

# **PENTAX** | Total Surveying Solutions **W-2800N Series**

W-2801N | W-2802N | W-2803N | W-2805N

WinCE Operating System



- + A truly integrated system
- + Long EDM range:  
reflectorless up to 800 m  
and in prism mode up to 3,000 m
- + 3.5" Display with touch screen
- + Easy transfer to a PC via,  
USB mini, RS-232C data port  
and USB Flash Drive
- + Bluetooth Class2



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TI Asahi Co.,Ltd  
**Aiming at the future together!**

# TOTAL STATION SPECIFICATIONS

Model		W-2801N	W-2802N	W-2803N	W-2805N
<b>Telescope</b>	Image			Erect	
	Magnification			30 x	
	Effective aperture			45 mm	
	Resolving power			3.0"	
	Field of view			1°25'	
	Minimum focus distance			1.0 m	
	Focus			Manual	
<b>Distance Measurement</b>	Laser class		Visible Laser: Class IIIa ( Reflectorless, sheet ) / Class I ( Prism)		
<b>Measurement Range</b>	(Good condition) (*3)				
	Reflectorless (*1)			800 m	
	Reflector sheet (*2)			800 m	
	Mini Prism			1,200 m	
	Prism 1P			3,000 m	
	Prism 3			4,000 m	
<b>Accuracy (*4)</b>	Prism		± (2 + 2 ppm x D) mm		
	Reflector Sheet		± (3 + 2 ppm x D) mm		
	Reflectorless		2 ~ 150 m: ± (3 + 2 ppm x D) mm 150 ~ 300 m: ± (5 + 2 ppm x D) mm 300 ~ 500 m: ± (10 + 2 ppm x D) mm 500 ~ 800 m: ± (20 + 10 ppm x D) mm		
<b>Angle Measurement</b>	Measuring method		Absolute rotary encoder		
	Detection method		Vertical / Horizontal angle		
	Minimum count	0.1" / 0.5" / 1" / 5"	2 sides		
<b>Compensator</b>	Accuracy (ISO 17123-3)	1"	2"	3"	5"
	Axis		2 axis		
<b>Tangent Screw</b>	Range		± 3'		
			1 Seed / Clamping (< 30")		
<b>Sensitivity of Vials</b>	Plate level		30"/1 div. (electrical)		
	Circular level		8/2 mm		
<b>Plummet</b>			Visible Laser, ± 0.5 mm (instrument height 1.5 m)		
<b>Base</b>			Detachable		
<b>Dust and Water Protection</b>			IP55 (instrument only)		
<b>Ambient Temperature</b>			-20°C ~ 50°C / -4°F ~ 122°F (Working range)		
<b>Tripod Thread</b>			5/8" x 11		
<b>Dimensions / Weight</b>	Dimensions		183 (W) x 342 (H) x 167 (L) mm		
	Weight (battery not incl.)		5.4 kg		
<b>Carrying Case</b>	Dimensions / weight		440 (W) x 370 (H) x 275 (L) mm / 3.9 kg		
<b>Battery Pack</b>	Power source		Li-ion 3,350 mAh X 2 = 6,700 mAh (hotswap)		
	Operation time		Continuous approx. 10.0 hrs (ETH+EDM) with approx. 2.5 hrs of charging time		
	Weight		5.4 kg		
<b>Battery Charger and AC Adapter</b>	Input voltage		AC 100 ~ 240V		
	Output voltage		DC7.4V		
<b>Data Process</b>	CPU Memory/Clock frequency		4GB/528 MHz		
	OS		Microsoft Windows CE 7.0		
	Application software		Selectable		
	I/F		RS232C, USB mini, Bluetooth(Class 2), USB Flash Drive		
<b>Display / Keyboard</b>	Display type		3.5" colour TFT LCD (320 x 240 dots) touch screen		
	Quantity		2		
	Keys		26 each		
<b>Display Back Light</b>			Yes		
<b>Laser Pointer</b>			Yes		
<b>Date Clock</b>			Yes		

\* Designs and specifications are subject to change without notice. - Printed in Belgium - LEAF-W2800N-EN-1808 - © PENTAX 2018

- \*1 The measurement range and accuracy of reflectorless, and time required to measure may vary by the shape, size of surface area and reflection rate of the target and its environment. The measurement range of reflectorless is determined by the white side of the Kodak Gray Card.
- \*2 Reflector sheet: Genuine Reflector sheet
- \*3 The measurement range may vary by conditions of the environment.  
Normal conditions: 20km visibility with slight shimmer  
Good conditions: 40km visibility with overcast, no heat, no shimmer and moderate wind.
- \*4 EDM measuring time is determined in good conditions. It may takes longer than usual to measure the distance exceeding 2000m in prism mode and 300m in reflectorless mode.

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**⚠ DANGER**  
 LASER RADIATION - DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENT INTO SUNLIGHT  
 620-690 nm/4.75mW max.  
 CLASS IIIa LASER PRODUCT  
 Laserclass IIIa, conform FDA 21 CFR Ch. 1 § 1040

**⚠ CAUTION**  
 LASER RADIATION - DO NOT STARE INTO BEAM  
 620-690 nm/0.95mW max.  
 CLASS II LASER PRODUCT  
 Laserclass II, conform FDA 21 CFR Ch. 1 § 1040

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Your Off



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**CE**  
 The CE marking assures that this product complies with the requirements of the EC directive for safety.

**ISO**  
 ISO 9001:2008