

# Color Filters

## Red & NIR Color Filters

Color filters, transmit wavelength in a corresponding color as seen by the human eye. Red are long pass filters. IR pass filters are long pass filters, transmitting only IR light. The Cut-on wavelength is defined at 50% transmittance of maximum. Color filters are absorptive filter that are used to increase contrast of a monochrome image, by isolating spectral regions and lighting colors. IR filters are absorptive filters, too. They are used in front of a NIR sensor or an image sensor for NIR imaging where IR spectrum only is needed. The type of the filter is thereby depending on two main factors: color of the object and illumination. Call for helping to select the best suitable filter.



Call us to discuss your OEM and custom requirements.

### Key Features

- AR Coating available
- Insensitive to angle of incidence
- Large CA, absence of vignetting
- Improve Contrast
- Isolate Colors

### Applications

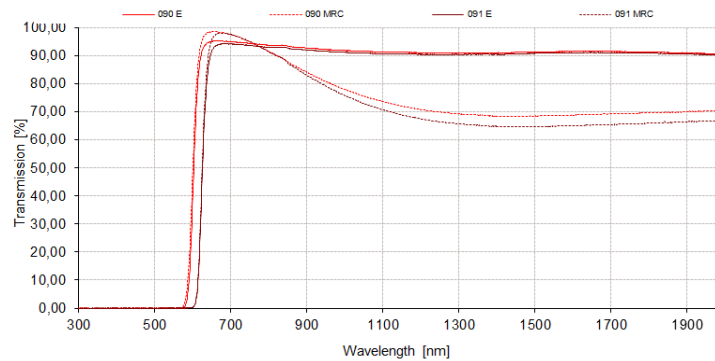
- Traffic
- Process Control
- Night Vision
- Machine Vision Applications
- Line Inspection
- Food and Beverage Inspection
- NIR Imaging (IR pass)

### General technical specifications

Parallelism	1'
Surface	19-30mm: 5/2x0,10 C2 x 0,10 L3x0,008 31-50mm: 5/2x0,16 C1 x 0,16 L3x0,008 51-64mm: 5/3x0,16 C3 x 0,16 L3x0,008
Wavefront distortion	19 – 30 mm:13/1 (0.25) 31 – 50 mm:13/1 (0.30) 51 – 64 mm:13/1 (0.35)
Thickness	2.0 +/- 0.2 mm
Climate Testing	
Slow temperature cycling	DIN ISO 9022-2-14-03 -1
Damp heat, cyclic	DIN ISO 9022-2-16-01-1
Chemical resistant	DIN ISO 9011-4-04-05
Adhesive strength	DIN ISO 9211-4-02-03

# Red Filters 090, 091

Red Color Glass Filter



## Technical Specifications

according to ISO 10110

Filter type	090	091
Cut-on wavelength	600 nm +/- 10 nm	625 nm +/- 10 nm
Peak transmittance	> 90 %	> 90 %
Color	light red	red
AR Coating	E (MRC on request)	E (MRC on request)

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 090 E 27,0		CMT	IF 090 E CMT	1075131
34 mm	IFG 090 E 34,0	1070023	SH 25.5	IF 090 E SH 25.5	1001925
40 mm	IFG 090 E 40,0		SH 27.0	IF 090 E SH 27.0	1001926
43 mm	IFG 090 E 43,0	1070026	SN1 30.5	IF 090 E SN1 30.5	1006803
46 mm	IFG 090 E 46,0		SH 35.5	IF 090 E SH 35.5	1088504
49 mm	IFG 090 E 49,0	1074059	SH 37.0	IF 090 E SH 37.0	1007824
52 mm	IFG 090 E 52,0		SH 40.5	IF 090 E SH 40.5	1006413
55 mm	IFG 090 E 55,0	1075341	SH 43.0	IF 090 E SH 43.0	1007006
59 mm	IFG 090 E 59,0	1075341	SH 46.0	IF 090 E SH 46.0	1086638
64 mm	IFG 090 E 64,0	1074273	SH 49.0	IF 090 E SH 49.0	1001928
74 mm	IFG 090 E 74,0	1070027	SH 52.0	IF 090 E SH 52.0	1006989
			SH 55.0	IF 090 E SH 55.0	1005595
			SH 58.0	IF 090 E SH 58.0	1006990
			SH 62.0	IF 090 E SH 62.0	1076895
			SH 67.0	IF 090 E SH 67.0	1006991

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 090 MRC 27,0		CMT	IF 090 MRC CMT	
34 mm	IFG 090 MRC 34,0	1070028	SH 25.5	IF 090 MRC SH 25.5	
40 mm	IFG 090 MRC 40,0		SH 27.0	IF 090 MRC SH 27.0	1084479
43 mm	IFG 090 MRC 43,0	1070030	SN1 30.5	IF 090 MRC SN1 30.5	
46 mm	IFG 090 MRC 46,0		SH 35.5	IF 090 MRC SH 35.5	1076070
49 mm	IFG 090 MRC 49,0	1091188	SH 37.0	IF 090 MRC SH 37.0	
52 mm	IFG 090 MRC 52,0		SH 40.5	IF 090 MRC SH 40.5	1005058
55 mm	IFG 090 MRC 55,0	1091189	SH 43.0	IF 090 MRC SH 43.0	1005057
59 mm	IFG 090 MRC 59,0	1091190	SH 46.0	IF 090 MRC SH 46.0	
64 mm	IFG 090 MRC 64,0	1091191	SH 49.0	IF 090 MRC SH 49.0	
74 mm	IFG 090 MRC 74,0	1070031	SH 52.0	IF 090 MRC SH 52.0	1085998
			SH 55.0	IF 090 MRC SH 55.0	
			SH 58.0	IF 090 MRC SH 58.0	
			SH 62.0	IF 090 MRC SH 62.0	
			SH 67.0	IF 090 MRC SH 67.0	1073857

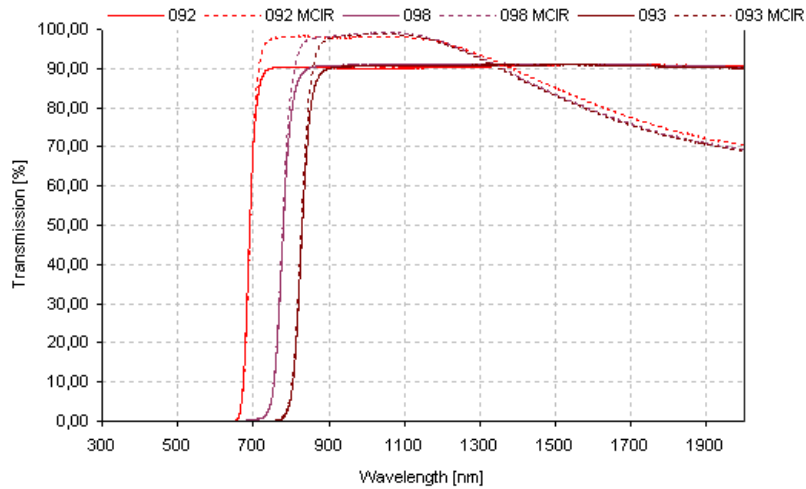
# Red Filters 091

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 091 E 27,0		CMT	IF 091 E CMT	1010766
34 mm	IFG 091 E 34,0	1070033	SH 25.5	IF 091 E SH 25.5	1003043
40 mm	IFG 091 E 40,0		SH 27.0	IF 091 E SH 27.0	1001905
43 mm	IFG 091 E 43,0	1070034	SN1 30.5	IF 091 E SN1 30.5	1006992
46 mm	IFG 091 E 46,0	1074347	SH 35.5	IF 091 E SH 35.5	1072562
49 mm	IFG 091 E 49,0		SH 37.0	IF 091 E SH 37.0	1007825
52 mm	IFG 091 E 52,0	1082931			
55 mm	IFG 091 E 55,0		SH 40.5	IF 091 E SH 40.5	1001906
64 mm	IFG 091 E 64,0	1078611	SH 43.0	IF 091 E SH 43.0	1053780
74 mm	IFG 091 E 74,0	1070035	SH 46.0	IF 091 E SH 46.0	1009450
			SH 49.0	IF 091 E SH 49.0	1007826
			SH 52.0	IF 091 E SH 52.0	1053781
			SH 55.0	IF 091 E SH 55.0	1006317
			SH 58.0	IF 091 E SH 58.0	1009451
			SH 62.0	IF 091 E SH 62.0	1053782
			SH 67.0	IF 091 E SH 67.0	1007764

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 091 MRC 27,0		CMT	IF 091 MRC CMT	1075132
34 mm	IFG 091 MRC 34,0	1077036	SH 25.5	IF 091 MRC SH 25.5	1006855
40 mm	IFG 091 MRC 40,0		SH 27.0	IF 091 MRC SH 27.0	1059334
43 mm	IFG 091 MRC 43,0	1070037	SN1 30.5	IF 091 MRC SN1 30.5	1076903
46 mm	IFG 091 MRC 46,0	1075342	SH 35.5	IF 091 MRC SH 35.5	1075138
49 mm	IFG 091 MRC 49,0		SH 37.0	IF 091 MRC SH 37.0	1055792
52 mm	IFG 091 MRC 52,0	1075269			
55 mm	IFG 091 MRC 55,0	1075343	SH 40.5	IF 091 MRC SH 40.5	1055793
64 mm	IFG 091 MRC 64,0	1075344	SH 43.0	IF 091 MRC SH 43.0	1006854
74 mm	IFG 091 MRC 74,0	1070038	SH 46.0	IF 091 MRC SH 46.0	
			SH 49.0	IF 091 MRC SH 49.0	1077651
			SH 52.0	IF 091 MRC SH 52.0	
			SH 55.0	IF 091 MRC SH 55.0	1078316
			SH 58.0	IF 091 MRC SH 58.0	1080145
			SH 62.0	IF 091 MRC SH 62.0	
			SH 67.0	IF 091 MRC SH 67.0	1073856

# IR Pass Filter 092, 098, 093

IR Filter IF 093 098 093



## Technical Specifications

according to ISO 10110

	IF 092	IF 098	IF 093
Filter type:	IF 092	IF 098	IF 093
Cut-on wavelength	695 nm +/- 10 nm	775 nm +/- 10 nm	825 nm +/- 10 nm
Peak transmittance	> 90 %		
Coating	Uncoated / MRCIR		

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 092 27,0		CMT	IF 092 CMT	1010766
34 mm	IFG 092 34,0	1069355	SH 25.5	IF 092 SH 25.5	1003043
40 mm	IFG 092 40,0	1088664	SH 27.0	IF 092 SH 27.0	1001905
43 mm	IFG 092 43,0		SN1 30.5	IF 092 SN1 30.5	1006003
46 mm	IFG 092 46,0		SH 35.5	IF 092 SH 35.5	1072562
49 mm	IFG 092 49,0	1069356	SH 37.0	IF 092 SH 37.0	1007825
52 mm	IFG 092 52,0				
55 mm	IFG 092 55,0		SH 40.5	IF 092 SH 40.5	1001906
64 mm	IFG 092 64,0		SH 43.0	IF 092 SH 43.0	1053780
74 mm	IFG 092 74,0	1069358	SH 46.0	IF 092 SH 46.0	1009450
			SH 49.0	IF 092 SH 49.0	1007826
			SH 52.0	IF 092 SH 52.0	1053781
			SH 55.0	IF 092 SH 55.0	1006317
			SH 58.0	IF 092 SH 58.0	1009451
			SH 62.0	IF 092 SH 62.0	1053782
			SH 67.0	IF 092 SH 67.0	1007766

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 092 MRCIR 27,0		CMT	IF 092 MRCIR CMT	
34 mm	IFG 092 MRCIR 34,0	1071769	SH 25.5	IF 092 MRCIR SH 25.5	1057442
40 mm	IFG 092 MRCIR 40,0		SH 27.0	IF 092 MRCIR SH 27.0	1057443
43 mm	IFG 092 MRCIR 43,0		SN1 30.5	IF 092 MRCIR SN1 30.5	1057444
46 mm	IFG 092 MRCIR 46,0		SH 35.5	IF 092 MRCIR SH 35.5	1078718
49 mm	IFG 092 MRCIR 49,0	1056147	SH 37.0	IF 092 MRCIR SH 37.0	
52 mm	IFG 092 MRCIR 52,0				
55 mm	IFG 092 MRCIR 55,0		SH 40.5	IF 092 MRCIR SH 40.5	
64 mm	IFG 092 MRCIR 64,0		SH 43.0	IF 092 MRCIR SH 43.0	1056141
74 mm	IFG 092 MRCIR 74,0	1070773	SH 46.0	IF 092 MRCIR SH 46.0	
			SH 49.0	IF 092 MRCIR SH 49.0	1081062
			SH 52.0	IF 092 MRCIR SH 52.0	1077269
			SH 55.0	IF 092 MRCIR SH 55.0	
			SH 58.0	IF 092 MRCIR SH 58.0	
			SH 62.0	IF 092 MRCIR SH 62.0	
			SH 67.0	IF 092 MRCIR SH 67.0	

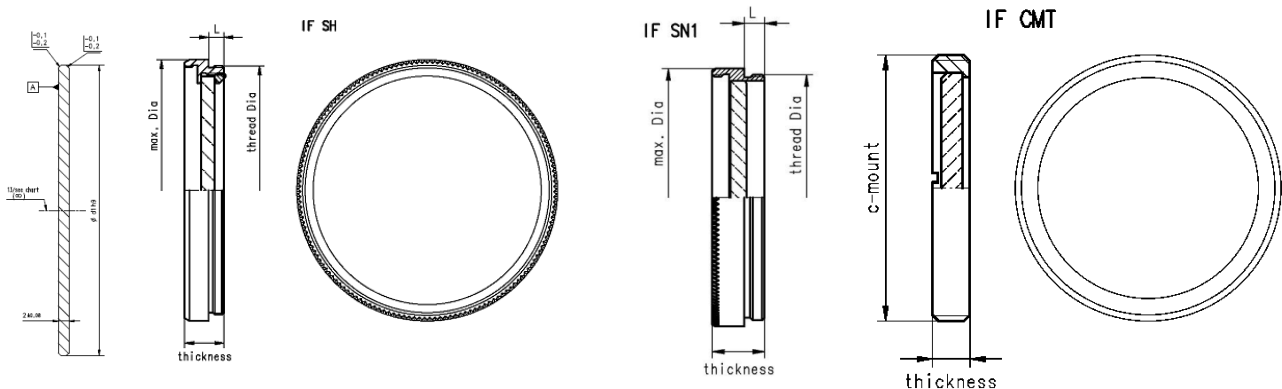
unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 093 27,0	1069350	CMT	IF 093 CMT	1010765
34 mm	IFG 093 34,0	1069351	SH 25.5	IF 093 SH 25.5	1001907
40 mm	IFG 093 40,0		SH 27.0	IF 093 SH 27.0	1001908
43 mm	IFG 093 43,0		SN1 30.5	IF 093 SN1 30.5	1001909
46 mm	IFG 093 46,0		SH 35.5	IF 093 SH 35.5	1001946
49 mm	IFG 093 49,0	1069352	SH 37.0	IF 093 SH 37.0	1005849
52 mm	IFG 093 52,0				
55 mm	IFG 093 55,0		SH 40.5	IF 093 SH 40.5	1001910
64 mm	IFG 093 64,0		SH 43.0	IF 093 SH 43.0	1006981
74 mm	IFG 093 74,0	1069354	SH 46.0	IF 093 SH 46.0	1001921
			SH 49.0	IF 093 SH 49.0	1007827
			SH 52.0	IF 093 SH 52.0	1006318
			SH 55.0	IF 093 SH 55.0	1006319
			SH 58.0	IF 093 SH 58.0	1011929
			SH 62.0	IF 093 SH 62.0	1053777
			SH 67.0	IF 093 SH 67.0	1053778

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 093 MRCIR 27,0	1071774	CMT	IF 093 MRCIR CMT	
34 mm	IFG 093 MRCIR 34,0	1071775	SH 25.5	IF 093 MRCIR SH 25.5	1057446
40 mm	IFG 093 MRCIR 40,0		SH 27.0	IF 093 MRCIR SH 27.0	1057447
43 mm	IFG 093 MRCIR 43,0		SN1 30.5	IF 093 MRCIR SN1 30.5	1057448
46 mm	IFG 093 MRCIR 46,0		SH 35.5	IF 093 MRCIR SH 35.5	1078719
49 mm	IFG 093 MRCIR 49,0	1071776	SH 37.0	IF 093 MRCIR SH 37.0	1078317
52 mm	IFG 093 MRCIR 52,0				
55 mm	IFG 093 MRCIR 55,0		SH 40.5	IF 093 MRCIR SH 40.5	1084276
64 mm	IFG 093 MRCIR 64,0		SH 43.0	IF 093 MRCIR SH 43.0	
74 mm	IFG 093 MRCIR 74,0	1071778	SH 46.0	IF 093 MRCIR SH 46.0	
			SH 49.0	IF 093 MRCIR SH 49.0	
			SH 52.0	IF 093 MRCIR SH 52.0	
			SH 55.0	IF 093 MRCIR SH 55.0	10772171
			SH 58.0	IF 093 MRCIR SH 58.0	
			SH 62.0	IF 093 MRCIR SH 62.0	
			SH 67.0	IF 093 MRCIR SH 67.0	

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 098 27,0	1075769	CMT	IF 098 CMT	1010767
34 mm	IFG 098 34,0	1069332	SH 25.5	IF 098 SH 25.5	1006415
40 mm	IFG 098 40,0		SH 27.0	IF 098 SH 27.0	1004073
43 mm	IFG 098 43,0		SN1 30.5	IF 098 SN1 30.5	1006982
46 mm	IFG 098 46,0		SH 35.5	IF 098 SH 35.5	1057007
49 mm	IFG 098 49,0	1075770	SH 37.0	IF 098 SH 37.0	1053771
52 mm	IFG 098 52,0				
55 mm	IFG 098 55,0		SH 40.5	IF 098 SH 40.5	1004074
64 mm	IFG 098 64,0	1075772	SH 43.0	IF 098 SH 43.0	1011653
74 mm	IFG 098 74,0	1075773	SH 46.0	IF 098 SH 46.0	1005531
			SH 49.0	IF 098 SH 49.0	1009103
			SH 52.0	IF 098 SH 52.0	1053424
			SH 55.0	IF 098 SH 55.0	1053772
			SH 58.0	IF 098 SH 58.0	1071251
			SH 62.0	IF 098 SH 62.0	1053773
			SH 67.0	IF 098 SH 67.0	1053775

unmounted	filter glass	ID	mounted	filter	ID
27 mm	IFG 098 MRCIR 27,0	1078322	CMT	IF 098 MRCIR CMT	
34 mm	IFG 098 MRCIR 34,0	1071780	SH 25.5	IF 098 MRCIR SH 25.5	1057449
40 mm	IFG 098 MRCIR 40,0		SH 27.0	IF 098 MRCIR SH 27.0	1057450
43 mm	IFG 098 MRCIR 43,0		SN1 30.5	IF 098 MRCIR SN1 30.5	1057451
46 mm	IFG 098 MRCIR 46,0	1090369	SH 35.5	IF 098 MRCIR SH 35.5	1087248
49 mm	IFG 098 MRCIR 49,0	1078323	SH 37.0	IF 098 MRCIR SH 37.0	
52 mm	IFG 098 MRCIR 52,0				
55 mm	IFG 098 MRCIR 55,0		SH 40.5	IF 098 MRCIR SH 40.5	1078555
64 mm	IFG 098 MRCIR 64,0	1078325	SH 43.0	IF 098 MRCIR SH 43.0	
74 mm	IFG 098 MRCIR 74,0	1078326	SH 46.0	IF 098 MRCIR SH 46.0	
			SH 49.0	IF 098 MRCIR SH 49.0	1080146
			SH 52.0	IF 098 MRCIR SH 52.0	
			SH 55.0	IF 098 MRCIR SH 55.0	
			SH 58.0	IF 098 MRCIR SH 58.0	
			SH 62.0	IF 098 MRCIR SH 62.0	
			SH 67.0	IF 098 MRCIR SH 67.0	

Next to the standard sizes we offer more on request. Schneider-Kreuznach provides professional highly accurate  $\mu$  water jet cutting capability. This technology allows cutting almost any needed shape. More mounted diameters are available for high volume on request.



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