

OEM Pressure Transmitters

Type C-10

Applications

Hydraulics and pneumatics
 Mechanical engineering
 General industrial applications

Special Features

Standard ranges from 0...100 inWC to 0...15,000 psi
 Excellent shock and vibration resistance
 Environmental protection to NEMA 4 / IP 67
 Stainless steel case and wetted parts



Left: C-10 with MiniDIN connector
 Right: C-10 with optional cable

Description

WIKAI C-10 provides performance and economy for a wide range of OEM applications. They are especially suited to applications subject to severe mechanical shock, vibration, and electromagnetic interference. Typical applications include hydraulics and pneumatics, compressor controls, pump protection, refrigeration and air conditioning systems.

Dependable performance

The C-10 features an all-welded stainless steel measuring cell for improved media compatibility. There are no internal soft sealing materials that may react with the media or deteriorate over time. The case is also made of stainless steel and is available with environmental protection ratings up to NEMA 4 / IP 67.

Pressure ranges up to 300psi use a piezoresistive measuring cell. The higher pressure ranges use thin film sensor technology. Both are time proven highly reliable sensor technologies.

A standard signal output of 4-20 mA allows the C-10 to be integrated into many existing applications. Many custom signal outputs, process connections, and electrical connections are available.

Each C-10 undergoes extensive quality control testing and calibration to achieve an accuracy of $\leq 0.50\%$ full scale. The printed circuit boards use state-of-the-art surface mount technology. Each is individually temperature compensated to assure accuracy and long-term stability even when exposed to severe ambient temperature variations.

[Datasheet: C-10](#)

Specifications Model C-10

Pressure range	100inWC	5psi	10psi	15psi	25psi	30psi	50psi	100psi	200psi
Maximum pressure*	29psi	29psi	58psi	72psi	145psi	145psi	240psi	500psi	1160psi
Burst pressure**	34psi	34psi	69psi	87psi	170psi	170psi	290psi	600psi	1390psi
Pressure range	300psi	500psi	1000psi	2000psi	3000psi	5000psi	7500psi	10,000psi	15,000psi
Maximum pressure*	1160psi	1160psi	1740psi	4600psi	7200psi	11,600psi	17,400psi	17,400psi	21,750psi
Burst pressure**	1390psi	5800psi	7970psi	14,500psi	17,400psi	24,650psi	34,800psi	34,800psi	43,500psi

(absolute pressure references are available)

*Pressure applied up to the maximum rating will cause no permanent change in specifications but may lead to zero and span shifts

**Exceeding the burst pressure may result in destruction of the transmitter and possible loss of media

Materials			
■ Wetted parts			Stainless steel
■ Case			Stainless steel
Internal transmission fluid			Synthetic oil, only for pressure ranges up to 0 ... 300 psi {Halocarbon oil for oxygen applications} ¹⁾
Supply Voltage U _B	DC V		10 < U _B ≤ 30 (14 ... 30 with signal output 0 ... 10 V)
Response time (10 ... 90 %)	ms		≤ 1 (≤ 10 ms at medium temperatures below -22°F (-30°C) for pressure ranges up to 300 psi)
Accuracy ²⁾	% of span	≤ 1.0	(limit point calibration)
	% of span	≤ 0.5	(BFSL)
Hysteresis	% of span	≤ 0.1	
Non-repeatability	% of span	≤ 0.05	
1-year stability	% of span	≤ 0.2	(at reference conditions)
Permissible temperature of			
■ Medium		-22 ... +212 °F { -40 ... +257 °F }	-30 ... +100 °C { -40 ... +125 °C }
■ Ambient		-22 ... +185 °F	-30 ... +85 °C
■ Storage		-40 ... +212 °F	-40 ... +100 °C
Compensated temperature range		0 ... +176 °F	0 ... +80 °C
Temperature coefficients in compensated temp range			
■ Mean TC of zero	% of span	≤ 0.3 / 10 K	
■ Mean TC of range	% of span	≤ 0.2 / 10 K	
-conformity			89/336/EWG interference emission and immunity see EN 61326 97/23/EG Pressure equipment directive
Shock resistance	g	1000 according to IEC 60068-2-27	(mechanical shock)
Vibration resistance	g	20 according to IEC 60068-2-6	(vibration under resonance)
Wiring protection			Protected against reverse polarity, overvoltage and short circuiting
Ingress protection per			Per IEC 60529 / EN 60529, see page 3
Weight	lb		Approx. .22

1) Media temperature for oxygen version: -30 ... +60 °C (-22 ... 140 °F).

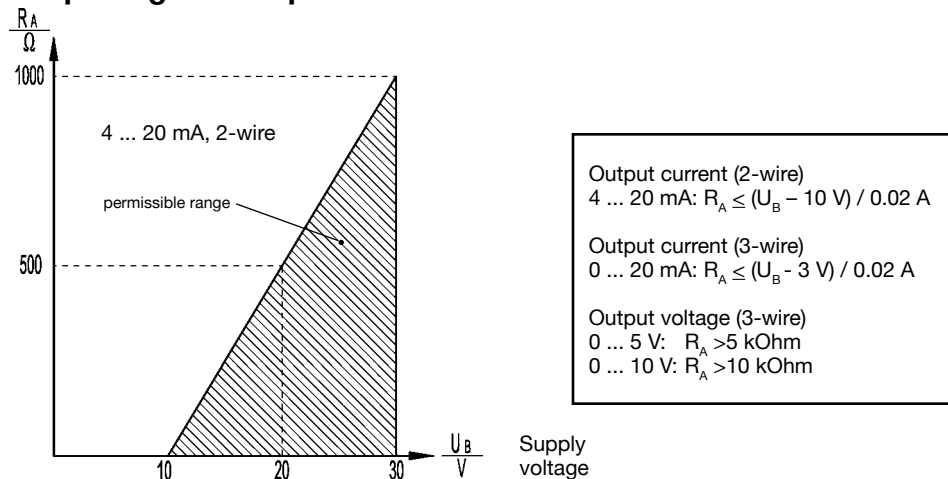
Cannot be manufactured for absolute pressure ranges < 1 bar abs.

2) Including linearity, hysteresis and repeatability.

Limit point calibration in vertical mounting position with lower pressure connection.

{ } Items in curved brackets are optional extras for additional price.

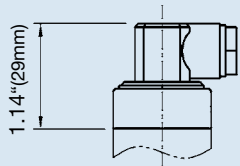
Output signal and permissible load



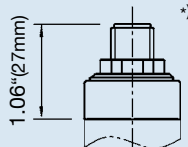
Dimensions in inches (mm)

Electrical connections

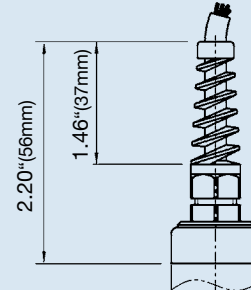
Mini L-connector
G-series
IP 65
Order code: II



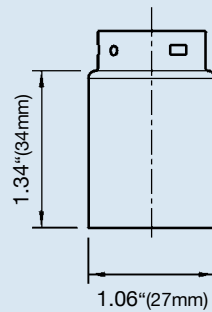
Circular connector,
5-pin, M 12x1,
IP 65
Order code: M5



Cable with Free Ends
IP 67
Order code: DL

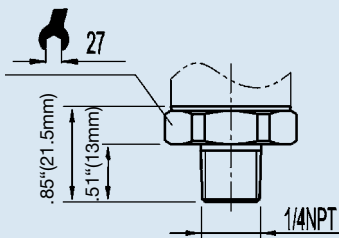


Case

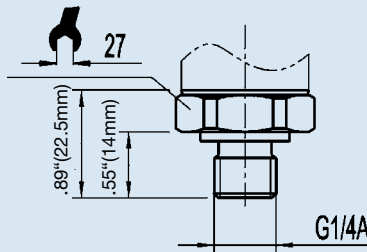


Pressure connections

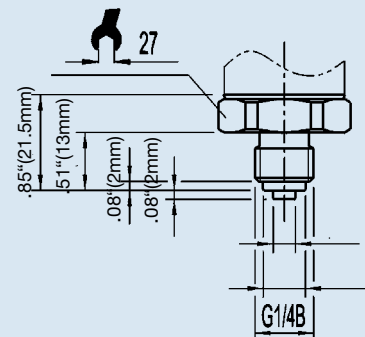
1/4" NPT male
Order code: NB



G 1/4 male
DIN 3852-E
Order code: HD



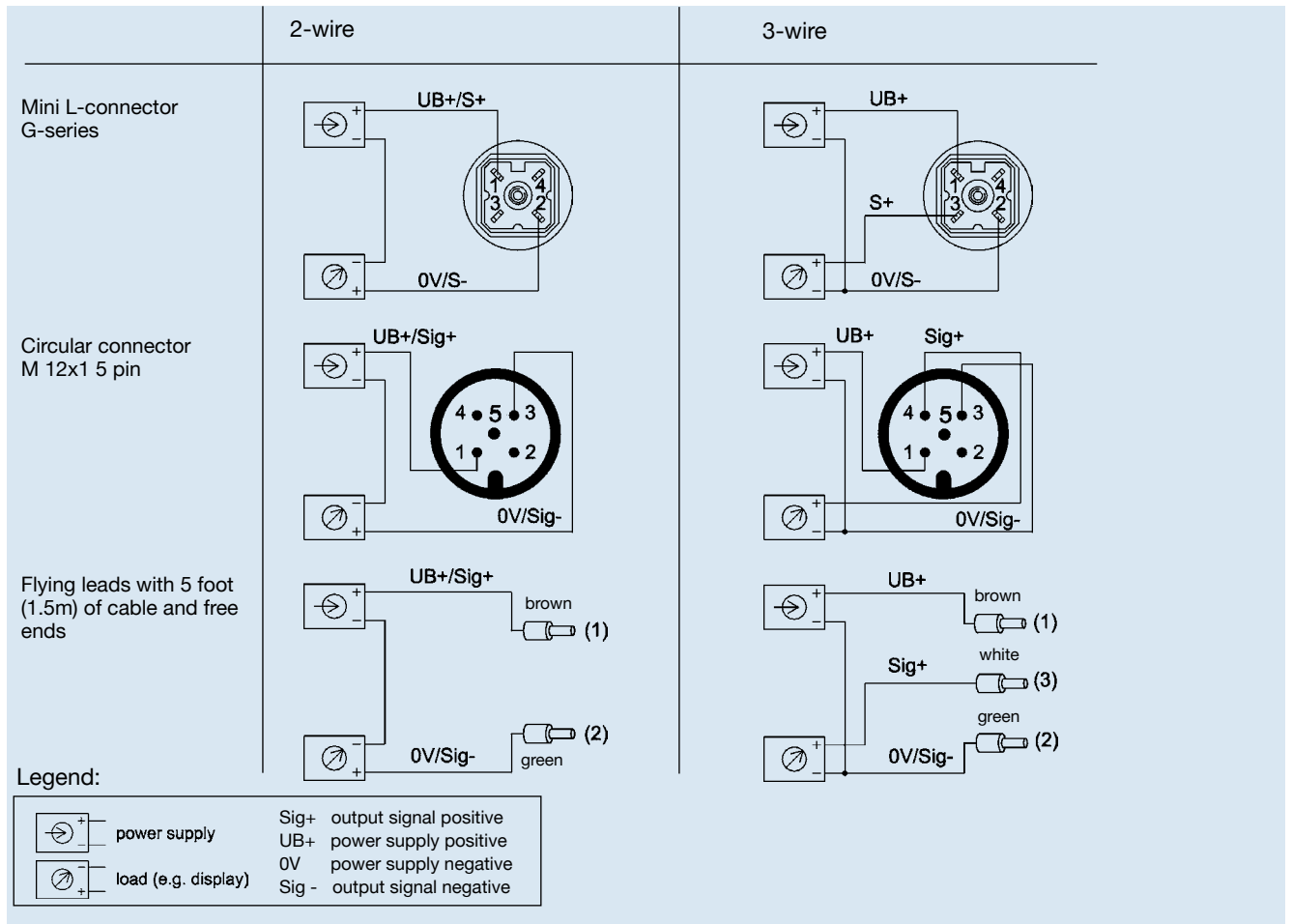
G 1/4 male
EN 837
Order code: GB



*) Mating connectors are not included

Other process connections available

Wiring details



Type C-10 OEM Pressure Transmitter

Standard Features

- **Signal Output:** 4-20 mA 2-wire
- **Supply Voltage:** 10-30 VDC
- **Process Connection:** 1/4 NPT Male
- **Electrical Connection:** DIN 43 650 with mini L-plug connector



Gauge Ranges	
Description	
Range	Part #
0-100 inWC	4204883
0-5 psi	8363434
0-10 psi	4302940
0-15 psi	8363442
0-25 psi	8363450
0-30 psi	4256671
0-50 psi	8363468
0-60 psi	8363476
0-100 psi	8363515
0-150 psi	8363485
0-200 psi	8363493
0-250 psi	4256698
0-300 psi	8363506
0-400 psi	4323697
0-500 psi	9697688
0-600 psi	8357247
0-1000 psi	8357255
0-1500 psi	8357264
0-2000 psi	8357272
0-3000 psi	8354753
0-5000 psi	8347390
0-7500 psi	8357280
0-10,000 psi	8357298
0-15,000 psi	8359576

Absolute Pressure Ranges	
Description	
Range	Part #
0-15 psia	4228146
0-25 psia	4258615
0-50 psia	4346127

NOTE: TRONIC 36 and ready-to-ship parts numbers shown in **bold, blue** print.

[Datasheet: C-10](#)

C-10 Option List

Feature
Signal Output
4... 20 mA, 2-wire
0... 5 V, 3-wire
0... 10 V, 3-wire
0.5 ... 4.5 V, 3-wire Ratiometric
On inquiry
Unit
psi
InWC
psi absolute
On inquiry
Pressure Range
0 InWC ... 100 InWC
0 psi ... 5 psi
0 psi ... 10 psi
0 psi ... 15 psi
0 psi ... 25 psi
0 psi ... 30 psi
0 psi ... 50 psi
0 psi ... 60 psi
0 psi ... 100 psi
0 psi ... 150 psi
0 psi ... 200 psi
0 psi ... 250 psi
0 psi ... 300 psi
0 psi ... 400 psi
0 psi ... 500 psi
0 psi ... 600 psi
0 psi ... 750 psi
0 psi ... 1000 psi
0 psi ... 1500 psi
0 psi ... 2000 psi
0 psi ... 3000 psi
0 psi ... 5000 psi
0 psi ... 8000 psi
0 psi ... 10000 psi
0 psi ... 15000 psi
0 psi ... 15 psi absolute
0 psi ... 25 psi absolute
0 psi ... 50 psi absolute
0 psi ... 100 psi absolute
0 psi ... 250 psi absolute
On inquiry

Feature
Process Connection
1/4" NPT
1/2" NPT
1/8" NPT
G 1/4 B
G 1/2 B
1/8" NPT female
1/4" NPT female
1/2" NPT female
7/16-20 UNF SAE #4 J514 male
7/16-20 UNF SAE #4 J514 female
9/16-18 UNF SAE #6 J514 male
9/16-18 UNF SAE #6 J514 female
3/4-16 UNF SAE #8 J514 male
3/4-16 UNF SAE #8 J514 female
On inquiry
Special Design Features
Without
Oxygen, oil and grease free
On inquiry
Electrical Connection
Miniature L-plug connector G-Series (NEMA 5/IP 65)
Cable with free ends (NEMA 4 / IP 67)
4 pin mini L-plug DIN EN 175301-803 w/molded cable (NEMA 5 / IP 65)
1/2" NPT male conduit w/cable (NEMA 5 / IP 65)
5 pin locking plug M12X1 (NEMA 5 / IP 65)
On inquiry
Quality Certificates
Without
NIST Certificate of Calibration
Digital Display
Without
Digital display
Additional Order Details
Without
Additional text