



SURVEY INSTRUMENT

**TOPCON**®



# GTS-230W Series

World's First electronic total station with cable-free wireless operation



ISO 9001:2000  
FM 68448

# Specifications

	GTS-233W	GTS-235W	GTS-236W	GTS-239W
<b>TELESCOPE</b>				
<b>Length</b>	150mm	150mm	150mm	150mm
<b>Objective lens diameter</b>	45mm(EDM:50mm)	45mm(EDM:50mm)	45mm(EDM:50mm)	45mm(EDM:50mm)
<b>Magnification</b>	30x	30x	30x	30x
<b>Resolving power</b>	2.5"	2.5"	2.5"	2.5"
<b>Minimum focusing distance</b>	1.3m	1.3m	1.3m	1.3m
<b>DISTANCE MEASUREMENT</b>				
<b>1 prism</b>	3,000m	3,000m	3,000m	2,000m
<b>3 prism</b>	4,000m	4,000m	4,000m	2,700m
<b>Accuracy</b>	±(2mm + 2ppm x D)m.s.e.	±(2mm + 2ppm x D)m.s.e.	±(2mm + 2ppm x D)m.s.e.	±(3mm + 3ppm x D)m.s.e.
<b>Measuring time</b>				
<b>Fine mode</b>	1mm:1.2sec.(Initial 4sec.) 0.2mm:2.8sec.(Initial 5sec.)	1mm:1.2sec.(Initial 4sec.) 0.2mm:2.8sec.(Initial 5sec.)	1mm:1.2sec.(Initial 4sec.) 0.2mm:2.8sec.(Initial 5sec.)	1mm:1.2sec.(Initial 4sec.) 0.2mm:2.8sec.(Initial 5sec.)
<b>Coarse mode</b>	0.7sec.(Initial 3sec.)	0.7sec.(Initial 3sec.)	0.7sec.(Initial 3sec.)	0.7sec.(Initial 3sec.)
<b>Tracking mode</b>	0.4sec.(Initial 3sec.)	0.4sec.(Initial 3sec.)	0.4sec.(Initial 3sec.)	0.4sec.(Initial 3sec.)
<b>ANGLE MEASUREMENT</b>				
<b>Method</b>	Absolute encoder reading	Absolute encoder reading	Absolute encoder reading	Absolute encoder reading
<b>Detecting system</b>	H:2 side V:1 side	H:2 side V:1 side	H:1 side V:1 side	H:1 side V:1 side
<b>Minimum reading</b>	1"/5"	1"/5"	1"/5"	5"/10"
<b>Accuracy</b>	3"	5"	6"	9"
<b>TILT CORRECTION</b>				
<b>Tilt sensor</b>	Dual axis	Dual axis	Dual axis	Single axis
<b>Method</b>	Liquid type	Liquid type	Liquid type	Liquid type
<b>Compensating range</b>	±3'	±3'	±3'	±3'
<b>Correction unit</b>	1"	1"	1"	1"
<b>DISPLAY</b>				
<b>Display unit</b>	2 side	Dot matrix graphic LCD 160dot x 64dot 2 side	1 side	1 side
<b>Keyboard</b>	12 keys	12 keys	12 keys	12 keys
<b>OPERATING TIME</b>				
<b>Including distance measurement</b>	10h(Bluetooth ON:8h)	10h(Bluetooth ON:8h)	10h(Bluetooth ON:8h)	10h(Bluetooth ON:8h)
<b>Angle measurement only</b>	45h(Bluetooth ON:25h)	45h(Bluetooth ON:25h)	45h(Bluetooth ON:25h)	45h(Bluetooth ON:25h)
<b>OTHERS</b>				
<b>Bluetooth</b>	Yes	Yes	Yes	Yes
<b>Protection against water and dust</b>	IP66	IP66	IP66	IP66
<b>Data memory</b>	8,000pts.	8,000pts.	8,000pts.	8,000pts.
<b>Ambient temperature range</b>	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
<b>P.G.</b>	Yes	Yes	Yes	No
<b>Plummet</b>		Laser (optical plummet optional)		



[www.topcon.com](http://www.topcon.com)

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