



# More Precision

thermo**IMAGER** TIM // Compact thermal imaging cameras



## Lenses thermoIMAGER TIM 160S

TIM 160S		Focal length [mm]	Angle	Minimum measurement distance*	Distance to measurement object [m]											
160 x 120 px					0.05	0.1	0.2	0.3	0.5	1	2	4	6	10	30	100
30° Standard lens	5	30° 23° 38° 3.33 mrad	0.2 m	HFOV [m]	0.032	0.057	0.109	0.160	0.263	0.542	1.08	2.15	3.22	5.4	16.1	53.6
				VFOV [m]	0.024	0.044	0.083	0.122	0.201	0.397	0.79	1.57	2.36	3.9	11.8	39.2
				DFOV [m]	0.040	0.072	0.137	0.201	0.330	0.672	1.34	2.66	3.99	6.6	19.9	66.4
				Ifov [mm]	0.17	0.33	0.67	1.0	1.7	3.3	6.7	13.3	20.0	33.3	100.0	333.3
12° Telephoto lens	13	12° 9° 15° 1.33 mrad	0.3 m	HFOV [m]	0.021		0.042	0.063	0.105	0.211	0.421	0.841	1.26	2.1	6.3	21.0
				VFOV [m]	0.016		0.032	0.048	0.079	0.158	0.315	0.630	0.94	1.6	4.7	15.7
				DFOV [m]	0.027		0.053	0.079	0.132	0.263	0.526	1.051	1.58	2.6	7.9	26.3
				Ifov [mm]	0.13		0.27	0.40	0.66	1.3	2.7	5.3	8.0	13.3	39.8	132.8
55° Wide angle lens	3	55° 40° 68° 5.57 mrad	0.2 m	HFOV [m]	0.058	0.110	0.214	0.318	0.527	1.05	2.09	4.17	6.25	10.4	31.2	104.1
				VFOV [m]	0.040	0.077	0.149	0.221	0.366	0.73	1.45	2.90	4.35	7.2	21.7	72.4
				DFOV [m]	0.071	0.134	0.261	0.388	0.641	1.275	2.54	5.08	7.62	12.69	38.0	126.8
				Ifov [mm]	0.28	0.56	1.1	1.7	2.8	5.6	11.1	22.3	33.4	55.7	167.2	557.4
80° Super wide angle lens	2	80° 54° 96° 7.73 mrad	0.2 m	HFOV [m]	0.088	0.169	0.331	0.492	0.816	1.63	3.25	6.48	9.72	16.2	48.6	162.0
				VFOV [m]	0.056	0.107	0.210	0.313	0.518	1.03	2.06	4.12	6.17	10.3	30.8	102.8
				DFOV [m]	0.104	0.200	0.391	0.583	0.967	1.93	3.84	7.68	11.52	19.2	57.6	191.8
				Ifov [mm]	0.39	0.77	1.5	2.3	3.9	7.7	15.5	30.9	46.4	77.3	231.8	772.7

FOV: Horizontal expansion of the total measuring field at the object level; VFOV: Vertical expansion of the total measuring field at the object level;  
DFOV = Diagonal expansion of the total measuring field at the object level; Ifov: Size of the individual pixels at the object level

\* Please note: The measurement accuracy of the camera may lie outside of the specifications for distances below the defined minimum measurement distance.

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