Figure 31: model inferences on dataset\_1187\_30\_mod1.png





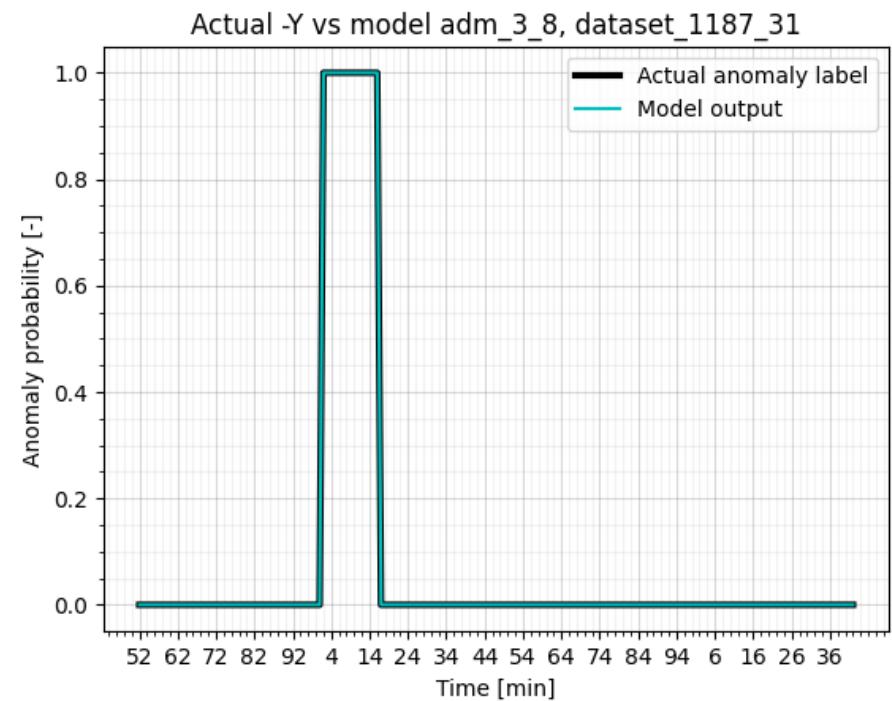
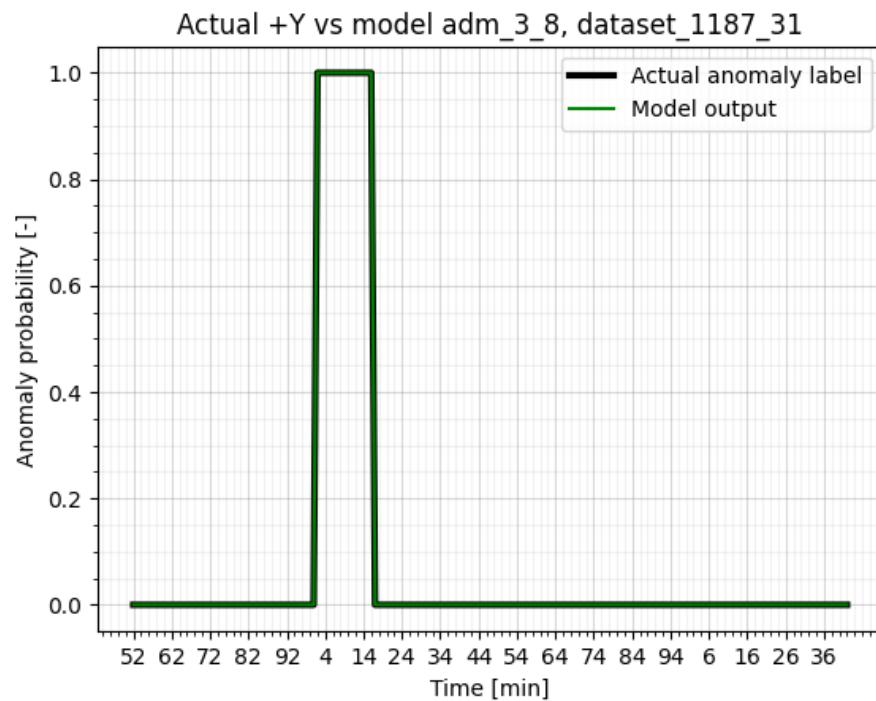
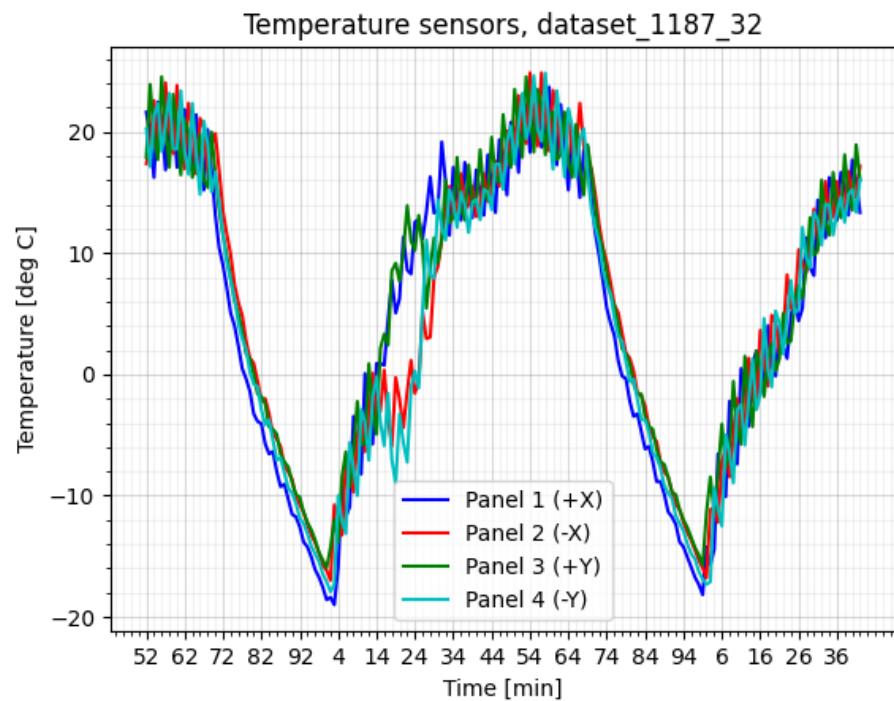
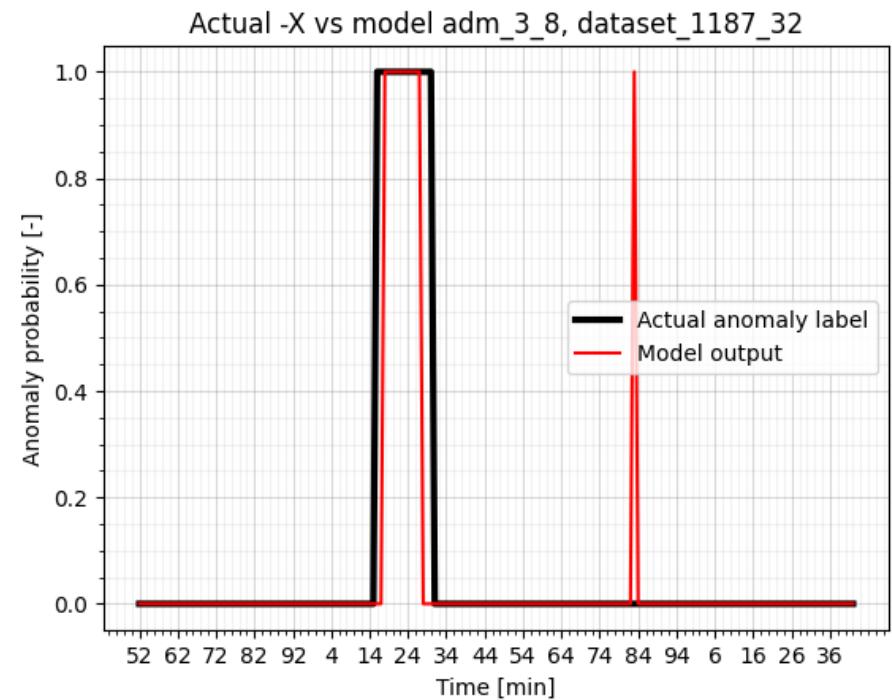
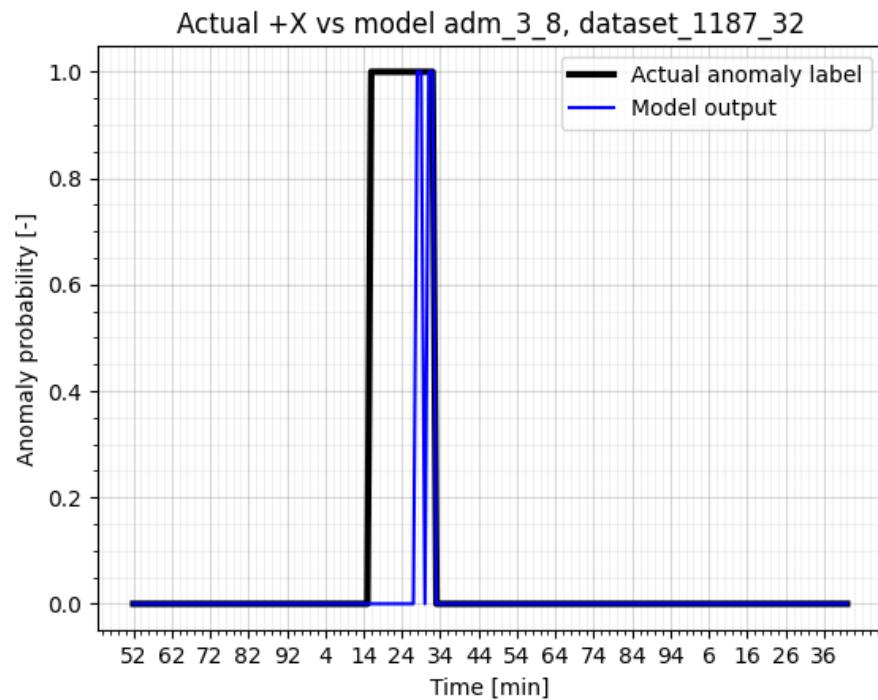


Figure 32: model inferences on dataset\_1187\_31\_mod1.png





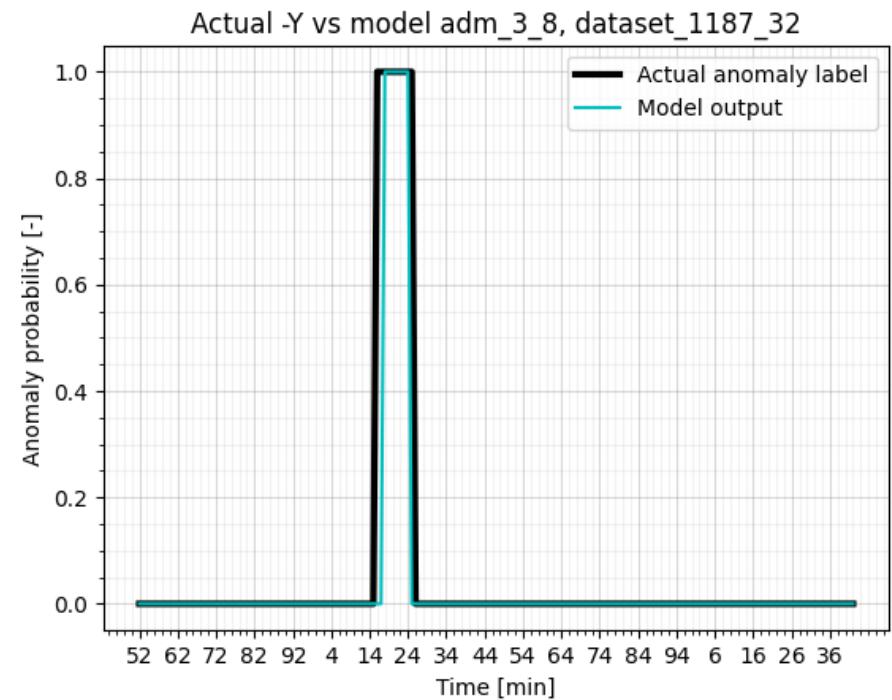
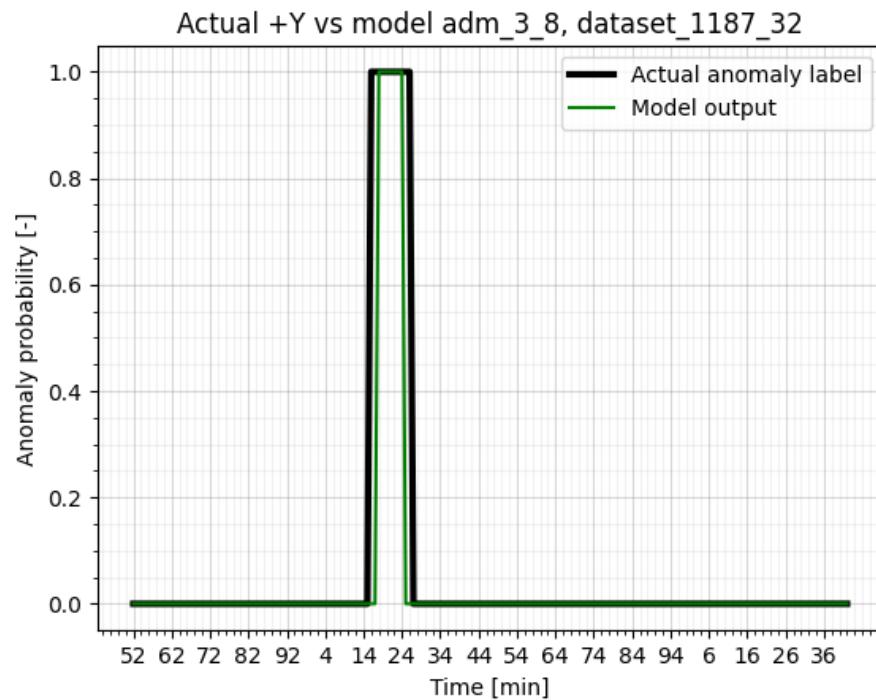


Figure 33: model inferences on dataset\_1187\_32\_mod1.png