# TF test report 2.4

**Test time: 16.06.2023**

**Model name: adm_2_4 (No threshold. follows anomalies. value limits 1/0 applied. Normalization applied.)**

**Model type: MLP**

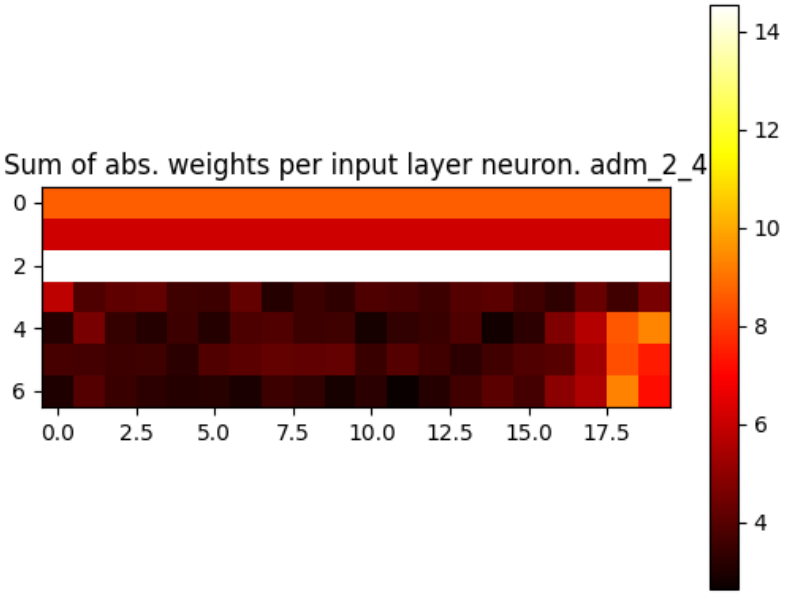
**Model description: 83x32x32x32x6 MLP to detect anomalies on 3 panels based on the previous 20 points from 3 panels + 20 time points + derivatives of 3 panels. Tested on previously unseen data. Trained to detect sensor spikes and const regions only.**

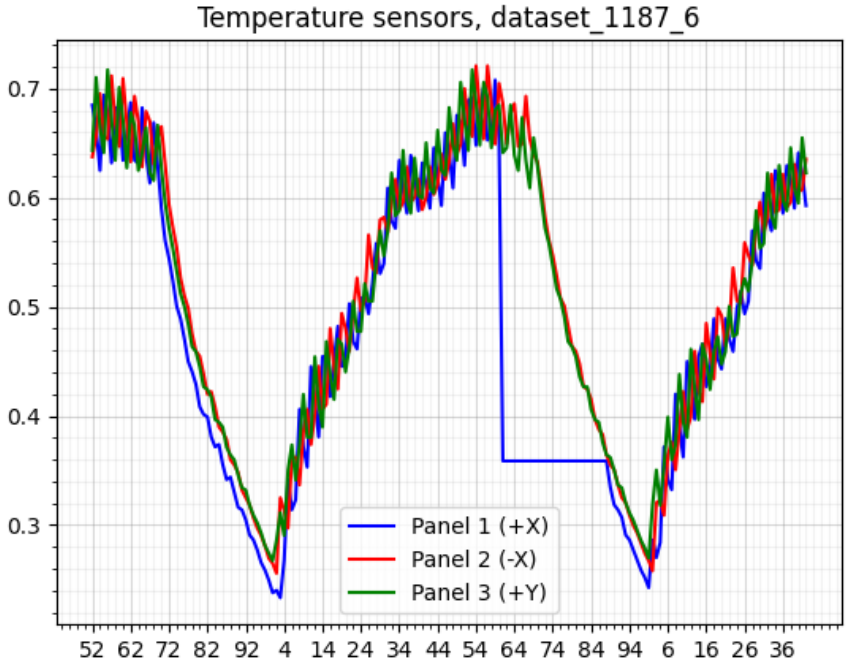
**Model data size: NA**

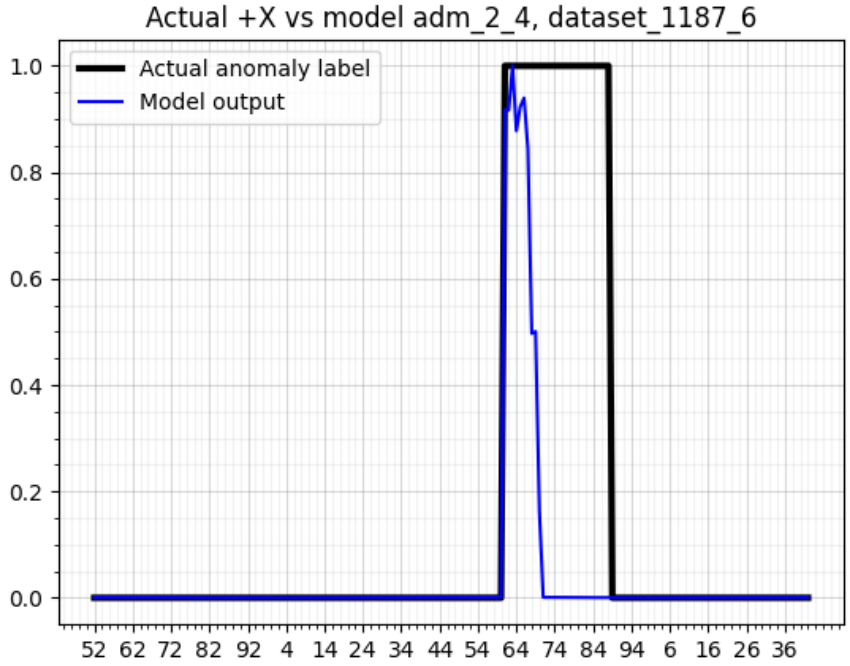
## Test results:

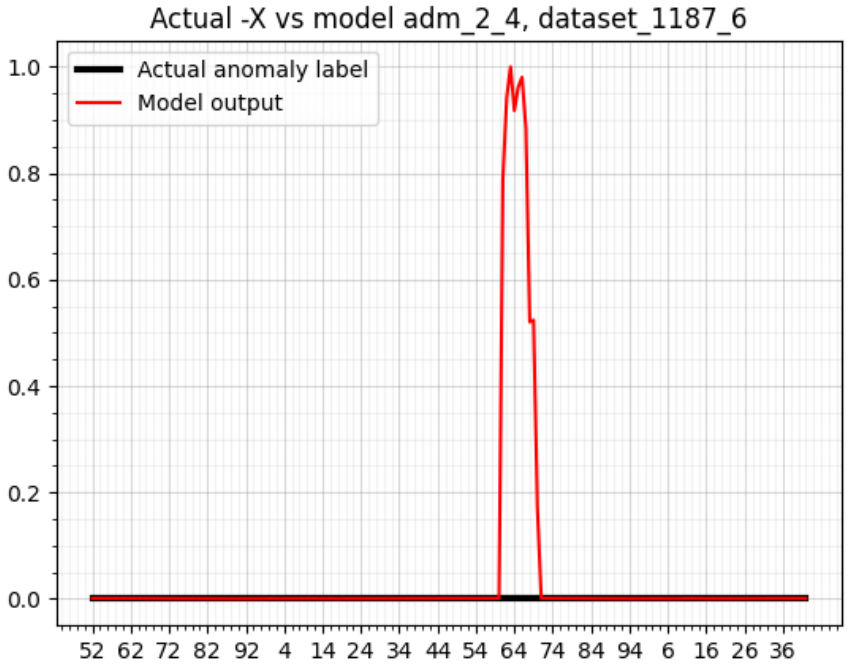
**Accuracy on NO anomalies (0): 0.9941**

**Accuracy on ANOMALIES (1): 0.3521**


Sum of abs. weights per input layer neuron. adm_2_4
0
2
4
6
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
14
12
10
8
6
4


Temperature sensors, dataset_1187_6
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_6
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



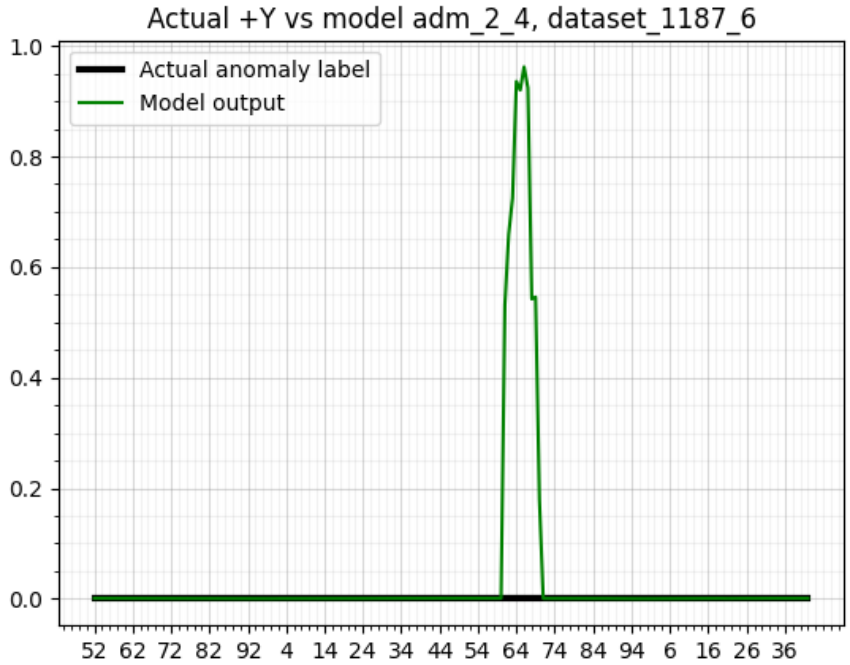
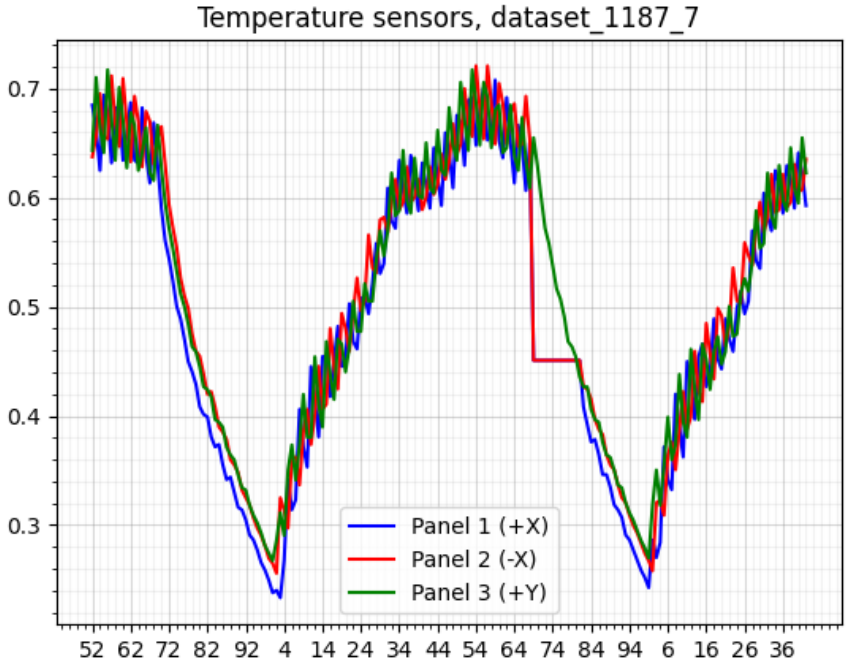
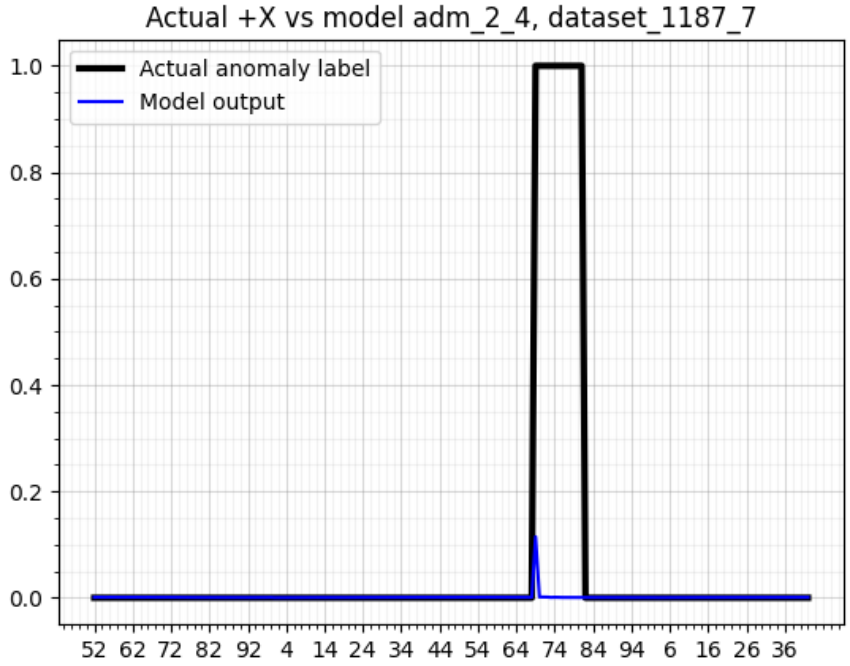




Figure 1: model inferences on dataset_1187_6_sens.png


Temperature sensors, dataset_1187_7
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_7
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36

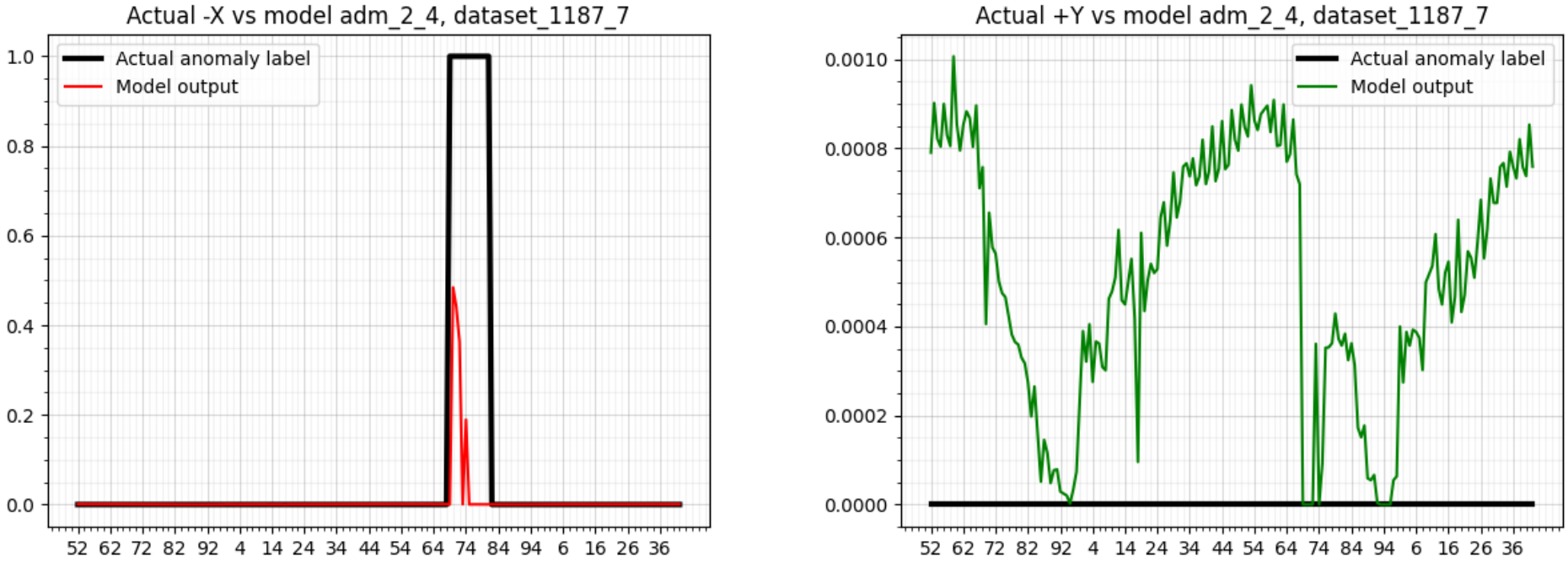
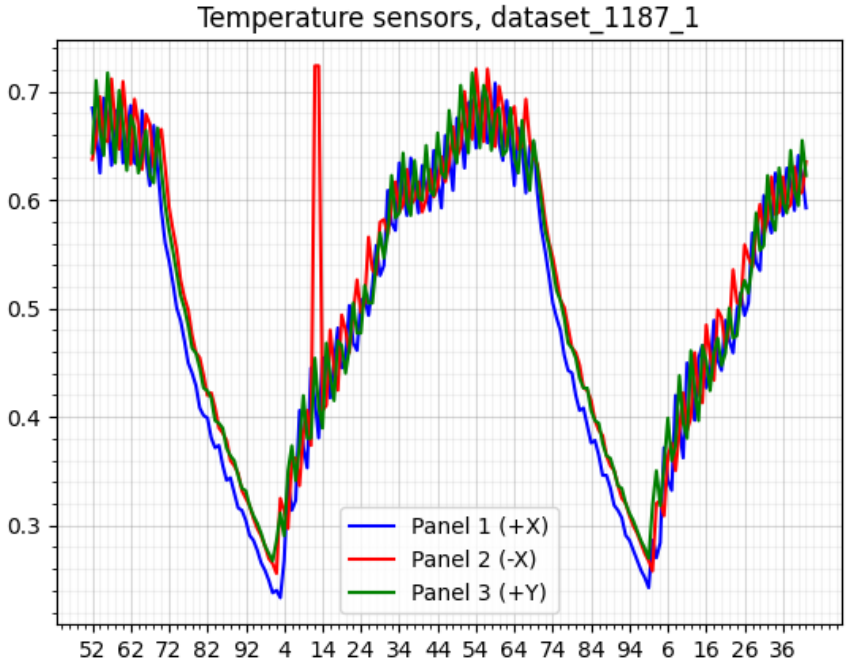
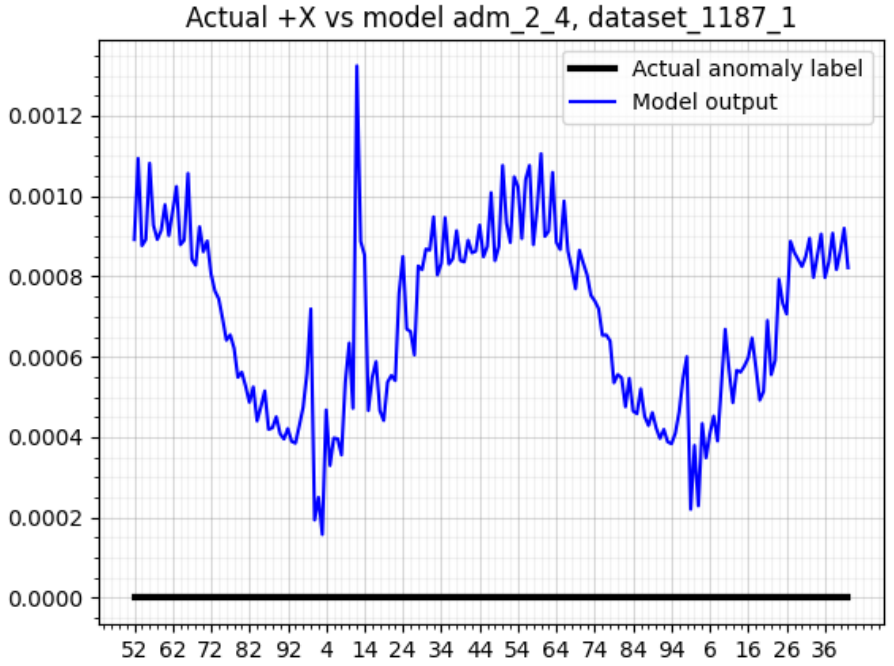



Figure 2: model inferences on dataset_1187_7_sens.png


Temperature sensors, dataset_1187_1
0.7
0.6
0.5
0.4
0.3
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_1
Actual anomaly label
Model output
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36

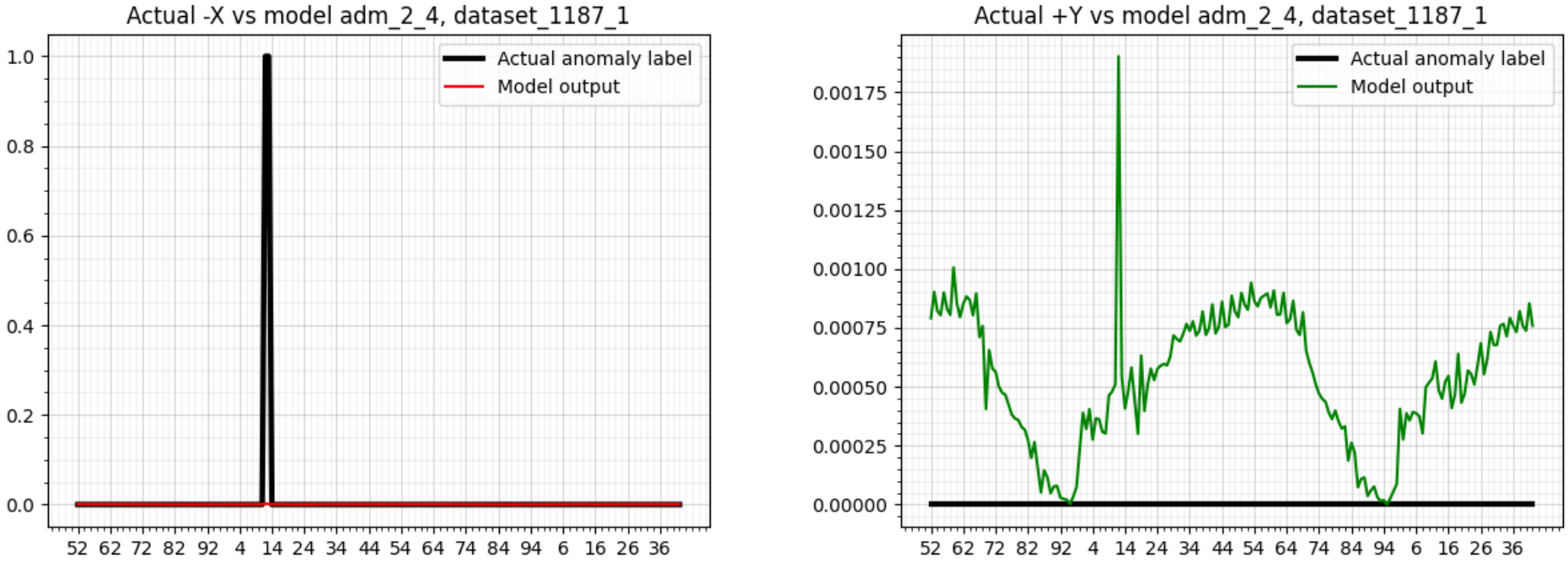
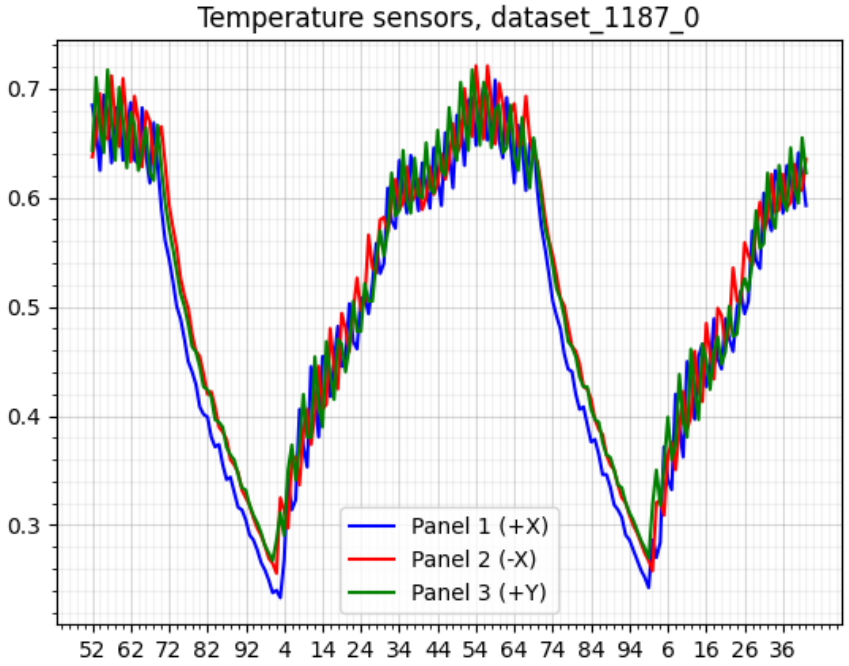
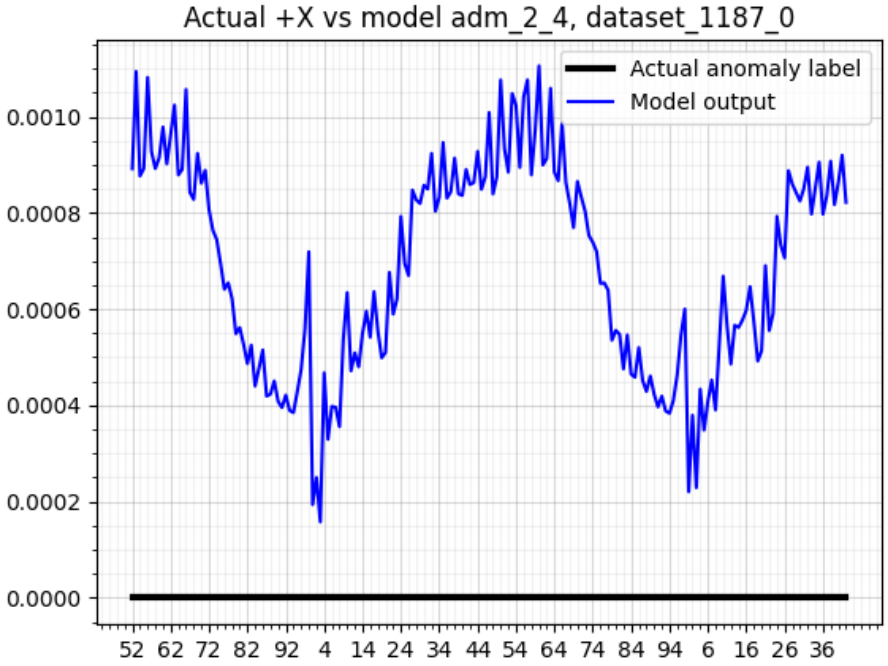
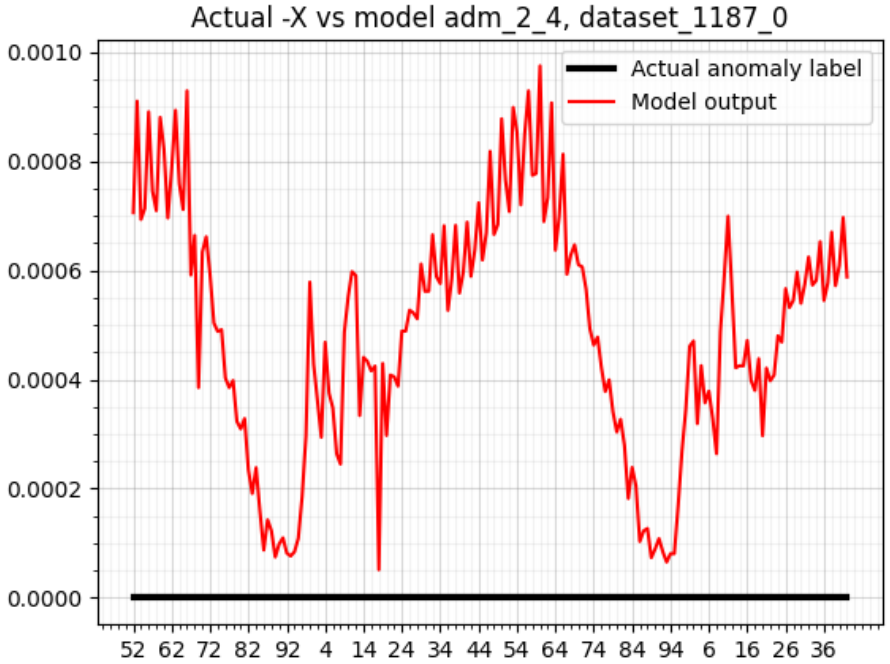



Figure 3: model inferences on dataset_1187_1_sens.png


Temperature sensors, dataset_1187_0
0.7
0.6
0.5
0.4
0.3
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_0
Actual anomaly label
Model output
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



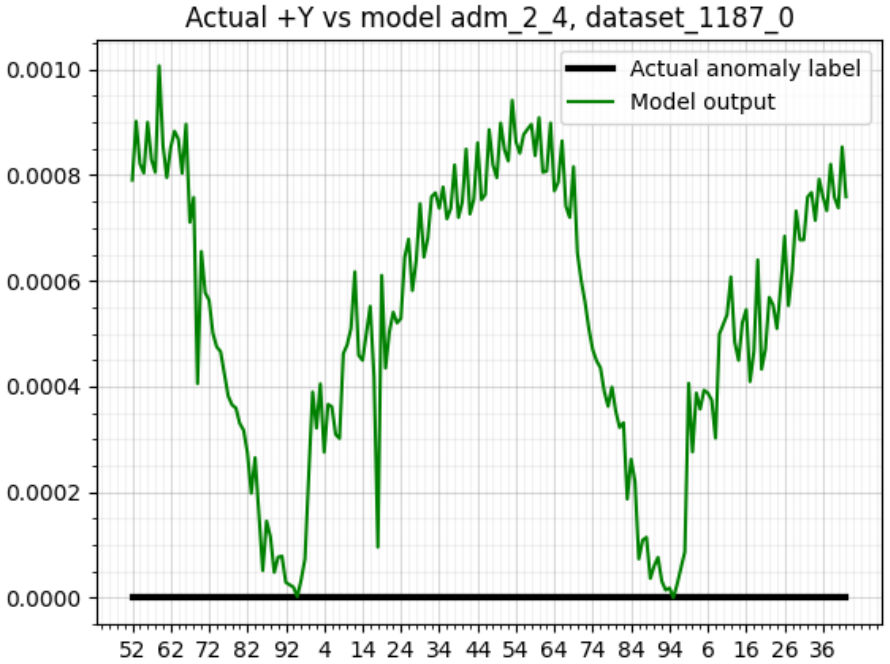
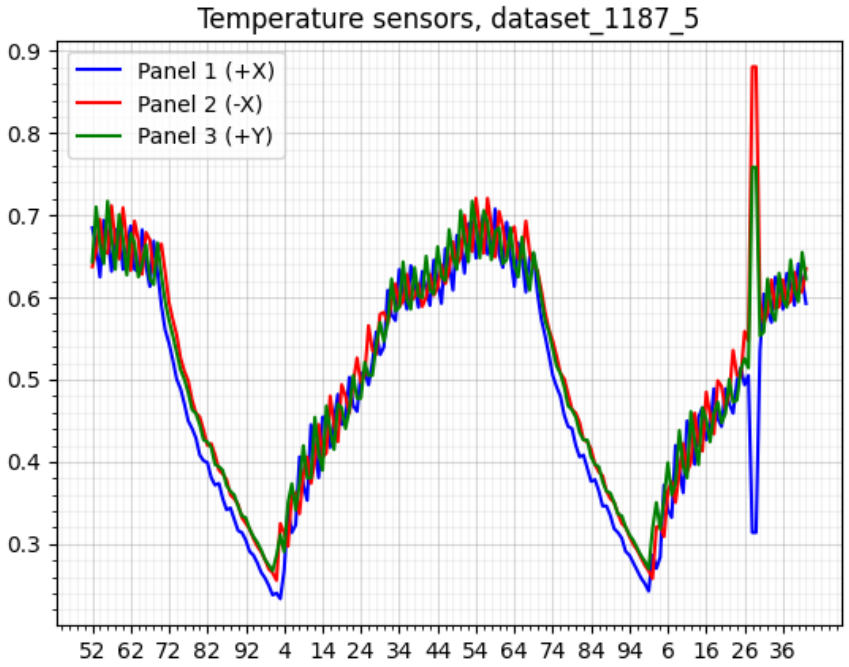
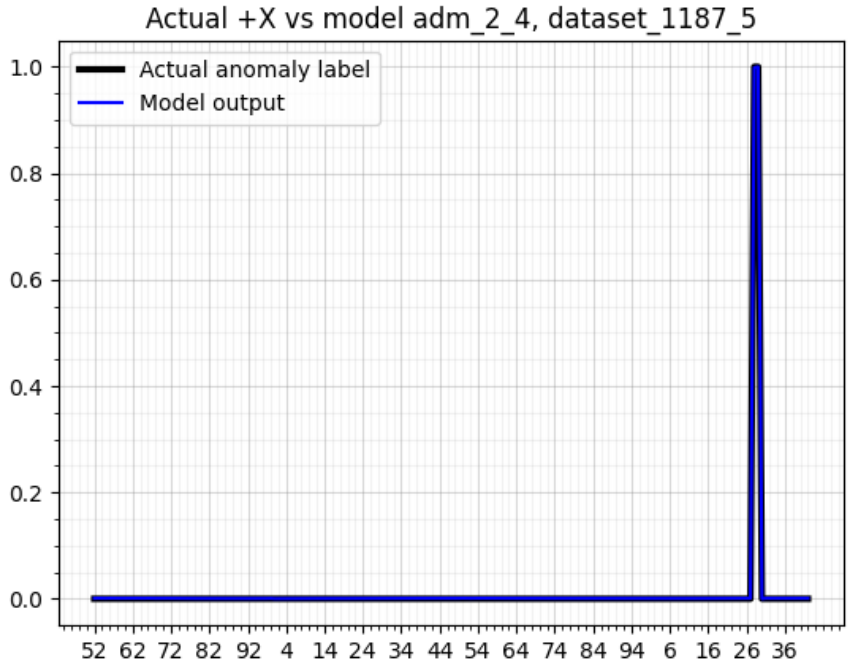
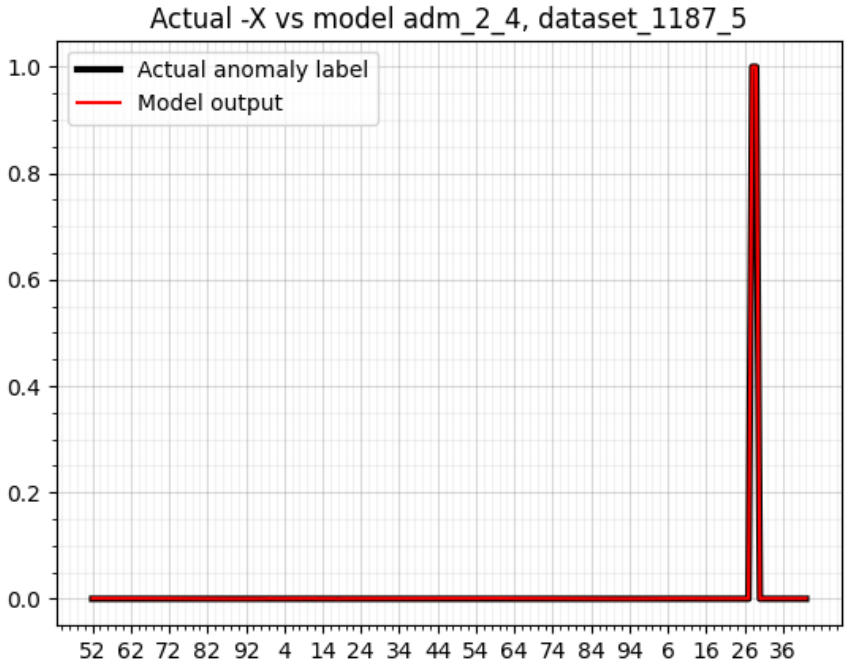




Figure 4: model inferences on dataset_1187_0_sens.png


Temperature sensors, dataset_1187_5
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_5
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



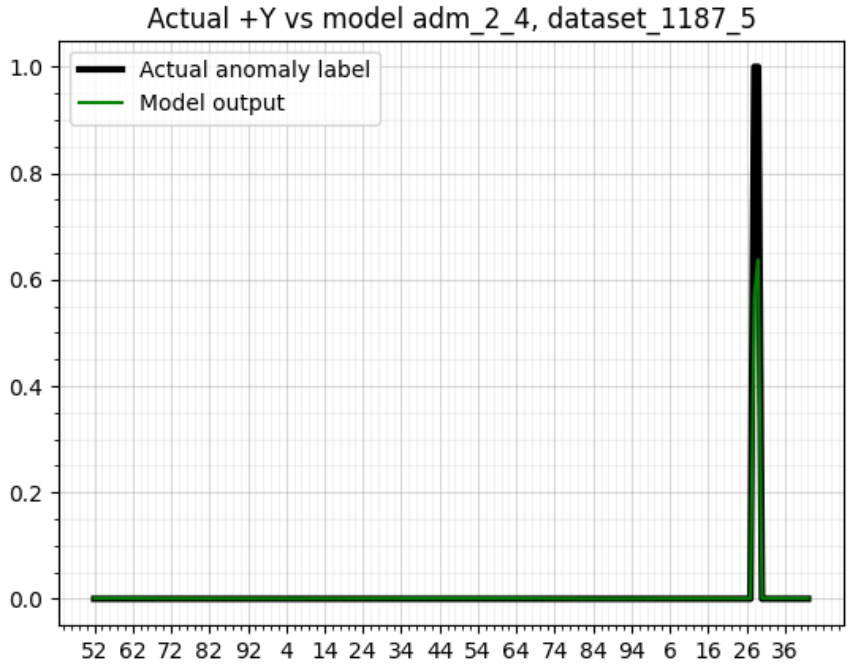
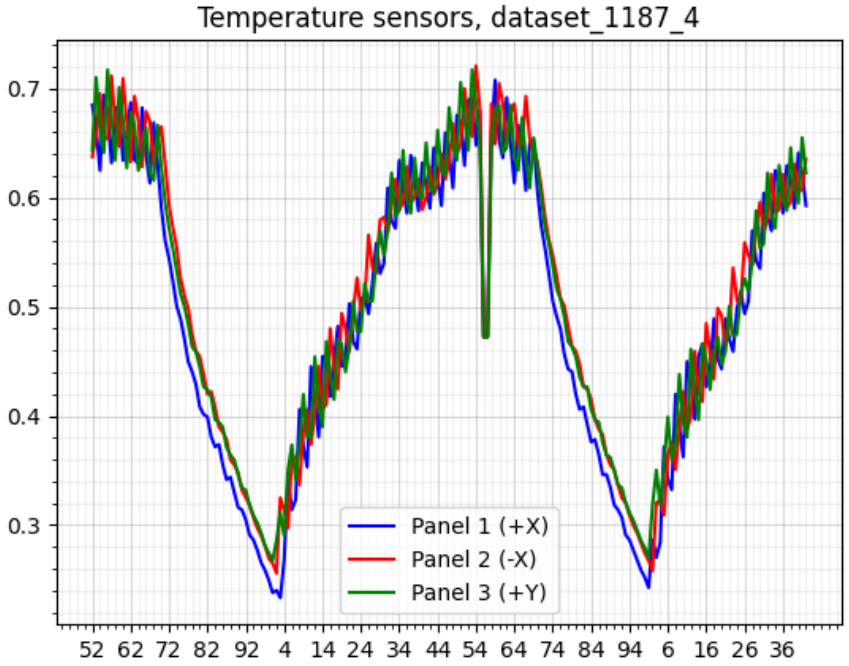
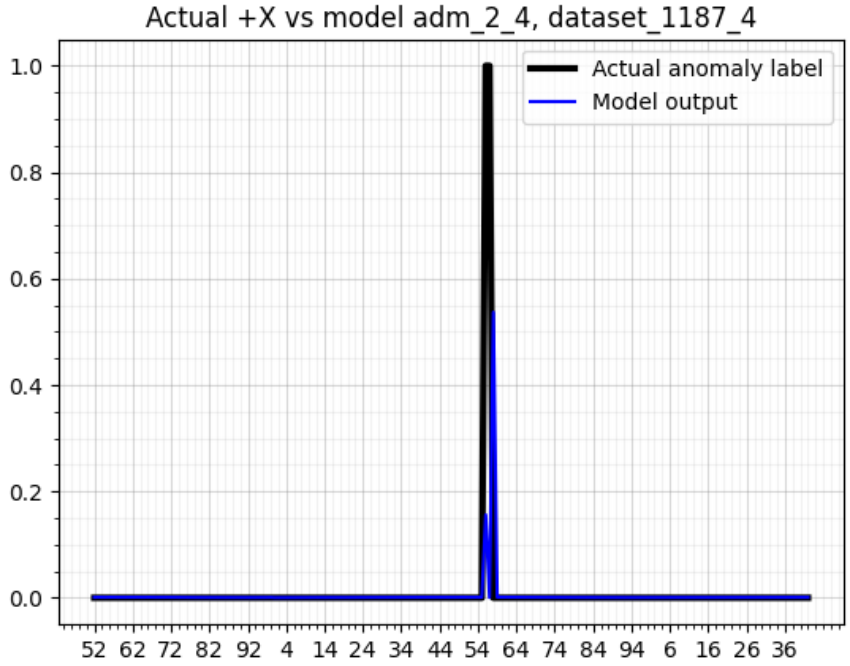
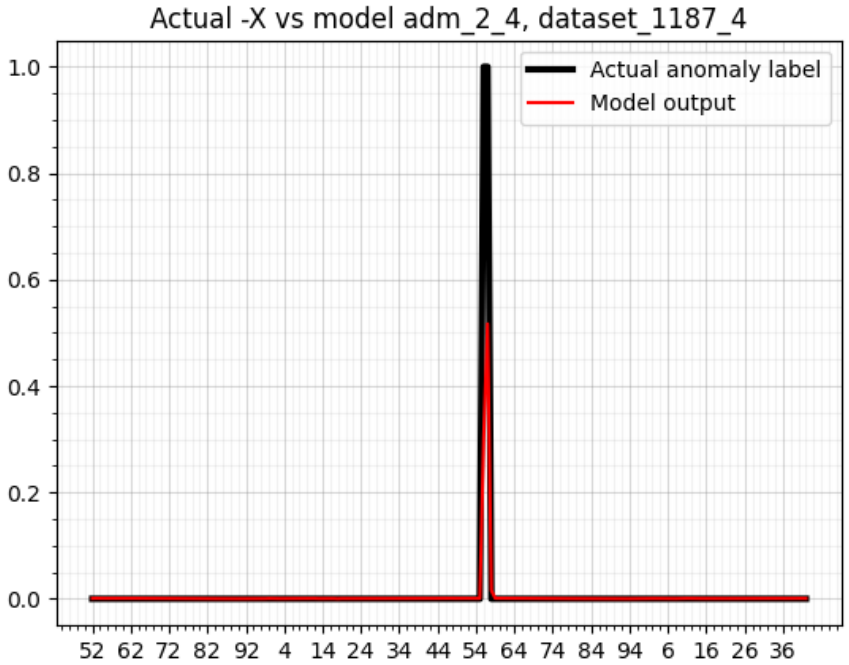




Figure 5: model inferences on dataset_1187_5_sens.png


Temperature sensors, dataset_1187_4
0.7
0.6
0.5
0.4
0.3
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_4
1.0
0.8
0.6
0.4
0.2
0.0
Actual anomaly label
Model output
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



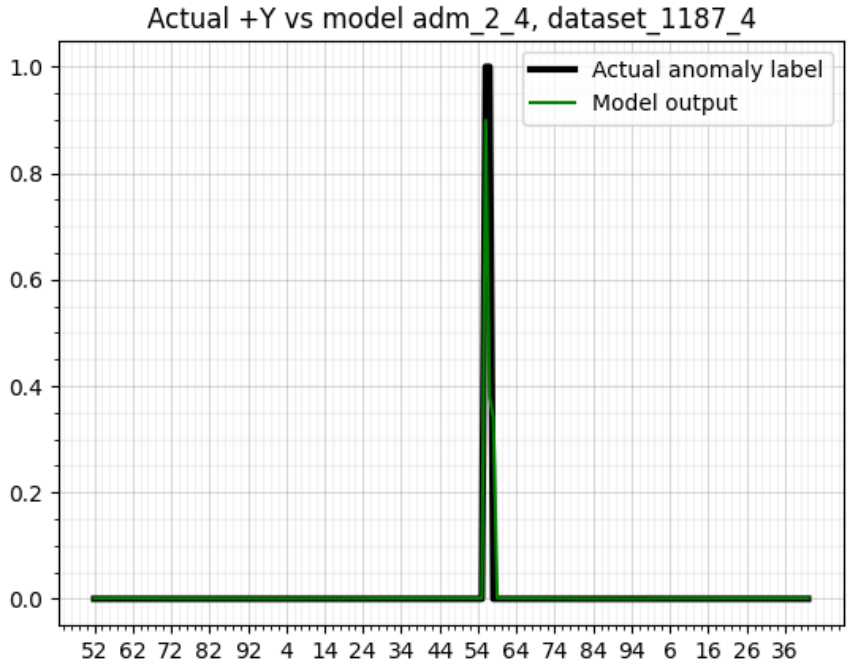
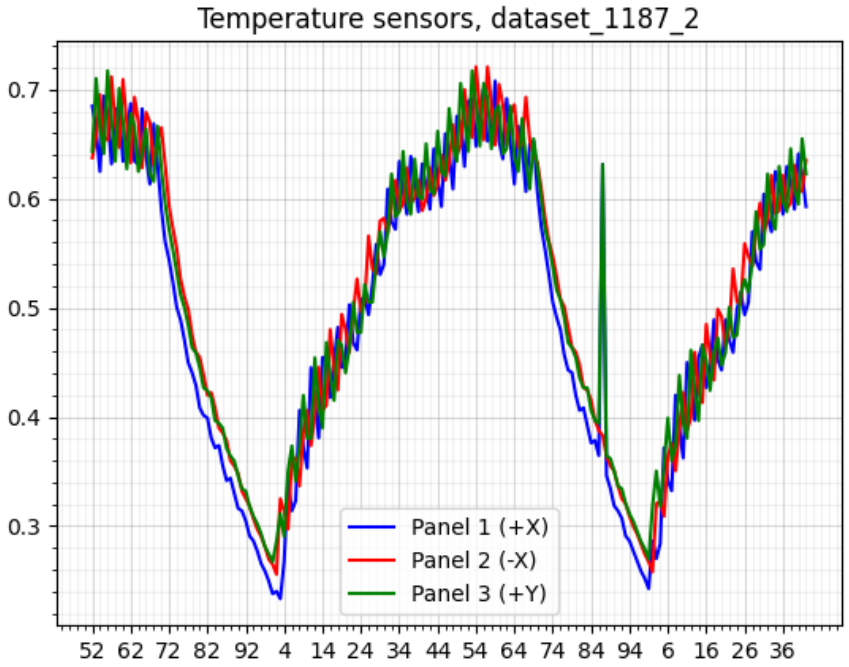
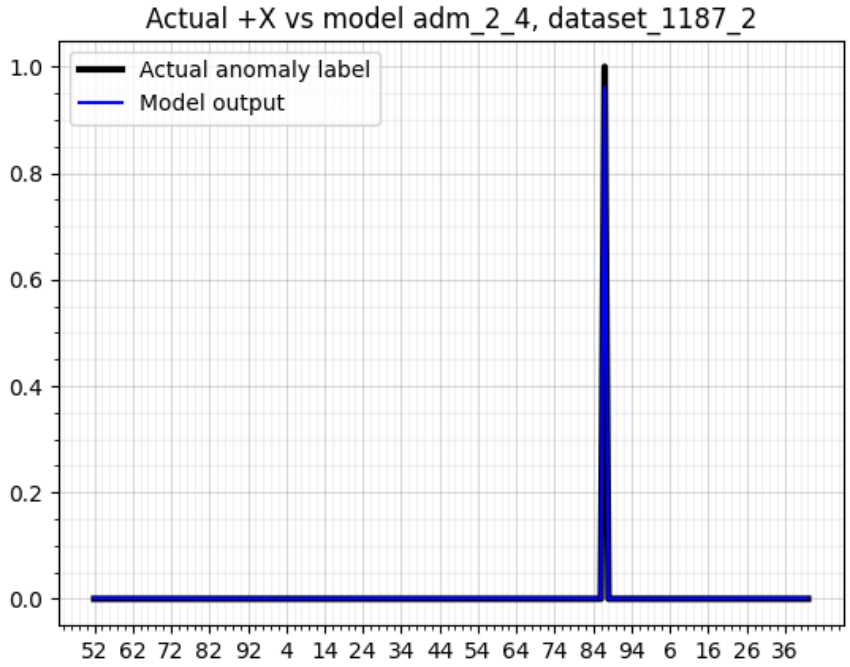
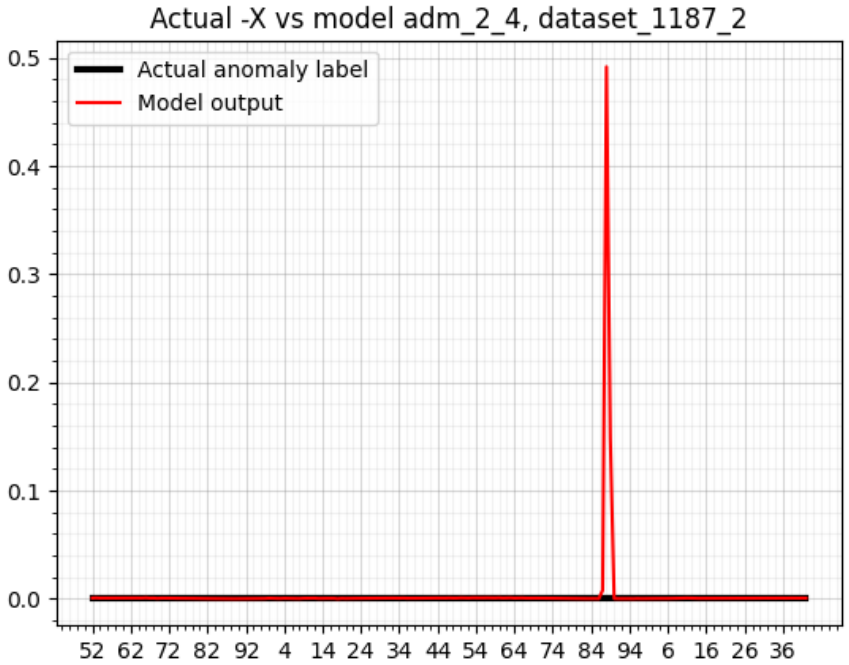




Figure 6: model inferences on dataset_1187_4_sens.png


Temperature sensors, dataset_1187_2
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_2
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



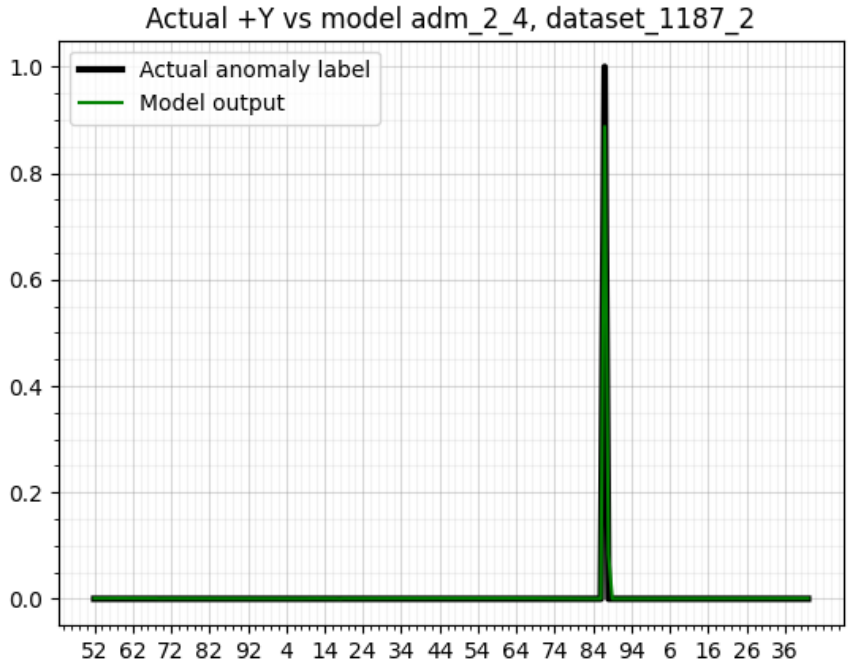
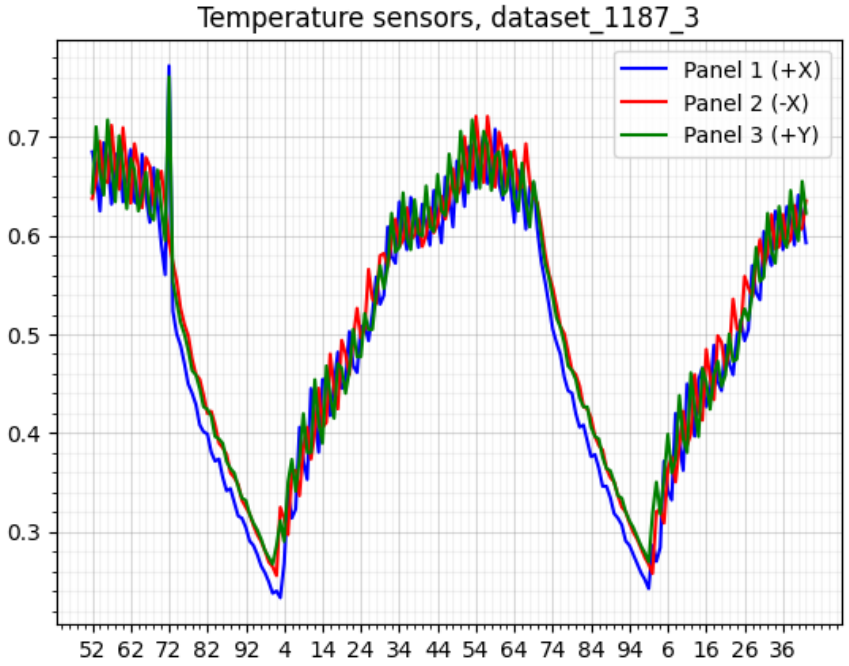
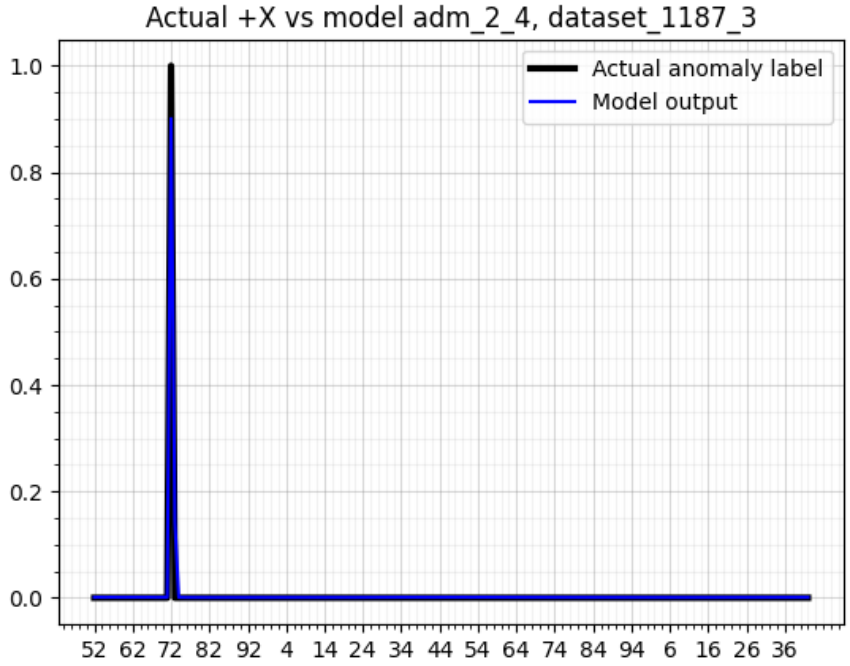
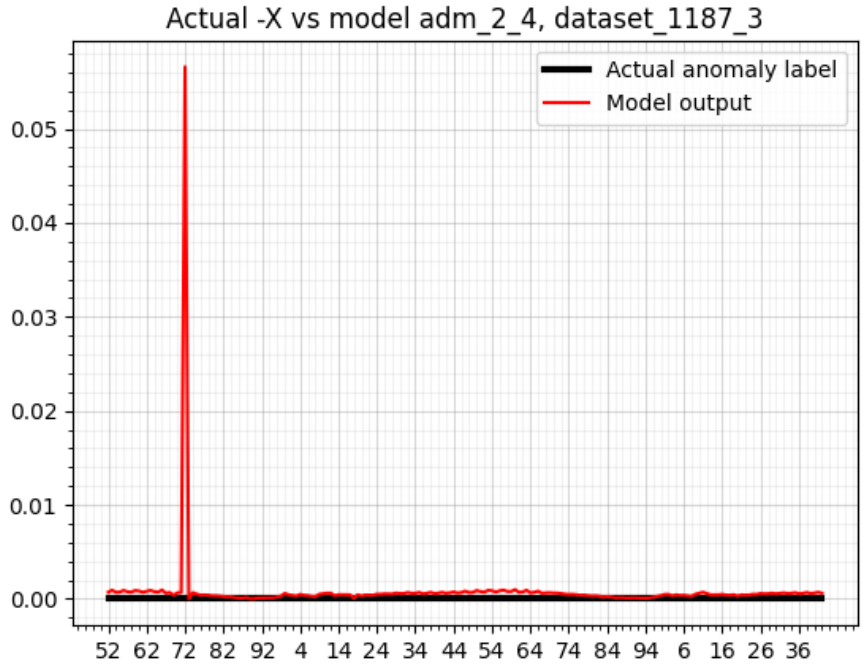




Figure 7: model inferences on dataset_1187_2_sens.png


Temperature sensors, dataset_1187_3
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_3
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



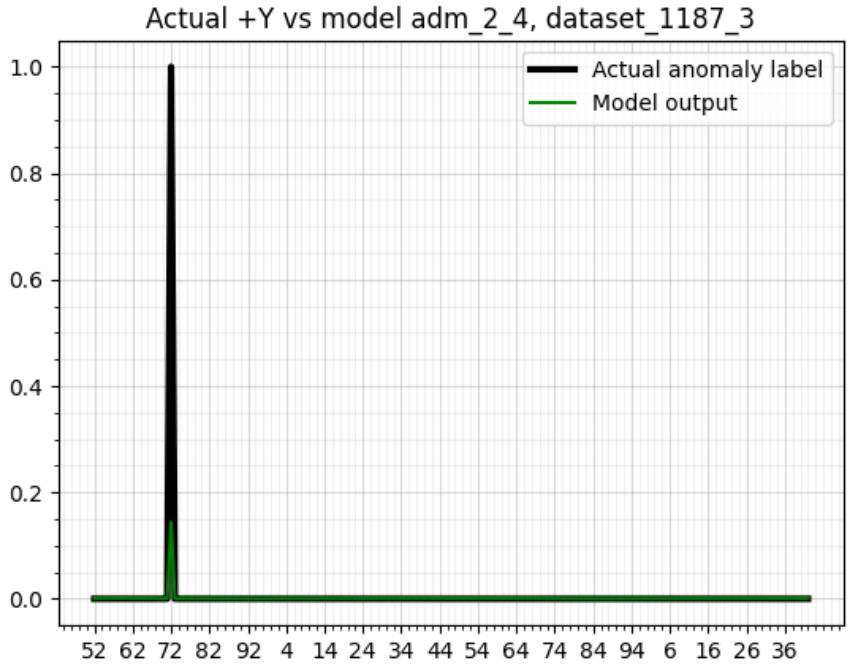
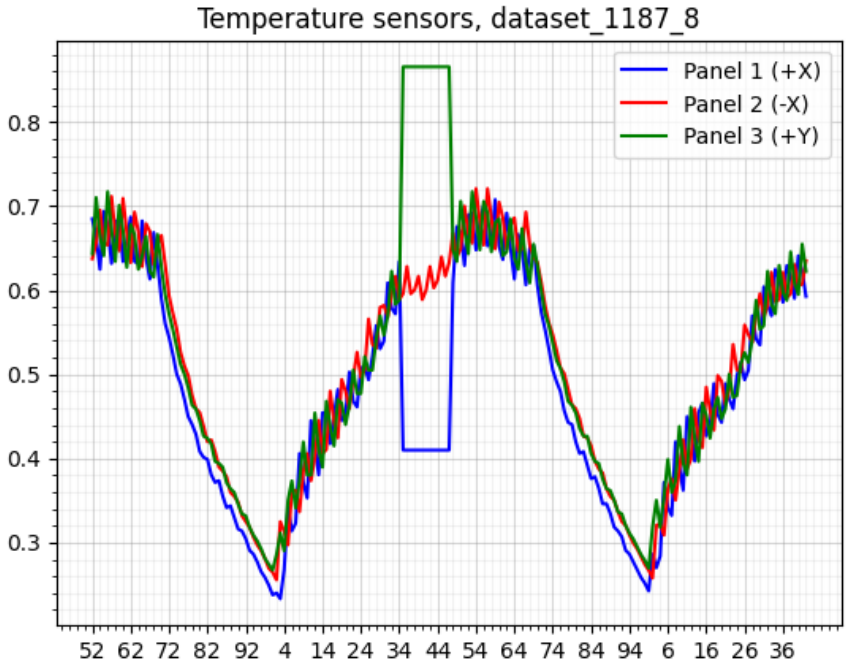
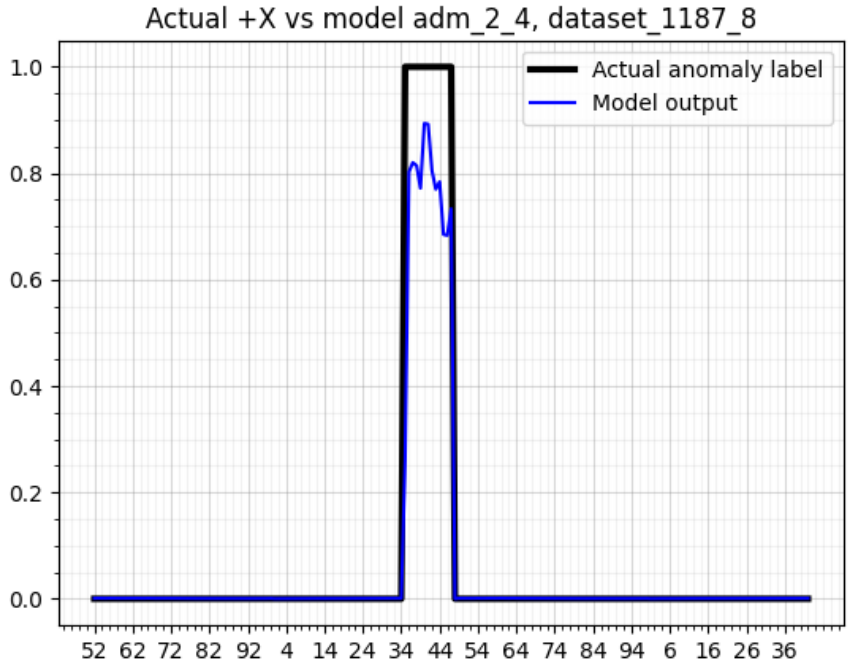
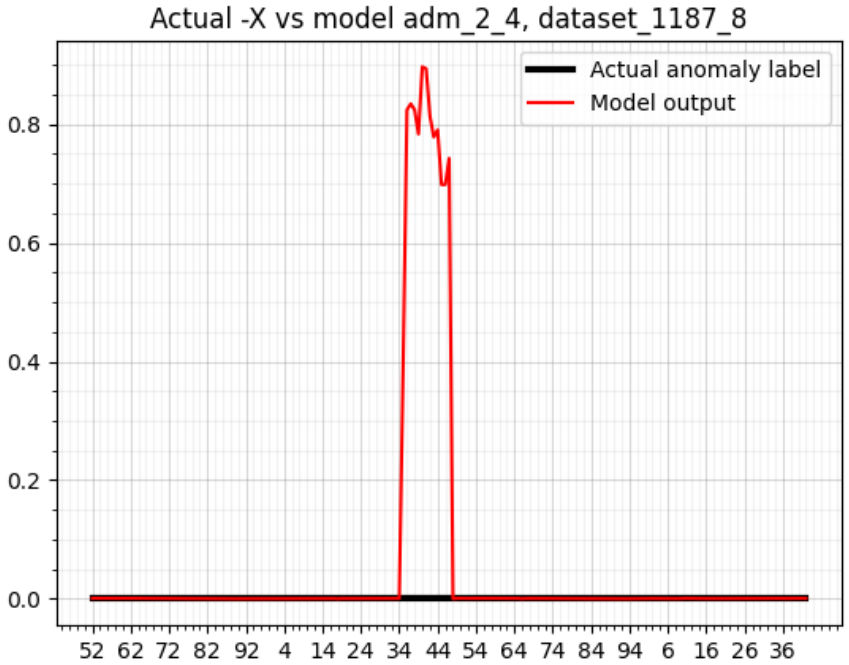




Figure 8: model inferences on dataset_1187_3_sens.png


Temperature sensors, dataset_1187_8
Panel 1 (+X)
Panel 2 (-X)
Panel 3 (+Y)
0.8
0.7
0.6
0.5
0.4
0.3
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36


Actual +X vs model adm_2_4, dataset_1187_8
Actual anomaly label
Model output
1.0
0.8
0.6
0.4
0.2
0.0
52 62 72 82 92 4 14 24 34 44 54 64 74 84 94 6 16 26 36



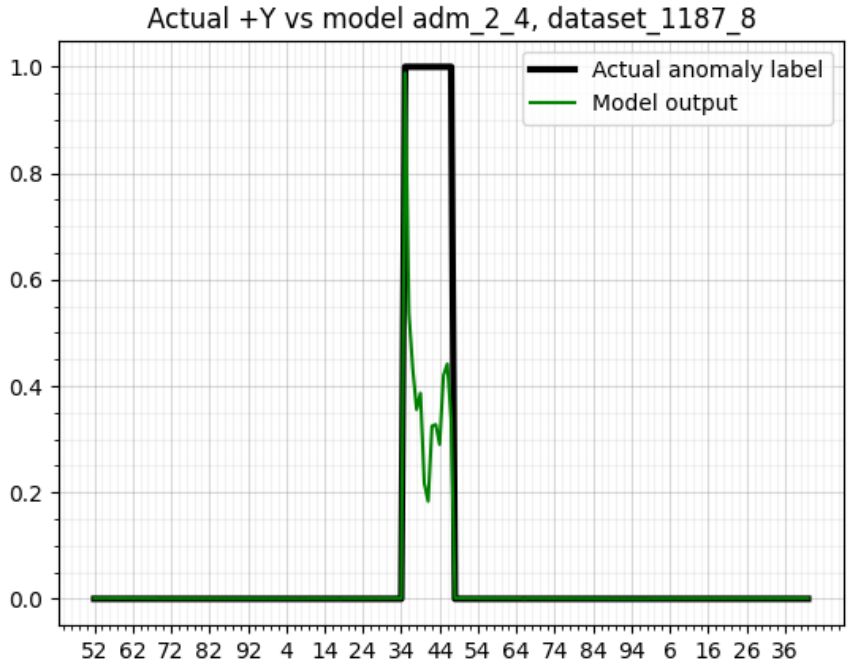




Figure 9: model inferences on dataset_1187_8_sens.png