



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 electrolyte, while the other two incorporate stainless steel. The conductivity transmitter can operate independent 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

CE US

CE



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

Supply Voltage	14-36 VDC reversed polarity protection	Wiring Terminations	constant $C=0.01$ or $C=0.1$ or graphite for cell constant $C=1.0$
Supply Current	With Sensor: ≤ 1 A (with transistor loads) analog output: ≤ 25 mA (at 14 VDC without transistor loads, with current loop)	Fluid Pressure Limit	Single analog output: 1x 5-pin M12 male fixed connector
Signal Output Standard	Switch: Transistor Current: 4-20 mA	Maximum Pressure	0 to 87 PSI (0 to 6 bar)
Neutrino	Current: 4-20 mA	Media Temperature Range	58 psi (4 bar)
Maximum Output Impedance	mA 610 Ω at 24 V DC	Operating Humidity	PVC nut connection: 32° to 122°F (0° to +50°C)
Accuracy	Conductivity: $\pm 3\%$ of measured value Temperature $\pm 1.8^\circ\text{F}$ (1°C)	Operating Temperature	$\leq 85\%$, without condensation
Resolution	1 nS/cm	Enclosure Rating	Transmitter: 14° to 140°F (-10° to +60°C); Probe 32° to 140°F (0° to +60°C)
Measurement Range	Conductivity: 0.05 $\mu\text{S/cm}$ to 10 mS/cm Temperature: -40° to 266°F (-40° to +130°C)	Dimensions Standard	Standard: IP65 and IP67 with M12 cable plug mounted and cover tightened
Display	Grey dot matrix 128x64 with backlighting	Neutrino	Neutrino: also includes NEMA 4X and NEMA 6P
Response Time	150 ms (10 to 90%)	Approvals	
Materials Of Construction	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	Weight	9.6"H x 2.6"W x 3.8" D (24.4 x 6.5 x 9.7 cm)
		Standard	7.4"H x 2.4"W x 3.4"D (18.7 x 6.0 x 8.8 cm)
		Neutrino	UL File E237737, CSA
		Approvals	
		Weight	0.88 lb (0.4 kg) complete unit
		Standard	0.52 lb (0.24 kg) complete unit
		Neutrino	1 year
		Warranty	

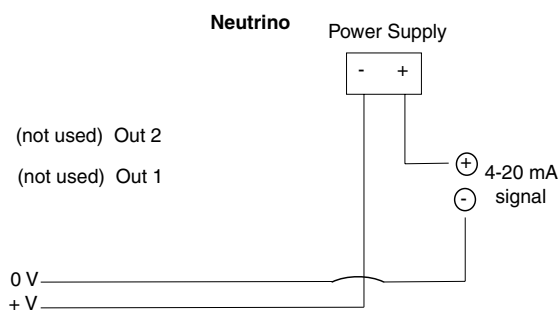
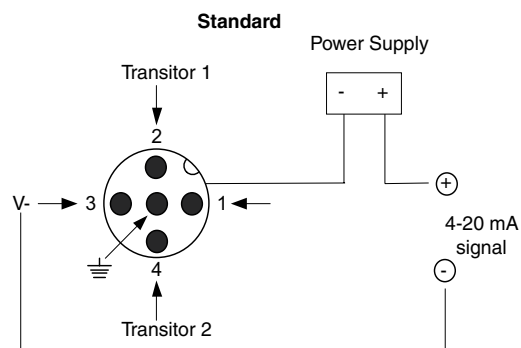
7

GAS & SPECIALTY SENSORS

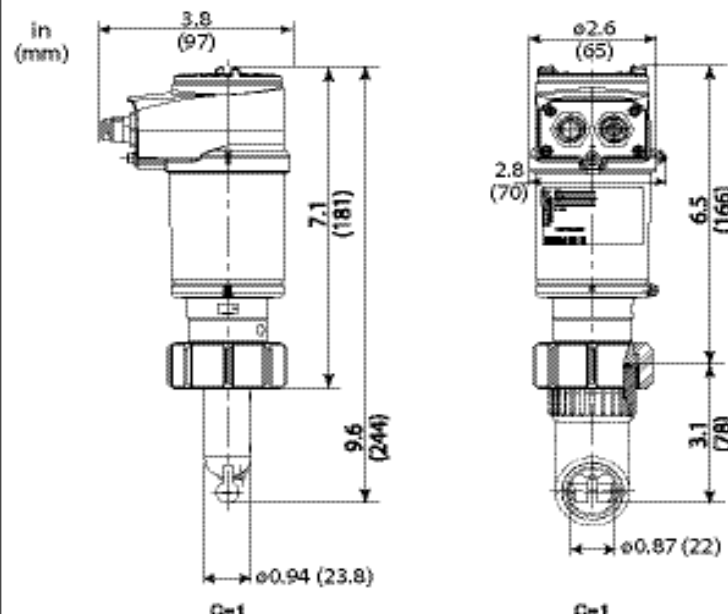
NEW!



WIRING



DIMENSIONS



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

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

PAGE

995
994