



# GAS & SPECIALTY SENSORS

## CONDUCTIVITY TRANSMITTER 50000 CONDUCTIVITY SERIES

### DESCRIPTION

The **Burkert transmitter 50000 series** is a compact transmitter designed for measuring the conductivity of fluids. The transmitter consists of a sensor, enclosure with cover, and an optional and removeable display. The sensor comprises a cell with two electrodes and a platinum 1000 ohm temperature probe. The sensor itself is available with three different cell constants; C = 0.01, 0.1, and 1.0. The C = 1.0 constant uses graphit electrolyde, while the other two incorporate stainless steel. The conductivity transmitter can operate independant of the display but the display is required for programming the transmitter. The 50000 Series is available with three fully programmable outputs (two transistor and one 4-20 mA analog output).

The 50000 "Neutrino" Series, a less featured conductivity transmitter, has only one 4-20 mA analog output and is not available with LCD display.

NEW!



559638



559168

**bürkert**  
Fluid Control Systems



560693

### FEATURES

- **Programmable outputs: two transistor and single or dual analog 4-20 mA**
- **Removable backlighted display**
- **Universal process connection**
- **Three cell constants for covering a wide measuring range C = 0.01, 0.1 and 1.0 standard**
- **Diagnostic functions**
- **Additional material construction: PVC or PVDF**

Installation: The **50000 Series** conductivity transmitters is installed into the 560693 1" NPT PVC tee by screwing the external thread connection on the 559638 probe to the SO22 mating connection on the tee. For mounting on a tank or pipe, then use 561228, which has the SO22 connection for the probe and 1 1/4" male thread for connection to pipe or tank. For welding to tank or pipe, then use 561232, which has SO22 connection for the probe and a 1 3/16" male to slide in hole in pipe or tank.

### SPECIFICATIONS

<b>Supply Voltage</b>	14-36 VDC reversed polarity protection	<b>Wiring Terminations</b>	constant C=0.01 or C=0.1 or graphite for cell constant C=1.0
<b>Supply Current</b>	With Sensor: ≤ 1 A (with transistor loads) analog output: ≤ 25 mA (at 14 VDC without transistor loads, with current loop)	<b>Fluid Pressure Limit</b>	0 to 87 PSI (0 to 6 bar)
<b>Signal Output Standard</b>	Switch: Transistor Current: 4-20 mA	<b>Maximum Pressure</b>	58 psi (4 bar)
<b>Neutrino</b>	Current: 4-20 mA	<b>Media Temperature Range</b>	PVC nut connection: 32° to 122°F (0° to +50°C)
<b>Maximum Output Impedance</b>	610 Ω at 24 V DC	<b>Operating Humidity</b>	≤ 85%, without condensation
<b>Accuracy</b>	Conductivity: ± 3% of measured value Temperature ±1.8°F (1°C)	<b>Operating Temperature</b>	Transmitter: 14° to 140°F (-10° to +60°C); Probe 32° to 140°F (0° to +60°C)
<b>Resolution</b>	1 nS/cm	<b>Enclosure Rating</b>	Standard: IP65 and IP67 with M12 cable plug mounted and cover tightened Neutrino: also includes NEMA 4X and NEMA 6P
<b>Measurement Range</b>	Conductivity: 0.05 μS/cm to 10 mS/cm Temperature: -40° to 266°F (-40° to +130°C)	<b>Dimensions Standard</b>	9.6"H x 2.6"W x 3.8" D (24.4 x 6.5 x 9.7 cm)
<b>Display</b>	Grey dot matrix 128x64 with backlighting	<b>Neutrino</b>	7.4"H x 2.4"W x 3.4"D (18.7 x 6.0 x 8.8 cm)
<b>Response Time</b>	150 ms (10 to 90%)	<b>Approvals</b>	UL File E237737, CSA
<b>Materials Of Construction</b>	Housing / cover: Stainless steel 1.4561, PPS / PC Seals / Screws EPDM / Stainless steel Fixed connector mounting plate: Stainless steel Fixed connector: Brass nickel plated Display / navigation key: PC / PBT Nut: PVC or PVDF Wetted part materials Conductivity sensor: PVDF, stainless steel 1.4571 (316Ti) Electrode: Stainless steel 1.4571 (316Ti) for cell	<b>Weight Standard</b>	0.88 lb (0.4 kg) complete unit
		<b>Neutrino</b>	0.52 lb (0.24 kg) complete unit
		<b>Warranty</b>	1 year

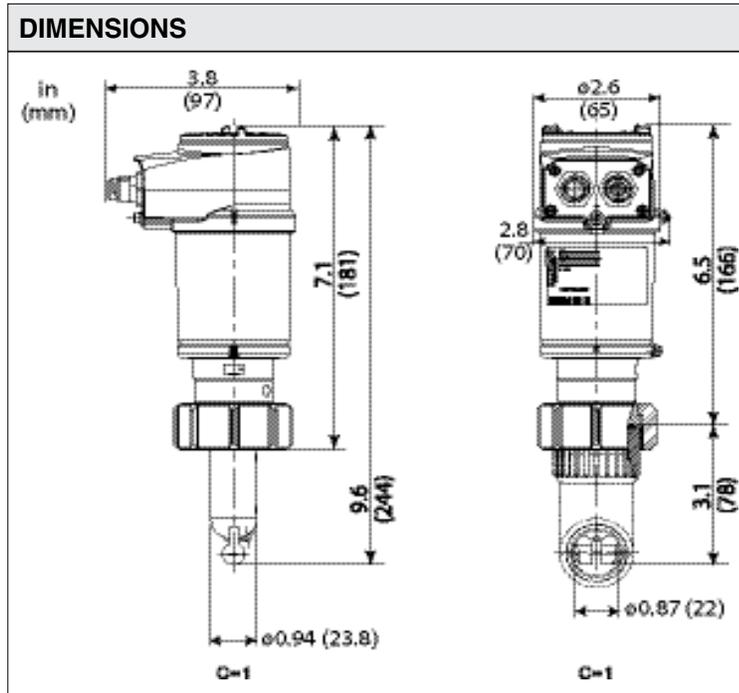
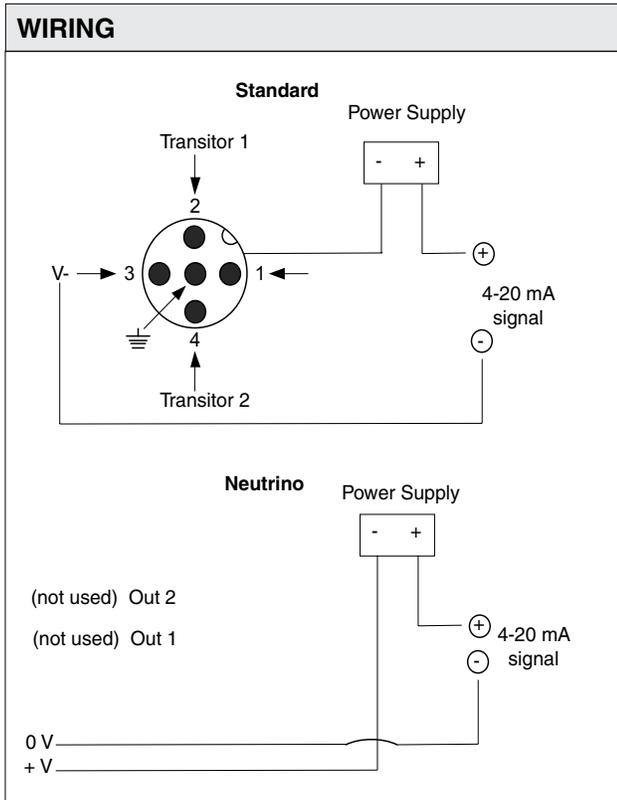
7

GAS & SPECIALTY SENSORS

NEW!



## CONDUCTIVITY TRANSMITTER 5000 CONDUCTIVITY SERIES



7 GAS & SPECIALTY SENSORS

### ORDERING INFORMATION

Parts needed for unit with display and single 4-20 mA and two transistors	
559168	Display programming module
559638	Standard transmitter constant C=1.0
560693	1 in NPT mounting adapter tee
917116	Electrical plug
Parts needed for unit without display and single 4-20 mA	
562549	Neutrino transmitter constant C=1.0
560693	1 in NPT mounting adapter tee
917116	Electrical plug

RELATED PRODUCTS	
561228	SO22 threaded adapter for use with threaded tank or pipe, 1 1/4" MNPT, PVC
561232	SO22 welded adapter for use directly on a pipe, Stainless steel/1 3/16 (33.4mm)

ACCESSORIES		PAGE
440015	Buffer solution, 500 ml, 5 $\mu$ S	
440016	Buffer solution, 500 ml, 15 $\mu$ S	
440017	Buffer solution, 500 ml, 100 $\mu$ S	
440018	Buffer solution, 500 ml, 706 $\mu$ S	
440019	Buffer solution, 500 ml, 1413 $\mu$ S	
DCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT	995
DCPA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT	994