



阅读并保存
指导说明书
READ AND SAVE
THESE INSTRUCTIONS

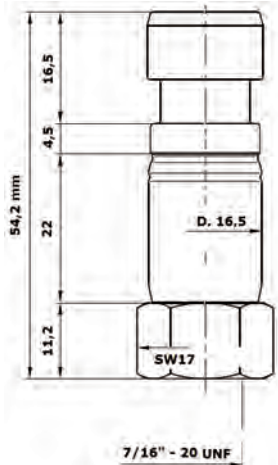


Fig.1

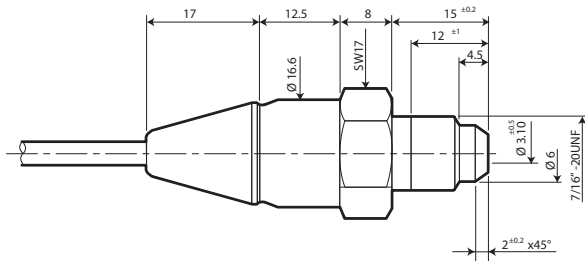
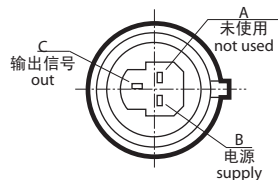


Fig.2



SPK* 电缆/for SPK* cable:
输出信号/out = 白色/white
电源/supply = 黑色/black
未使用/not used = 绿色/green

Fig.3

总体特性: CAREL电子式压力变送器是专为冷冻和空调领域应用而开发的。有两种机械装配方式,一种是公制的,另一种是阴制的。变送器的输出信号是电流方式(4~20 mA)。直流电源可能是8~28 Vdc。

订购代码和型号描述

代码	压力 psiA		压力 bar ⁽¹⁾		类型	材质	压力限值		防护等级
	4 mA	20 mA	4 mA	20 mA			psiA	bar	
SPK100000*	-8	100	-0,5	7	公制	不锈钢316L	200	14	IP65
SPK240000*	-15	340	-1	24	公制	不锈钢316L	520	36	IP65
SPK250000*	0	360	0	25	公制	不锈钢316L	530	37	IP65
SPK300000*	0	430	0	30	公制	不锈钢316L	650	45	IP65
SPKT0021C*	-8	100	-0,5	7	阴制	不锈钢316L	210	15	IP67 ⁽²⁾
SPKT0011C*	0	145	0	10	阴制	不锈钢316L	290	20	IP67 ⁽²⁾
SPKT0041C*	0	260	0	18,2	阴制	不锈钢316L	580	40	IP67 ⁽²⁾
SPKT0031C*	0	435	0	30	阴制	不锈钢316L	870	60	IP67 ⁽²⁾
SPKT00B1C*	0	650	0	44,8	阴制	不锈钢316L	1160	80	IP67 ⁽²⁾
SPKT00G1C*	0	870	0	60	阴制	acc. inox 316L	1740	120	IP67 ⁽²⁾

⁽¹⁾ 0 = 单个包装; 1 = 50个每包装; 3 = 零售市场包装;

⁽²⁾ 带内置连接端

所有型号都是密闭式压力计。

SPKT*附件

代码	长度		防护等级	多个包装	备注
	m	inch			
SPKC002300	2	78,7	IP55		不适用于潮湿环境
SPKC005300	5	196,8	IP55		
SPKC00A300	12	472,4	IP55		
SPKC00D311	0,65	25,5	IP67	50 pz	遵循EN60529标准
SPKC00E311	0,83	32,6	IP67	50 pz	
SPKC00B311	1	39,3	IP67	50 pz	
SPKC00C311	1,3	51,1	IP67	50 pz	
SPKC002310	2	78,7	IP67		
SPKC00F310	4	157,4	IP67		
SPKC005310	5	196,8	IP67		
SPKC00G310	6,6	259,8	IP67		
SPKC00A310	12	472,4	IP67		

连接

- 带公制接头: Fig. 2为带公制接头的变送器的接线图, 黑色线接收变送器电源(8~28 Vdc), 而白线是与压力读取关联的电流输出信号(4~20 mA)线。
- 带阴制接头: Fig. 3为带阴制接头的变送器的接线图, 参照接线端的线是变送器电源(8~28 Vdc)专用的, 而参照线C电流输出信号(4~20 mA)线(对于阴制型变送器, 这根线可作为附件提供)。

技术规格

电源	8...28 Vdc, ±20%
输出	4...20 mA
公制接头螺纹	7/16" 20 UNF
阴制接头螺纹	7/16" 20 UNF
工作条件	-25~80°C 公制 / -40~135°C 阴制
线性度	一般为±0.5% FS; 最大为±1% FS
总精确度	一般为±1% FS; 最大为±2% FS (0~50°C), 最大为±4% FS (-20~80°C)
防护等级	IP65, IP67参考代码表
抗冲击	20 g*正弦波, 11毫秒
抗震	5...2000 Hz/10 g, 在x-y-z方向
环境污染等级	一般
钳位扭力	12...16 Nm

General characteristics: The CAREL pressure electronic-probes have been developed for the application in the refrigeration and air conditioning sectors. They are available with two types of mechanical mount, one male and the other female. The output signal of the probes is in current (4 to 20 mA). Direct current supply is possible (8 to 28 Vdc).

Description of codes and models

Code ⁽¹⁾	Pressure psi		Pressure bar		Model	Material	over range		IP prot.
	4 mA	20 mA	4 mA	20 mA			psi	bar	
SPK100000*	-8	100	-0,5	7	male	stainless steel 316L	200	14	IP65
SPK240000*	-15	340	-1	24	male	stainless steel 316L	520	36	IP65
SPK250000*	0	360	0	25	male	stainless steel 316L	530	37	IP65
SPK300000*	0	430	0	30	male	stainless steel 316L	650	45	IP65
SPKT0021C*	-8	100	-0,5	7	female	stainless steel 316L	210	15	IP67 ⁽¹⁾
SPKT0011C*	0	145	0	10	female	stainless steel 316L	290	20	IP67 ⁽¹⁾
SPKT0041C*	0	260	0	18,2	female	stainless steel 316L	580	40	IP67 ⁽¹⁾
SPKT0031C*	0	435	0	30	female	stainless steel 316L	870	60	IP67 ⁽¹⁾
SPKT00B1C*	0	650	0	44,8	female	stainless steel 316L	1160	80	IP67 ⁽¹⁾
SPKT00G1C*	0	870	0	60	female	acc. inox 316L	1740	120	IP67 ⁽¹⁾

Note:

⁽¹⁾: 0 = single package; 3 = retail market package;

⁽²⁾: with built-in connector.

⁽³⁾: all models are sealed gauge sensors

Accessories cable

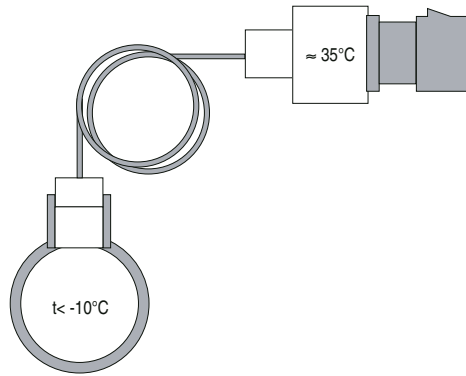
Code	Lenght		Index of protection	Minimum package	Note
	m	inch			
SPKC002300	2	78,7	IP55		not suitable for wet ambient
SPKC005300	5	196,8	IP55		
SPKC00A300	12	472,4	IP55		
SPKC00D311	0,65	25,5	IP67	50 pz	in accordance with the EN60529 standards
SPKC00E311	0,83	32,6	IP67	50 pz	
SPKC00B311	1	39,3	IP67	50 pz	
SPKC00C311	1,3	51,1	IP67	50 pz	
SPKC002310	2	78,7	IP67		
SPKC00F310	4	157,4	IP67		
SPKC005310	5	196,8	IP67		
SPKC00G310	6,6	259,8	IP67		
SPKC00A310	12	472,4	IP67		

Connections

- Model with male attack:** Fig. 2 illustrates the connection diagram of the probe with the male connector: the brown cable received the probe supply (8 to 28 Vdc), whereas as the white cable is the current output signal (4 to 20 mA) relevant to the read pressure.
- Model with female attack:** Fig. 3 illustrates the connection diagram of the probe with the female connector: the cable referring to the terminal B is dedicated to the probe supply (8 to 28 Vdc), whereas the cable referring to the cable C is the current output signal (4 to 20 mA) (the cable for the female model is available as accessory).

Technical specifications

power supply	8 to 28 Vdc, ±20%
output	4 to 20 mA
male connector thread	7/16" UNF
female connector thread	7/16" UNF
operating conditions	-25T80°C male / -40T135°C female
linearity	typical +/- 0.5% FS max. +/- 1% FS
total precision	typ. +/- 1% FS max +/- 2% FS (0T50°C), max +/- 4% FS (-20T80°C)
Index of protection	IP65, IP67 see codes table
shock	20 g* sinusoidal, 11 msec
vibrations	5 to 2000 Hz/10 g in the x - y - z directions



可与各种类型的制冷剂兼容

备注：FS = 最大输出-最小输出关于正确安装的建议(Fig.3)

关于正确安装的建议(Fig.3)

如果变送器直接与蒸发中的制冷流体接触，当流体温度低于参照当地温度-湿度条件的露点，则用一根最小长度为30 cm的毛细管连接变送器和管道。



“处理本设备(或产品)时必须按照当地强制的废物处理法规分开处理。”

environm. pollution level normal
clamping force 12...16 Nm
Compatible with all refrigerants-types

Note: FS = MAX-output - MIN-output

Advice for a correct installation (Fig.3)

If using a probe applied directly in contact with the evaporating refrigerant, when the fluid temperature is less than dewpoint with reference to local temperature-humidity conditions, place at least 30 cm of capillary tubing between the probe and the pipe.



“The appliance (or the product) must be disposed of separately in accordance with the local waste disposal legislation in force”

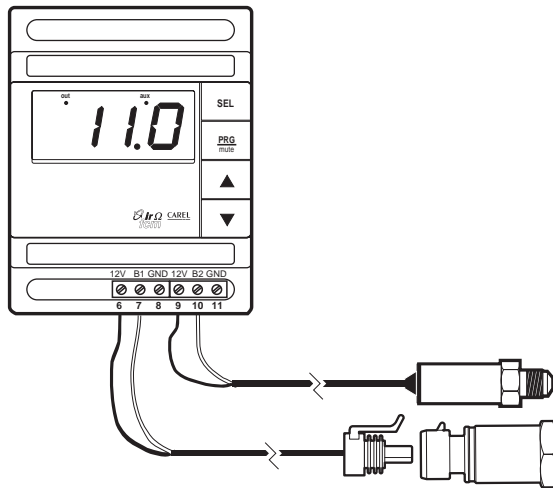
与CAREL装置连接的示例 / Examples of connection to CAREL instrument

IR32/DR	变送器 / Probe
OUT	白线 = 输出信号 White wire = Pressure active output
+10	棕色线/黑线 = 电源 Brown/black wire = power supply

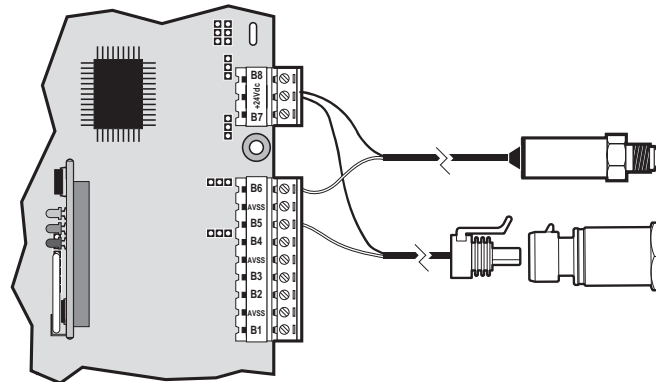
pCO	变送器 / Probe
Bn= 5, ..., 8	白线 = 输出信号 White wire = Pressure active output
+24 Vdc	棕色线 = 电源 Brown wire = power supply

FCM	变送器 / Probe
B1, B2	白线 = 输出信号 White wire = Pressure active output
12 V	棕色线/黑线 = 电源 Brown/black wire = power supply

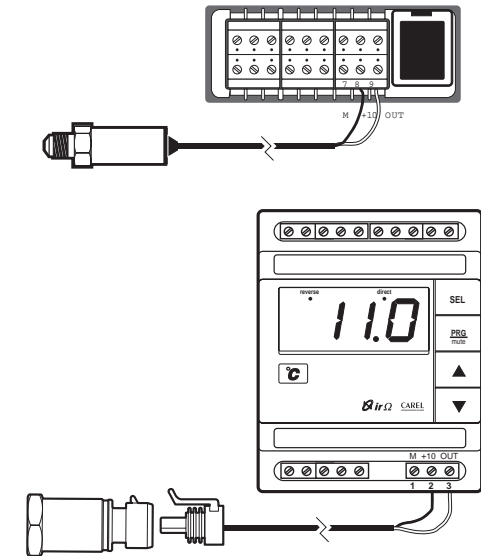
与FCM连接 / FCM connection



与pCO连接 / pCO connection



与ir32/DR universale连接 / Universal ir32/DR connection



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