

Resource
Data Management

RDM Pressure Transducer

User Guide
Revision 2.1



PR0140-PR0141

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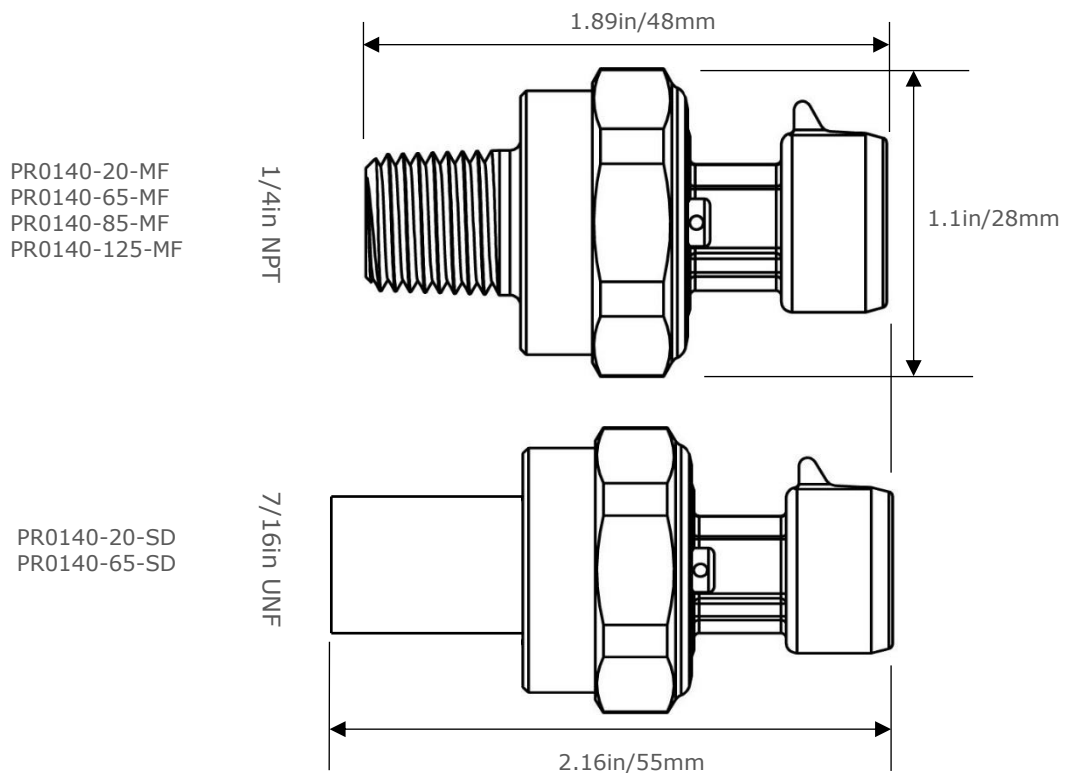
Please ensure all power is switched off before installing or maintaining this product.

Pressure Transducers

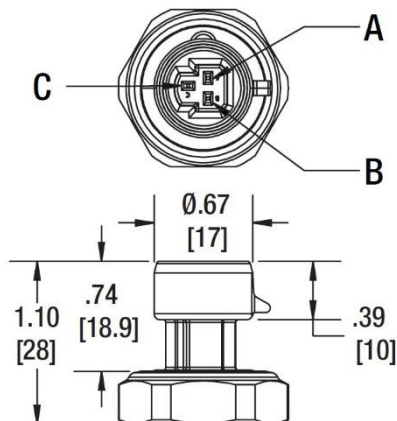
RDM have a range of pressure transducers with varying specifications allowing measurements of different environments. All transducers operate with the variable output 4-20mA with a 2m cable as standard. The variants are listed below.

Description	Part Number
Transducer -1 to 20 bar with 1/4in NPT male fitting	PR0140-20-MF
Transducer -1 to 20 bar 7/16in 20UNF female fitting Schrader Depressor	PR0140-20-SD
Transducer -1 to 65 bar with 1/4in NPT male fitting	PR0140-65-MF
Transducer -1 to 65 bar 7/16in 20UNF female fitting Schrader Depressor	PR0140-65-SD
Transducer -1 to 85 bar with 1/4in NPT male fitting	PR0140-85-MF
Transducer 0 to 125 bar with 1/4in NPT male fitting	PR0140-125-MF
Spare 2M Cable with connector	PR0141

Dimensions



Electrical Connections



Pin	Function	Description	Wire Colour
A	V-	0v (not used)	Black
B	V+	12v Supply	Red
C	V-	4-20mA Signal	White



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Specifications

Description	Specification
Pressure Range	-1-20 bar, -1-65 bar, -1-85 bar, 0-125 bar
Pressure Type	Gauge pressure.
Overload	200% Full Scale
Burst Pressure	500% Full Scale
Accuracy (at 21°C)	±1.0% Full Scale
Total Error Band	0-85°C max +/- 1.0% Full Scale 85-125°C max +/- 2.0% Full Scale -40-20°C max +/- 2.0% Full Scale
Stability	≤ +/- 0.25% of span per year
Working Temperature	-40°C~125°C
Storage Temperature	-50°C~125°C
Electronic wire	2/3 Wires
Output	4~20mA
Power supply	9~32V DC
Short Circuit protected	Yes
Overvoltage protection	32 Vdc
Insulation resistance	>100M Ω @100V
Electronic connection	Metri-Pack 3 pin connector with 2.0m cable IP65
Pressure connect port	¼" NPT male, 7/16in 20UNF female
Response time	≤5ms
Certificate approving	CE, UKCA, RoHS
EMC standard	Directive 2014/30/EU, EN61326-1, EN61326-2-3
Immunity	61000-4-2/3/4/5/6/8
Emissions	EN55011 (CISPR 11) Class A, Group1 & FCC (47 CFR 15)
Water proof	IP67
Weight	Net weight 0.1 Kg Full packaging weight 0.2 Kg (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.

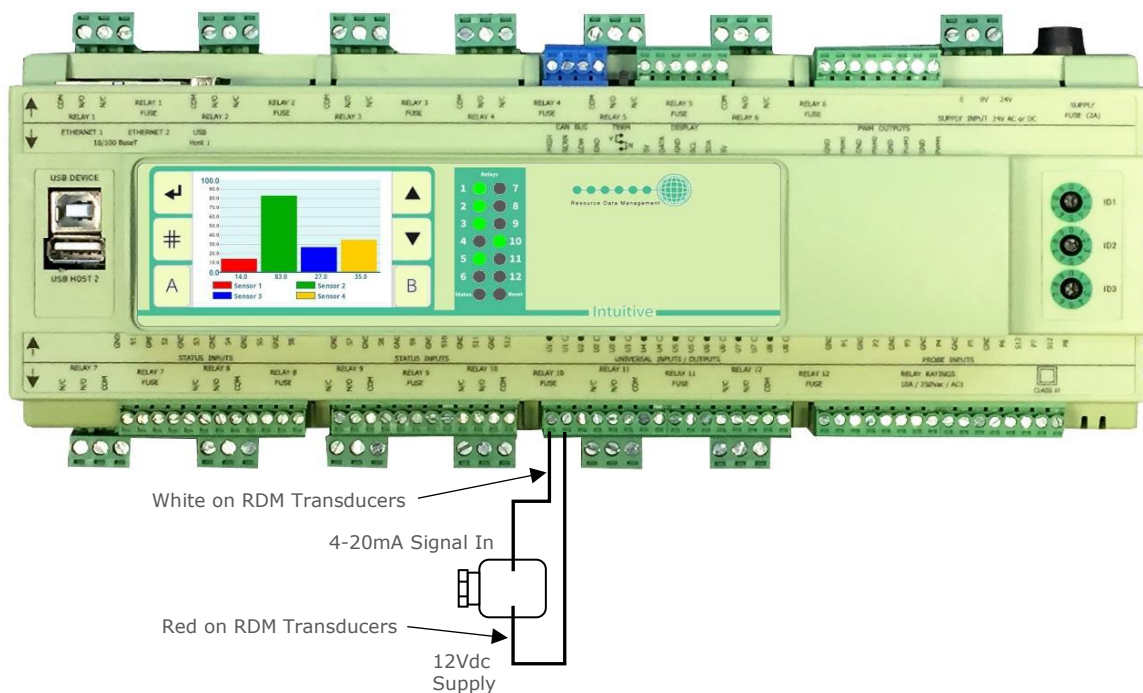
The Metri-Pack connector has an IP67 seal which the wires pass through allowing full ingress protection, an additional boot is not normally required.

Previous RDM pressure transducers (the PR0165-PR0169 range) used a green wire for the 4-20mA signal connection, on this transducer the wire is white in colour. The red and black wires still retain the same functionality.



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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
2.0	11/08/2025	First Release
2.1	23/09/2025	Part Numbers Updated



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