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DO-100.49E

CONDUCTIVITY TRANSMITTERS

DO 9786T AND DO 9766T TRANSMITTERS

DO 9786T/DO 9766T transmitters convert the output of a conductivity electrode into a signal, with temperature compensation, at 4÷20 mA.

The electrode input circuit is galvanically insulated against the 4÷20 mA output signal.

An LCD indicator allows viewing of the process signal value and of the various parameters.

The accurate design and choice of components make the instrument precise and reliable for a long working life.

The instrument works in conjunction with a conductivity electrode and a temperature probe (Pt100 sensor, 100 Ω at 0°C).



ORDER CODES

DO 9786T: Conductivity transmitter 4÷20 mA passive or active, power supply 24 Vac with double display 96x96 mm, for panel mounting...

DO 9766T: Conductivity transmitter 4÷20 mA passive or active, power supply 24Vac with double display 122x120 mm, for wallmounting.

ELECTRODES

MODEL	CELL CONSTANT	COND. RANGE	TEMP. RANGE	MATERIAL	ELECTRODES	TEMPERATURE SENSOR	CONNECTION
SPTKI 86	K = 0,7	5µs...20mS	0...90 °C	Pocan	4 de Platinum	Pt 100 2 wires	Cable 1,5 m
SPTKI 10	K = 1	100µs...200mS	0...100 °C	Glass	2 de Platinum	-	S7/PG13
SPTKI 11	K = 1	100µs...10mS	0...50 °C	Ryton	2 de Platinum	Pt 100 4 wires	Cable 5 m
SPTKI 12	K = 0,1	1µs...1mS	0...50 °C	Ryton	2 de Platinum	Pt 100 4 wires	Cable 5 m
SPTKI 13	K = 10	10µs...200mS	0...50 °C	Ryton	2 de Platinum	Pt 100 4 wires	Cable 5 m

Maximum working pressure 6 bar

CP5 Extension cable for connecting the **SPTKI10** electrode to the transmitter. Length. = 5 m
CP510 Extension cable for connecting the **SPTKI10** electrode to the transmitter. Length. = 10 m

HD 8711 Calibration solution, 1mol/l corresponding to 111800 µS/cm @ 25 °C.
HD 8712 Calibration solution 0.1 mol/l corresponding to 12,880 µS/cm at 25°C.
HD 8714 Calibration solution, 0,01 mol/l corresponding to 1413 µS/cm a 25°C
HD 8747 Calibration solution, 0,001 mol/l corresponding to 147 µS/cm @ 25 °C.

Pt 100 temperature probe

HD 882 M100/300: Temperature probe with Pt100 sensor, miniature head, shaft Ø6x300 mm. mm.

TECHNICAL CHARACTERISTICS

Input conductivity	Measuring range	0,0...199,9 mS
	2/4 electrodes	Configurable cell constant 0,01...199,9 cm ⁻¹
	Transducer energizing	Square wave 10...1000 mV, depending on conductivity, 200...1600 Hz, depending on conductivity
	Input impedance	>100 Mohm
	Cable length	<10 metres unscreened <50 metres screened (about 2 nF)
	Accuracy	0.5% of reading ± 2 digits $\pm 0.01\%$ per °C of drift in temperature
Input temperature	Pt100 2/4 wires	-50...199,9°C
	Transducer energizing	0,5 mA DC
	Cable length	<10 metres unscreened <50 metres screened (about 2 nF)
	Accuracy	0,2°C $\pm 0,1\%$ of reading $\pm 0,01^\circ\text{C}/^\circ\text{C}$ of drift in temperature
Compensation temperature	None	
	manual	Linear 0,00...4,00%/°C -50...+200°C
	automatic	Linear 0,00...4,00%/°C -50...+200°C
	Reference temperature	20 o 25°C configurable
Courrent input	4,00...20,00 mA	Programmable and proportional to conductivity
	Accuracy	0,5% of reading $\pm 0,02$ mA
	Insulation	2500 Vac 1 minute
Relay input	A and B	Bistable, contact 3A/230 Vac free potential
Power supply	Passive	4 $\pm$ 20 mA, 2 wire configuration, 10 $\pm$ 35 V, see fig. 2
	Active	24/230 Vac - 15/+10% 1 VA, 48...62 Hz, see fig. 1
DO 9766T Model		
	External dimensions	120x122x56 mm (Wall mounting)
	Protection class	IP64
DO 9786T Model		
	External dimensions	96x96x126 mm (Panel mounting)
	Protection class	IP44

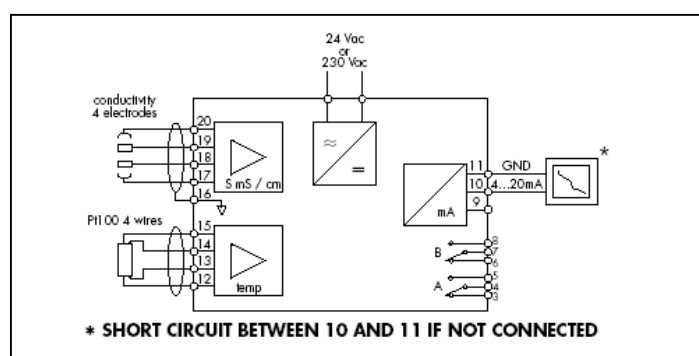


Fig. 1

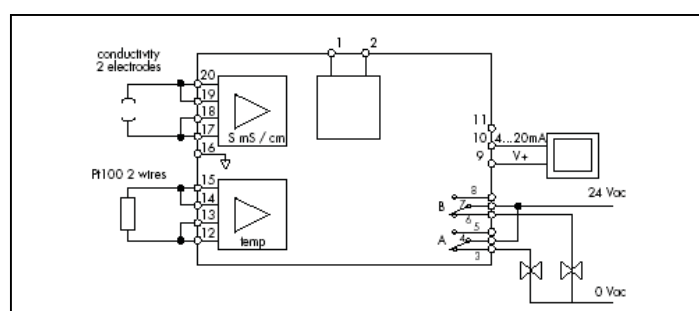
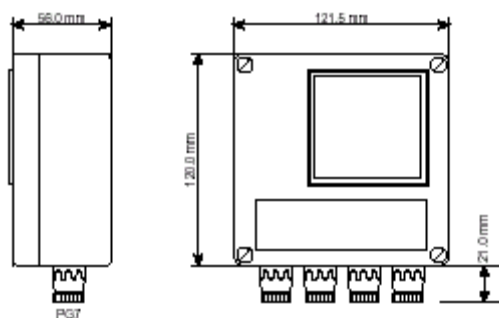
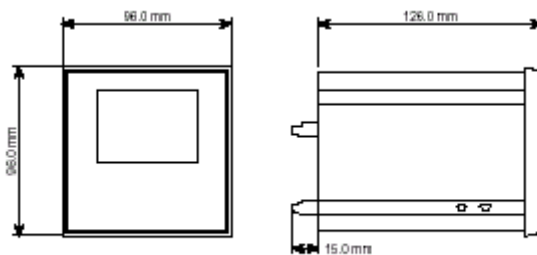


Fig. 2

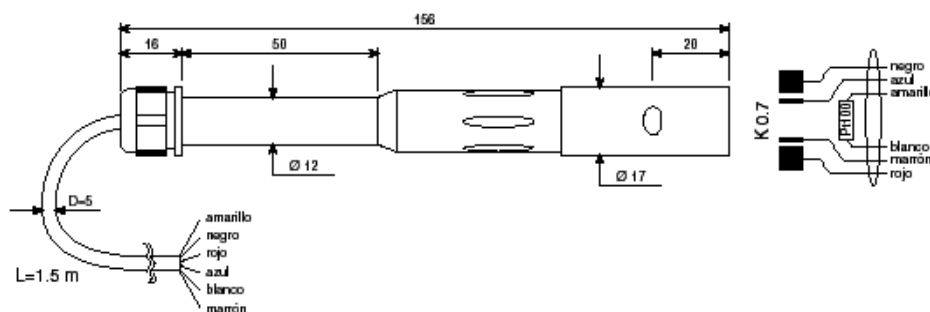


DO 9766T



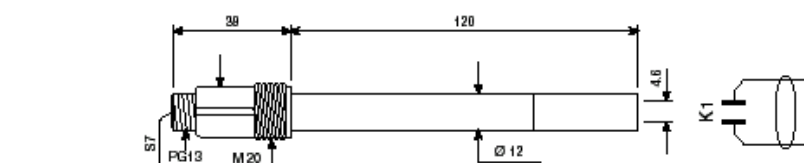
DO 9786T

INDUSTRIAL ELECTRODE CONDUCTIVITY



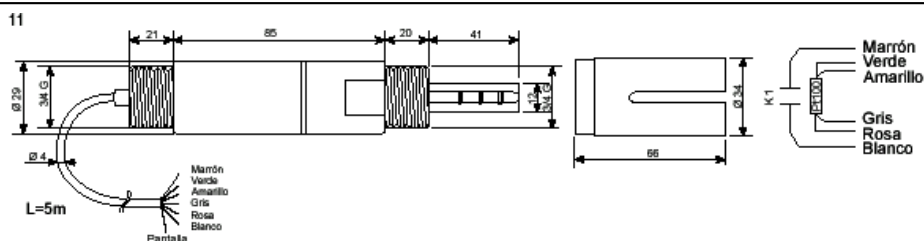
SPT 86

Combined industrial conductivity and temperature probe in POCAN with 4 platinum electrodes, cell constant $K = 0.7$, 1.5 meters cable, Pt100 with 2 wires. Temperature $0+90^{\circ}\text{C}$. Measuring range $5\mu\text{S}+20\text{mS}$



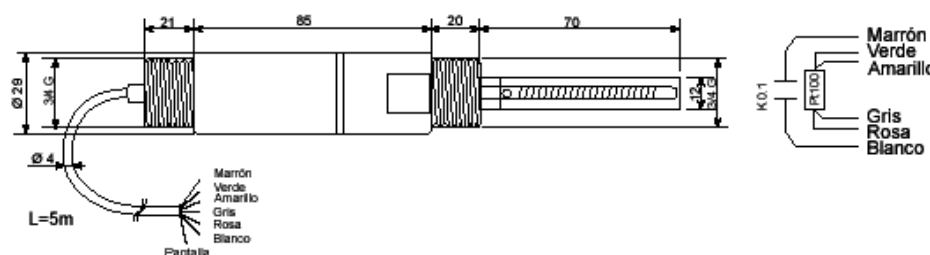
SPTKI 10:

Combined industrial conductivity probe in Glass with 2 black oxidized platinum electrodes, cell constant $K = 1$, S7/PG13 screw-joint, 2 wires output: eurostandard S7. Temperature $0+100^{\circ}\text{C}$. Measuring range $100\mu\text{S}+200\text{mS}$



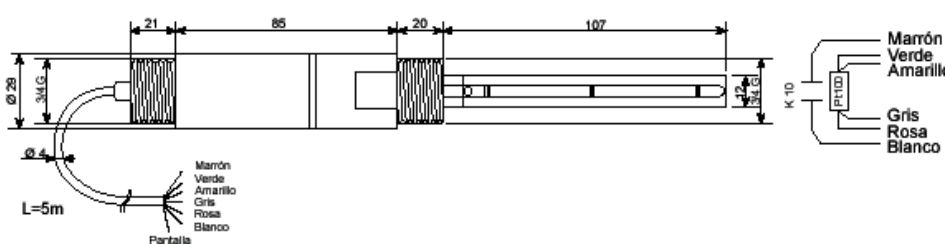
SPTKI 11

Combined industrial conductivity and temperature probe in Rytron with 2 graphite electrodes, cell constant $K = 1$, 5 meters cable, Pt100 with four wires. Temperature $0+50^{\circ}\text{C}$. Measuring range $100\mu\text{S}+10\text{mS}$



SPTKI 12

Combined industrial conductivity and temperature probe in Rytron with 2 platinum electrodes, cell constant $K = 0.1$, 5 meters cable, Pt100 with four wires. Temperature $0+50^{\circ}\text{C}$. Measuring range $1\mu\text{S}+1\text{mS}$



SPTKI 13

Combined industrial conductivity and temperature probe in Rytron with 2 platinum electrodes, cell constant $K = 10$, 5 meters cable, Pt100 with four wires. Temperature $0+50^{\circ}\text{C}$. Measuring range $10\mu\text{S}+200\text{mS}$