

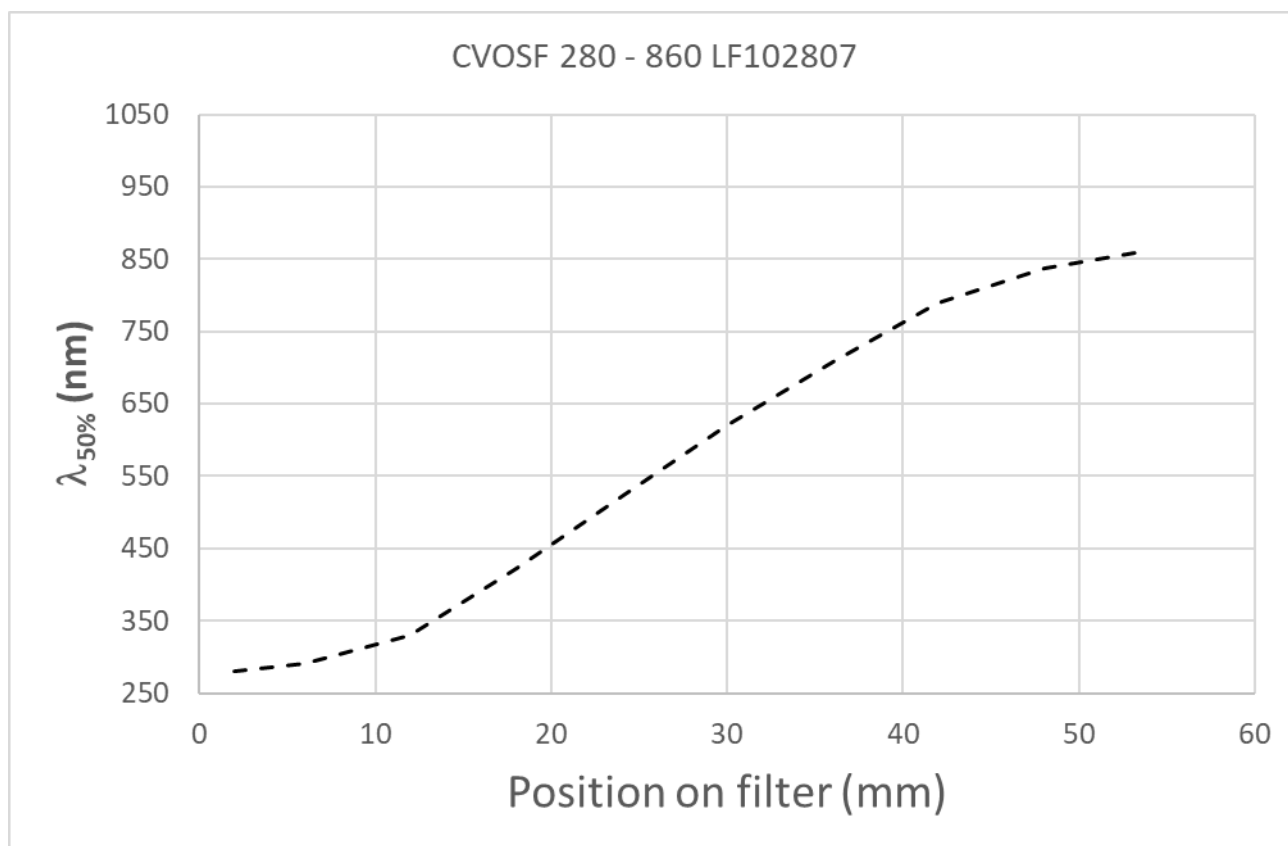
# Data Sheet



## CVOSF 280 - 860 (LF102807)

Continuously variable long-wavelength-pass filter with  $\lambda_{50\%}$  travelling from ~280 nm to ~860 nm within ~54 mm.

The filter is designed as a Continuously Variable Order Sorting filter for a sensor array-based spectrometer and can be cut to fit a specific wavelength range (see an example on the last page of this Data Sheet). The order sorting filter is intended to be located close to the sensor array preventing higher orders from the grating to get through to the detector.

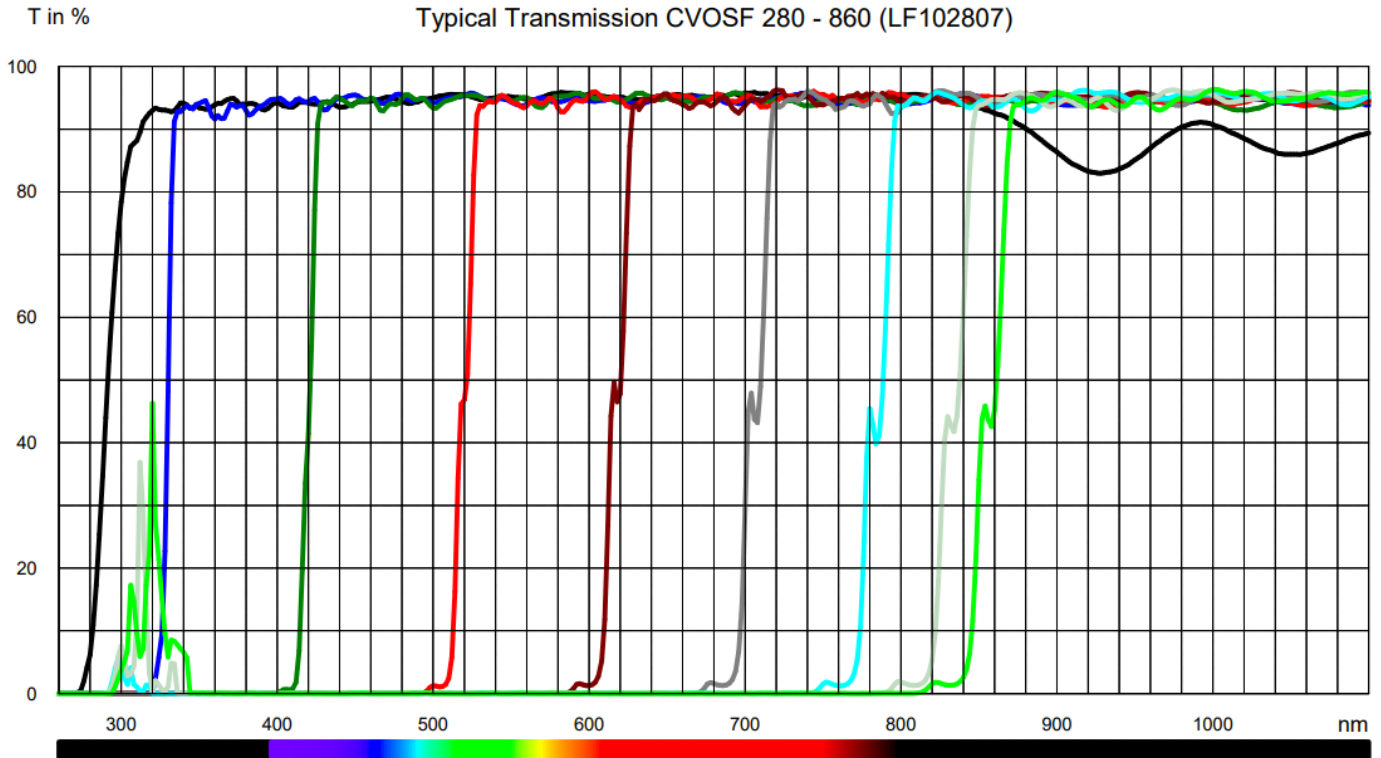


NOTE: If the filter is being use for wavelengths above ~1000 nm it is important to ensure that the 1<sup>st</sup> order wavelength is at least ~22% longer than the filter edge wavelength for the upper part of the wavelength range.

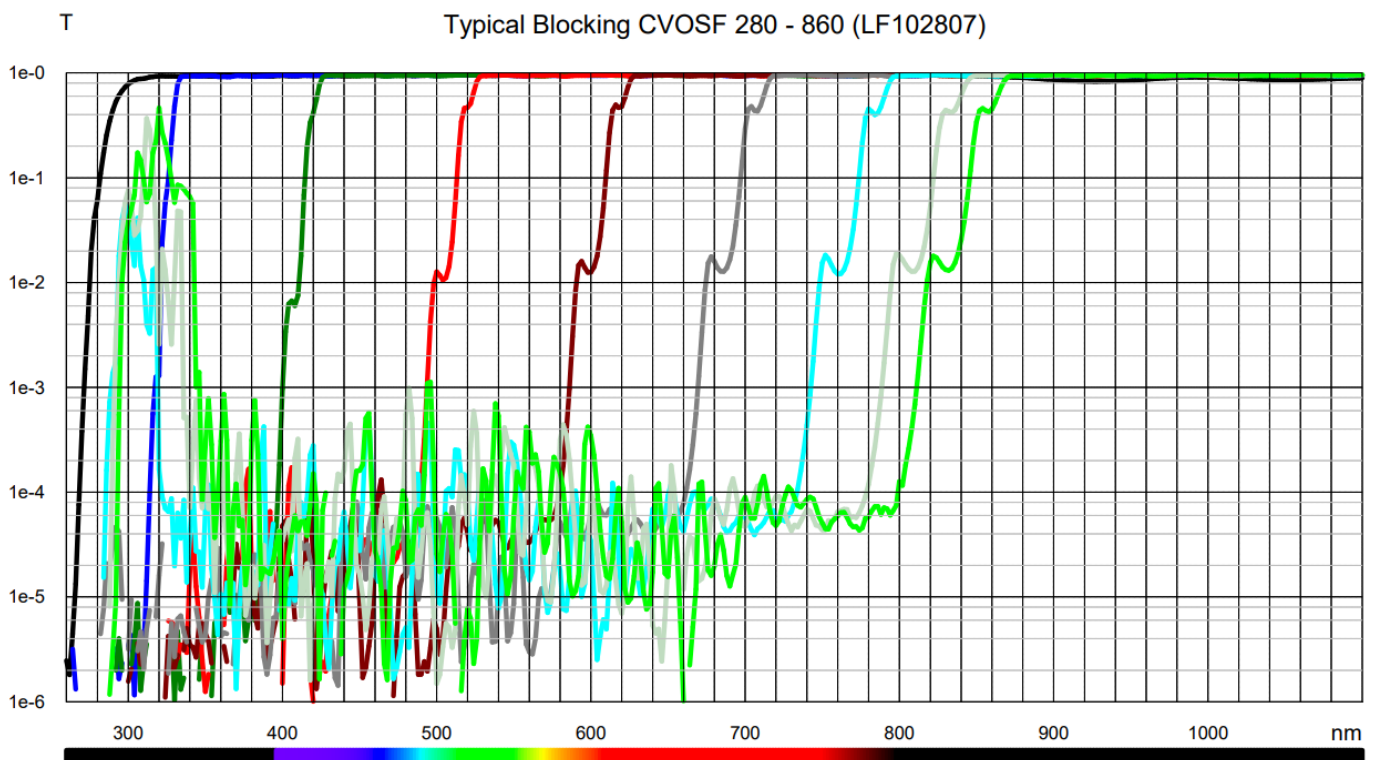
# Data Sheet



## Typically measured transmittance of CVOSF 280 - 860 (LF102807)



## Typically measured blocking of CVOSF 280 - 860 (LF102807)



# Data Sheet

## Example of use case

### Spectrometer:

- Wavelength range: 380 – 1050 nm
- Detector/filter length: 28 mm

### Filter:

By using the 28 mm section of the filter cut from the position on the filter from 9 mm to 37 mm the following performance can be expected:

- Minimum transmission for  $\lambda_{1st} - 20 \text{ nm} < \lambda < \lambda_{1st} + 20 \text{ nm}$ : 90%
- Maximum transmission at 2<sup>nd</sup> and 3<sup>rd</sup> order wavelengths: 0.16%

As a rough guideline, if a CVOSF can be placed so that  $1.1 \cdot \lambda_{50\%}$  is shorter than the 1<sup>st</sup> order wavelength, and  $0.8 \cdot \lambda_{50\%}$  is longer than the 2<sup>nd</sup> order wavelength, the CVOSF can be used for that spectrometer.

Please, note that actual specifications will be agreed with each customer, taking into account the spot size, angle of incidence and opening angle of the beam incident on the filter.

