

## 2. C Female Series

### 2.1 Technical specifications C Female Series



Carel type C pressure transducers, is an high accuracy product that use piezoresistive technology, with a 4 to 20 mA current output and AISI 316L stainless steel housing body. Excellent EMC features, make this sensors suitable for harshest environments. Usable with all refrigerants compatible with AISI 316L stainless steel, also with latest low GWP & ODP like , HFO, HC and natural (e.g. Ammonia, Propane, Butane).

#### Electrical

Power supply (protected against polarity reversal)	8 to 28Vdc
Output current	4...20mA
Output load	< (U-8 V) / 0.025 A
Response time	<5ms, 0~99%FS
Insulation resistance	> 10 MΩ @ 300 VDC
Electrical connector	Male, 3 way Metri-Pack 150
Cable	See SPKC***** accessory

#### Performance

Operating temperature	-40T125°C
Compensation temperature	not available
Fluid temperature	-40T120°C
Storage temperature	-40T120°C
Ingress protection	IP55 or IP67, depends on connector plugged in. For more details, see SPKC***** accessory and table.
Total error band (including linearity, hysteresis, repeatability, calibration error) relative to all operating temperature and humidity @ 5.0 or 24 Vdc	± 1%FS at 24Vdc (0T50°C) ±2% FS at 24Vdc (-20T80°C) ±4% FS at 24Vdc (-40T120°C)
Life cycle	> 10 million cycles, 0... 100 %FS at 25 °C

#### Physical

Vibrations IEC 60068-2-64	5...2000Hz / 10 g - in direction x - y - z
Shock IEC 60068-2-27	20g sinusoidal, 11 ms
Drop form any axis	1.0m (Falling from 1 meter high)
Material in contact with refrigerant	AISI 316L stainless steel
Body housing	AISI 316L stainless steel
Tightening torque	12 to 16 Nm
Mechanical connection	Female, 7/16"-20UNF - in 45° Flare
Series pressure range	From 7bar to 60bar
Over pressure	2 times Pressure range, see table
Burst pressure	See table
Refrigerant compatibility	All refrigerants compatible with AISI 316L stainless steel
Weight	45g (Net weight)

#### Certification

UL recognized	File E198839
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#### Compliant with:

Compliances	<ul style="list-style-type: none"> <li>• REACH</li> <li>• RoHS</li> <li>• CE</li> </ul>
UL certified	File E198839

#### Part numbers

Code <sup>(1)</sup>	Pressure (psi)		Pressure (bar)		Pressure (kPa)		over range			burst pressure		
	4 mA	20 mA	4 mA	20 mA	4 mA	20 mA	psi	bar	kPa	psi	bar	kPa
SPKT0021C*	-8	100	-0.5	7	-50	700	210	15	1500	7680	530	53000
SPKT0011C*	0	145	0	10	0	1000	290	20	2000	7680	530	53000
SPKT0041C*	0	260	0	18,2	0	1820	580	40	4000	7680	530	53000
SPKT0031C*	0	435	0	30	0	3000	870	60	6000	7680	530	53000
SPKT00B1C*	0	650	0	44,8	0	4480	1160	80	8000	7680	530	53000
SPKT00G1C*	0	870	0	60	0	6000	1740	120	12000	7680	530	53000

#### Note:

<sup>(1)</sup>: 0 = single package; 3= retail market package;

<sup>(2)</sup>: with built-in connector;