

Resource
Data Management

RDM Pressure Transducer

User Guide
Revision 1.0b



PR0165-PR0169

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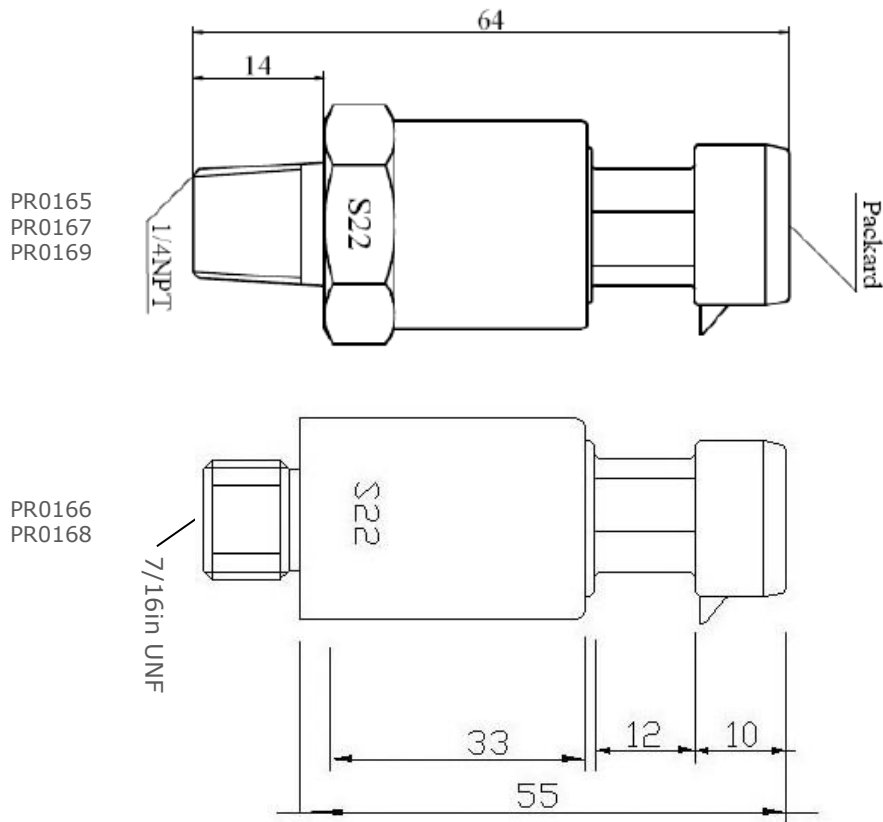
Please ensure all power is switched off before installing or maintaining this product.

Pressure Transducers

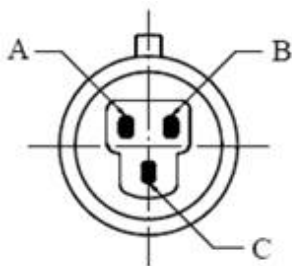
RDM have a range of pressure transducers with varying specifications allowing measurements of different environments. All transducers operate with the variable output 4~20mA with a 2m cable as standard. The variants are listed below.

Description	Part Number
Transducer -1 to 20 bar with 1/4in NTP male fitting (HPT300-C1)	PR0165
Transducer -1 to 20 bar 7/16in 20UNF(F) Schrader deflator (HPT300-C2)	PR0166
Transducer -1 to 65 bar with 1/4in NTP male fitting	PR0167
Transducer -1 to 65 bar 7/16in 20UNF(F) Schrader deflator	PR0168
Transducer 0 to 125 bar with 1/4in NTP male fitting	PR0169

Dimensions



Electrical Connections



Transducer connections

- Pin A: Separate 12v feed (not required with RDM devices) Black
- Pin B: 12v DC loop Red
- Pin C: 4~20mA return signal Green



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Specifications

Description	Specification
Pressure Range	-1-20 bar, -1-65 bar, 0-125 bar
Pressure Type	Gauge pressure.
Overload	150% Full Scale
Burst Pressure	200% Full Scale
Accuracy (at 25°C)	≤ ±1.0% Full Scale
Total Error Band	0-50°C max ≤ +/- 1.0% Full Scale., -20-80°C max ≤ +/- 2.0% Full Scale
Stability	0.2% Full Scale ± 0.05% per year
Working Temperature	-35°C~125°C
Storage Temperature	-40°C~125°C
Temperature Compensation	-10°C~50°C
Thermal effect on zero	+/- 0.03%
Thermal effect on span	+/- 0.03%
Medium compatible	Compatible with 304/316 Stainless steel and Ceramic
Electronic wire	2/3 Wires
Output	4~20mA
Power supply	12~30V DC
Short Circuit protected	Yes
Overvoltage protection	32 Vdc
Insulation resistance	>100M Ω @100V
Electronic connection	Packard 3 pin connector with 2.0m cable IP65
Pressure connect port	¼" NPT male, 7/16in 20UNF(F)
Response time	≤20ms
Certificate approving	CE Certificate
EMC standard	EN 61326-1:2013; EN61326-2-3:2013 EN 61000-6-1:2005; EN61000-6-4:2007+A1
Water proof	IP67
Weight	Net weight 0.1Kg Full packaging weight 0.2Kg (includes 2.0m cable)
Compatible Refrigerants	R12, R125, R21, R22, R31, R32, R113, R114, R134a, R142b, R154a, R227, R401a, R401b, R401c, R402a, R402b, R404a, R407a, R407c, R407f, R410a, R449a, R502, R503, R507, R744, R454C and R455A (A2L Refrigerant).
Recommended Torque	12 – 15 Nm

Important Installation Notes

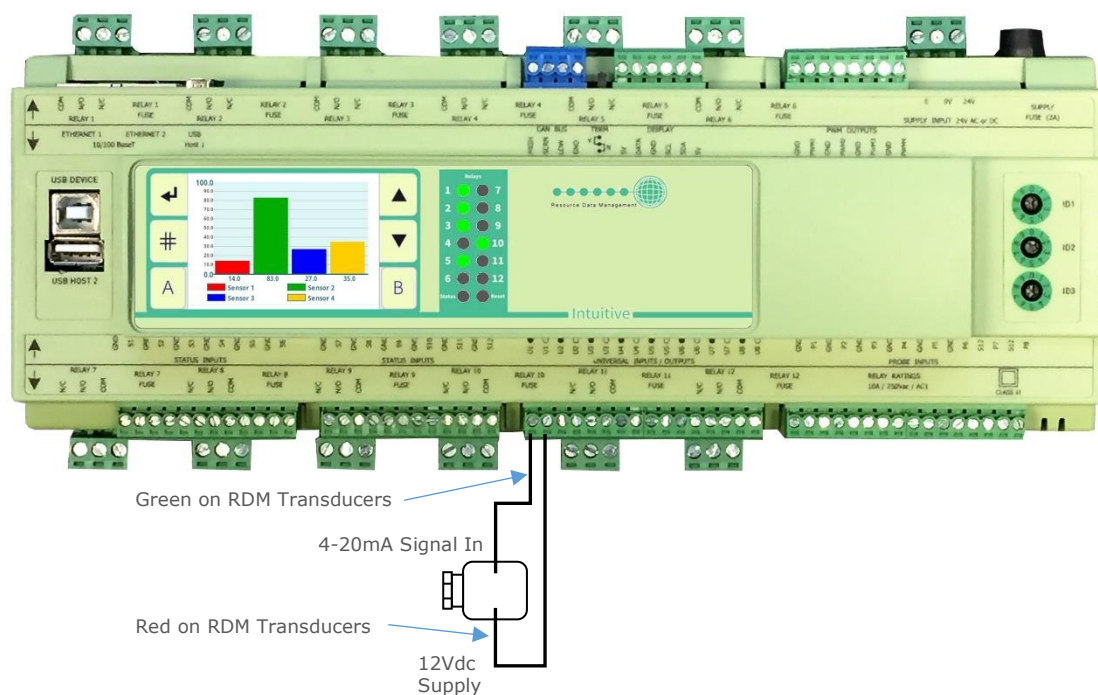
If using a pressure sensor installed directly in contact with the evaporating medium, and the temperature is going to be less than the dew point relative to the local temperature-humidity conditions, it is recommended to have at least 30 cm between the pressure sensor and the pipe, as an example using a suitable capillary/flexible line.

Depending on the installation location you might need to also insulate the transducer body. In order to maintain the IP integrity of the plug and socket connector on the pressure sensor it is important not install the transducer plug lead too tightly to adjacent pipework etc so as to deform the seal between the plug and socket on the pressure sensor electrical connection.



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Typical Transducer Connection



Disclaimer

The specifications of the product detailed in this document may change without notice. RDM Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.

Revision History

Revision	Date	Changes
1.0a	21/01/2022	First Release
1.0b	08/08/2022	Gas table updated



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Group Offices

RDM Group Head Office
80 Johnstone Avenue
Hillington Industrial Estate
Glasgow
G52 4NZ
United Kingdom
+44 (0)141 810 2828
support@resourcedm.com

RDM Inc
9441 Science Center Drive
New Hope
Minneapolis, MN
55428
United States
+1 612 354 3923
usasupport@resourcedm.com

RDM Asia
Sky Park at One City
Jalan USJ 25/1
47650 Subang Jaya
Selangor
Malaysia
+60 3 5022 3188
asiatech@resourcedm.com



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