

DCH

Programmable Transducer for High DC Current and DC Voltage

Programmable universal transducer for fast and high accuracy measurements of high DC voltage and DC current with shunt.

Advanced filter functions and characteristic setting points that can be individually set for both, analog and relays outputs. Auxiliary supply with wide input voltage range and free configuration software, ConfigLQT.



Technical Data		Details
Input		
	Voltage	±300 VDC
	Current Shunt	±300 mV
Auxiliary supply	Range	24 – 230 VDC ±10 % 90 – 230 VAC ±10 % 50/60Hz
	Burden	max 3.5 W / 7.5 VA
Output	Analog Outputs	2
	Programmable Range	±20 mA ±5 mA ±10 V (Settings within the range)
	Resolution	16 bits
	External Resistance Load	Current output: ±20 mA ≤ 500 Ω (10 V) ±5 mA ≤ 2000 Ω (10 V) Voltage output: ±10 V ≥ 500 Ω
	Response Time	< 50 msec
	Ripple	≤ 0.2 %
	Relay Outputs	2 (Mechanical) 8 A 250 VAC (NO) 8 A 30 VDC – 300 mA 300 VDC (NO)
General Data		
	Galvanic Isolation	Supply, input, and output are galvanically isolated
	Connection Terminals/Torque	Input, Output & Auxiliary: 2.5 mm ² / 0.5 Nm
	Humidity	95% non-condensing
	USB	USB Micro-B, port for configuration
	Temperature	-10...+55 °C (operation) -40...+70 °C (storage) Temperature coefficient < 0.1 % / 10 °C
	Test Voltage	4 kVAC / 1 min
	Measurement Category	Cat. III
	Overvoltage Category	Cat. III
	Pollution Degree	2
	Dimension (W x H x D)	35 x 132 x 101 mm
	Weight	330 gr
	Protection	Enclosure IP40 Terminals IP20
	Flammability Class	UL94 V-0
	Standards	SS-EN 60688:2021 Transducers EN 61000-6-2 / -6-4 / -6-5 SS-EN 61010-1 Safety SS-EN 61010-2-030

Input	Filter	Characteristic	Output
Power	Use filter	Use Map	Analog Output #1
Voltage	Use filter	Use Map	Analog Output #2
Current	Use filter	Use Map	Binary Output #1
Power	Use filter	Use Map	Binary Output #2

Input:
Power
Range:
-250 V – 250 V | -150 mV – 150 mV
Output:
0

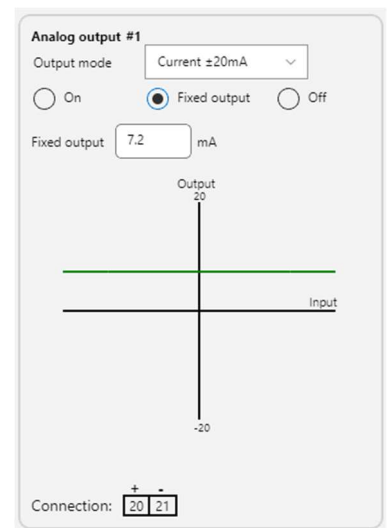
Filter #1
Filter type: AVG
Filter size: 4
Output: 0
Filter Info

Map #1

Input value	Output value
0	0
100	20

Rows: 2
Show graph
Low end setting: Continue with same slope
High end setting: Continue with same slope
Output: 0

Analog output #1
Output mode: Current ±20mA
On Fixed output Off
Fixed output: 7.2 mA
Input value: 0 4 20 20
Output value: 4 20
Rows: 2
Show graph
Low end setting: Continue with same slope
High end setting: Continue with same slope
Measured value: 0
Output value: 0 mA
Connection: 20 21

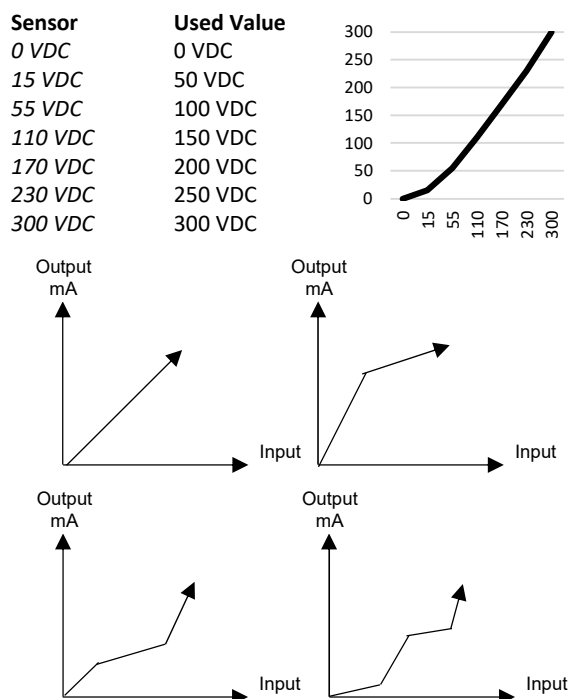


Configuration Software - ConfigLQT

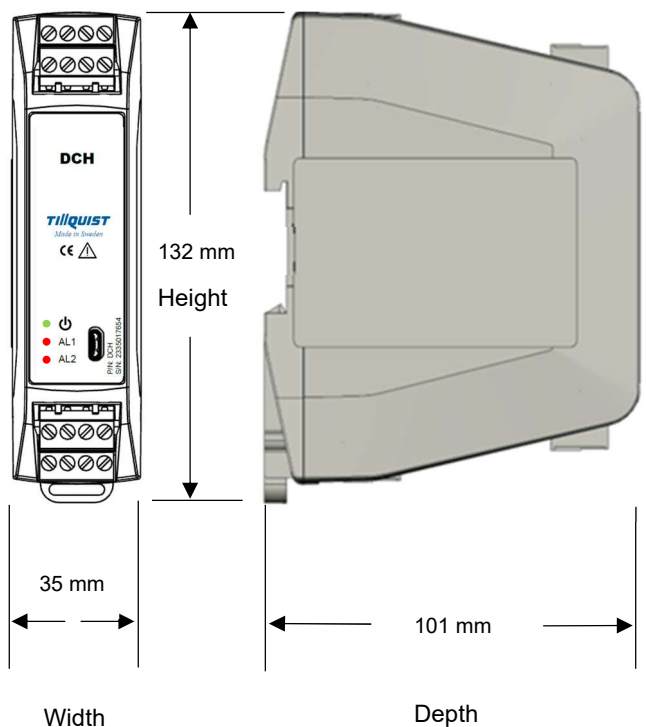
ConfigLQT, free configuration software, downloadable from our webpage, www.tillquist.com, configures all Tillquist's programmable transducers. The software connects to live transducers, changes the configuration, and visualizes live readings.

Programmable Characteristic Setting Points

Transmission Functions (up to 20 setting points)

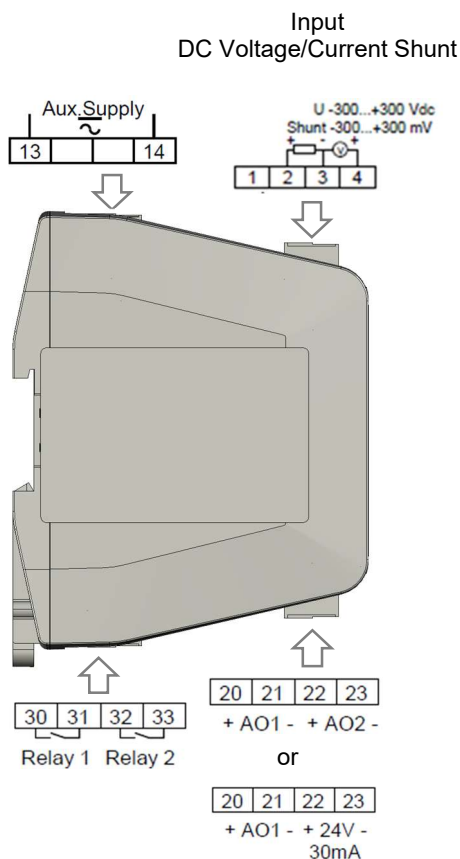


Dimensions



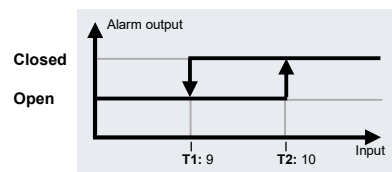
Connections

DCH

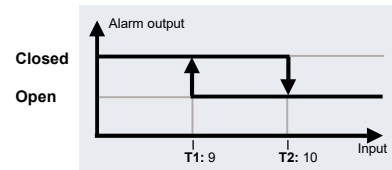


Relay Outputs

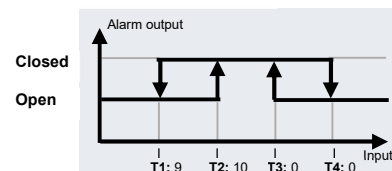
Closed above level



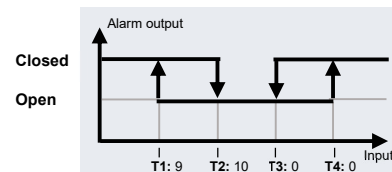
Closed below level



Closed between levels



Closed outside levels



Ordering Codes

DCH Ordering Codes

	DCH-0	2	2	XXX
Number of Analog Outputs	2	2		
Number of Relay Outputs	2	2		
Other Requirements				
Standard Configuration				000
Customer configuration (to provide ERF)				001

Ordering Codes Example

DCH-022000: DCH transducer with 2 analog and 2 relay outputs