response(sys, ref)

Finds the response of the given system to the given reference/input signal. These can be given as tf-objects, symbolics or just the name of the response-type.
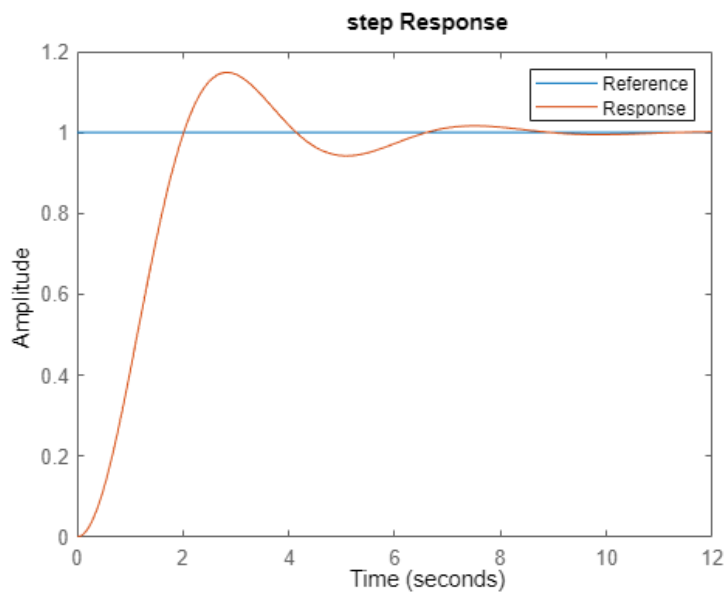
```
clear; s = tf('s'); syms t;
sys = (s+2)/(s^3+2*s^2+3*s+2)
```

```
sys =

         s + 2
  ---------------------
  s^3 + 2 s^2 + 3 s + 2

Continuous-time transfer function.
```

```
ELAB.response(sys, 'step')
```



```
ans =

           s + 2
  ------------------------
  s^4 + 2 s^3 + 3 s^2 + 2 s

Continuous-time transfer function.
```

```
ELAB.response(sys, 'impulse')
```

impulse Response
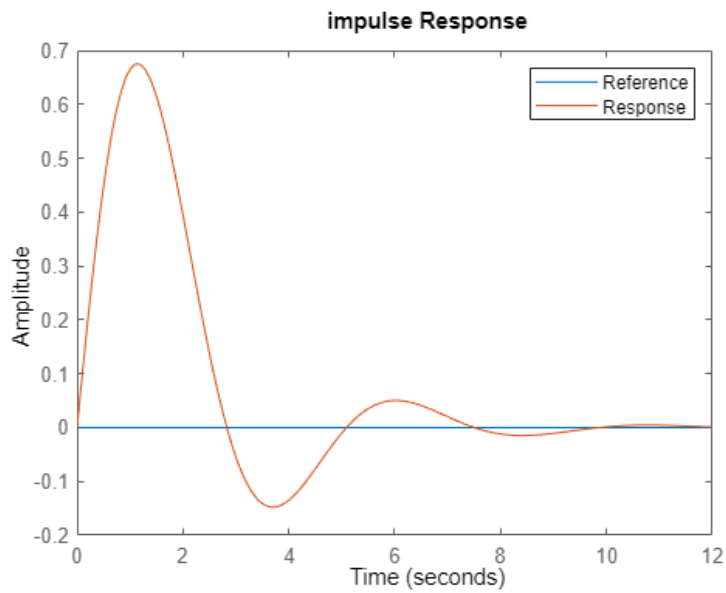
```
ans =

         s + 2
  ---------------------
  s^3 + 2 s^2 + 3 s + 2

Continuous-time transfer function.
```

```
ELAB.response(sys, 'ramp')
```


ramp Response
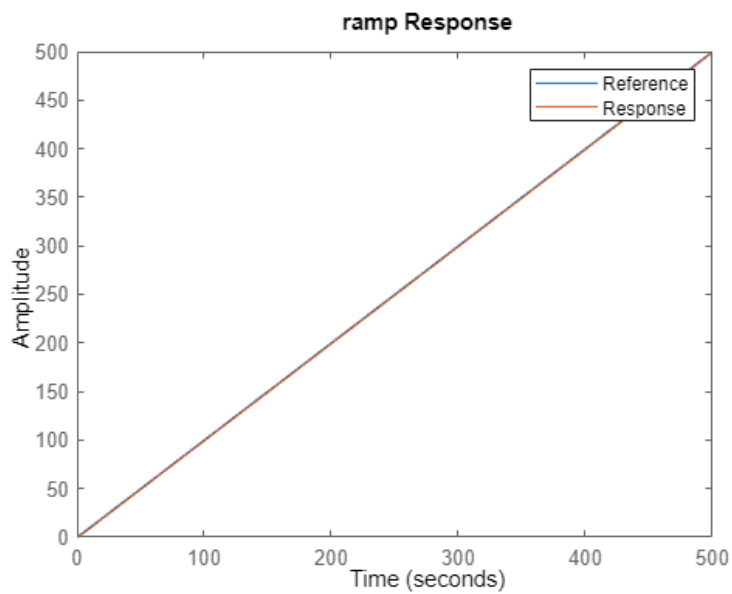
```
ans =

           s + 2
  ---------------------------
  s^5 + 2 s^4 + 3 s^3 + 2 s^2

Continuous-time transfer function.
```

```
ELAB.response(sys, 'sin')
```
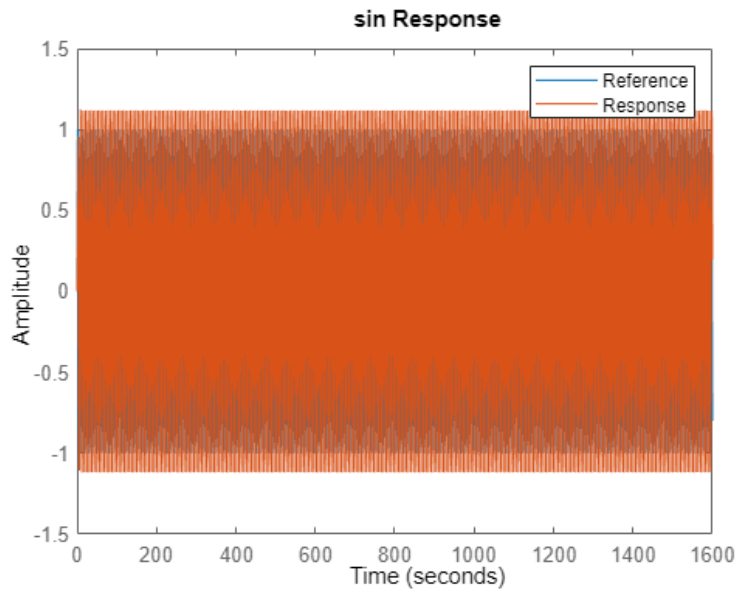
sin Response


```
ans =

             s + 2

  -------------------------------

  s^5 + 2 s^4 + 4 s^3 + 4 s^2

                    + 3 s + 2

Continuous-time transfer function.
```

```
ELAB.response(sys, 1/s)
```
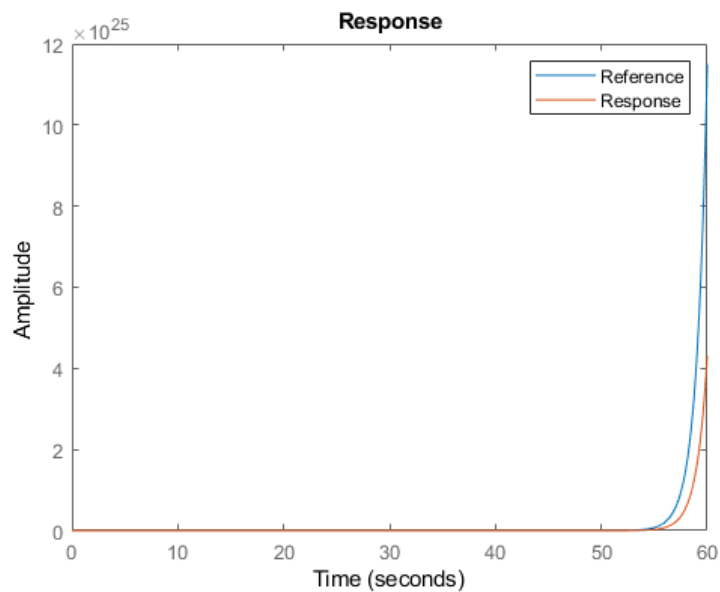
```
ans =

          s + 2
  -------------------------
  s^4 + 2 s^3 + 3 s^2 + 2 s

Continuous-time transfer function.
```
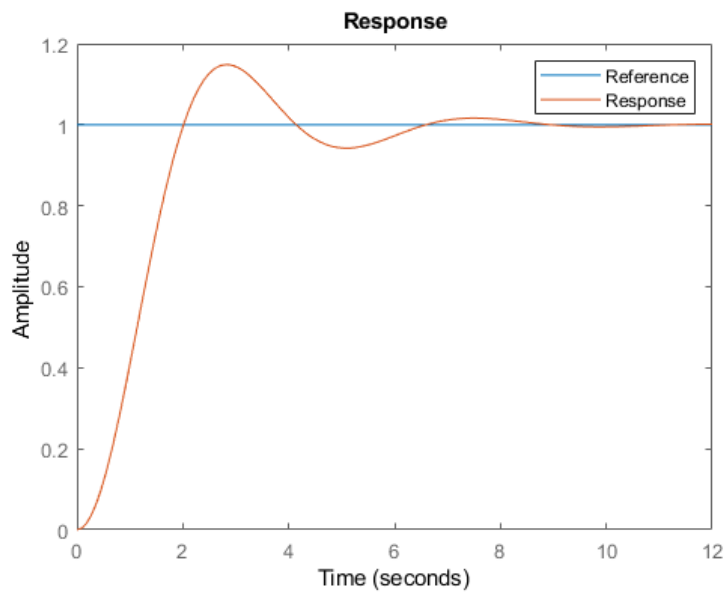
```
ELAB.response(sys, exp(t))
```

Converting symbolic to tf-object.


```
ans =

          s + 2
  ----------------------
  s^4 + s^3 + s^2 - s - 2

Continuous-time transfer function.
```