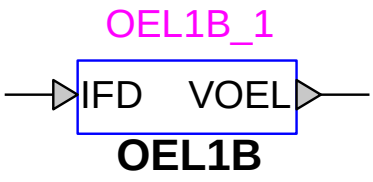
Exciters and Governors: Over Excitation Limiter OEL1B



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1 Description

This device is an implementation of the IEEE type OEL1B over excitation limiter model. This device is implemented as described in [1]. Implementation details can be viewed by inspecting the subcircuit of this device.

1.1 Pins

This device has 2 pins:

Pin name	Type	Description	Units
IFD	Input	Field current	pu
VOEL	Output	Over Excitation Limiter signal	pu

1.2 Parameters

The default set of parameters can be found in [1].

1.2.1 Data tab

The parameters on the Data tab are:

1. **Field current pickup I_{TFPU}**: OEL timed filed current limiter pickup level
2. **Instantaneous field current limit I_{FDMAX}**: OEL instantaneous field current limit
3. **Timed field current limit I_{FDLIM}**: OEL timed field current limit
4. **Hysteresis HYST**: OEL pickup/drop out hysteresis
5. **Rated field current $I_{FDrated}$**: Rated field current

2 Initial conditions

The OEL is supposed to be inactive during the steady-state conditions.

3 References

[1] “IEEE Recommended Practice for Excitation System Models for Power System Models for Power System Stability Studies,” IEEE Standard 421.5-2005.