



401F7x0F0Y0A

Conductivity cell, PSU/glass, 3 annular platinized platinum electrodes, for industrial applications

Conductivity cells for industrial applications, suitable for direct installation in pressurized pipelines and tanks. These cells can withstand temperatures up to 80°C and pressures up to 5 bar at room temperature. Mod.401F sensors are made of PSU and glass, with 3 annular platinized platinum electrodes and, thanks to their cell geometry, with a single cell constant (K = 1 cm) can cover with very good linearity the 0÷100000 µS measuring range, they can therefore cover a wide range of applications. All the cells include an integral temperature sensor for measurement thermo compensation and temperature indication.

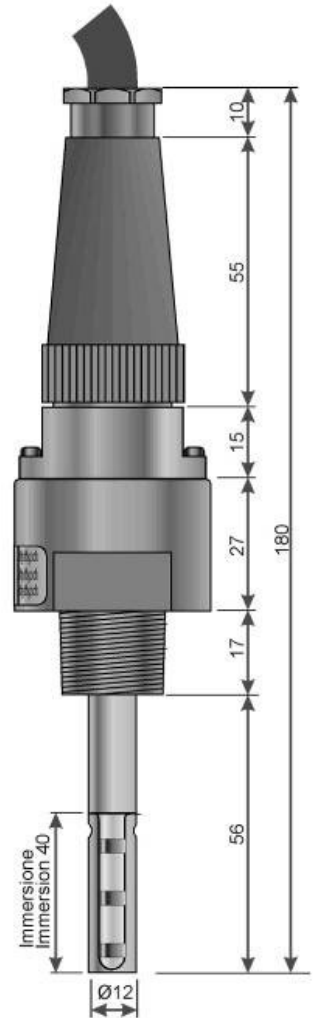
Typical applications of these cells are in water softening plants, osmosis plants, electric power plants, water treatment plants, food and beverage industry, pharmaceutical industry, chemical processes.

Advantages

- Compact execution, PSU and glass
- 3 annular platinized platinum electrodes
- Wide measuring range, high linearity
- Suitable for direct insertion into closed pipelines and tanks
- Threaded process connections, ½" NPT
- c/w integral temperature sensor, Pt100 or other upon request
- Operating temperature up to 80°C
- Operating pressure up to 5 bar
- Constant cell 1 cm, measuring range 0 to 100000 µS

Operating principle and realization

Mod.401F cells have PSU/glass body (dimensions Ø 40 x l.180 mm) and 3 annular platinized platinum electrodes. The cell has K = 1 cm cell constant that, thanks to the specific cell geometry, covers with high linearity the 0 to 100000 µS measuring range. These cells include temperature sensor, Pt100, Pt1000 or TC100 (other on request) for automatic thermo compensation of measure. Process connection is threaded, ½" NPT, and other connections are available upon request. The cells are designed to be directly inserted into pressurized pipelines or tanks and can withstand temperatures up to 80 °C and pressures up to 5 bar at room temperature. The cable is supplied c/w integral water tight connector. Series 401F cells are available with the options listed in the Order Code Breakdown.



Correspondence between measuring ranges and cell constants for Series 401F7x0F0Y0A cells

K = 1 cm.....0÷100000 µS

Installation, Maintenance and Calibration

The cells Series 401F should be installed so that the sample flow is directed against the cell bottom: in this way the liquid entering the cell can flow upwards and exit from the upper hole (this prevents any air bubble to get trapped into the cell). These cells should not be installed in locations with high turbulence. FS values, cell constant and set-point (min and max) of the instrument are factory calibrated. In any case all these values can be modified by the user, as stated in the user manual pertinent to conductivity transmitter. The cell K correction is the only calibration to be performed at start up. Insert the cell in a solution with known conductivity and calibrate the slope to obtain the correct reading (the instrument should read the calibration solution conductivity value) or, in the instruments provided with this option, insert the known value of the cell constant (it is indicated on the cell data tag). Conductivity cells Series 401F with platinum electrodes should be cleaned with water or with diluted acid or detergent, but never with mechanical cleaning, that could damage platinum electrodes.

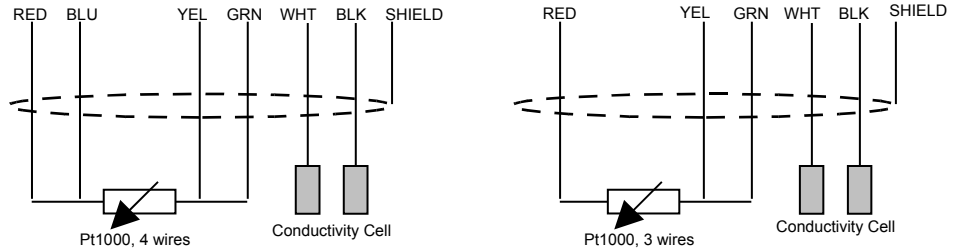
401F7x0F0Y0A

Technical Specifications

Materials:cell body: PSU/glass; measuring electrodes: 3 annular platinized platinum
 Cell constant and measuring range:.....K = 1 (cm) 0÷100000 µS
 Operating temperature limits:.....5÷80 °C
 Pressure limits:.....5 bar @ 20 °C
 Process connections:.....threaded, ½" NPT other upon request)
 Dimensions :Ø 40 mm, length. 180 mm
 Minimum immersion depth:.....40 mm, see drawing
 Cable:.....cells supplied c/w cable connector and separate cable, 7 cores, c/w water tight conn. cell side
the cable must be ordered separately

Accessories

Cable for the connection to the electronic unit, 7 wires, c/w connector on cell side.
Mod.CV/7025-xCN35-11
 where x = 3, 5, 10 (cable length in meters)



Optional accessories

Additional length cable for the connection to the electronic unit, to be used in conjunction with a junction box; 7 wires shielded cable.
Mod.CV/7025-SCH-x where x = cable length in meters.

Wiring

Known conductivity standard solution, 250 ml bottle.....T/401-A
 Specify desired conductivity value at order; typical values are: 1,278 mS, 11,67 mS e 102,09 mS, however solution with other conductivity values are available upon request.

Order code breakdown

Conductivity cells	401	x	x	x	x	x	x	x	x	x
Type of cell For pipeline, glass body 3 ann.el. 401/PIPE-L-K1-3A	F									
Cell constant k = 1 cm (3 annular electrodes, platinized platinum)	7									
Temperature sensing element Not included Pt100 sensor Pt1000 sensor TC100 sensor Special execution				A B C D Z						
Cell construction material PSU/glass body, 3 annular platinized platinum electrodes					0					
Process connections Threaded ½" NPT M Special execution						F Z				
Fixed code							0			
Cable and connector Cable c/w multipolar sealed connector to be separately ordered (CV/7025...-CN35-11)								Y		
Fixed code									0	
Fixed Code										A