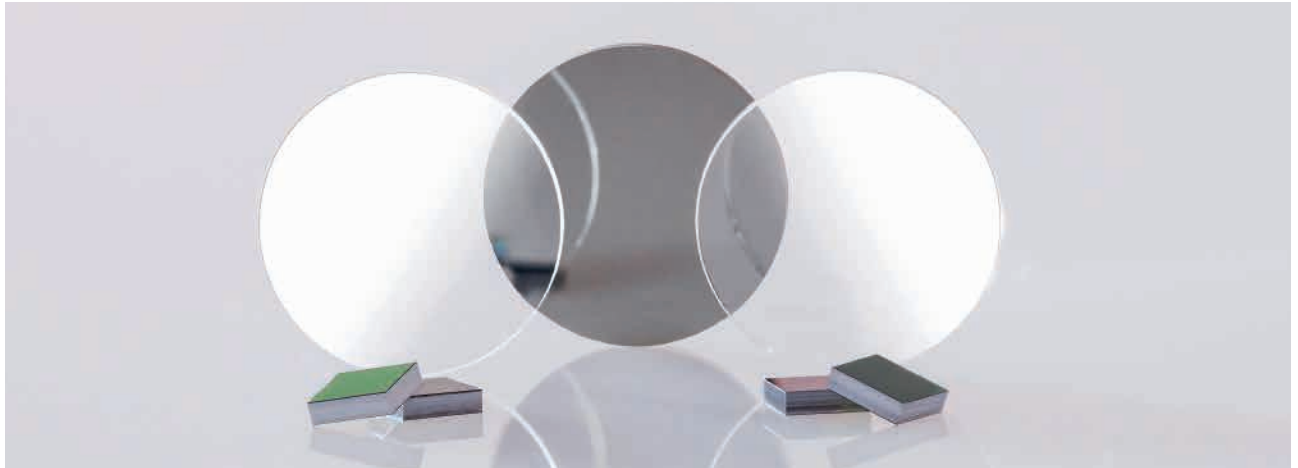


Infrared standard filters for NDIR applications



The filters of the detectors determine the frequency range of the infrared radiation which is detected by the sensitive element of the sensor.

The wavelength range of the filters is mainly defined by the target application. The filters are primarily characterized by their centre wavelength and the full width at half maximum. Not all filters can be combined with all detectors due to their different geometrical dimensions and environmental durability. Please confirm your selected filters with Micro-Hybrid before you place your final order.

The following chart presents an overview of our standard filters and their specific characteristics (out of band blocking: 400nm - 11µm <0.1%).

Centre wavelength (CWL) [nm]	Centre wavelength tolerance [nm]	Half band-width [nm]	Half bandwidth tolerance [nm]	Transmission	Code	Application
3400	±20	140	±20	Tmax>80%	G2	HC
3910	±28	70	±10	Tmax>70%	D2	Reference
4265	±25	120	±10	Tmax>70%	E1	CO ₂
4525	±20	83	±6	Tmax>70%	K1	N ₂ O
4650	±40	180	±20	Tmax>70%	F1	CO
5060	±25	100	±15	Tmax>70%	D5	Reference
5300	±30	200	±20	Tmax>70%	L1	NO
6580	±40	200	±35	Tmax>70%	I1	H ₂ O
7300	±50	180	±20	Tmax>80%	H1	SO ₂
9663	±80	240	±40	Tmax>70%	M1	OH
10540	±100	690	±100	Tmax>70%	J1	SF ₆

Filters according to customer specifications

Micro-Hybrid offers the possibility to manufacture detectors with customer specific filters. Therefore the following points have to be considered:

- CWL
- HBW
- Tolerance
- Slope
- Minimum needed transmission/ material
- Operating wavelength/ blocking range

The product code of our detectors is created in the following way:

Sensor type (AA) – Number of channels (Bx) – Chip type (CCCC) – Package (D) – Aperture (EEE) – Thermistor (F) – Backfill gas (GG) – Filters (H/H/H/H) – Extended temperature range (III)

For example: TS4x200B-A-S1.5-1-N2-E1 / F1 / G1 / D1

The sensor package, the number of channels, the chip type, package and aperture are defined in the additional datasheets of the detectors.