ENGINEERING
TOMORROW

Data sheet

Pressure transmitters
NSK and XSK



Pressure transmitters type NSK and XSK are compact, lightweight sensors with piezo resistive sensors to be used by OEM's in refrigeration and air conditioning units for high and low pressure protection, fan control, and diagnostic and performance monitoring purposes.

NSK has a ratiometric output signal, 0.5 to 4.5 Vdc @ 5 Vdc supply.

XSK has a current output signal, 4 to 20 mA.

Features

- Applicable up to 135 °C fluid temperature
- Degree of enclosure IP 66
- UL approved, UL file no E43867
- Light and compact design
- Absolute / sealed gauge sensor type; 1 atmosphere (1013hPa) is defined as 0MPa.
- Applicable with:
  - R410A
  - R407C
  - R404A
  - R134a
- Color coded electrical connection for low and high pressure indication
  - NSK: Round Packard
    - green (LP)
    - black (HP)
  - XSK: Molex
    - blue (LP)
    - black (HP)
- Easy process connection
  - ¼" female flare with depressor pin as standard
  - ¼" male flare port
- Available with solder connection

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Technical data

NSK Sensors

Output signal: 0.5 - 4.5 Vdc
Power supply: 5 V DC ± 0.25 V
Power supply current: < 10 mA
Load resistance: > 10 kΩ / < 1000 pF
Absolute pressure type
Media: R410A, R407C, R404A, R134a
For other refrigerants please ask Danfoss.

Degree of enclosure: IP66 (std. types)
Connector for body: Packard
Packard block: 12065287
Packard terminal: 12089290
Weight: 0.04 kg

Description	Pressure range		Accuracy[1]	Output signal V	Ambient temperature range ° C	Max. operating pressure bar	Electrical connections[2]	Pressure connection[2]	Code number	
	Min. bar (e)	Max. bar (e)							100 pcs.	20 pcs.
NSK-BE007I-U009	-1	7	± 3.0% FS	0.5 - 4.5	-30 - 85	11	Round Packard (Green)	¼" flare Female with depressor pin (wdp)	061H5148	061H5141
NSK-BE010I-U009	0	10	± 2.5% FS		-30 - 100	38.5			061H5149	061H5142
NSK-BE015I-U009	0	15							061H5150	061H5143
NSK-BE020I-U009	0	20							061H5151	061H5144
NSK-BE030I-U009	0	30	± 2.0% FS				Round Packard (Black)		061H5152	061H5145
NSK-BE035I-U009	0	35							061H5153	061H5146
NSK-BE050I-U009	0	50	± 2.5% FS			55			061H5154	061H5147

[1] Includes non linearity, hysteresis, repeatability, and temperature drift.
Accuracy measured at 1,013 hPa, 5 V at -20-120 °C (-20-85 °C for NSK-BE007I-U009)
[2] Concerning other connections please ask Danfoss.

XSK Sensors

Output signal: 4 - 20 mA
Power supply: 10.5 - 28 V DC
Load inpedance: Max. 100 Ω (@12 V)
Max. 500 Ω (@ 24 V)
Absolute pressure type
Media: R410A, R407C, R404A, R134a
For other refrigerants please ask Danfoss.

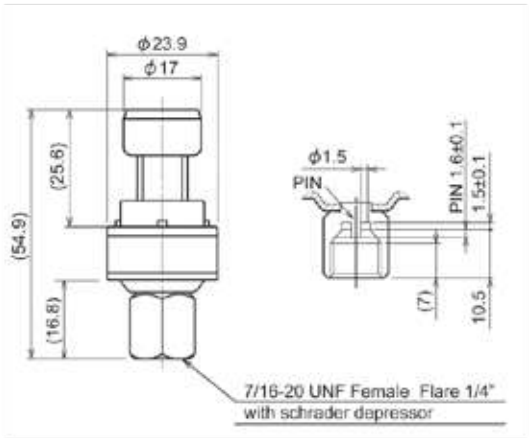
Degree of enclosure: IP66 (std. types)
Connector for body: Molex
Molex connector: 52117-0240
Molex terminal: 52117-0340
Weight: 0.09 kg

Description	Pressure range		Accuracy[1]	Output signal mA	Ambient temperature range ° C	Max. operating pressure bar	Electrical connections	Pressure connection	Code number	
	Min. bar (e)	Max. bar (e)							100 pcs.	20 pcs.
XSK-AC07I-U188	-0.5	7	± 3% FS	4 - 20	-20 - 70	38.5	Molex (Blue)	¼" flare Female wdp	061H5079	061H5099
XSK-AC10I-U188	-0.5	10							061H5080	061H5100
XSK-AC20I-U188	0	20								061H5101
XSK-AC30B-U186	0	30					Molex (Black)	¼" flare Male	061H5067	
XSK-AC30I-U188	0	30						¼" flare Female wdp	061H5082	061H5102
XSK-AC35I-U188	0	35								061H5103
XSK-AC50B-U186	0	50				55		¼" flare Male		061H5161
XSK-AC50I-U188	0	50						¼"flare Female wdp		061H5104

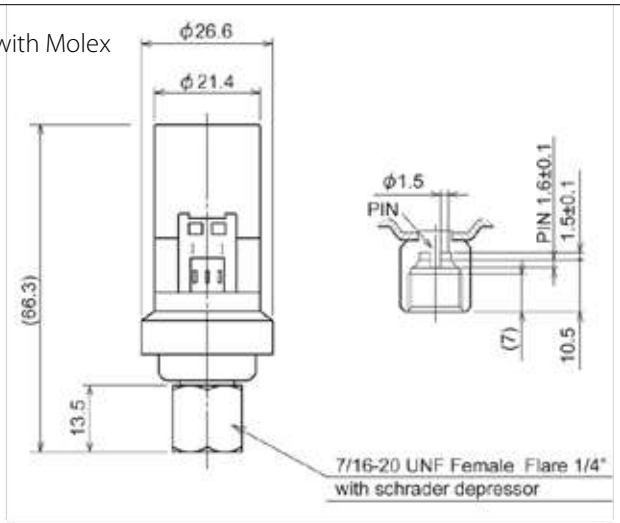
[1] Includes non linearity, hysteresis, repeatability, and temperature drift.
Accuaracy measured at 1,013 hPa and at -20-70 °C

Dimensions and weight

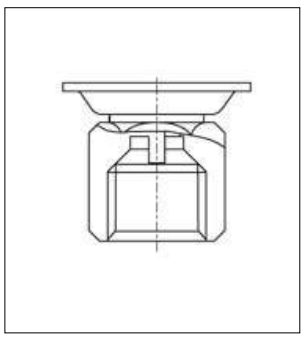
NSK pressure sensor with Round Packard connector



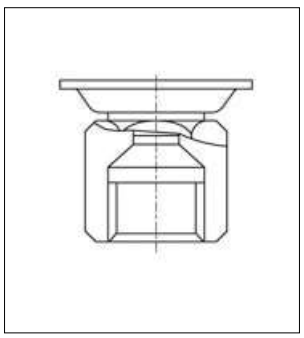
XSK pressure sensor with Molex connector



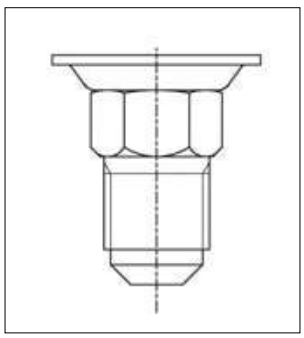
Pressure connections



7/16-20 UNF Female flare ¼" with schrader depressor



7/16-20 UNF Female flare ¼"



7/16-20 UNF Male flare ¼"

Recommended tightening torque in case of dry seal 12.7 to 15 Nm

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