

		Main Specifications of CA-500 series/		CA-500	0 series	CA-410 series							
			0 series	CA-527	CA-510	CA-VP427A	CA-P427	CA-P427H	CA-VP410A	CA-VP410H	CA-VP410T	CA-P410	CA-P410H
NONICA N	MINOLIA	Probe	es	Display Color Analyzer	Display Color Analyzer	Advanced High Sensitivity Probe	Normal Probe	High Luminance Probe	Advanced High Sensitivity Probe	High Sensitivity Probe for high luminance	LWD Probe	Normal Probe	High Luminance Probe
		Measurement area		Ø 27 mm	Ø 10 mm	Ø 27 mm	Ø 27 mm	Ø 27 mm	Ø 10 mm	Ø 10 mm	Approx. Ø 10 mm	Ø 10 mm	Ø 10 mm
		Acceptance angle aranteed measuremer	t distance	± 8.5° 30 ± 5 mm	± 15° 30 ± 5 mm	± 2.5° 30 ± 10 mm	± 2.5° 30 ± 10 mm	± 2.5° 30 ± 10 mm	± 8.5° 30 ± 5 mm	± 8.5° 30 ± 5 mm	± 4° 200 ± 2 mm	± 5° 30 ± 5 mm	± 5° 30 ± 5 mm
		Accuracy guarant		0.0001 to 10,000 cd/m ² ± 9 %	0.0002 to 20,000 cd/m ²	0.0003 to 5,000 cd/m ²	0.001 to 5,000 cd/m ²	0.01 to 30,000 cd/m ²	0.0003 to 3,000 cd/m ²	0.0006 ~ 6,000 cd/m ²	0.004 to 12,000 cd/m ²	0.002 to 10,000 cd/m ²	0.1 to 30,000 cd/m ²
			> 0.0002 cd/m ²	1 5 70	± 9 %								
			> 0.0003 cd/m ² > 0.0005 cd/m ²	±3%	± 3.5 %	± 9 %			±9%	±9 % (0.0006 to cd/m²)			
	Accuracy ((for white)*1, *3	> 0.001 cd/m ² > 0.01 cd/m ²	± 2 % ± 1.5 %	±3% ±2%	± 4 % ± 2 %	±9% ±2%	±9%	± 4 % ± 2.5 %	± 4 % ± 2 %	± 9 % (0.004 to cd/m²) ± 9 %	± 9 % (0.002 to cd/m²) ± 2.5 %	
			> 0.1 cd/m ²	± 1.5 %	± 1.5 %	± 1.5 %	± 1.5 %	± 2 %	±2%	± 2 %	± 3 %	± 2 %	± 2.5 %
			> 1 cd/m ² > 10 cd/m ²	± 1.5 % ± 1.5 %	± 1.5 % ± 1.5 %	± 1.5 % ± 1.5 %	± 1.5 % ± 1.5 %	± 1.5 % ± 1.5 %	± 2 % ± 1.5 %	± 2 % ± 1.5 %	± 3 % ± 2.5 %	± 2 % ± 1.5 %	± 2 % ± 2 %
Luminance		I	> 100 cd/m ² > 0.0001 cd/m ²	± 1.5 % 10 %	± 1.5 %	± 1.5 %	± 1.5 %	± 1.5 %	± 1.5 %	± 1.5 %	± 2 %	± 1.5 %	± 1.5 %
		AUTO	> 0.0002 cd/m ²	10 70	10 %								
			> 0.0003 cd/m ² > 0.0005 cd/m ²	2 %	3 %	10 %			7 %	7 % (0.0006 to cd/m²)			
	Repeatability (2σ)*1		> 0.001 cd/m ² > 0.01 cd/m ²	1% 0.30 %	2 % 0.35 %	4 % 1 %	10 % 1 %	10 %	3 % 1 %	3 % 0.60 %	10 % (0.004 to cd/m²) 5 %	10 % (0.002 to cd/m²) 2 %	
	(20)		> 0.1 cd/m ²	0.12 %	0.12 %	0.25 %	0.40 %	1 %	0.25 %	0.25 %	0.50 %	0.60 %	2 %
			> 1 cd/m ² > 10 cd/m ²	0.10 % 0.10 %	0.10 % 0.10 %	0.10 % 0.10 %	0.10 % 0.10 %	0.40 % 0.10 %	0.10 % 0.10 %	0.10 % 0.10 %	0.20 % 0.10 %	0.20 % 0.10 %	0.60 % 0.20 %
	۸۵۵	curacy guaranteed l	> 100 cd/m²	0.10 % 0.001 to 10,000 cd/m ²	0.10 % 0.002 to 20,000 cd/m ²	0.10 % 0.003 to 5,000 cd/m ²	0.10 % 0.01 to 5,000 cd/m ²	0.10 % 0.1 to 30,000 cd/m ²	0.10 % 0.003 to 3.000 cd/m ²	0.10 % 0.006 to 6,000 cd/m ²	0.10 % 0.04 to 12,000 cd/m ²	0.10 % 0.01 to 10,000 cd/m ²	0.10 % 0.1 to 30,000 cd/m ²
	7100	ediacy guaranteed i	> 0.001 cd/m ²	±0.003									
			> 0.002 cd/m ² > 0.003 cd/m ²		±0.0003	± 0.003			± 0.003	± 0.003	***		
	Accuracy ((for white)*1,*3	> 0.01 cd/m ² > 0.1 cd/m ²	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.003 ± 0.002	± 0.003	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.004 (0.04 to cd/m²) ± 0.004	± 0.006 ± 0.002	± 0.006
			> 1 cd/m ²	± 0.002	± 0.002	± 0.002	± 0.002	± 0.002	± 0.002	± 0.002	± 0.003	± 0.002	± 0.002
Chromaticity			> 10 cd/m ² > 100 cd/m ²	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002	± 0.003 ± 0.002	± 0.002 ± 0.002	± 0.002 ± 0.002
Cilioniaticity		At 100 cd/m² (for monochrom	e) ¹² > 100 cd/m ² > 0.001 cd/m ²	± 0.003 0.0030	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003
			> 0.002 cd/m ²	0.0030	0.0030					0.0020			
	Repeatability	AUTO	> 0.003 cd/m ² > 0.01 cd/m ²	0.0009	0.0012	0.0030 0.0030	0.0035		0.0020 0.0020	0.0020	0.0030 (0.04 to cd/m²)	0.0070	
	(2o)*1	AUTO	> 0.1 cd/m ² > 1 cd/m ²	0.0004 0.0002	0.0005 0.0003	0.0008	0.0015 0.0004	0.0035 0.0015	0.0008 0.0003	0.0008 0.0003	0.0015 0.0005	0.0020 0.0008	0.0070 0.0020
			> 10 cd/m ²	0.0002	0.0002	0.0002	0.0003	0.0004	0.0002	0.0002	0.0003	0.0005	0.0008
			> 100 cd/m ² nent luminance range*8	0.0002 0.5 to 10,000 cd/m ²	0.0002 1 to 20,000 cd/m ²	0.0002	0.0002 5 to 1,500 cd/m ²	0.0003 30 to 9,000 cd/m ²	0.0002	0.0002	0.0002	0.0003 15 to 3,000 cd/m ²	0.0005 90 to 18,000 cd/m ²
	Flicker*6		t target (Flicker frequency) 30 Hz, AC/DC 10 % sine wave	0.25 to 65 Hz ± 0.3 %	0.25 to 65 Hz ± 0.3 %		0.25 to 65 Hz ± 0.4 %	0.25 to 65 Hz ± 0.4 %				0.25 to 65 Hz ± 0.4 %	0.25 to 65 Hz ± 0.4 %
Flicker		Accuracy	60 Hz, AC/DC 10 % sine wave 20-65 Hz, AC/DC 10 % sine wave	± 0.3 % 0.3 %	± 0.3 % 0.3 %		± 0.7 % 0.3 %	± 0.7 % 0.3 %				± 0.7 % 0.3 %	± 0.7 % 0.3 %
(Contrast)		Measurer	nent luminance range*8	0.5 to 10,000 cd/m ²	1 to 20,000 cd/m ²	5 to 3,000 cd/m ²	5 to 5,000 cd/m ²	30 to 30,000 cd/m ²	15 to 3,000 cd/m ²	30 to 6,000 cd/m ²	20 to 12,000 cd/m ²	15 to 10,000 cd/m ²	90 to 30,000 cd/m ²
	XYZ*6		t target (Flicker frequency) 30 Hz, AC/DC 10 % sine wave	0.25 to 200 Hz ± 1.5 %	0.25 to 200 Hz ± 1.5 %	0.25 to 200 Hz ± 1.1 %	0.25 to 200 Hz ± 1.2 %	0.25 to 200 Hz ± 1.2 %	0.25 to 200 Hz ± 0.4 %	0.25 to 200 Hz ± 0.4 %	0.25 to 200 Hz ± 1.1 %	0.25 to 200 Hz ± 0.7 %	0.25 to 200 Hz ± 0.7 %
		Accuracy	60 Hz, AC/DC 10 % sine wave 20-65 Hz. AC/DC 10 % sine wave	± 2.2 % 1.6 %	± 2.2 % 1.6 %	± 1.7 % 1.6 %	± 1.7 %	± 1.7 % 1.7 %	± 0.7 % 0.3 %	± 0.7 % 0.3 %	± 1.7 % 0.016	± 1.1 % 1.0 %	± 1.1 % 1.0 %
		Measurer	nent luminance range*8	0.5 to 10,000 cd/m ²	1 to 20,000 cd/m ²		5 to 1,500 cd/m ²	30 to 9,000 cd/m ²				15 to 3,000 cd/m ²	90 to 18,000 cd/m ²
	Flicker*6	Measuremer	t target (Flicker frequency) 30 Hz, AC/DC 4% sine wave	0.42 ~ 65 Hz ± 0.35 dB	0.42 ~ 65 Hz ± 0.35 dB		0.42 to 65 Hz ± 0.35 dB	0.42 to 65 Hz ± 0.35 dB				0.42 to 65 Hz ± 0.35 dB	0.42 to 65 Hz ± 0.35 dB
	FIICKEI *	,	30 Hz, AC/DC 1.2% sine wave 30 Hz, AC/DC 4% sine wave	± 0.35 dB 0.1 dB	± 0.35 dB 0.1 dB		± 0.35 dB 0.1 dB	0.1 dB				± 0.35 dB 0.1 dB	 0.1 dB
Flicker (JEITA)		Repeatability (20	30 Hz, AC/DC 1.2% sine wave	0.3 dB	0.3 dB 1 to 14.000 cd/m ²		0.3 dB					0.3 dB	
			ment luminance range*8 target (Flicker frequency)*10	0.5 to 8,500 cd/m ² 0.42 to 200 Hz	0.42 to 200 Hz	5 to 3,000 cd/m ² 0.42 to 200 Hz	5 to 4,500 cd/m ² 0.42 to 200 Hz	30 to 27,000 cd/m ² 0.42 to 200 Hz	15 to 2,000 cd/m ² 0.42 to 200 Hz	30 to 4,000 cd/m ² 0.42 to 200 Hz	20 to 12,000 cd/m ² 0.42 to 200 Hz	15 to 8,500 cd/m ² 0.42 to 200 Hz	90 to 30,000 cd/m² 0.42 to 200 Hz
	XYZ*6	Accuracy	30 Hz, AC/DC 4% sine wave 30 Hz, AC/DC 1.2% sine wave	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB ± 0.35 dB	± 0.35 dB
		Repeatability (20	30 Hz, AC/DC 4% sine wave 30 Hz, AC/DC 1,2% sine wave	0.4 dB 1.4 dB	0.4 dB 1.4 dB	0.4 dB 1.4 dB	0.4 dB 1.5 dB	0.4 dB	0.1 dB 0.3 dB	0.1 dB 0.3 dB	0.4 dB 1.4 dB	0.3 dB 0.9 dB	0.3 dB
			ment luminance range*8	0.1 to 10,000 cd/m ²	0.2 to 20,000 cd/m ²								
	Flicker*6		mpling frequency Lv:Measurement minimum luminance, fs:3 kHz, fc:1 kHz	200 kHz Changeable 1.8 %	200 kHz Changeable 1.8 %								
Waveform	10.000		ment luminance range*8 mpling frequency	0.1 to 10,000 cd/m ² 3 kHz Changeable	0.2 to 19,000 cd/m ² 3 kHz Changeable	1 to 3,000 cd/m ² 3 kHz	1 to 5,000 cd/m ² 3 kHz	6 to 30,000 cd/m ² 3 kHz	1 to 2,500 cd/m ² 3 kHz	2 to 5,000 cd/m ² 3 kHz	4 to 12,000 cd/m ² 3 kHz	1 to 10,000 cd/m ² 3 kHz	6 to 30,000 cd/m ² 3 kHz
	XYZ*6	Repeatability (20	Lv: Measurement minimum luminance	13 % 1.4 %	13 % 2.8 %						3 N 12		
		Measure	ment luminance range*8	0.5 to 10,000 cd/m ²	1 to 20,000 cd/m ²								
	Flicker*6		mpling frequency ht Target (Flicker frequency)	200 kHz Changeable 0.01 to 100k [Hz]	200 kHz Changeable 0.01 to 100k [Hz]								
VRR-Flicker		Accuracy	1-120 Hz, AC/DC 10 % sine wave 1-120 Hz, AC/DC 10 % sine wave	± 0.3 % 0.3 %	± 0.3 % 0.3 %								
*10*11	XYZ*6	Measure Sa Measuremer Accuracy	ment luminance range*8			5 to 3,000 cd/m ²	5 to 5,000 cd/m ²	30 to 30,000 cd/m ²	15 to 3,000 cd/m ²	30 to 6,000 cd/m ²	20 to 12,000 cd/m ²	15 to 10,000 cd/m ²	90 to 30,000 cd/m ²
			mpling frequency at Target (Flicker frequency)			3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]
			1-120 Hz, AC/DC 10 % sine wave 1-120 Hz, AC/DC 10 % sine wave			± 0.22 % 0.32 %	± 0.24 % 0.34 %	± 0.24 % 0.34 %	± 0.08 % 0.06 %	± 0.08 % 0.06 %	± 0.22 % 0.32 %	± 0.14 % 0.20 %	± 0.14 % 0.20 %
		Successincy (20				0.16 times/sec (> 0.0003 cd/m ²)			0.16 times/sec(> 0.0003 cd/m²)	0.16 times/sec (> 0.0006 cd/m²)			
Accuracy	Lvxy		AUTO	1times/sec (> 0.0001 cd/m²) 5times/sec (> 0.012 cd/m²)	1times/sec (> 0.0002 cd/m²) 5times/sec (> 0.02 cd/m²)	1 times/sec (> 0.01 cd/m²) 5 times/sec (> 0.15 cd/m²)	1 times/sec (> 0.001 cd/m²) 5 times/sec (> 0.15 cd/m²)	1 times/sec (> 0.01 cd/m²) 5 times/sec (> 0.9 cd/m²)	1 times/sec (> 0.01 cd/m²) 5 times/sec (> 0.15 cd/m²)	1 times/sec (> 0.02 cd/m²) 5 times/sec (> 0.3 cd/m²)	1 times/sec(> 0.004 cd/m²) 5 times/sec(> 0.6 cd/m²)	1 times/sec (> 0.002 cd/m²) 5 times/sec (> 0.15 cd/m²)	1 times/sec (> 0.1 cd/m²) 5 times/sec (> 0.9 cd/m²)
guaranteed measurement		Flicker (Cor	trast)	20times/sec (> 0.15 cd/m²) 20 times /sec	20times/sec (> 0.25 cd/m²) 20 times/sec	20 times/sec (> 2 cd/m²) 20 times/sec	20 times/sec (> 2 cd/m²) 20 times/sec	20 times/sec (> 12 cd/m²) 20 times/sec	20 times/sec (> 2 cd/m²) 20 times/sec	20 times/sec (> 4 cd/m²) 20 times/sec	20 times/sec(> 8 cd/m²) 20 times/sec	20 times/sec (> 2 cd/m²) 20 times/sec	20 times/sec (> 12 cd/m²) 20 times/sec
speed*4		Flicker (JE		0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec(at 1 HzPitch), 2.5 times/sec(at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)	0.5 times/sec (at 1 HzPitch), 2.5 times/sec (at 10 HzPitch)
	VRR-Flicker Sampling frequency 3 kHz		0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 10 HzPitch)	0.7 times/sec (at 10 HzPitch)	0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 1s Obs.)	0.7 times/sec (at 10 HzPitch)	0.7 times/sec (at 1s Obs.)	
			easurement synchronization mode Measurement speed mode		INT, MANU (4 ms to 4 s) TO, SLOW, FAST			NTSC,	PAL, EXT, UNIV, INT, MANU (4 ms to 4 s) AUTO, LTD. AUT		s to 4 s)		
Measurement target (Vertical synchronization frequency)				0.5 to 240 Hz (luminance and chromaticity)	0.5 to 240 Hz (luminance and chromaticity)	0.5 to 240 Hz (luminance and chromaticity)	0.5 to 240 Hz (luminance and chromaticity), 0.5 to 130 Hz (flicker)	0.5 to 240 Hz (luminance and chromaticity), 0.5 to 130 Hz (flicker)	0.5 to 240 Hz	0.5 to 240 Hz (luminance and chromaticity)	0.5 to 240 Hz (luminance and chromaticity)	0.5 to 240 Hz (luminance and chromaticity), 0.5 to 130 Hz (flicker)	0.5 to 240 Hz (luminance and chromaticity), 0.5 to 130 Hz (flicker)
User calibr		er calibration memory channel		99 channels 99 channels									
Interface		Communication Trigger ¹⁹		USB2.0, RS-232C USB2.0, RS-232C IN: 1.8 V/3.3 to 5 V switching Out: 5 V IN: 1.8 V/3.3 to 5 V switching Out: 5 V									
	Si	ize (excluding mount) Weight		52 x 52x 272 mm 710 g (including mount)	52 x 52x 272 mm 710 g (including mount)	47 x 47 x 190.5 mm 510 g (including mount)	42 x 42 x 139.7 mm 270 g (including mount)	42 x 42 x 139.7 mm 270 g (including mount)	47 x 47 x 226.5 mm 570 g (including mount)	47 x 47 x 226.5 mm 570 g (including mount)	47 x 47 x 226.2 mm 550 g (including mount)	42 x 42 x 173.5 mm 280 g (including mount)	42 x 42 x 173.5 mm 280 g (including mount)
	Operation	Power supply	range'5	DC 5 V (input from USB bus power li	ine or RS communication connector) 5% or less with no condensation	<u> </u>	, <u> </u>	, <u>J</u> , <u>J</u>		ne or RS communication connector)	<u> </u>	, <u>J</u>	<u> </u>
Operation temperature/humidity range's				Obs. 4500 welstige heavility 0500	2 /0 OI 1033 WHILLING COLINGE IS ALLOW				0 to 4500 and the description of the 0500	A OF 1633 WITH HO CONTROLISATION			

Storage temperature/humidity range

- 0 to 45°C, relative humidity 85 % or less with no condensation

 0 to 45°C, relative humidity 85 % or less (at 35°C) with no condensation

 - "6: "Flicker" and "XYZ" are mode names for PC Software CA-S40.
 "XYZ" can only be used when no CA-DP40 data processor is connected.

 The spectral sensitivities of probes conforming to CIE 170-2:2015 are different from those defined for the CIE 1931 color-matching functions; therefore, displayed values for luminance and chromaticity will be different from those calculated based on the CIE 1931 color-matching fuctions.

 8: Measured under Konica Minolta's standard light source (constant light). If the luminance momentarily greatly exceeds the upper limit, such as with a PWM light source with a small duty cycle, luminances below the upper limit may be shown as too high.

 "9: Supports 1.8V switching from products produced in March 2021.

- *10: The listed values are for use with CA-SDK2 or CA-S40.
 *11: To measure VRR-Flicker with the CA-410 series, firmware must be Ver. 1.40 or later and CA-SDK2 or CA-S40 must be used.
 *Unless otherwise specified, specifications are given for conditions established by Konica Minolta.
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0 to 45°C, relative humidity 85 % or less (at 35°C) with no condensation

 $\bullet \text{The specifications and appearance shown herein are subject to change without notice}.$

JQA-E-80027 Design, development, manufacture, service and sales of measuring instruments

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^{*1:} Measured under Konica Minolta's standard light source (6,500 K).

*2: Luminance for monochrome is measured when reading of luminance for white is 100 cd/m².

*3: Temperature 23°C/±2°C, relative humidity 40%±10%

*4: In NTSC [DOUBLE FRAME] synchronization mode using USB with one probe. Measured using a Konica Minoltadesignated PC (with PC and probe directly connected, using the supplied measurement software).

*5: Reading fluctuation (compared to reference reading at 23°C, 40% RH): Luminance: ±2% for white; Chromaticity (at 100 cd/m²): ±0.002 for white, ±0.003 for monochrome

_	ecification			CA-410 series					
CA-410	series Pr	obes		CA-VP404	CA-VP402	CA-P427C			
				Small Spot Probe	Small Spot Probe	CIE 170-2: 2015 Supported Probe			
		Measurement area		Ø 4 mm	Ø 2.1 mm	Ø 27 mm			
	Accuracy gu	Acceptance angle aranteed measurement of	listance	±8.5° 30 ± 2 mm	±10° 28±2 mm	± 2.5° 30 ± 10 mm			
	/iccuracy gu	Accuracy guarantee	d range ¹⁸	0.004 to 12,000 cd/m ²	0.002 to 25,000 cd/m ²	0.001 to 5,000 cd/m ²			
			> 0.0001 cd/m ² > 0.0002 cd/m ²						
			> 0.0003 cd/m ²						
			> 0.0005 cd/m ² > 0.001 cd/m ²	± 9 % (0.004 to cd/m²)	± 9 % (0.002 to cd/m²)	±9%			
	Accuracy	(for white)*1,*3	> 0.01 cd/m ²	± 9 %	± 9 %	± 2 %			
			> 0.1 cd/m ²	± 3 %	± 3 %	± 1.5 %			
			> 1 cd/m ² > 10 cd/m ²	± 3 % ± 2.5 %	± 3 % ± 2.5 %	± 1.5 % ± 1.5 %			
Luminance		1	> 100 cd/m ²	± 2 %	± 2 %	± 1.5 %			
			> 0.0001 cd/m ² > 0.0002 cd/m ²						
		AUTO	> 0.0003 cd/m ²						
	Repeatability		> 0.0005 cd/m ² > 0.001 cd/m ²	 10 % (0.004 to cd/m²)	10 % (0.002 to cd/m²)	10 %			
	(2g)*1		> 0.01 cd/m ²	5 %	10 %	1%			
			> 0.1 cd/m ² > 1 cd/m ²	0.50 % 0.20 %	1 % 0.25 %	0.4 %			
		Accuracy guaranteed lumi	> 10 cd/m ²	0.10 %	0.10 %	0.10 %			
			> 100 cd/m ²	0.10 % 0.04 to 12,000 cd/m ²	0.10 % 0.02 to 25.000 cd/m ²	0.10 % 0.01 to 5,000 cd/m ²			
	F	accuracy guaranteed lum	> 0.001 cd/m ²	0.04 to 12,000 cd/III-	0.02 to 23,000 cd/111-	0.01 to 3,000 cd/III-			
			> 0.002 cd/m ²						
		(formula 14 Not 20	> 0.003 cd/m ² > 0.01 cd/m ²	± 0.004 (0.04 to cd/m²)	± 0.004 (0.02 to cd/m²)	± 0.003			
	Accuracy	(for white)*1,*3	> 0.1 cd/m ²	± 0.004	± 0.004	± 0.002			
			> 1 cd/m ² > 10 cd/m ²	± 0.003 ± 0.003	± 0.003 ± 0.003	± 0.002 ± 0.002			
Chromaticity			> 100 cd/m ²	± 0.002	± 0.002	± 0.002			
Cinomiducity		At 100 cd/m² (for monochrome) *2	> 100 cd/m ² > 0.001 cd/m ²	± 0.003	± 0.003	± 0.003			
			> 0.001 cd/m ² > 0.002 cd/m ²						
		AUTO	> 0.003 cd/m ²						
	Repeatability (2σ)*1		> 0.01 cd/m ² > 0.1 cd/m ²	0.0030 (0.04 to cd/m²) 0.0015	0.003 (0.02 to cd/m²) 0.003	0.0035 0.0015			
	(==/		> 1 cd/m ²	0.0005	0.0008	0.0004			
			> 10 cd/m ² > 100 cd/m ²	0.0003 0.0002	0.0003 0.0002	0.0003			
		Measureme	nt luminance range*8		0.0002	5 to 1,500 cd/m ²			
	E1: 1 +6		arget (Flicker frequency)			0.25 to 65 Hz			
	Flicker*6	Accuracy	30 Hz, AC/DC 10 % sine wave 60 Hz, AC/DC 10 % sine wave			± 0.4 % ± 0.7 %			
Flicker			20-65 Hz, AC/DC 10 % sine wave			0.3 %			
(Contrast)			nt luminance range*8 arget (Flicker frequency)	20 to 12,000 cd/m ² 0.25 to 200 Hz	35 to 25,000 cd/m ² 0.25 to 200 Hz	5 to 5,000 cd/m ² 0.25 to 200 Hz			
	XYZ*6		30 Hz, AC/DC 10 % sine wave	± 1.1 %	± 1.1 %	± 1.2 %			
		Accuracy	60 Hz, AC/DC 10 % sine wave 20-65 Hz, AC/DC 10 % sine wave	± 1.7 %	± 1.7 %	± 1.7 %			
			nt luminance range*8	1.6 %	1.6 %	1.7 % 5 to 1,500 cd/m ²			
			arget (Flicker frequency)			0.42 to 65 Hz			
	Flicker*6	Accuracy	30 Hz, AC/DC 4% sine wave 30 Hz, AC/DC 1.2% sine wave			± 0.35 dB ± 0.35 dB			
		Repeatability (2g)	30 Hz, AC/DC 4% sine wave			0.1 dB			
Flicker (JEITA)			30 Hz, AC/DC 1.2% sine wave ent luminance range*8	20 to 12,000 cd/m ²	35 to 22,000 cd/m ²	0.3 dB 5 to 4,500 cd/m ²			
			rget (Flicker frequency)*10	0.42 to 200 Hz	0.42 to 200 Hz	0.42 to 200 Hz			
	XYZ*6	Accuracy	30 Hz, AC/DC 4% sine wave	± 0.35 dB	± 0.35 dB	± 0.35 dB			
			30 Hz, AC/DC 1.2% sine wave 30 Hz, AC/DC 4% sine wave	± 0.35 dB 0.4 dB	± 0.35 dB 0.4 dB	± 0.35 dB 0.4 dB			
		Repeatability (2σ)	30 Hz, AC/DC 1.2% sine wave	1.4 dB	1.4 dB	1.5 dB			
	Flicker*6		ent luminance range*8 Dling frequency						
	riickei		Lv: Measurement minimum luminance, fs: 3 kHz, fc: 1 kHz						
Waveform			ent luminance range*8 bling frequency	4 to 12,000 cd/m ² 3 kHz	7 to 25,000 cd/m ² 3kHz	1 to 5,000 cd/m ² 3 kHz			
	XYZ*6	Repeatability (2g)	Lv: Measurement minimum luminance	3 KHZ	3KHZ	3 KHZ			
			Lv: 1 cd/m ² ent luminance range* ⁸						
			ent luminance range ¹⁸ bling frequency						
	Flicker*6	Measurement	Target (Flicker frequency)						
VRR-Flicker		Accuracy Repeatability (2σ)	1-120 Hz, AC/DC 10 % sine wave 1-120 Hz, AC/DC 10 % sine wave						
*10*11		Measureme	ent luminance range*8	20 to 12,000 cd/m ²	35 to 25,000 cd/m ²	5 to 5,000 cd/m ²			
	XYZ*6		oling frequency Farget (Flicker frequency)	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]	3 kHz 0.03 to 1.5k [Hz]			
	A12	Accuracy	1-120 Hz, AC/DC 10 % sine wave	± 0.22 %	± 0.22 %	± 0.24 %			
		Repeatability (2σ)	1-120 Hz, AC/DC 10 % sine wave	0.32 %	0.32 % 0.16 times/sec(> 0.002 cd/m²)	0.34 %			
	Lines		ALITO	1 times/sec(> 0.004 cd/m²)	0.16 times/sec(> 0.002 cd/m²) 1 times/sec(> 0.05 cd/m²)	1 times/sec (> 0.001 cd/m²)			
Accuracy	Lvxy	AUTO		5 times/sec(> 0.6 cd/m²)	5 times/sec(> 1.5 cd/m ²)	5 times/sec (> 0.15 cd/m²)			
guaranteed neasurement		Flicker (Contra	ist)	20 times/sec(> 8 cd/m²) 20 times/sec	20 times/sec(> 25 cd/m²) 20 times/sec	20 times/sec (> 2 cd/m²) 20 times/sec			
speed*4		Flicker (JEITA		0.5 times/sec(at 1 HzPitch),	0.5 times/sec(at 1 HzPitch),	0.5 times/sec (at 1 HzPitch),			
	VRR-Flicker		g frequency 3 kHz	2.5 times/sec(at 10 HzPitch) 0.7 times/sec (at 1s Obs.)	2.5 times/sec(at 10 HzPitch) 0.7 times/sec (at 1s Obs.)	2.5 times/sec (at 10 HzPitch 0.7 times/sec (at 1s Obs.)			
	Measure	ement synchronization me			ITSC, PAL, EXT, UNIV, INT, MANU(4 ms to				
		asurement speed mode		0.5 to 240 Hz	AUTO, LTD. AUTO, SLOW, FAST 0.5 to 240 Hz	0.5 to 2/0 Hz (luminance and observed)			
		et (Vertical synchronizati		0.5 to 240 Hz (luminance and chromaticity)	(luminance and chromaticity)	0.5 to 240 Hz (luminance and chromati 0.5 to 130 Hz (flicker)			
	User c	alibration memory chann			99 channels				
Interface		Communication Trigger*9	UII		USB2.0, RS-232C IN: 1.8 V / 3.3 to 5 V switching Out: 5 V				
	Si	ize (excluding mount)		47 x 47 x 226.5 mm	47 x 47 x 222.9 mm	42 x 42 x 139.7 mm			
		Weight Power supply		570 g (including mount) DC 5 V (input)	580 g (including mount) from USB bus power line or RS communic	270 g (including mount) ation connector)			
		temperature/humidity ra		DC 5 V (input from USB bus power line or RS communication connector) 10 to 35°C, relative humidity 85 % or less with no condensation					
		temperature/numidity ra temperature/humidity ra andard light source (6,500	nge	0 to 45°C, rela	L, relative numidity 85% or less with no co ative humidity 85% or less (at 35°C) with r r Konica Minolta's standard light source (const per limit, such as with a PWM light source with wn as too high.	no condensation			

- 1. Wiedstired under Nortica Miniputes a standard upon the Standard Company (1988).
 2. Luminance for whote promote is measured when reading of luminance for white is 100 cd/m².
 3. Temperature 23°C/±2°C, APC let with the Standard Standard

- exceeds the upper limit, such as with a PyWN light source with a small outy cycle, luminances below the upper limit may be shown as too high.

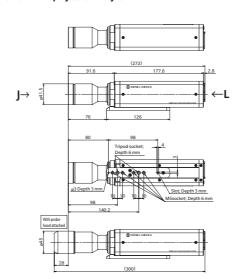
 *9: Supports 1.8 V switching from products produced in March 2021.

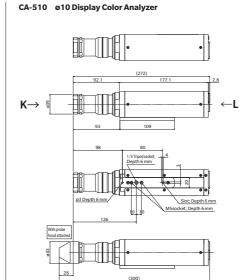
 *10: The listed values are for use with CA-SDK2 or CA-S40.

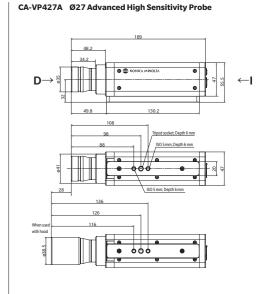
 *11: To measure VRR-Flicker with the CA-410 series, firmware must be Ver. 1.40 or later and CA-SDK2 or CA-S40 must
- * Unless otherwise specified, specifications are given for conditions established by Konica Minolta.

Probe Dimensions (unit: mm)

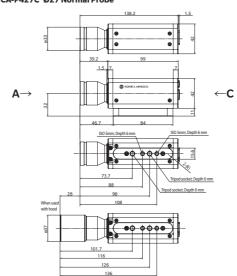
CA-527 Display Color Analyzer

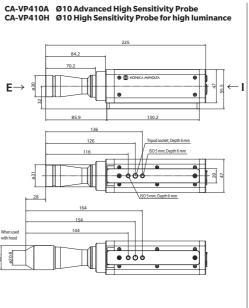


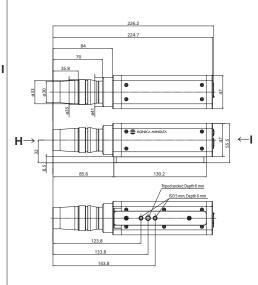






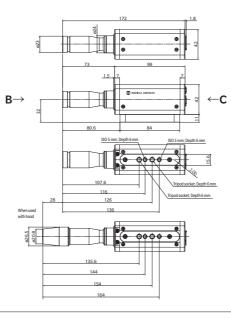


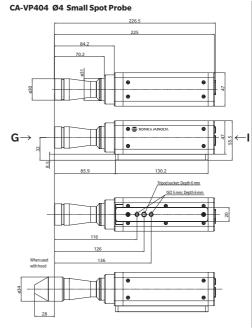


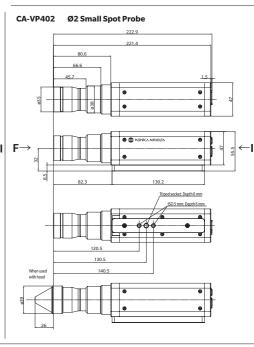


CA-VP410T Ø10 LWD Probe (200 mm)

CA-P410 Ø10 Normal Probe CA-P410H Ø10 High Luminance Probe













View L











View F





