

ABB MEASUREMENT & ANALYTICS | DATA SHEET

2085

Conductivity cells



Measurement made easy

ABB conductivity cells – powerful technology, simple operation

Highly accurate cell constants

- measurements capability down to 0.055 $\mu\text{S}/\text{cm}$
- no in situ calibration required

Integral Pt100

- enables automatic temperature compensation

316 stainless steel

- corrosion-resistant wetted parts

Insertion and retractable versions

- Easy installation and operation

Stainless steel cells – model 2085

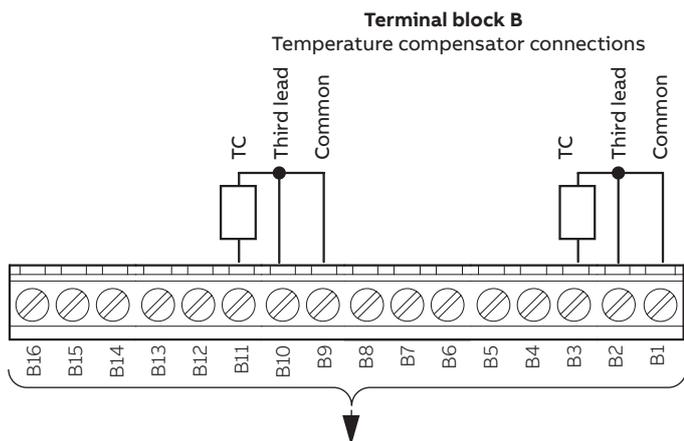
The 2085 conductivity cell is a retractable (withdrawable) cell designed for insertion in pipelines and vessels in most industrial applications. The retraction method enables installation without the need for costly bypasses and allows maintenance without process shutdown. The cells are constructed with stainless steel electrodes and are resistant to polarization, requiring virtually no maintenance. The design and method of construction has resulted in a world-class product with an enviable reputation for long life, quality and reliability.

These cells are suitable for a wide variety of applications such as :

- boiler feedwater
- steam condensate
- desalination plant
- semi-conductor
- distillation

Withdrawable cell (2085)	Specification	Ordering information
	<p>Cell constant available 0.05 or 0.1</p> <p>Type Withdrawable</p> <p>Cell body Naval brass and 316 stainless steel</p> <p>Electrode material 316 stainless steel</p> <p>Fixing detail Used with model 2089 valve assembly 1 1/2 in. BSP parallel or NPT</p> <p>Maximum pressure 10.5 bar (150 PSI)</p> <p>Maximum temperature 110 °C (230 °F)</p>	<p>Order under part number 2085-000</p> <p>Cell constant K = 0.05 3</p> <p>Cell constant K = 0.1 4</p> <p>1 m (3.3 ft) cable with plug and socket 0</p> <p>1 m (3.3 ft) cable without plug and socket 1</p> <p>Non temperature-compensated 0</p> <p>Temperature-compensated Pt100 5</p>

Electrical connections



Terminal block TB2		ABB sensor
Terminal	Function	2085
1	Drive	Red
2	Sense	None
3	Sense	None
4	Drive	Black
5	RTD / TC	Blue and green / yellow
6	RTD / TC	Brown
7	Shield (screen)	None
8	Not used	None

Connections of cells to TB8xTE conductivity transmitters

Terminal block B		Cell connections	Cable attached cells	Cable detached cells
Sensor A	Sensor B			
1	9	Temperature compensator common, link B1 to B2 and B9 to B10*	Green	Green / Yellow
2	10	Temperature compensator third lead	Link to B1 or B9	Blue
3	11	Temperature compensator	Yellow	Brown
4	12	Screen	No connection**	Two screens
5	13	Cell (cell electrodes)	Red	Red
6	14	Cell (earth electrodes)	Blue	Black
7	15	Not used	Not used	Not used
8	16	Not used	Not used	Not used

* When a 2-wire Pt100 temperature compensator is fitted

** If in an all plastic system which is isolated (not earthed) link to B6 or B14

Connections of cells to AX400 conductivity transmitters

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