

Table of Order Numbers

Name	Part No.	Content
2D code reading sensor	PD60	ANPD060-12 Field of view: 12×10mm Installation distance: 110±5.5mm
		ANPD060-25 Field of view: 25×20mm Installation distance: 200±10mm
		ANPD060S25 Field of view: 25×20mm Installation distance: 105±5mm
	PD65	ANPD065-25 Field of view: 25×20mm Installation distance: Contact type (In 24.5 mm diameter guide pipe.)
Attachment Bracket	ANE8870	For mounting PD60
PDTOOL	—	Setup Software Tool Note: free download from our Web site
Extension Cable	ANPD068-03	3m
	ANPD068-05	5m
	ANPD068-10	10m
Options (repair parts)	ANPD068-P1	Set with PD60 front panel, packing, and stop screws.
	ANPD068-G1	Set with PD65 guide pipe, packing, and stop screws.
	ANPD068-K1	2700 mm power supply I/O cable for PD 60.

General Specifications

General Specifications

Item	Specification	
	PD60	PD65
Rated operating voltage	24 V DC	
Operating voltage range	21.6 to 26.4 V DC (including ripples)	
Rated current consumption	0.5 A max.	
Ambient temperature in use	0 to +40°C	
Storage ambient temperature	-20 to +60°C (no freezing or condensation)	
Ambient humidity in use	35 to 85%RH (at 25°C no freezing or condensation)	
Storage ambient humidity	35 to 85%RH (at 25°C no freezing or condensation)	
Noise immunity	1000 V pulse width 50 ns/1 μs (using noise simulator method)	
Vibration resistance	10 to 55 Hz, 1 sweep/min. Double amplitude of 1.5 mm. 30 min. each in X, Y and Z directions	
Shock resistance	196 m/s ² , 5 times each in X, Y and Z directions	
Insulation resistance (initial)	Min. 100MΩ (with a 500 VDC isolation resistance tester) Note 1: Parallel input/parallel output, parallel input/power, parallel input/functional earth, parallel output/power, parallel output/functional earth, power/functional earth.	
Breakdown voltage (initial)	500V AC/1 minute (600V AC/1 second) Cut-off current 10mA Note 1: Parallel input/parallel output, parallel input/power, parallel input/functional earth, parallel output/power, parallel output/functional earth, power/functional earth.	
Protective Construction	IP67G Note 2:	
Mass Note 3:	Approx: 500 g	Approx: 700 g

Note *1 Evaluation was carried out with the primary side power supply varistor and capacitor removed from the internal circuit of the device.

Note *2 Evaluation was carried out with the USB cable not connected and the waterproof cap in place.

Note *3 Weight includes power supply I/O cable.

Options (repair parts)



Function Specifications

Main Unit

Item	Specification		
	PD60	PD65	
Type	Stationary Type	Handy Type	
Light Configuration	4 Control Sections	Dual Side/Diffused Lighting	
Read Method	External Start, Auto start	Trigger button	
Image capture element	Black/white C-MOS		
Valid pixels	352 horizontal × 288 vertical pixels (100,000 pixels)		
Image capture light source	White LED		
Expected life	Expected Life: Min. 30000 hours (until light intensity falls to 50%) (at 25°C, internal trigger: ON, read time: 60ms, exposure time: 3ms)		
	Exposure time	Shutter timing and interlock (0.03 to 50 ms)	
Visual Pilot Beam	Red LED		
Input/Output	Parallel	Power I/O Cable	
	Input	2 Photo-coupler Inputs (trigger: 1 bit, model switch: 1 bit)	
	Output	3 PhotoMOS outputs (ready: 1 bit, alarm: 1 bit, OK/NG: 1 bit)	
Serial	Power I/O cable (RS232C communication: Max. 57600 bit/s)		
USB	USB Cable (AB Type) Sold separately		
	PC I/P	USB1.1	
	Supported OS	Windows® XP, 2000, Me, 98SE	

Application Software

Item	Specification		
	PD60	PD65	
Detection Capability	5 or more pixels per cell		
Total processing time	30 ms to 200 ms		
No. of Registered Items	7 types		
Type Registration Method	Teaching [settings related to codes to be decoded]		
Serial	Input	I/O Command	Trigger input, type switching (types 1 to 7)
		Teaching Command	Exposure time setting, and code setting (QR codes, data matrix)
	Output	Readability, readouts, error correction rate, and error output	
Parallel	Input	Trigger input, type switching (types 1 to 7) mode switching (teaching/RUN)	
	Output	Evaluation result (OK/NG), READY, Alarm	

* The total processing time from receiving the trigger input to output varies with the exposure time and matrix size.

2D Code Reading

Item	Specification		
	PD60	PD65	
Readable code type	QR code	Model	Model 1 and Model 2
		Matrix size	Model 1: 21 × 21 cells to 49 × 49 cells (Ver. 1 to 8) Model 2: 21 × 21 cells to 49 × 49 cells (Ver. 1 to 8)
		Error correction level	L (7%), M (15%), Q (25%), H (30%)
	Data matrix (ECC200)	Matrix size	Square symbol: 10 × 10 cells to 44 × 44 cells matrix
			Rectangular symbol: 8 × 18 cells, 8 × 32 cells, 12 × 26 cells, 12 × 36 cells, 16 × 36 cells, 16 × 48 cells
		Supports black/white reversed codes, horizontally-flipped codes, and dots. The model, matrix size, and the error correction level are automatically identified.	
		Supports black/white reversed codes, horizontally-flipped codes, and dots. The matrix size is automatically identified.	