

TOTAL ECLIPSE | A COMPETITIVE MATRIX

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The ECLIPSE® Model 706's best-in-class performance gives you a powerful competitive advantage in the GWR marketplace. The ECLIPSE Model 706 is the only guided wave radar transmitter to:

- Deliver superior signal performance – with a signal-to-noise ratio 300% greater than the next competitor!
- Offer Overfill Capable Probes – with the ability to measure true level to within specification all the way up to the process flange.
- Make configuration and real-time data collection EASY! – Advanced transmitter diagnostics and our innovative DTM provide powerful level control for safe, efficient operation.



							
Manufacturer:	Magnetrol	Rosemount	Endress + Hauser	Vega	K-Tek	Khrone	
Model Series	Eclipse 706	5300 Series	Levelflex FMP 50 Series	Vegaflex 80 Series	MT5000	Optiflex 2200	
Accuracy	±0.1 inch (2.5 mm)	±0.12 inches (3 mm)	±0.02%	±0.12 inches (3mm)	±0.1 inches (2.5 mm)	±0.1 inches (3mm)	
Application	Liquids/Solids	Liquids/Solids	Liquids/Solids	Liquids/Solids	Liquids/Solids	Liquids/Solids	
Dielectric Range	1.2*–100 Coaxial: $\epsilon_r \geq 1.4$ Twin Rod: $\epsilon_r \geq 1.7$ Single Rod: $\epsilon_r \geq 1.4$ "	1.2*–100 $\epsilon_r \geq 1.2^*$ $\epsilon_r \geq 1.4$ $\epsilon_r \geq 1.4$ "	1.4–100 $\epsilon_r \geq 1.4$ — $\epsilon_r \geq 1.4$ "	1.1*–100 $\epsilon_r \geq 1.4$ — $\epsilon_r \geq 1.7$ "	1.4–100 $\epsilon_r \geq 1.4$ $\epsilon_r \geq 3.0$ $\epsilon_r \geq 1.7$ "	1.1*–100 $\epsilon_r \geq 1.4$ $\epsilon_r \geq 1.6$ $\epsilon_r \geq 1.8$ "	
Input Power	Intrinsically Safe Explosion-proof Rloop (@ 24 VDC)	11–30 VDC 11–36 VDC 630 ohms	16–30 VDC 20–42 VDC 586 ohms	11.5–30 VDC 13.5–30 VDC 500 ohms	9.6–30 VDC 14–35 VDC 500 ohms	14–36 VDC 14–36 VDC 500 ohms	12–30 VDC 16–36 VDC 550 ohms
Mounting	Integral, remote to 12 feet (3.6 m)	Integral, remote to 116" (295 cm)	Integral, remote to 9 feet (2.7 m)	Integral, remote to 30 feet (10 m)	Integral, remote to 5 feet (1.5 m)	Not specified	
Local User Interface	Graphic LCD 4 push buttons	LCD No push buttons	Graphic LCD 3 push buttons	Rotatable LCD 4 push buttons	Graphic LCD 3 push buttons	Rotatable Graphic LCD 4 push buttons	
Measuring Range	12 inches to 100 feet (30 cm to 30 m)	16 inches to 164 feet (41 cm to 50 m)	115 feet (35 m)	246 feet (75 m)	1 foot to 200 feet (61 m)	130 feet (40 m)	
Ambient Temperature	-40° to +175° F (-40° to +80° C)	-40° to +175° F (-40° to +80° C)	-40° to +175° F (-40° to +80° C)	-40° to +175° F (-40° to +80° C)	Not specified	-40° to +175° F (-40° to +80° C)	
Ambient Temperature Effect	±0.02% probe length/C	±0.008 inches (0.2 mm)/K	±0.05%/10K	.03%/10K	.015%/10K	0.5%/K	
Process Temperature Range	-320° to +850° F (-196° to +454° C)	-320° to +752° F (-196° to +400° C)	-321° to +842° F (-196° to +450° C)	+842° F (+450° C)	-60° to +800° F (-51° to +427° C)	-58° to +572° F (-50° to +300° C)	
Process Pressure Range	Vacuum to 6250 psi (430 bar)	Vacuum to 5000 psi (345 bar)	5800 psi (400 bar)	Vacuum to 5800 psi (400 bar)	5000 psi (345 bar)	580 psi (40 bar)	
Analog Output	3.8–20.5 mA Diagnostic Alarm: 3.6 mA/22 mA/Hold	3.8 mA–20.5 mA 3.6 mA/22 mA	3.8–20.5 mA 3.6 mA/22 mA	3.8–20.5 mA 3.6 mA/22 mA/Hold	3.8–20.5 mA 3.6 mA/22 mA	3.8–20.5 mA 3.6 mA/22 mA	
Digital Output	HART® 7, AMS FOUNDATION fieldbus —	HART®, AMS FOUNDATION fieldbus —	HART® 7 FOUNDATION fieldbus Profibus	HART® 7 FOUNDATION fieldbus Profibus	HART® FOUNDATION fieldbus —	HART® — —	
Remote Configuration	PACTware DTM	Radar Master Software	PACTware DTM	PACTware DTM	K-Comm Communication Software	PACTware DTM	
Interface Dielectric Range Min. upper level thickness:	<10 upper, >15 lower 2 inches (5 cm)	<10 upper, >15 lower 5.1 inches (13 cm)	<10 upper, >15 lower 2.3 or 4 inches (5.8 cm or 10 cm)	<10 upper, >15 lower 2 inches (5 cm)	<5 upper, >15 lower 4 inches (10 cm)	Not specified	
Bulk Solid Max. Pulldown	3000 lbs. (1361 kg)	7868 lbs. (3569 kg)	7868 lbs. (3569 kg)	6700 lbs. (3039 kg)	10,000 lbs. (4536 kg)	7700 lbs. (3493 kg)	
Steam Probe Continuous Compensation:	Yes, 20-foot maximum (6 m) Yes, 5-inch target location (12 cm)	Yes, 13-foot maximum (4 m) Yes, 17-inch target location (43 cm)	Yes, 13 foot maximum (4 m) Yes, 12" to 21" target location (30 to 53 cm)	No —	No —	No —	
Agency Approvals	FM/CSA/ATEX IS, XP, Div. II	FM/CSA/ATEX IS, XP, Div. II	FM/CSA/ATEX IS, XP, Div. II	ATEX IS, XP	FM/CSA/ATEX IS, XP, Div. II	FM/CSA/ATEX IS, XP, Div. II	
SIL Rating Safe Failure Fraction (SFF):	SIL 2 (Hardware) 93%	SIL 2 (Hardware) 90.6%	SIL 2/3 Certified 93%	No —	SIL 2/3 Certified 92.8%	SIL 2 (Hardware) 94.3%	
Diagnostics Miscellaneous True Overfill Capability	NE107 Diode Switch Technology/EOP Analysis Yes/High SNR	— Direct Switch Technology No	NE107 Echo Rejection No	NE107 Echo Rejection No	— — No	NE107 Dynamic Parasite Rejection No	
Integrated Into Single-chamber MLI	Yes (Aurora)	No	No	No	No	No	

* Utilizing end of probe analysis (also called tank bottom following or probe end projection)