



EXPERT™ LEVEL TRANSMITTER

MJK Expert Hydrostatic Level Transmitters are designed to measure level when submersed in pump wells, tanks, flumes and channels.

Expert Level Transmitters are strong and specially designed to withstand tough mechanical and chemical impacts in e.g. wastewater, slurry and sludge. Expert Pressure Transmitters are supplied with stainless steel or ceramic membranes. The housing is made of plastic or stainless steel.

Expert Level Transmitters are available in a number of variants adapted to measuring levels in wastewater, potable water and process fluids. We can supply variants which are suitable for use in corrosive chemicals and ATEX-approved (i.e. approved for use in an explosive atmosphere).

Expert Pressure Transmitters cover measurement ranges from 0-30 cm up to 0-300 m.

Expert Pressure Transmitters are supplied with a 4-20 mA or Modbus output.





ATEX



FEATURES					
EXPERT®	700	7070 (T)	7060	1400	3400
Application	Water well	Water well, Process fluids	Wastewater, Process fluids	Water well, Process fluids	Wastewater, Process fluids
Measurement range min. max.	0-30 m 0-100 m	0-3 m 0-300 m	0-3 m 0-300 m	0-30 cm 0-100 m	0-30 cm 0-100 m
Precision (+10-30°C)	±0.5%	±0,25%	±0.25%	±0,1%	±0,1%
Housing	1.4404/ AISI 316L	1.4404/ AISI 316L	PP	1.4404/ AISI 316L	PPS
Membrane	1.4404/ AISI 316L	1.4404/ AISI 316L	1.4404/ AISI 316L	Ceramic	Ceramic
External diameter	Ø 16 mm	Ø 22 mm	Ø 60 mm	Ø 22 mm	Ø 50 mm
Analogue 4-20 mA	•	•	•	•	•
Modbus RS485	•	•	•		
Temp. outlet		PT100 Modbus	Modbus		
Approvals	CE	CE	CE	ATEX UL CE	ATEX UL CE

Expert can be used with



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FLOAT SWITCH 7030

Float switches are often used in environmental engineering systems, such as pumping stations and sewage plants. It is therefore important that float switches do not contain mercury.

Float switch 7030 has an electro-mechanical contact system. The float switch has a built-in hermetically sealed micro-switch, which is activated by a moving weight. The weight activates the micro-switch, when the float switch's position in the water changes. Float switches are often used in overflow prevention systems.

We supply a counterweight (accessory) which ensures that the float switch remains submerged at all times. The differential is adjustable and the counterweight ensures that the cable bend is smooth.



CONDUCTIVITY LEVEL SWITCH 501

ON/OFF level switches are often used as a simple method of controlling pumps and valves and to alert high or low levels and warn that there is water on the floor.

MJK's Conductivity Level Switch comprises an electrode base for up to four electrodes. The stainless steel electrodes can be cut to the desired length and connected via the electrode base to the amplifier. The amplifier can be set to either pump in or out of the tank.

The electrode base can be fitted on a standard bracket - see page 64.





FEATURES				
LEVEL SWITCH	7030	501	ELECTRODE BASE	ELECTRODE ROD
Application	Wastewater, Process fluids	Process fluids	Process fluids	Process fluids
Material	PP / Oil Resistant cable		POM 1.4404 / AISI 316L	Rubber cable 1.4404 / AISI 316L
Digital outputs	1	1		
Switch	Max. 250 V AC / 16A	Max. 250 V AC / 4A		
Approval	CE	CE	CE	CE

Level switch and 501 can be used with



Open channel flow meter 713 [page 26]



Fittings [page 64-65]



MAGFLUX® ELECTROMAGNETIC FLOW METER

MagFlux Electromagnetic Flow Meters deliver very stable and accurate flow measurements in any conductive liquid in a pressurized closed pipe system.

MagFlux Flow Meters have no moving parts and have no hydraulic influence on the flow in the pipe system. The measurement method used is very accurate over a wide measurement range.

We have developed an outstanding sensor measuring method for MagFlux. An individual sensor calibration code adapts the converter automatically to communicate with the sensor. The calibration code includes calibration data, nominal diameter and sensor features. Once the calibration code is entered, the MagFlux Flow Meter is ready to operate. The calibration code means there is no need to make difficult adjustments in the field.



VERSATILE CONVERTER

MagFlux can be supplied with the converter mounted directly onto the sensor or it can be mounted on a wall or panel. The display unit can be attached to the converter or mounted at a distance of up to 1,000 m from the measurement site. This means that you can mount both the converter and the display in the most practical spot.



COMPACT MOUNTING







WALL MOUNTING



PANEL MOUNTING



FEATURES					
MAGFLUX®		SENSOR 7100	SENSOR 7200	MAGFLUX®	CONVERTER
Application		Process fluids	Wastewater, Process fluids	Measurement range	Depends on sensor
Sizes	min. max.	DN15 DN1000	DN20 DN1400	Fitting	Compact / Wall
Precision (≥0.2m/s)		0.25%	0.25%	Housing	Fibreglass-reinforced Polycarbonate
Fluid flow speed	min. max.	0.2 m/s 10 m/s	0.2 m/s 10 m/s	Analogue output	4-20 mA
Flange	EN ANSI AWWA AS	EN-1092-1 B 16.5 C207-01 2129 - 2000, 4087 - 2004	EN-1092-1 B 16.5 C207-01 2129 - 2000, 4087 - 2004	Digital outputs	2
Liner		PTFE	Hard rubber	Built-in communication	Modbus RS485
Housing ¹⁾		Epoxy painted steel	Epoxy painted steel	Network-compatibility ⁴⁾	Modbus RS485 / Profibus DP
Electrodes ²⁾		1.4571 / AISI 316 Ti	1.4571 / AISI 316 Ti	Built-in data logger	160,000 logs and curve view
Enclosure rating		IP67 / 68	IP67 / 68	IP ingress protection class	IP67
Reversible flow direction		•	•	Remote display	up to 1,000 m
Build-in liquid earth electrode ³⁾		•	•	Approvals	 
Approval					

1) Housing and flange can also be supplied as steel 304/316

2) Electrodes can be supplied as HASTELLOY® C, platinum or titanium

3) Included

4) Order separately

MagFlux can be used with



Chatter® data logger [page 47]



Fittings [page 64-65]



Accessories [page 69+71]



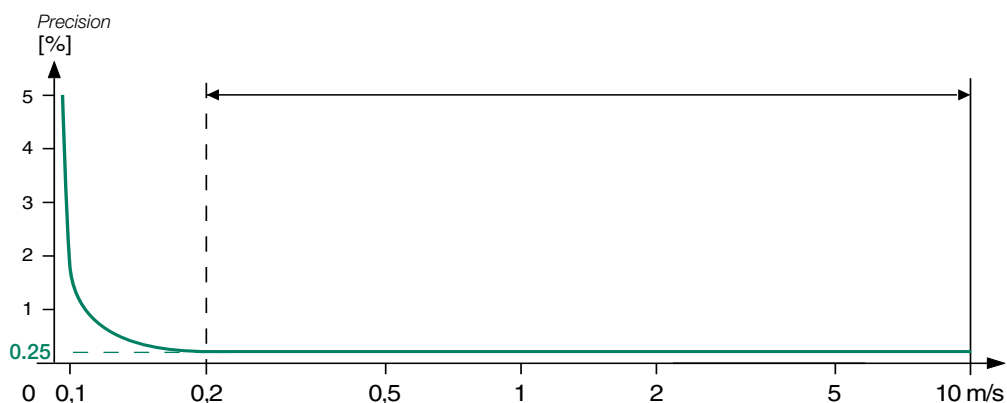
DIMENSIONING YOUR FLOW SENSOR

MINIMUM / MAXIMUM FLOW AND STANDARD mA SETTINGS				
Size		Q _{min} = 0.2 m/s	Q _{max} = 10 m/s	20 mA
DN	[inch]	[l/h]	[l/h]	[l/h]
15	½"	127	6362	5000
20	¾"	226	11304	10000
25	1"	353	17676	20000
32	1¼"	579	28944	30000
40	1½"	905	45360	50000
50	2"	1414	70560	75000
DN	[inch]	[m³/h]	[m³/h]	[m³/h]
65	2½"	2.39	119	100
80	3"	3.62	181	200
100	4"	5.65	283	300
125	5"	8.84	442	400
150	6"	12.7	636	600
200	8"	22.6	1131	1000
250	10"	35.3	1767	2000
300	12"	50.9	2545	2500
350	14"	69.3	3464	3000
400	16"	90.5	4524	4500
450	18"	115	5726	6000
500	20"	141	7069	7000
600	24"	204	10179	10000
700	28"	277	13854	15000
800	32"	362	18095	20000
900	36"	458	22902	25000
1000	40"	565	28274	30000
1200	48"	814	40715	40000
1400	54"	1100	55400	55000



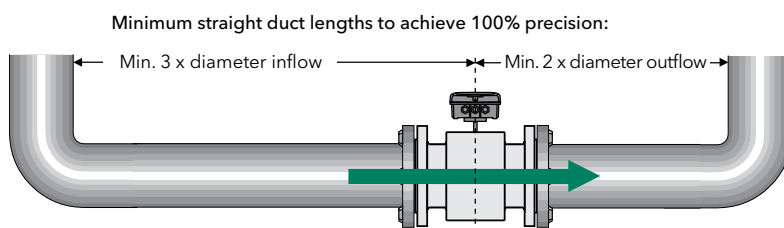
ACCURACY

MagFlux Flow Meters set the gold standard for precision. MagFlux Meters offer full accuracy down to 0.25% at a speed of 0.2 m/sec. This ensures optimal accuracy to measure even low rates of flow but it also expands the flow meters dynamic measuring range whilst keeping the high accuracy.



BUILD IN LENGTHS

MJK Flow Sensors are easy to install. They have ISO-standard installation build in lengths. You need a straight inflow pipe which is only 3 x the diameter and a straight outflow pipe which is only twice the diameter of the flow meter. For smaller dimensions, the sensor itself - to a great extent - meets all build in lengths requirements.



IP68

MagFlux is supplied as standard with protection class IP67. However, if you use our gel potting kit, you can increase the protection class to IP68 (which means that MagFlux can withstand constant submersion in water (max. 10 m water column pressure)).





713 OPEN CHANNEL FLOW CONVERTER

The MJK 713 Flow Converter measures the water level behind a weir or in a measurement flume. The converter measures the level and calculates flow values, displayed as actual flow and total flow. The 713 Flow Converter is supplied with an ultrasonic sensor or hydrostatic transmitter to measure the level.

The 713 Flow Converter has a 4-20 mA output signal and 5 digital outputs. The 713 Flow Converter's outputs can be connected to an external instrument or data logger to record flow volumes. The digital outputs are used for, e.g. an external alarm device to warn of excessively high or low flow, an external flow counter or a liquid sampler controlled proportionate to flow.



FLUMES

We offer a range of prefabricated flumes as accessories for the 713 Flow Converter. MJK supplies 3 types of flumes: Venturi, Parshall and Palmer Bowlus. They are available in stainless steel and fibreglass-reinforced polyester, depending on the type.

MJK's flumes are often used in water treatment plants and in stormflow locations or industrial wastewater outlets, where they can be used with the 713 Flow Converter to calculate wastewater duties.





FEATURES			
OPEN CHANNEL FLOW CONVERTER	713 FLOW CONVERTER	ULTRASONIC	HYDROSTATIC
Measurement range	Depending on sensor	min. 10 cm max. 3 m	min. 10 cm max. 3 m
Analogue 4-20 mA	•		
Digital outputs	5		
Approvals	UL CE	CE	ATEX UL CE

Open channel flow converter 713 can be used with

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 Accessories [page 69]