Datasheet

Battery Powered Electromagnetic Flowmeter

SUP-FMC800

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FMC800 battery powered electromagnetic flowmeter converters are battery powered, capable of being used together with common electromagnetic flow meters, with the flow rate measurement accuracy up to 0.5 level and 0.2 level. That is to say, a new type of products — electromagnetic water meter series will be developed simply by connecting a FMC800 convertor to a common electromagnetic flow meter.

FMC800 battery powered electromagnetic flowmeter converter is equipped with a lithium battery as its standard configuration, which can work over three consecutive years. If a high-capacity battery is equipped, the continuous working time will be much longer.

FMC800 battery powered electromagnetic flowmeter converter may use a base-station type radio communication network system, with the communication base station built in the central area, and coverage radius designed as 1000M. Electromagnetic water meters communicate with the base station within a closer distance (SRD mode), by use of an opened frequency range — 928MHZ （American standard）. The base station, via GPRS or CDMA mobile communication network, realizes data communication with the supervisory computer. In addition, the FMC800 battery powered electromagnetic flowmeter converter may, via GPRS or CDMA mobile communication network, directly realize data communication with the supervisory computer.

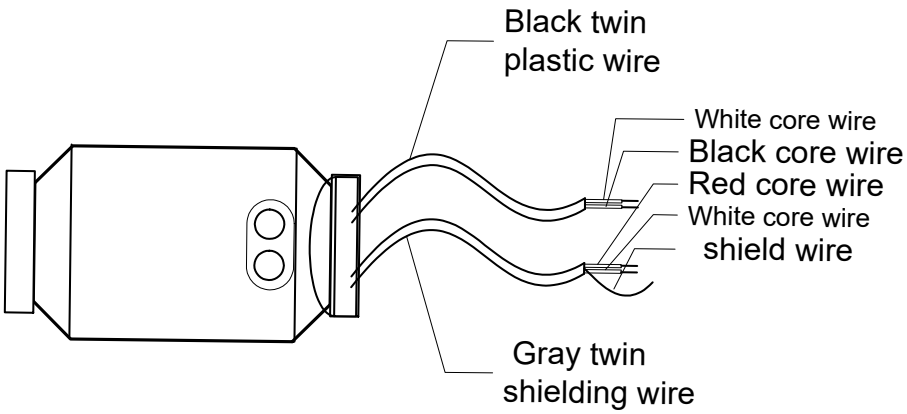
Designed with IP68-level seal protection for its die-cast aluminum case, the FMC800 battery powered electromagnetic flowmeter converter is particularly applicable for damp environment, for example, underground mine.

Parameters			
Parameter description	**Setting mode**	**Parameter range**	**Code grade**
Language	Optional	Chinese, English	1
CommAddres	Optional	0～99	1
Snsr Size	Optional	3～600	1
Flow Unit	Optional	L/h、L/m、L/s、m3/h、m3/m、m3/s	1
Flow Direct	Optional	FORWARD/REVERSE	1
Flow Zero	Preset	0～±9999	1
Flow Cutoff	Preset	Set according to flow cut-off	1
Total Unit	Optional	0.001～1 m3、0.001～1 L	1
Pulse Fact	Optional	0.001～1 m3、0.001～1 L	1
Pulse Width	Optional	1～99ms	1
MtsnsrTrip	Preset	599.99 %	1
ClrSum Key	Preset	0～59999	1
Sensor Fact	Preset	0.0000～2.9999	1
Sensor Code	Set by users	0～59999	1
Line Crc Ena	Optional	ENABLE/DISABLE	1
Lineary CRC1	Preset	Setting according to flow velocity	1
Lineary Fact1	Preset	0.0000～1.9999	1
Lineary CRC2	Preset	Setting according to flow velocity	1
Lineary Fact2	Preset	0.0000～1.9999	1
Lineary CRC3	Preset	Setting according to flow velocity	1

Wiring

1.Terminal wiring and signs for round integral meters

FMC800 battery powered electromagnetic flowmeter convertor connects with sensor via two group of wiring terminals respectively, signal line group and excitation line group. When connection work is doing, make sure every connection is correct and check them carefully, to avoid any possible damage to meters for reason of incorrect connection.



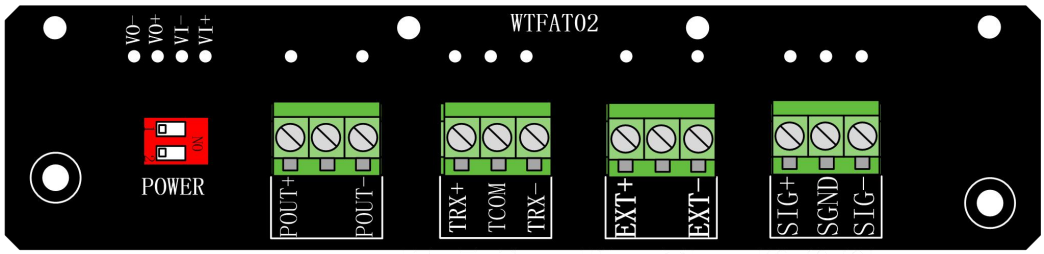
Schematic diagram of FMC800 signal lines

Signal lines are signed as follows

Black twin plastic wire: White core wire
Black core wire
} For exciting current use

Gray twin shielding wire：Connect the red core wire to “signal 1”
Connect the white core wire to “signal 2”
Connect the shield wire to “signal ground”

2.Terminal wiring and signs for square separate meters

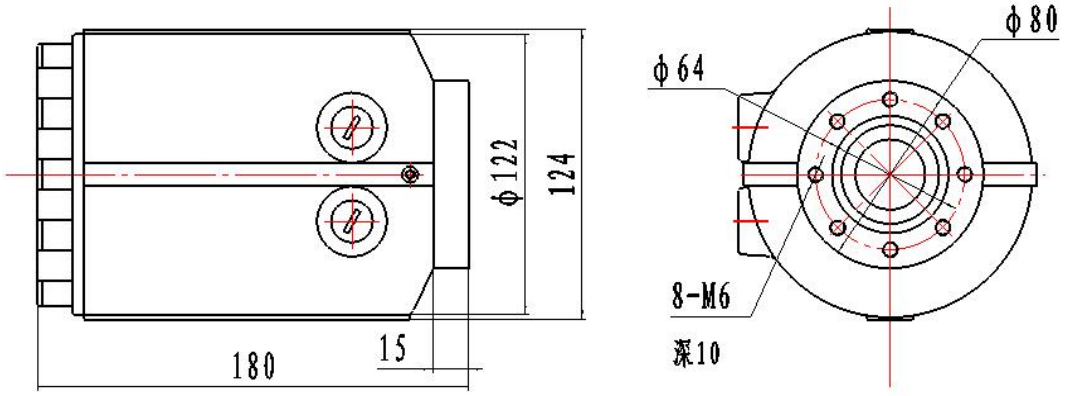


SIG1	Signal 1	
SGND	Signal ground	
SIG2	Signal 2	For separate sensor use
EXT+	Exciting current+	
EXT-	Exciting current-	
POUT+	Impulse current	Impulse output
POUT-	Impulse output ground	

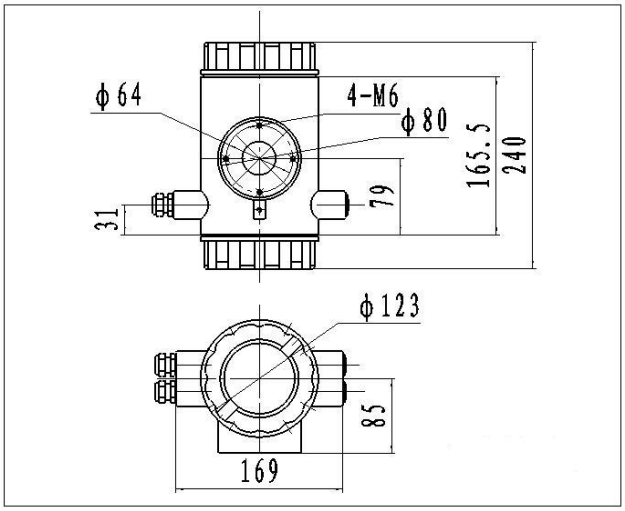
The separate electromagnetic water meter convertor is applicable for submersible electromagnetic water meters. In practical use, the electromagnetic water meter sensor is extended down to the underground, while the electromagnetic water meter convertor is mounted on the ground surface. The special design allows the cable connection between the sensor and the convertor as long as 10M, but no effect is exerted on the measurement accuracy of flow.

Dimension

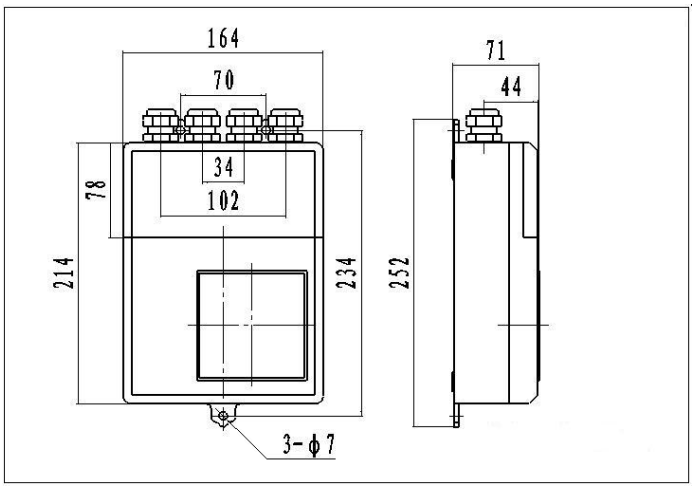
1.The Round and vertical type, integral structure



2.The round and horizontal type, integral structure



3.The square type, separate structure



Ordering code

SUP-FMC800-15-J-B-MC-K-AY-M3-N6-0-WS-00												Description
SUP-FMC800	-	-	-	-	-	-	-	-	-	-	-	
Nominal Diameter	15											DN15(1/2")
	20											DN20(3/4")
	25											DN25(1")
	32											DN32(1.25")
	40											DN40(1.5")
	50											DN50(2")
	65											DN65(2.5")
	80											DN80(3")
	1C											DN100(4")
	1E											DN125(5")
	1G											DN150(6")
	2C											DN200(8")
	2G											DN250(10")
	3C											DN300(12")
	3G											DN350(14")
	4C											DN400(16")
	4G											DN450(18")
	5C											DN500(20")
	6C											DN600(24")
	7C											DN700(28")
	8C											DN800(32")
	9C											DN900(36")
	A0											DN1000(40")
Process Connection Standard		J										JB/T 81 Flange
		I										IS02852 Clamp
		X										Other
Nominal Pressure			B									PN10
			C									PN16
			D									PN25
			E									PN40
			F									PN63
			X									Other
Process Connection Material and Body Material				MC								Carbon Steel
				M1								304SS
				XX								Other
Accuracy					K							Class 0.5
Output and Power Supply						AY						3.6V Lithium Battery
						BA						Dual Power Supply (3.6V Lithium Battery + 24VDC), 4G External Antenna

	BC					3.6V Lithium Battery, 4G External Antenna
	BE					Dual Power Supply (3.6V Lithium Battery + 12VDC), 4G External Antenna
	BF					Dual Power Supply (3.6V Lithium Battery + 24VDC), RS485
	BG					Dual Power Supply (3.6V Lithium Battery + 12VDC), RS485
	BH					3.6V Lithium Battery, RS485
	XX					Other
Electrode Material		M3				316LSS
		MF				Hastelloy B
		MG				Hastelloy C
		T1				Titanium
		T2				Tantalum
		MH				Platinum-Iridium Alloy
		MJ				Tungsten Carbide
Lining Material			N6			Polytetrafluoroethylene
			N1			Chloroprene Rubber
			N2			Polyurethane
			N7			luorinated Ethylene Propylene(F46)
			N8			Perfluoroalkoxy
Pressure Measurement				0		Not Included
				1		Included
Electrical Interface, Housing Material, and Protection Rating					WS	Integrated Design, 304 Stainless Steel/ABS, IP68
					WT	Split Design, 304 Stainless Steel/ABS, IP68
Split Cable Length						00 0m
						10 10m
						15 15m
						20 20m
						25 25m
						30 30m
						XX Other