

Expert™ 2100

HYDROSTATIC LEVEL TRANSMITTER

2.75

General

Expert™ 2100 Hydrostatic level transmitter with piezoresistive measuring system and built-in breather tube for direct air pressure compensation.

The robust design offers a useful all-round transmitter used in waterworks, sewage treatment plants and industrial applications. Expert™ 2100 is ideal for measuring levels in storage tanks, wet wells and pump stations in both water and wastewater plants.

The design without sharp edges prevents particles, textiles and paper from sticking to the housing or the diaphragm.

Features:

- stainless steel diaphragm, polypropylene body
- 2-wire 4-20 mA loop powered, 10-30VDC
- very low drift (<0.5%) and high accuracy ($\pm 0.25\%$) year after year
- field re-programmable for custom ranges and zero offset calibration
- measuring ranges from 0-10 ft. to 0-300 ft.
- steel reinforced PUR cable with high tensile strength (2000 lb)
- iron Bar Reinforced Shield Body with Epoxy Potting.

Applications:

- wastewater
- process water
- drinking water

DATASHEET

US 2.75 EXPERT 2100 DATASHEET 2005



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Expert™ 2100 Level Transmitter

Specifications

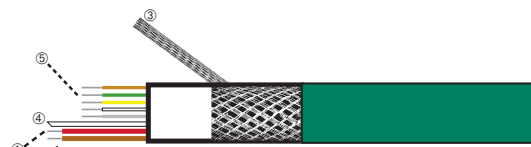
Expert 2100 Level Transmitter				
Nominal measuring range	0-10 ft.	0-15 ft.	0-30 ft.	0-100 ft.
Measuring principle	Piezo-resistive (relative pressure)			
Min. programmable range	0-6 ft.	0-6 ft.	0-6 ft.	0-30 ft.
Max. programmable range	0-36 ft.	0-36 ft.	0-36 ft.	0-200 ft.
Non-standard range	Min. 0-6 ft./Max. 0-900 ft.			
Max. overpressure	3.5 bar/50 psi	3.5 bar/50 ps	3.5 bar/50 ps	10 bar/150 ps
Temperature range	15-150 °F to 150 °F			
Temp. deviation, zero point	Better than ± 0.01 %/°F			
Temp. deviation, full range	Better than ± 0.008 %/°F			
Linearity / Stability	Better than ± 0.5 % FS / ± 0.1 % FS			
Measurement accuracy	Better than ± 0.25 % FS @ +50 to 85 °F Better than ± 0.5 % FS @ full temperature range			
Long time stability	Better than ± 0.5 % FS per year			
Materials	Housing: PP / Diaphragm: Stainless steel (1.4404 / AISI 316 L)			
Supply voltage	10-30 V DC (12-30 V DC for cable lengths above 315 ft.)			
Output signal	2-wire 4-20 mA (passive transmitter)/Modbus RS 485			
Cable	2 × AWG 20 (pressure) + 5 × AWG 25 (data), shielded, PUR insulation, 2000 lb. pull strength			
Cable length ^①	39 ft	39 ft.	39 ft.	115 ft.
Enclosure	NEMA 6P (IP 68), withstands a static pressure equal to max. overpressure			
Test approvals	CE directive: 89/336/EEC, 2004/108/EC, 1999/EC EN 61326-1, 61326-2-3, EN 55011, 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8 EN 61000-6-4 2007-02-19, EN 61000-6-2 2005-09-08			

^① The cable length may be extended by using the transmitter connection box (202922) and twisted shielded pair wire.

Electrical Connections

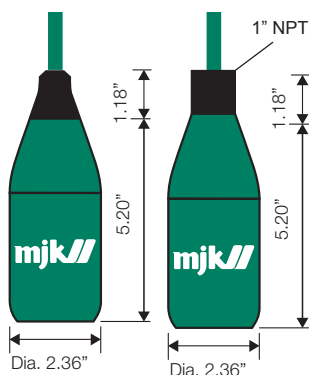


Designations		
1	Red	Positive (+) wire
2	Brown	Negative (-) wire
3	Black	Shield (NOT signal ground!)
4	Tube	Air pressure compensation tube
5	Hidden	Programming wires

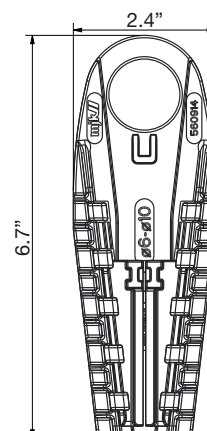


⑤ Programming	
Green	N/C
Brown	N/C
Yellow	RS485 B
White	N/C
Grey	RS485 A

Dimensions



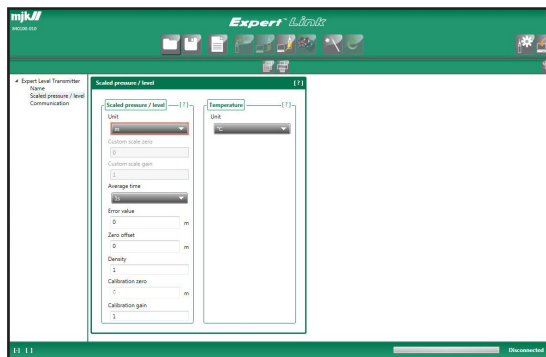
MJK Expert™ 2100 level transmitter



Mounting bracket for MJK Expert™ 2100 level transmitter

Expert™ 2100 Level Transmitter

Accessories



Expert Link Software

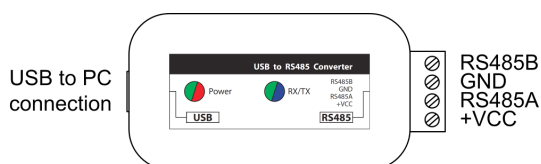
840100 Expert Link for Windows for support of the Expert series. Use with 203992 PC (USB) Interface.

Information (pressure- and temperature range, version of software etc.):

- Indication of actual pressure value and adjusting measuring ranges
- Selection of units
- Setting of a new zero and gain for the transmitter
- Reprogramming of the analog output (i.e. different unit, other pressure range)
- Setting of the instrument address (for Bus-operation and real-time value).



Expert Link is free of charge. Link to download center on www.mjk.com.



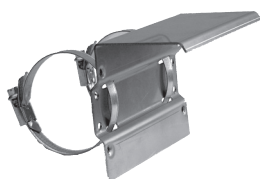
203992 PC Interface used for connecting Expert Hydrostatic Level Transmitters to a PC using Expert Link.



202922 Transmitter connection box NEMA 6 enclosure for a safe connection of 4-20 mA cables.



200126 Field indicator 531, display insert, 4-20mA loop powered, NEMA 6 enclosure. For instant local readout.



200117 Rainroof/Sun Shield for 531, weather protection for display and connection box.

Expert™ 2100 Level Transmitter

Order Numbers

Expert™ 2100, Piezo Resistive, Hydrostatic Level Transmitter	
MJK209930	Pressure Transmitter 2100, Range 0-10ft, 39ft Cable
MJK209930-75	Pressure Transmitter 2100, Range 0-10ft, 75ft Cable
MJK209932	Pressure Transmitter 2100, Range 0-15ft, 39 ft Cable
MJK209935	Pressure Transmitter 2100, Range 0-30ft, 39ft Cable
MJK209935-75	Pressure Transmitter 2100, Range 0-30ft, 75ft Cable
MJK209935-100	Pressure Transmitter 2100, Range 0-30ft, 100ft Cable
MJK209935-150	Pressure Transmitter 2100, Range 0-30ft, 150ft Cable
MJK209940	Pressure Transmitter 2100, Range 0-100ft, 114ft Cable

Order Numbers Accessories

Order Numbers Accessories	
MJK200117	Rainroof/Sun Shield for 531, display and connection box
MJK200126	Field indicator 531, display insert, 4-20mA loop powered
MJK202918	Sacrificial Copper Ring for Expert™ 2100, 7050, 7060
MJK209821	1" NPT thread for Expert 2100, 3400
MJK202922	Transmitter connection box
MJK560914	Plastic Mounting Bracket for Expert™ Transmitter, cable Ø6-10mm
MJK691075-FT	Communication Cable 2x2x0.5mm ² (AWG24) shielded twistet pair

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