tf.layers.Input

```
Input(
    shape=None,
    batch_size=None,
    name=None,
    dtype=tf.float32,
    sparse=False,
    tensor=None
)
```

Defined in `tensorflow/python/layers/base.py`.

`Input()` is used to instantiate an input tensor for use with a `Network`.

For instance, if a, b and c are tensors created via `Input`, it becomes possible to do:

`network = Network(inputs=[a, b], outputs=c)`

Example:

```
```python
# This is a logistic regression
x = tf.layers.Input(shape=(32,))
y = tf.layers.Dense(16, activation='softmax')(x)
network = tf.layers.Network(x, y)
```
```

Arguments:

- `shape`: A shape tuple (integer), not including the batch size. For instance, `shape=(32,)` indicates that the expected input will be batches of 32-dimensional vectors.
- `batch_size`: Optional input batch size (integer or None).
- `name`: An optional name string for the layer. Should be unique in a model (do not reuse the same name twice). It will be autogenerated if it isn't provided.
- `dtype`: The data type expected by the input, as a string (`float32`, `float64`, `int32`...)
- `sparse`: A boolean specifying whether the placeholder to be created is sparse.
- `tensor`: Optional existing tensor to wrap into the `Input` layer. If set, the layer will not create a placeholder tensor.

Returns:

A tensor: either a new placeholder (with history metadata) or `tensor` (if passed), with added history metadata.

Raises:

- `RuntimeError`: If called in Eager mode.

Last updated November 2, 2017.