

# PlcCounterOperand Class

**Namespace:** IPS7Lnk.Advanced

**Assemblies:** IPS7LnkNet.Advanced.dll

Represents an operand which addresses a counter memory blocks within a programmable logic controller (PLC).

**C#**

```
[Serializable]
public class PlcCounterOperand : PlcOperand, IComparable, ISerializable,
    IEquatable<PlcOperand>, IComparable<PlcOperand>, IEquatable<PlcCounterOperand>,
    IComparable<PlcCounterOperand>
```

**Inheritance** [Object](#) > [PlcIdentity](#) > [PlcOperand](#) > [PlcCounterOperand](#)

**Attributes** [SerializableAttribute](#)

**Implements** [IComparable](#), [Serialization.ISerializable](#), [IEquatable<PlcOperand>](#),  
[IComparable<PlcOperand>](#), [IEquatable<PlcCounterOperand>](#), [IComparable<PlcCounterOperand>](#)

## Constructors

| Name  | Description   |
|---|---|
| <a href="#">PlcCounterOperand</a> ( <a href="#">Serialization.SerializationInfo</a> ,<br><a href="#">Serialization.StreamingContext</a> ) | Initializes a new instance of the <a href="#">PlcCounterOperand</a> class with serialized data. |

## Fields

| Name                      | Description  |
|---------------------------|--|
| <a href="#">MaxNumber</a> | Specifies the maximum value that can be assigned to the <a href="#">Number</a> property.<br>(Inherited from <a href="#">PlcOperand</a> ) |
| <a href="#">MinNumber</a> | Specifies the minimum value that can be assigned to the <a href="#">Number</a> property.<br>(Inherited from <a href="#">PlcOperand</a> ) |

## Properties

| Name                    | Description   |
|-------------------------|---|
| <a href="#">Counter</a> | Gets the operand used to access the counter memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> ) |
| <a href="#">Flag</a>    | Gets the operand used to access the flag memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )    |
| <a href="#">Input</a>   | Gets the operand used to access the input memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )   |
| <a href="#">Number</a>  | Gets the number associated with the operand.<br>(Inherited from <a href="#">PlcOperand</a> )                                |

| Name            | Description  |
|-----------------|--|
| OriginalString  | Gets the original string from that the operand was created.<br>(Inherited from <a href="#">PlcOperand</a> )                                      |
| Output          | Gets the operand used to access the output memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )                       |
| PeripheryInput  | Gets the operand used to access the peripheryInput memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )               |
| PeripheryOutput | Gets the operand used to access the peripheryOutput memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )              |
| Standard        | Gets a value indicating which <a href="#">PlcOperandStandard</a> was used to create the operand.<br>(Inherited from <a href="#">PlcOperand</a> ) |
| Timer           | Gets the operand used to access the timer memory block of the controller.<br>(Inherited from <a href="#">PlcOperand</a> )                        |
| Type            | Gets the type of operand represented.<br>(Inherited from <a href="#">PlcOperand</a> )  |

## Methods

| Name                         | Description  |
|------------------------------|--|
| All                          | Retrieves all <a href="#">PlcOperand</a> instances which can be typically addressed within a PLC including the custom data block operands used so far.<br>(Inherited from <a href="#">PlcOperand</a> ) |
| CompareTo(Object)            | Compares the current <a href="#">PlcCounterOperand</a> with the <b>other</b> .   |
| CompareTo(Object)            | Compares the current <a href="#">PlcIdentity</a> with the <b>other</b> .<br>(Inherited from <a href="#">PlcIdentity</a> )  |
| CompareTo(Object)            | Compares the current <a href="#">PlcOperand</a> with the <b>other</b> .<br>(Inherited from <a href="#">PlcOperand</a> )  |
| CompareTo(PlcCounterOperand) | Compares the current <a href="#">PlcCounterOperand</a> with another <a href="#">PlcCounterOperand</a> .  |
| CompareTo(PlcOperand)        | Compares the current <a href="#">PlcOperand</a> with another <a href="#">PlcOperand</a> .<br>(Inherited from <a href="#">PlcOperand</a> )  |
| DataBlock(Int32)             | Retrieves the according <a href="#">PlcDataBlockOperand</a> using the specified <b>number</b> of the data block operand.<br>(Inherited from <a href="#">PlcOperand</a> )                               |
| Equals(Object)               | Determines whether the specified <b>other</b> is equal to this <a href="#">PlcCounterOperand</a> .   |
| Equals(Object)               | Determines whether the specified <b>other</b> is equal to this <a href="#">PlcIdentity</a> .<br>(Inherited from <a href="#">PlcIdentity</a> )  |
| Equals(Object)               | Determines whether the specified <b>other</b> is equal to this <a href="#">PlcOperand</a> .<br>(Inherited from <a href="#">PlcOperand</a> )  |
| Equals(PlcCounterOperand)    | Determines whether the specified <b>other</b> is equal to this <a href="#">PlcCounterOperand</a> .   |
| Equals(PlcOperand)           | Determines whether the specified <b>other</b> is equal to this <a href="#">PlcOperand</a> .<br>(Inherited from <a href="#">PlcOperand</a> )  |
| GetHashCode                  | Retrieves a hash code for this <a href="#">PlcCounterOperand</a> .   |
| GetHashCode                  | Retrieves a hash code for this <a href="#">PlcIdentity</a> .<br>(Inherited from <a href="#">PlcIdentity</a> )  |

| Name   | Description   |
|--|---|
| GetHashCode  | Retrieves a hash code for this <a href="#">PlcOperand</a> .<br>(Inherited from <a href="#">PlcOperand</a> )   |
| GetObjectData(Serialization.SerializationInfo, Serialization.StreamingContext) | Sets the <a href="#">Serialization.SerializationInfo</a> with information about the exception.  |
| GetObjectData(Serialization.SerializationInfo, Serialization.StreamingContext) | Sets the <a href="#">Serialization.SerializationInfo</a> with information about the exception.<br>(Inherited from <a href="#">PlcIdentity</a> )   |
| GetObjectData(Serialization.SerializationInfo, Serialization.StreamingContext) | Sets the <a href="#">Serialization.SerializationInfo</a> with information about the exception.<br>(Inherited from <a href="#">PlcOperand</a> )  |
| GetSupportedRawTypes(PlcOperandType)   | Retrieves the <a href="#">PlcRawType</a> members supported by the <a href="#">PlcOperandType</a> specified by <b>type</b> .<br>(Inherited from <a href="#">PlcOperand</a> )                                       |
| IsSupported(PlcOperandType, PlcRawType)  | Determines whether the specified <b>rawType</b> can be used to address the PLC memory identified by the <a href="#">PlcOperandType</a> specified by <b>type</b> .<br>(Inherited from <a href="#">PlcOperand</a> ) |
| Of(PlcOperandType)   | Retrieves the according <a href="#">PlcOperand</a> which matches the <a href="#">PlcOperandType</a> specified.<br>(Inherited from <a href="#">PlcOperand</a> )  |
| Parse(String)  | Converts an operand string to a <a href="#">PlcOperand</a> instance.<br>(Inherited from <a href="#">PlcOperand</a> )  |
| ToString   | Converts the name to its string representation.<br>(Inherited from <a href="#">PlcIdentity</a> )  |
| ToString   | Converts the operand to its string representation.<br>(Inherited from <a href="#">PlcOperand</a> )  |
| ToString(PlcOperandStandard)   | Converts the operand to its string representation using the specified <b>standard</b> .<br>(Inherited from <a href="#">PlcOperand</a> )   |
| TryParse(String, PlcOperand@)  | Determines whether a string is a valid operand.<br>(Inherited from <a href="#">PlcOperand</a> )   |
| UserDefinedType(Int32)   | Retrieves the according <a href="#">PlcUserDefinedTypeOperand</a> using the specified <b>number</b> of the user defined type operand.<br>(Inherited from <a href="#">PlcOperand</a> )                             |
| Word(Int32)  | Creates a new <a href="#">PlcWordAddress</a> from this <a href="#">PlcCounterOperand</a> using the <b>byteNumber</b> specified.   |

## Operators

| Name  | Description  |
|---|--|
| op_Equality(PlcCounterOperand, PlcCounterOperand) | Returns a value indicating whether two instance of <a href="#">PlcCounterOperand</a> are equal.  |
| op_Equality(PlcIdentity, PlcIdentity)             | Returns a value indicating whether two instance of <a href="#">PlcIdentity</a> are equal.<br>(Inherited from <a href="#">PlcIdentity</a> ) |
| op_Equality(PlcOperand, PlcOperand)               | Returns a value indicating whether two instance of <a href="#">PlcOperand</a> are equal.<br>(Inherited from <a href="#">PlcOperand</a> )   |

| Name  | Description  |
|---|--|
| op_GreaterThan(PlcCounterOperand, PlcCounterOperand)        | Determines whether the first specified <b>PlcCounterOperand</b> object is greater than the second specified <b>PlcCounterOperand</b> object.   |
| op_GreaterThan(PlcIdentity, PlcIdentity)                    | Determines whether the first specified <b>PlcIdentity</b> object is greater than the second specified <b>PlcIdentity</b> object.<br>(Inherited from <b>PlcIdentity</b> )             |
| op_GreaterThan(PlcOperand, PlcOperand)                      | Determines whether the first specified <b>PlcOperand</b> object is greater than the second specified <b>PlcOperand</b> object.<br>(Inherited from <b>PlcOperand</b> )                |
| op_GreaterThanOrEqual(PlcCounterOperand, PlcCounterOperand) | Determines whether the first specified <b>PlcCounterOperand</b> object is greater than or equal to the second specified <b>PlcCounterOperand</b> object.                             |
| op_GreaterThanOrEqual(PlcIdentity, PlcIdentity)             | Determines whether the first specified <b>PlcIdentity</b> object is greater than or equal to the second specified <b>PlcIdentity</b> object.<br>(Inherited from <b>PlcIdentity</b> ) |
| op_GreaterThanOrEqual(PlcOperand, PlcOperand)               | Determines whether the first specified <b>PlcOperand</b> object is greater than or equal to the second specified <b>PlcOperand</b> object.<br>(Inherited from <b>PlcOperand</b> )    |
| op_Implicit(Advanced.PlcCounterOperand)                     | Converts a string formatted as operand to an <b>PlcCounterOperand</b> object.  |
| op_Implicit(Advanced.PlcIdentity)                           | Converts a string formatted as name to an <b>PlcIdentity</b> object.<br>(Inherited from <b>PlcIdentity</b> )   |
| op_Implicit(Advanced.PlcOperand)                            | Converts a string formatted as operand to an <b>PlcOperand</b> object.<br>(Inherited from <b>PlcOperand</b> )  |
| op_Inequality(PlcCounterOperand, PlcCounterOperand)         | Returns a value indicating whether two instances of <b>PlcCounterOperand</b> are not equal.  |
| op_Inequality(PlcIdentity, PlcIdentity)                     | Returns a value indicating whether two instances of <b>PlcIdentity</b> are not equal.<br>(Inherited from <b>PlcIdentity</b> )  |
| op_Inequality(PlcOperand, PlcOperand)                       | Returns a value indicating whether two instances of <b>PlcOperand</b> are not equal.<br>(Inherited from <b>PlcOperand</b> )  |
| op_LessThan(PlcCounterOperand, PlcCounterOperand)           | Determines whether the first specified <b>PlcCounterOperand</b> object is less than the second specified <b>PlcCounterOperand</b> object.  |
| op_LessThan(PlcIdentity, PlcIdentity)                       | Determines whether the first specified <b>PlcIdentity</b> object is less than the second specified <b>PlcIdentity</b> object.<br>(Inherited from <b>PlcIdentity</b> )                |
| op_LessThan(PlcOperand, PlcOperand)                         | Determines whether the first specified <b>PlcOperand</b> object is less than the second specified <b>PlcOperand</b> object.<br>(Inherited from <b>PlcOperand</b> )                   |
| op_LessThanOrEqual(PlcCounterOperand, PlcCounterOperand)    | Determines whether the first specified <b>PlcCounterOperand</b> object is less than or equal to the second <b>PlcCounterOperand</b> object.  |

| Name   | Description  |
|--|--|
| op_LessThanOrEqualTo(PlcIdentity, PlcIdentity) | Determines whether the first specified <a href="#">PlcIdentity</a> object is less than or equal to the second <a href="#">PlcIdentity</a> object.<br>(Inherited from <a href="#">PlcIdentity</a> ) |
| op_LessThanOrEqualTo(PlcOperand, PlcOperand)   | Determines whether the first specified <a href="#">PlcOperand</a> object is less than or equal to the second <a href="#">PlcOperand</a> object.<br>(Inherited from <a href="#">PlcOperand</a> )    |



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