

Electromagnetic Flowmeter WaterMaster FEV111, FEV121, FEV181 and FEF191

Variant digit number	1 ... 6	7 ... 9	10	11	12	13	14, 15	16	17	18	19	20	21	22	23	24	25	26	27
Flowmeter system, optimized full bore, integral mount	FEV111																		
Flowmeter system, optimized full bore, remote mount	FEV121																		
Optimized full bore, for use with WaterMaster transmitter / remote	FEV181	XXX	X	X	X	X	XX	X	X	X	X	X	X	X	X	X	X	X	X
Optimized full bore, for use with WaterMaster transmitter / integral	FEV191																		
Bore Diameter																			
DN 40 (1 ³ / ₄ in)		040																	
DN 50 (2 in)		050																	
DN 80 (3 in)		080																	
DN 100 (4 in)		100																	
DN 150 (6 in)		150																	
DN 200 (8 in)		200																	
DN 250 (10 in)		250																	
DN 300 (12 in)		300																	
Others		999																	
Liner Material																			
Polypropylene (DN 40 ... DN 200 only)			V																
Electrode Design																			
Standard				1															
Measuring Electrodes Material																			
Stainless steel 316Ti (1.4571)					S														
Grounding Accessories																			
Standard						1													
Process Connection Type																			
Flanges ASME class 150								A1											
Flanges AS 4087 class 16 (DN50 ... DN300 only)								E1											
Flanges AS 2129 table F (DN40 only)								E3											
ISO 7005 PN16 (DN50 ... DN300 only)								S2											
ISO 7005 PN40 (DN40 only)								S4											
Process Connection Material																			
Carbon steel flanges								B											
Usage Certifications																			
Standard (without PED)									1										
Material monitoring with inspection certificate 3.1 acc. EN 10204									2										
Others (FEV121, FEV181 and FEV191 only)									9										
Calibration Type																			
Standard accuracy 0.4 %										A									
Enhanced accuracy 0.2%										B									
Witnessed factory calibration										M									
Others										Z									
Temperature Range Installation / Ambient Temperature Range																			
Standard design / -20 ... 60 °C (-4 ... 140 °F)											1								

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Variant digit number		1 ... 6	7 ... 9	10	11	12	13	14, 15	16	17	18	19	20	21	22	23	24	25	26	27			
Flowmeter system, optimized full bore, integral mount			XXX	X	X	X	X	XX	X	X	X	X	X	X	X	X	X	X	X	X			
Flowmeter system, optimized full bore, remote mount																							
Optimized full bore, for use with WaterMaster transmitter / remote																							
Optimized full bore, for use with WaterMaster transmitter / integral																							
Language														A									
English														D									
German														G									
French														K									
Spanish														N									
Italian																							
Signal Cable Length and Type *																							
Without signal cable (FEV111 and FEV 191 only)														0									
5 m (15 ft.) cable (FEV121 and FEV181 only)														1									
10 m (30 ft.) cable (FEV121 and FEV181 only)														2									
20 m (60 ft.) cable (FEV121 and FEV181 only)														3									
30 m (100 ft.) cable (FEV121 and FEV181 only)														4									
50 m (165 ft.) cable (FEV121 and FEV181 only)														5									
80 m (260 ft.) cable (FEV121 and FEV181 only)														6									
100 m (325 ft.) cable (FEV121 and FEV181 only)														7									
150 m (490 ft.) cable (FEV121 and FEV181 only)														8									
Special Length > 150 m (> 490 ft.) (FEV121 and FEV181 only)														9									
Explosion Protection Certification																							
General purpose (non-Ex design)														A									
Protection Class Transmitter / Protection Class Sensor																							
IP67 (NEMA 4X) / IP67 (NEMA 4X) – integral (FEV111 and FEV191 only)														1									
IP67 (NEMA 4X) / IP68 (NEMA 6X) – cable not fitted and not potted (FEV121 and FEV181 only)														2									
IP67 (NEMA 4X) / IP68 (NEMA 6X) – cable fitted and potted (FEV121 and FEV181 only)														3									
Cable Conduits *																							
M20 x 1.5														A									
NPT 1½ in														B									
M20 SWA armored (FEV121 and FEV181 only)														D									
Power Supply																							
Without (FEV181 and FEV191 only)																						0	
100... 230 V AC, 50 Hz (FEV111 and FEV121 only)																						1	
24 V AC or 24V DC, 50 Hz (FEV111 and FEV121 only)																						2	
100... 230 V AC, 60 Hz (FEV111 and FEV121 only)																						3	
24 V AC or 24V DC, 60 Hz (FEV111 and FEV121 only)																						4	
Others (FEV111 only)																						9	
Input and Output Signal Type																							
HART + 20 mA + pulse + contact output (FEV111 and FEV121 only)																							A
Without (FEV181 and FEV191 only)																							Y
Configuration Type / Diagnostics Type																							
Factory defaults / standard diagnostics																							1

* The type of signal cable supplied (standard or armored) depends on the type of cable conduit (variant digit number 24) ordered.

Electromagnetic Flowmeter Transmitter for WaterMaster FET101, FET111 and FET121

Variant digit number		1 ... 6	7 ... 9	10	11	12	13	14, 15	16	17	18	19	20	21	22	23	24	25	26	27
Transmitter cartridge		FET101																		
Integral transmitter		FET111	XXX	X	X	X	X	XX	X	X	X	X	X	X	X	X	X	X	X	X
Remote transmitter		FEV181																		
Bore Diameter																				
Transmitter only		000																		
Liner Material																				
Without (transmitter only)			Y																	
Electrode Design																				
Without (transmitter only)				0																
Measuring Electrodes Material																				
Without (transmitter only)					Y															
Grounding Accessories																				
Without (transmitter only)						0														
Process Connection Type																				
Without (transmitter only)								Y0												
Process Connection Material																				
Without (transmitter only)								Y												
Usage Certifications																				
Without (transmitter only)									8											
Calibration Type																				
Without (transmitter only)										Y										
Temperature Range Installation / Ambient Temperature Range																				
Standard design / -20 ... 60 °C (-4 ... 140 °F)												1								
Language																				
English													A							
German													D							
French													G							
Spanish													K							
Italian													N							
Signal Cable Length and Type																				
Without signal cable														0						
Explosion Protection Certification																				
Without (transmitter only)															Y					
Protection Class Transmitter / Protection Class Sensor																				
IP67 (NEMA 4X) / IP67 (NEMA 4X)																1				
Cable Conduits																				
Without (FET101 only)																		Y		
M20 x 1.5 (FET111 and 121 only)																		A		
NPT 1/2 in (FET111 and 121 only)																		B		
M20 SWA armored (FET111 and 121 only)																		D		
Others (FET111 and 121 only)																		Z		

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Variant digit number		1 ... 6	7 ... 9	10	11	12	13	14, 15	16	17	18	19	20	21	22	23	24	25	26	27
Transmitter cartridge		FET101																		
Integral transmitter		FET111	XXX	X	X	X	X	XX	X	X	X	X	X	X	X	X	X	X	X	X
Remote transmitter		FEV181																		
Power Supply																				
100... 230 V AC, 50 Hz																				1
24 V AC or 24V DC, 50 Hz																				2
100... 230 V AC, 60 Hz																				3
24 V AC or 24V DC, 60 Hz																				4
Input and Output Signal Type																				
HART + 20 mA + pulse + contact output (FEV111 and FEV121 only)																				A
Configuration Type / Diagnostics Type																				
Factory defaults / standard diagnostics																				1