

HIDDEN_NEURON [FB2]

HIDDEN_NEURON Properties							
General							
Name	HIDDEN_NEURON	Number	2	Type	FB	Language	SCL
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value	Retain
▼ Input			
X_1	Real	0.0	Non-retain
X_2	Real	0.0	Non-retain
X_3	Real	0.0	Non-retain
X_4	Real	0.0	Non-retain
X_5	Real	0.0	Non-retain
X_6	Real	0.0	Non-retain
X_7	Real	0.0	Non-retain
X_8	Real	0.0	Non-retain
X_9	Real	0.0	Non-retain
▼ Output			
Y	Real	0.0	Non-retain
InOut			
▼ Static			
W_1	Real	0.0	Non-retain
W_2	Real	0.0	Non-retain
W_3	Real	0.0	Non-retain
W_4	Real	0.0	Non-retain
W_5	Real	0.0	Non-retain
W_6	Real	0.0	Non-retain
W_7	Real	0.0	Non-retain
W_8	Real	0.0	Non-retain
W_9	Real	0.0	Non-retain
BIAS	Real	0.0	Non-retain
Temp			
Constant			

```
0001
0002 // Weighted sum plus a bias
0003 #Y := #W_1 * #X_1 +
0004     #W_2 * #X_2 +
0005     #W_3 * #X_3 +
0006     #W_4 * #X_4 +
0007     #W_5 * #X_5 +
0008     #W_6 * #X_6 +
0009     #W_7 * #X_7 +
0010     #W_8 * #X_8 +
0011     #W_9 * #X_9 +
0012     #BIAS;
0013
0014 // ReLU
0015 IF #Y < 0.0 THEN
0016     #Y := 0.0;
0017 END_IF;
```