

The DYK Series Electronic Pressure Transducers are compact, economical, rugged, direct-mount pressure transducer for use in air-conditioning, heatpumps and commercial refrigeration applications. These transducers produce an analog signal based on the pressure sensed.



The DYK Series transducers provide features; Stainless Steel construction, protected electronics. The digitally compensated DYK transducers are highly accurate over a broad temperature range, resisting the effects of wide ambient swings, high humidity, and condensation.

Integrated over/under-voltage AND over/under-current protection and reverse protection for safe use.

Passed EMC test and have strong resistance to electromagnetic interference

- **Measurement range:** 0 – 725 Psi (0 to 50 bar)
- **Power supply:**
 - Voltage mode 5 +/-0.25VDC, current \leq 10 mA, Positive overload protection at 16V and reverse protection at -14V. Caution: Input voltage over >6VDC will permanently damage transducer's internal electronics
- **Output mode:**
 - Voltage Output Proportional voltage output 0.5 to 4.5V standard signal output
 - Current Output: 4 to 20 mA standard signal output
 - Load resistance: Minimum 10k Ω
- **Comprehensive Precision:**
 - -30 to 80°C +/-2.0% FS
 - -30 to 120°C +/-2.5%FS
- **Ambient temperature:** -30 to 100°C (no ice)
- **Temperature error:** +/-0.01%/°C
- **Liquid temperature:** -30 to 120°C
- **Thread connection:** Standard SAE 7/16" – 20UNF (female 45° flare type), 1/8"-27 Male NPT, alternate customer specifications can be considered.
- **Electrical connector:** Standard Packard Metri-Pack 3-wire Connector
- **Response time:** <1mS
- **Temperature shift:** +/-0.02% FS/°C
- **Linearity, delay and repeatability:** < +/-0.5% FS
- **Stability:** Better than 0.15%FS/year
- **Shell material:** Brass
- **Protection level of the shell:** IP65

- **Wire connection:** Three-wire voltage, red = +/positive, black = -/negative ground, and green = V output.

Application notes:

- Installation torque: 12.7Nm +/- 10%

Caution: Risk of Property Damage. Mount the pressure transducer separately from the electrical cabinet and seal all electrical piping to prevent gas migrating to electrical components.

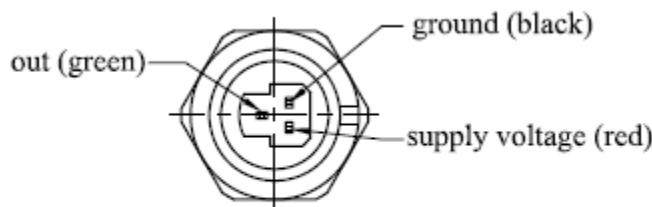
Important: Locate pressure tap points on the top side of the refrigerant lines to reduce the risk of equipment damage or malfunction caused by accumulation of oils, liquids, or other sediment in the pressure transducer chamber.

Important: Avoid severe pressure pulsations on high-side pressure connections by positioning the transducer away from the compressor discharge.

Ensure wiring conforms to the National Electrical Code and any/all local regulations.

Do not extend the wiring harness leads more than 250ft (75m). use 22 AWG, 3-wire, shielded cable to extend factory supplied wiring harness. Ensure that the shielded cable is terminated according to the codes and the control’s instructions.

Standard Packard Metri-Pack 3-wire Connector (wiring details)



Requirements for O-Ring material:

Materials				
Refrigerant:	R22	R134a	R410a	R404a
O-Ring material	CR	CR	HNBR	HNBR
Notes:	When refrigerant is R22 , HNBR is not applicable O-ring material			
	When refrigerant is R404a , CR is not applicable O-ring material			

The DYK Series Electronic Pressure Transducers



Part #	Output	Range		Connection type	Overpressure	Burst
		Psi	Mpa		Psi	Psi
DYK BA010DV5-4.5	0 to 5 VDC	0-150	0-1.0	¼" female SAE 45° flare (7/16" – 20UNF-2B)	300	1500
DYK BA020DV5-4.5	0 to 5 VDC	0-300	0-2.0		600	1500
DYK BA034DV5-4.5	0 to 5 VDC	0-500	0-3.4		1000	1500
DYK BA042DV5-4.5	0 to 5 VDC	0-600	0-4.2		1200	1500
DYK BA050DV5-4.5	0 to 5 VDC	0-725	0-5.0		1450	1500
DYK BA010DV8-20I	0 to 20ma	0-150	0-1.0		300	1500
DYK BA020DV8-20I	0 to 20ma	0-290	0-2.0		600	1500
DYK BA034DV8-20I	0 to 20ma	0-490	0-3.4		1000	1500
DYK BA042DV8-20I	0 to 20ma	0-600	0-4.2		1200	1500
DYK BA050DV8-20I	0 to 20ma	0-725	0-5.0		1450	1500

Thread connection: Standard SAE 7/16" – 20UNF (female 45° flare type), 1/8"-27 Male NPT, alternate customer specifications can be considered.

Optional models available (epoxy wire leads):



IP 67, wet, freezing, frosted applications