

Drallim's remote digital pressure transducer forms part of a new product range combining microprocessor techniques with Drallim's long distance two-wire digital multi-drop protocol. This technology has been established and proven for many years in the international power and telecommunications industries.



RDT Features:

- ❖ Genuine two-wire digital multi-drop signalling, allowing signal and power to be superimposed on the same pilot pair.
- ❖ Up to 99 individual mixed type RDTs can be addressed sequentially on each pilot pair.
- ❖ Remote operation offering up to 15 kilometres.
- ❖ Longer distances achieved when used in conjunction with Signal Repeater Unit.
- ❖ Superior pressure measurement accuracy with on-board temperature compensation.
- ❖ Environmental Protection: IP68 Rating, (2 metres submersion).
- ❖ Integral 15kV induced protection for installation on auxiliary pilot cables.
- ❖ Ergonomically designed PVDF enclosure.
- ❖ Resistant to corrosive effects of dielectric fluids.
- ❖ 40 Years processor memory charge storage EEPROM, recalibration schedules available.
- ❖ Universal termination components offering standard BSP hydraulic connections.
- ❖ Optional 'Quick-fit' hydraulic coupling and electrical 'plug and socket' devices available.
- ❖ NGC Type-Test approval for installation on EHV cable systems up to and including 400kV.

REMOTE DIGITAL FLUID
PRESSURE TRANSDUCER
WITH 'QUICK-RELEASE'
CONNECTION
3991455/7A05/QC2

For the accurate and reliable long-term measurement of dielectric fluid pressures in transmission and distribution self-contained oil-filled cables, up to and including 400kV.

The range of digital sensors and control equipment has been developed to meet the demanding needs for remote monitoring solutions on power transmission and distribution systems, and in particular self-contained oil filled cables. All monitoring equipment has been designed to withstand the harsh electrical and environmental conditions which prevail in close proximity to power cables. The highly accurate digital transducers are manufactured in a rugged hermetically sealed enclosure with internal transient protection and environmental moisture protection to IP68, (fully submersive to 2 metres depth). The devices are also fully resistant to the corrosive effects of dielectric cable fluids.



View of Pressure Transducer in Cable Pit

Performance Specification:

Parameter	Description
Primary Sensor Type:	Piezo-Resistive
Operating Pressure:	0.85 to 6.25 bar Absolute (Calibrated). Atmospheric to 7.0 Bar Absolute (Working range).
Maximum Pressure:	14 Bar (Pressure in excess will damage the sensor).
Temperature:	-10° C to 55° C (Calibrated Range). -40° C to 80° C (Working Range).
Accuracy:	± 0.1%
RDT Reply Resolution:	0.1mB, rounded to 1mB in system.
Stability:	± 0.25% over 1 year.
Electrical Power Input:	9 to 75V DC on single pair (polarity reversible). Transients 300v AC
Current drain:	130 µA in idle/quiescent mode (Awaiting polling address), 3.0 mA active mode.
Thermal Stability:	Fully temperature compensated circuitry on board.
Maximum number of mixed devices per pilot pair:	99.
Maximum Operating Range: (Loop resistance <10k ohms)	15 kilometres (unloaded twisted pair). Multicore (unspecified).
Poll time:	2.5 seconds per RDT (typically).
Environmental Protection:	IP68 (up to 2 metres fully submerged).
Electrical Conformity:	National Grid Company Type Test Approval.
Housing Material:	PVDF: PolyVinylidene Diflouride.
RDT Hydraulic Union:	¼ inch BSP female parallel thread of non-magnetic stainless steel to BS1780.
'Quick-fit' Hydraulic Connector:	Brass or Stainless Steel Non Return coupling -various
'Quick-fit' Electrical Connection Plug & Socket:	Tested to IP68 (2 metres). 15kV Induced Voltage Protection.
RDT: Overall dimension: (Excluding coupling)	240mm x 50mm Ø
RDT: Overall weight: (Excluding couplings)	0.45 kilograms.

In the interests of technical progress the company reserves the right to make design and manufacture changes to the goods described in this brochure. Any details in this brochure must NOT be reproduced or copied in any form without prior permission of Drallim Industries.