



FINDING YOUR OPTICAL FILTERS GUIDE

THE CUSTOMER JOURNEY: FROM SPECIFICATIONS TO PRODUCTION



Define Your Specs

Specify your requirements: sharing critical system information enables us to optimize filter performance.



Finalize Designs

Optimize spectral performance: we build in manufacturing tolerance to guaranteed specs, ensuring consistent filter quality.



Testing & Delivery

We deliver excellence: each individual filter is cleaned and inspected prior to packaging and shipping, ensuring optimal results.

NAVIGATING THROUGH YOUR SELECTION OF SEMROCK OPTICAL FILTERS

Deciding on a set of optical filters for a new fluorescence-based product is a complex task that requires careful planning to ensure a successful outcome. Complicating factors include the need for a fast timeline, reliable production, and budget constraints.

IDEX Health & Science empowers this search process with our line of Semrock® optical filters, utilizing three key assets: Team, Tools, and Technology.

Team

Our team of Application Scientists understands your requirements. They have years of collaboration with engineers and scientists on simple to sophisticated projects, backed up by our expert RD&E team, which designs filters with innovative approaches.

Tools

Both our customers and team use our software to model filter behavior. Key among these is SearchLight™, our powerful simulation tool for modeling the spectral behavior of your optical system, including filters, excitation sources, microscope components, fluorophores, and detectors. SearchLight™ allows you to flexibly refine filter specifications, model system behavior, and drive optimization.

Technology

Our system continues to produce the industry's most reliable and highest-performance optical filters. We achieve this through our Manufacturable Specifications approach and employing our KolaDeep™ Spectral Measurement System.

LEARN ABOUT PARTNERING WITH US BY EXPLORING:



Filter Options:
Catalog



Filter Options:
Custom or Hybrid



The Steps in the
Customer Journey



FILTER OPTIONS: CATALOG

Catalog filters are designed for use in standard microscope or similar optical systems, with bandpass filters guaranteed to meet specs over AOI up to 5°. Our catalog database offers hundreds of catalog filters and optimized single- and multi-band filter sets for the most popular fluorophores.

Search Catalog:
idex-hs.com/optical-catalog



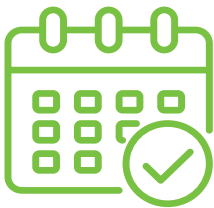
PROS

Fast delivery and customizable (see below).



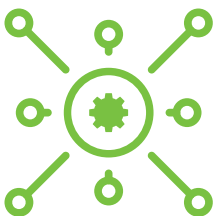
CONS

Limited to the more standard fluorophores; custom filters may be better matches to price / performance requirements.



New Lead Times for 2024

- ✓ 2-5 business days delivery for guaranteed in-stock catalog filters and sets
- ✓ 1 week for custom filter design quotation
- ✓ 4 weeks delivery for custom coatings
- ✓ A minimum order quantity as low as 1 to 10 filters



Easily Customize Your Catalog Filters

- ✓ Custom sizes
- ✓ Custom dimensional tolerance, e.g. +0/-0.1 mm
- ✓ Custom Clear Aperture
- ✓ Edge blackening
- ✓ Colored paint part marking

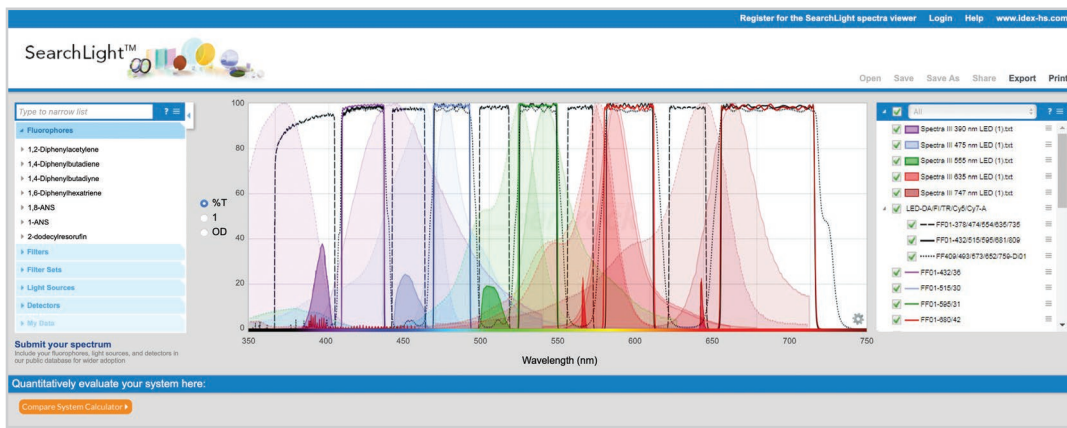


FILTER OPTIONS: CATALOG

SearchLight™

Our SearchLight™ analysis tool can be most helpful here, as its database has spectra of all catalog filters, fluorophores, etc., and your team can easily collaborate with each other and with our Applications Scientists through shared SearchLight™ sessions. Visit the link, right, to explore the features of SearchLight™.

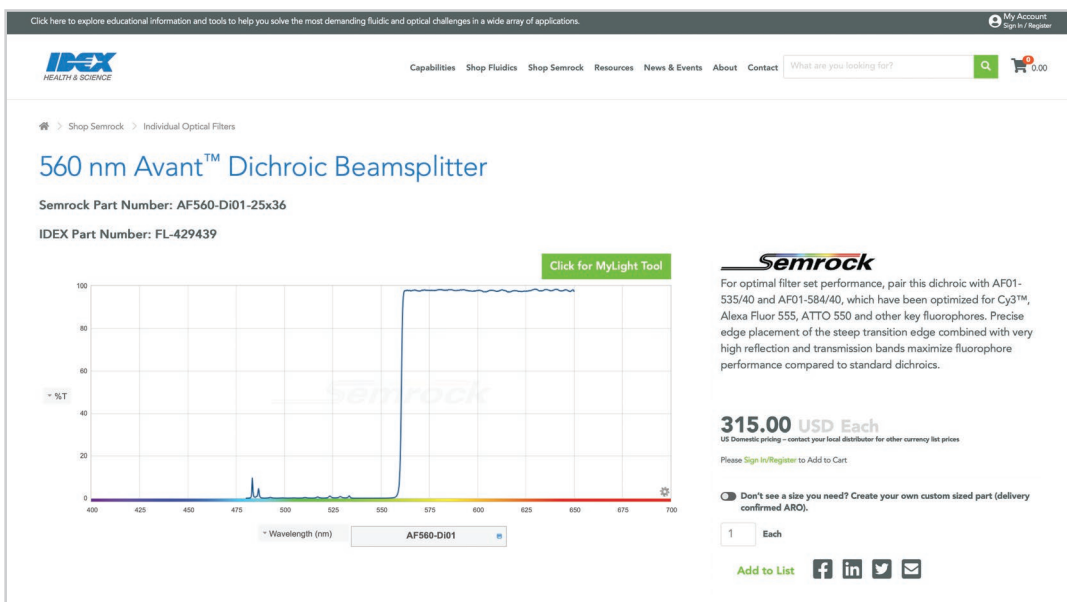
Visit SearchLight™
index-hs.com/searchlight



MyLight™

Our MyLight™ tool, found on the web page of each catalog filter, can be used to model the effect of AOI on spectra and polarization.

Explore MyLight™
index-hs.com/my-light





FILTER OPTIONS: CUSTOM OR HYBRID

Can't find the filters you need in our catalog? At IDEX Health & Science, we offer both custom coating filter designs tailored specifically to your system needs and hybrid solutions that combine catalog and custom filters.

Custom Filters

We offer custom coating filter designs tailored specifically to your system needs. Though the initial prototype filter cost will be higher than using standard catalog filters, it can often save money in the long term by assuring you immediately get the features you need.

PROS

Fully meets all system requirements, optimized for specific format, light sources, fluorophores, and detectors, with no need for updates once the system transitions from prototype to production.



CONS

Slightly longer lead time (but still exceptionally fast), higher initial investment.



Hybrid Catalog/Custom Filters

An alternative is to choose a mix of catalog and custom filters.

PROS

Less up-front investment and development time by reducing number of custom coating runs.



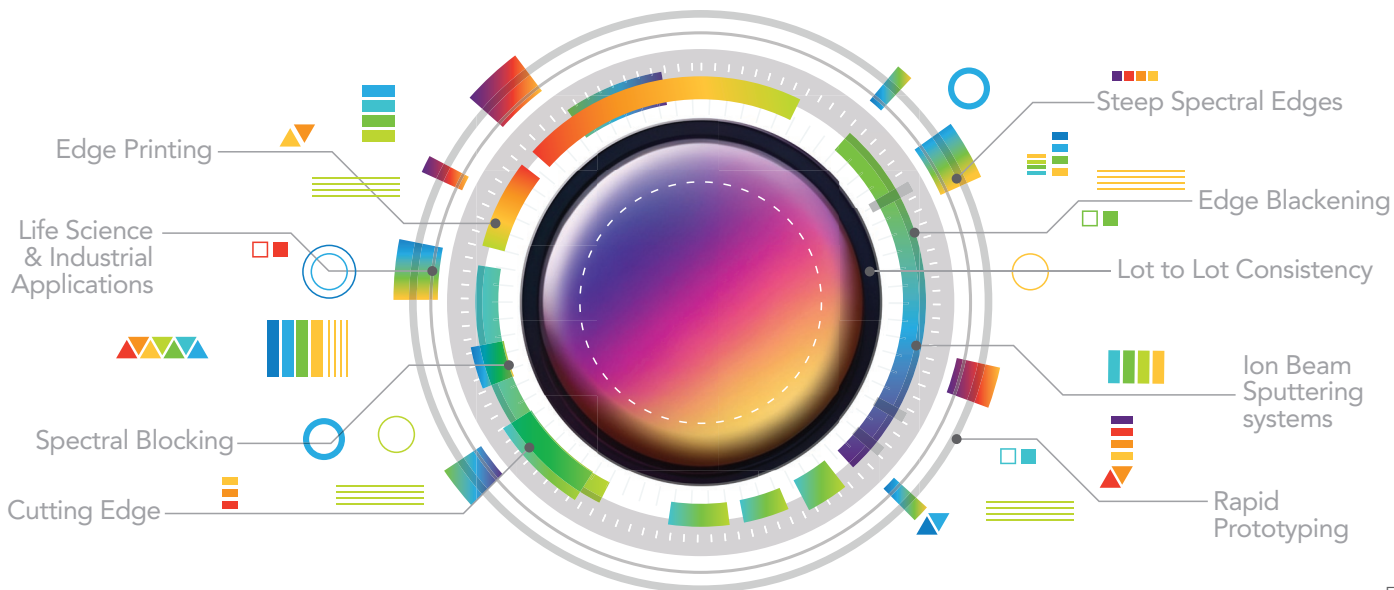
CONS

Slightly longer lead time (but still exceptionally fast), higher investment in prototyping.



Start Your Custom Design

idex-hs.com/custom-optics





THE STEPS IN THE CUSTOMER JOURNEY: PARTNERING WITH SEMROCK

These phases apply to OEMs with ramp-up in mind, as well as to customers building one-off systems.

We coat on large substrates and dice our optical filters from there. This allows flexibility for customer to change part size throughout the prototyping process as needed without having to purchase additional coating runs.



Share Preliminary Requirements & Decide on Filter Specifications

- ✓ The more you share about your system, the better we can optimize the optical performance: light sources, detector, fluorophores, application, and optical layout.
- ✓ IDEX Health & Science offers a standard mutual NDA to all customers. Our legal team may review customer-provided NDAs in some cases.
- ✓ See the [Custom Filters Specifications Form](#) for a handy guide to specifications.
- ✓ Please share production level expectations so we can ensure the right coating platform for your needs.
- ✓ After discussion and modeling, the customer and our team agree on the filter specifications.



Optimize Spectral Performance & Issue a Quotation

- ✓ We use [Manufacturable Specifications](#), which means we build in manufacturability when writing specifications. This ensures that each specification is guaranteed by Semrock.
- ✓ The filter design team converts the specifications into filter designs. In some cases, specifications are adjusted to assure manufacturability and yield. This process can take one week or more depending on overall system complexity.
- ✓ You will receive a drawing containing the specifications and simulated optical response data, which can be loaded to SearchLight™ for modeling your system.
- ✓ Once the specifications and optical performance pass customer review, your Key Account Manager provides a quotation.

"Once we get your filter specifications, we carefully consider what they mean for product implementation. We look at how all the filters will work together, as opposed to just looking at each filter in isolation. The whole system must be optimized for your fluorophores, light sources, and detectors."

— NICOLE ZOMBOTTI —
Key Account Manager



STEP 3



Filter Order Received & Processed

- ✓ When the customer purchase order is received, IDEX Health & Science sets up the account, the customer purchase order is processed, and a promised ship date is provided.
- ✓ Before being shipped out, each filter is thoroughly inspected to ensure they meet our standards for high quality and superior performance.
- ✓ Filters are delivered to the customer site, and performance testing starts. Our team is most interested in results, and any small issue is worked on with full transparency. Traceability of our filters means minimal lost time tracking any issues.
- ✓ Let us know the results! Do you need to adjust some specifications? Let's partner.

STEP 4

Moving to Production

- ✓ All our catalog filters are already able to support your production level needs.
- ✓ For a custom coating design, it is important to know production level volumes before we manufacture the first filters. We can then select the appropriate coating platform to ensure consistent delivery throughout early stage and ramp-up customer production phases.

Start Your Custom Design
idex-hs.com/custom-optics



VIEW ALL RESOURCES RELATED TO OPTICAL FILTERS



Access SearchLight™

SearchLight is our premier modeling resource for fluorescence microscopists and optical system designers.

idex-hs.com/searchlight



Optical Filters FAQs

A comprehensive lists of commonly asked questions regarding our Semrock optical filters and related applications.

idex-hs.com/optical-faqs



Educational Materials

Find educational information to optimize and innovate your optofluidic pathway, including guides, catalogs, and more.

idex-hs.com/education



Shop Single Filters

Select from our extensive catalog and remain confident of uncompromising quality, reliability, and reproducibility.

idex-hs.com/single-filters



Shop Filter Sets

Our filter sets support a great range of fluorophores for imaging systems and microscopes that always meet specifications.

idex-hs.com/filter-sets



Register for an Account

Register for a free IDEX Health & Science account to save your SearchLight™ data and access educational resources.

idex-hs.com/sign-up



Video Library

Browse our video library to discover our webinars, capabilities, applications, and partnership opportunities.

idex-hs.com/webinars-and-videos



Tools & Drawings

Our tools and drawings are designed to assist you with specific aspects of your optofluidic path requirements.

idex-hs.com/tools



Download Catalog

Download the latest Semrock Optical Filters catalog that will help make every photon count in your system.

idex-hs.com/optical-catalog