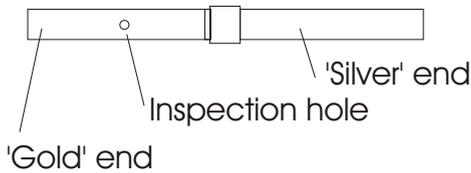


DR X - Installation Guidelines

1. Contact to Wire Assembly



A) Crimping wire to contacts

Use wire sizes 0.13-0.34mm² (22, 24 or 26 awg)

- 1) Strip wires to 4 - 5 mm and insert into the crimp barrel ('Gold' end) until wire is visible through the inspection hole.
- 2) Seat contact and wire into flat side of crimp tool, and crimp.
- 3) Inspect the crimp for wire visibility through the inspection hole.

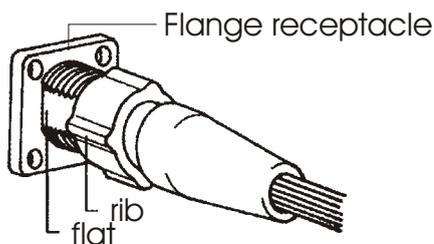
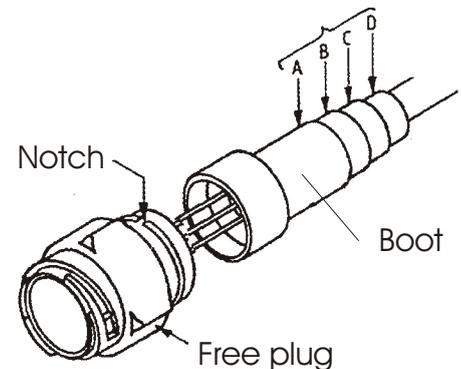
B) Soldering of Wire Contacts

- 1) Pre-tin the wire so that the solder penetrates the wire but does not damage the insulation.
- 2) Apply heat (approx. 370°C soldering iron) to the 'Gold' end of the contact and slowly insert the tinned wire.
- 3) Once wire is bottomed in the cup, feed solder (60/40) into the cup. Allow to cool.
- 4) Inspect to ensure there are no sharp spikes, dry joints, and that the solder does not extend beyond the cup.

2. Wired Contact to Connector Assembly

Boot and Free Plug Assembly

- 1) Prepare the boot for the correct cable diameter as recommended in the cutting table
- 2) Over the prepared cable slide the boot.
- 3) Insert the contacts into the rear of the 'free plug', pushing on the wire until you feel a click. Pull back on the wire to verify locking in of the contact. (See below for pin designations)
- 4) Slide boot up to the 'free plug' and push home.
- 5) For higher torque applications or difficult environmental conditions the 'free plug' and boot can be glued using a high strength epoxy, or heat-shrink sheathing.

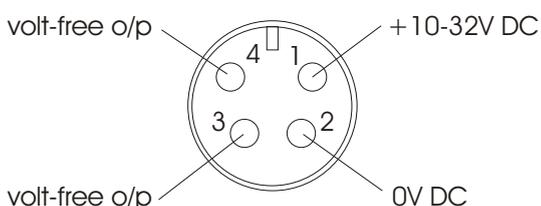


- 6) Finally mate the assembled connector with the 'Flange receptacle' utilising its bayonet fixing. A rib should align with the flat when correctly fitted.

Cutting Table	Cable diameter
A	6.5 mm
B	6.0 mm
C	5.5 mm
D	5.0 mm

Pin Definitions

The pins are numbered on the inside of the free plug; the diagram shows the view from the back of the plug, as you would see it prior to inserting your wired contacts.



Connector Spares

Additional connectors are obtainable from Deutsch Ltd or Farnell Electronic Components Ltd

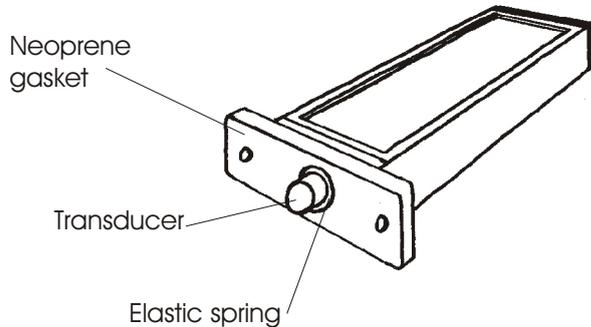
	Deutsch Part No. _____
Free Plug	IMC16-2204X
Boot	6810-204-1001-1-200
Socket Pins	6862-201-22278

Extraction tool	6757-201-2201
Crimp tool	Mh680

DrX is manufactured by E2L Ltd, PO Box 23, MONMOUTH, NP25 3YU, UK

DR X - Installation Guidelines

1. Installing Dr X



Ensuring IP67 rating

DR X has been specially designed to provide optimal contact between the measuring transducer and the machine under test, whilst ensuring IP67 environmental rating when fitted.

DR X modules are not water-proof or dust-proof when fitted incorrectly or in transit.

The neoprene gasket at the base of the unit acts as an 'o' ring and the fixing screws, or studs and nuts, provide the clamping action to effect the seal.

Additional dust protection is provided by the unique elastic spring which both supports the transducer, seals the electronics and decouples it from the module housing.

When the DR X module is not being used, or is awaiting commissioning, make sure that the dust cap is correctly in place.

Similarly, after routine threshold setting, make sure the small dust exclusion plug is firmly in place.

2. Attachment to plant or machinery

A) Set Screws

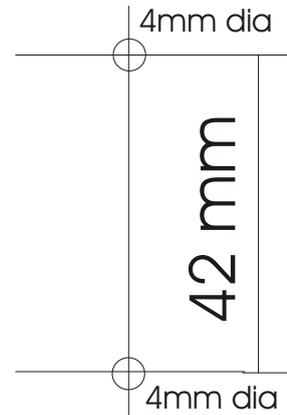
- 1) Drill and tap two M4 holes to the spacing in the diagram. Ensure that the depth of hole is not excessive; 3mm of thread should be more than sufficient for the clamping force.
- 2) Fit the DR X module to the machine using M4 screws and washers. (If DRVIB is being used, spring or disc washers are recommended)

B) Studs and Nuts

- 1) Drill and tap two M4 holes to the spacing in the diagram. Ensure that the depth of hole is not excessive; 3mm of thread should be more than sufficient for the clamping force.
- 2) Insert two M4 studs into the holes.
- 2) Fit the DR X module to the machine using M4 nuts and washers. (If DRVIB is being used, spring or disc washers are recommended)

C) Onto pipes

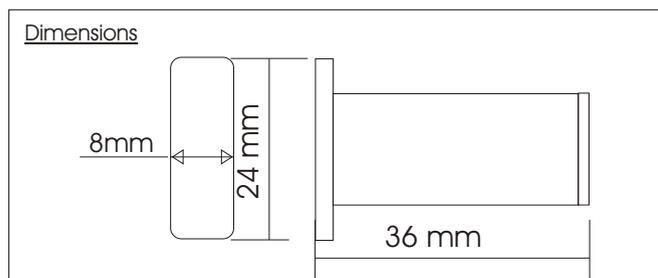
- 1) In the case of leak or cavitation detection it is often useful to clamp DR X directly to a pipe. This is easily achieved by using either nylon tie-wraps or metal hose fixings (worm drive types or 'universal' clips).
- 2) Care must be taken that the diameter of the pipe is large enough to preserve the seal if IP67 rating is needed.



Drilling Guide

3. Commissioning

- 1) When you have installed DR X a simple set-up procedure needs to be followed to commission the product. Each DrX module is provided with an individual User Instructions specific to its type. These User Instructions have been laminated so that they can be kept with the installed module. The User Instruction cards contain a blank space on either side where the 'TAG' name can be written, using an indelible ink pen, for ongoing reference. A hole can be punched through this area if the card is to be attached on or near to the installed module. Please keep these User Instructions safe, preferably close to the individual modules.
- 2) The only user adjustment is accessed via the small sealing cap at the connector end of the module. This is the threshold adjustment potentiometer and defines the point at which the indicator light changes from green to red. The sealing cap must be replaced after adjustment to retain its seal.
- 3) Any cleaning of the units should be undertaken with a cloth, warm water, and a light detergent. **Do not use solvents or petrol based cleaners.**



Dimensions

Attention

All rights reserved. E2L Ltd is not liable for any damages that may occur from the use of a DrX system. E2L Ltd reserve the right to make changes to the technology and specifications.

Technical Specification

Power Supply:	10-32V DC @ 20mA typical
Temperature range:	-25°C to +85°C
Size (including connector):	18mm x 53mm x 97mm
Fixing:	2 off M4 set screws or studs, Cable ties or wraps for pipes
Body Material:	Injection moulded Nylon 66 and ABS
Output:	Bi-colour Red/Green LED. Isolated volt-free N/O contact rated to 48V peak load, A.C. or D.C. switching. @ 100mA max.
Approvals:	CE compliant to EN610101
Patent:	0019557.8