

Operating & installation instructions

RS TYPE 461 PRESSURE TRANSDUCERS

APPROVALS

PED: ALL RM&C Pressure transducers are designed & manufactured in accordance with 'Sound Engineering Practice' as defined by the Pressure Equipment directive 97/23/EC, article 1, Paragraph 2.1.3. The CE mark on the unit does not relate to the Pressure Equipment Directive

EMC: Type 461 Pressure transducers & transmitters with the CE mark conform with the essential protection requirements of the EMC Directive 89/33/EEC amended by certified type testing to BS EN 61000 6-2 and BS EN 6100 6-3

RoHS: Type 461 Pressure transducers & transmitters with the CE mark conform with the essential requirements of the RoHS Directive 2002/95/CE

GENERAL

Transducers must not be subjected to mechanical impact.

Maximum pressure range being measured must not exceed the transducer pressure range

Pressure media must be compatible with the transducers wetted parts listed below.

Liquid must not be allowed to freeze in the pressure port.

The gasket must be fitted under the electrical connector

WETTED PARTS

96 % alumina; 316L Stainless steel; Fluorocarbon (Viton) O ring

ELECTRICAL INSTALLATION

Conformity with the requirements of the CE mark only applies when connection is made with **RM&C approved cable** (see approved cable section). If a 'Ground Loop' problem is encountered when the body of the unit is grounded by the piping then it is permissible to remove the cable shield from the instrumentation ground.

APPROVED CABLE

RM&C uses cable comprising of 2,3 & 4 core to standard DEF61-12PT4 with an outer jacket of black PVC with an overall diameter approximately 0.17 in or 4.3mm

OPERATION

Having installed the transducers as instructed, they are ready for use. The transducer should not be removed while the system is at pressure. Always ensure, before applying power, that the correct polarity & excitation levels are being applied

mV	Connections	0-5 Volt	Connections	4-20mA	Connections
461-290		461-389		461-294	
461-301	Pin 1 : +ve supply	461-373	Pin 1 : Output	461-335	Pin 1 : -ve supply
461-307	Pin 2 : -ve supply	461-323	Pin 2 : -ve supply	461-351	Pin 2 : N/C
461-256	Pin 3 : +ve Output	461-363	Pin 3 : +ve supply	461-345	Pin 3 : +ve supply
461-395	Pin 4 : -ve Output	461-288	Pin 4 : N/C	461-357	Pin 4 : Earth
461-385		461-367		461-341	
461-284	<u>Excitation:</u>	461-278	<u>Excitation:</u>	461-262	<u>Excitation:</u>
461-317	10 Volts	461-379	10 - 32 Volts	461-339	10 - 32 Volts
461-329		461-266		461-313	
		461-272		461-250	

MECHANICAL INSTALLATION

Use either a 19mm or 24mm AF wrench on the hexagon provided to a maximum torque of 15Nm. The customer must ensure that the pressure seal is suitable for the application, if in doubt contact RM&C.

LOAD CHARACTERISTICS (4-20mA current output)

The total resistive load in the loop (to include all cable resistance) can be from zero to 50* (supply volts -10) ohms e.g. with a 24Volt supply the permissible load is from zero up to 700 ohms.

WARRANTY

We guarantee this product as designed & manufactured by RM&C to be free from defects in material & workmanship for a period of one year after the date of despatch or otherwise agreed in writing. This warranty shall not apply if the product has been disassembled, tampered with, repaired, modified outside of the factory, subject to misuse, neglect or accident.

MAINTENANCE & REPAIR

Routine periodic inspection of the cable & connector is required to ensure integrity of parts.

The instrument contains no user serviceable parts & cannot be repaired in the field. It must be returned, fully decontaminated, to RM&C:

PERIODIC CALIBRATION

A UKAS calibration is available on this transducer.