

CTX-CTL

Industrial pressure transmitter for OEM applications

Main features

- OEM applications
- Excellent price/performance ratio
- Compact and light-weight
- Stainless Steel or brass construction



Applications

- **Process technic**
 - Hydraulic
- **Pneumatic**
 - Refrigeration
 - Water treatment
- **Car industry**
 - Test benches
 - Safety
 - Aerospace
 - Railways
 - Shipbuilding
 - Heavy vehicle
- Health care
- Biotechnology
- Food
- Beverage
- Pharmaceutical
- Petro-chemical
- Chemical
- **HVAC**
- **Energy**
- **Medical gas**
- **Agriculture vehicles**
- **Pumps and compressors**

Main characteristics (20 °C)

Measurement range	-1 ... 0 bar to 0 ... 200 bar, gauge pressure
Output signal	0 ... 10 Vdc 4 ... 20 mA 1 ... 5 Vdc 0.5 ... 4.5 Vdc under 5 Vdc
Accuracy (linearity, hysteresis and repeatability)	± 1% F.S.

Ordering details - CTX/CTL

CT x 3 B 3 B22 x

Model type					
Brass version			L		
Stainless steel version only			X		
Output signal					
4 ... 20 mA				3	
0 ... 10 Vdc				2	
1 ... 5 Vdc				4	
0.5 ... 4.5 Vdc		Ratiometric		7	
Process connection					
G 1/4 DIN 3852	Stainless steel version only (CTX)			B	
G 1/4 EN 837				2	
G 1/2 EN 837	Stainless steel version only (CTX)			3	
1/4 NPT				5	
1/2 NPT				6	
O'Ring					
NBR				3	
CR				4	
EPDM				5	
FKM (Viton®)				9	
Pressure range and unit in Bar					
-1 ... 0 ⁽¹⁾					B59
-1 ... 0.6					B72
-1 ... 1.5					B74
-1 ... 3					B76
-1 ... 5					B77
-1 ... 9					B79
-1 ... 15					B81
-1 ... 24					B82
-1 ... 39					B1L
0 ... 1					B15
0 ... 2.5					B18
0 ... 4					B19
0 ... 6					B20
0 ... 10					B22
0 ... 16					B24
0 ... 25					B26
0 ... 40					B27
0 ... 60		Stainless steel version only (CTX)			B29
0 ... 100		Stainless steel version only (CTX)			B31
0 ... 160		Stainless steel version only (CTX)			B33
0 ... 200		Stainless steel version only (CTX)			B34
Output connection					
DIN 43650, 4 pins		Stainless steel version only (CTX)			0
Pig tail outlet, 1 meter length					1
Pig tail outlet, 2 meter length					2
Pig tail outlet, 5 meter length					5
M12, 4 pins		Stainless steel version only (CTX)			A

(1) FS -1 ... 0 bar 4 ... 20 mA : 0 bar = 4 mA -1 bar = 20 mA
 0 ... 10 VDC : 0 bar = 0 VDC -1 bar = 10 VDC
 1 ... 5 VDC : 0 bar = 1 VDC -1 bar = 5 VDC
 0.5 ... 4.5 VDC : 0 bar = 0.5 VDC -1 bar = 4.5 VDC

Model / type CTX/CTL

Technical specification

Measuring principle	Thick film on ceramic
Measuring ranges	-1 ... 0 to 0 ... 200 bar
Type of pressure	Relative
Accuracy (20 °C)	± 1% FS (linearity, hysteresis, repeatability)
Annual stability	≤ 0.3% FS / year
Response time	≤ 3 ms typical (10 ... 90%)
Process connections	G1/4", G1/4 DIN 3852-E* G1/2* 1/4 NPT, 1/2 NPT*, * Not available in brass version, Other connections on request

Electrical specification

Output signal / Power Supply	4 ... 20 mA / 11 ... 30 VDC 0 ... 10 V / 15 ... 30 VDC 1 ... 5 V / 11 ... 30 VDC 0.5 ... 4.5 V / 5 VDC ratiometric
Load impedance	
Current output	$R_{\Omega} = (U_{\text{supply}} - 11) \times 0.02$
Voltage output	> 10 K_{Ω}
Insulation resistance	> 100 M Ω at 250 VDC
Electrical connections	DIN 43650 Cable outlet 1 m, 2 m, 5 m M12x1 - 4.pins Other electric connections on request

Environment

Temperature	
Compensated range	-10 ... +55 °C
Storage	-40 ... +85 °C
Media	-25 ... +100 °C
Ambient	-25 ... +85 °C
Zero thermal drift	± 0.025% FS / °C
Span thermal drift	± 0.015% FS / °C
Protection rating	IP65 (EN 60529) up to IP67 depending on connection
Vibration IEC60068-2-6	1.5 mm (10 – 55 Hz), 20 g (55 Hz – 2 KHz)
Shock IEC60068-2-27	50 g/11 ms 100 g/6 ms 3 x Imp. /Axis and direction
Bump IEC60068-2-29	100 g/2 ms 4000 x Imp./Axis and direction
Random IEC60068-2-64	0.1 g ² /Hz (10g RHS)

Material

Process Connection	Brass (CTL) Stainless steel AISI 316L (1.4404)
Sensor	Ceramic
Seal	NBR gasket standard, EPDM, FKM(viton®), CR
Housing	Brass (CTL) Stainless steel AISI 304 (1.4301)

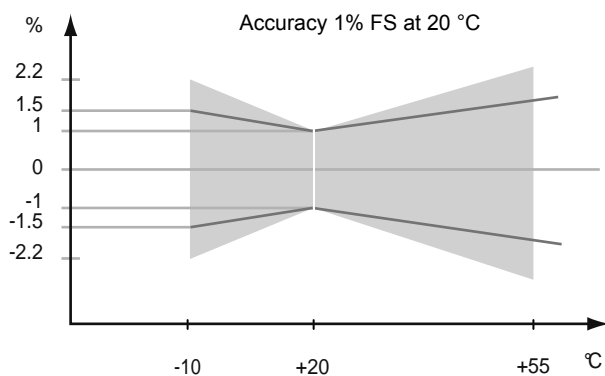
Approvals

CE conformity	Directive 2004/108/CE in accordance with EN 61000-6-2, EN 61000-6-3, EN 61326-1 (Tab.2) Pressure directive 97/23/CE
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Measuring Ranges

Pressure range	Pressure in bar											
	-1 ... 0 0 ... 1	-1 ... 1.5 0 ... 2.5	-1 ... 3 0 ... 4	-1 ... 5 0 ... 6	-1 ... 9 0 ... 10	-1 ... 15 0 ... 16	-1 ... 24 0 ... 25	-1 ... 39 0 ... 40	0 ... 60	0 ... 100	0 ... 160	0 ... 200
Overpressure	2	4	8	12	20	32	50	80	120	200	320	360
Burst pressure	3	7	12	18	30	48	75	120	180	300	480	480

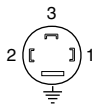
Total error band



Model / type CTX-CTL

Electrical connections

DIN 43650 connector




Current	1	+ supply
	2	- supply
	3	ground
Voltage	1	+ supply
	2	- sup. / - meas.
	3	+ measurement
	⏏	ground

pig tail cable outlet
(Ø 4, wires AWG26)

Current	red	+ supply
	black	- supply
	red	+ supply
Voltage	black	- sup. / - meas.
	white	+ measurement

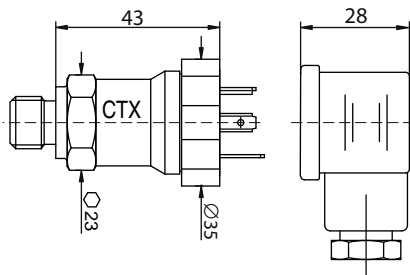
M12 - 4 contacts plug



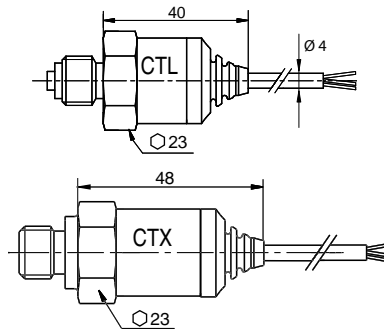
Current	1	+ supply
	2	
	3	- supply
	4	ground
Voltage	1	+ supply
	2	+ mesure
	3	- sup. / - meas.
	4	ground

Dimensions (mm), Connections

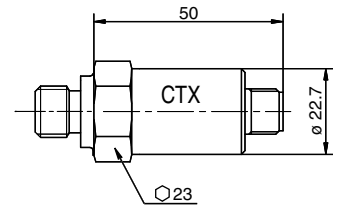
DIN 43650 connector



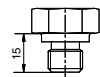
pig tail cable outlet



M12 - 4 contacts plug



Process connections



G 1/4 DIN 3852-E



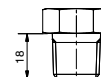
G 1/4 EN837



G 1/2 EN837



1/4 NPT



1/2 NPT