



# MAGNETIC PROXIMITY SWITCH

## INSTALLATION & OPERATING DATA



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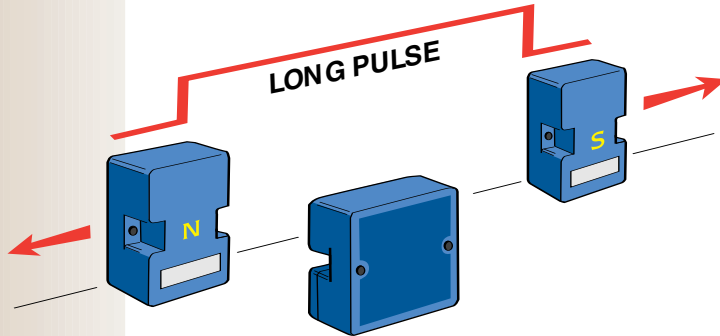
TUNNELS  
•  
MINING  
•  
CONVEYOR CONTROL

**INSTALLATION & OPERATING DATA**

**1 APPLICATION**



Vehicle counting, vehicle location, loco zoning shores  
Machine traverse and position detection overtravel,  
ultimate limits.



Ideal for Intrinsically Safe and Hazardous Area applications.

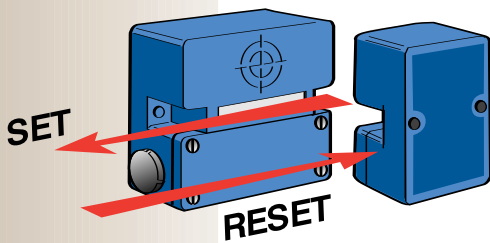
A pair of magnets, North and South poles, can be used together to obtain an extended pulse length. The lengths of pulse is directly related to the distance between the two magnets.

**2 PRINCIPLE OF OPERATION**

The TX1013 Proximity Switch contains a sealed magnetic reed switch in a robust environmental proof housing. The reed switch is positioned in an accurately balanced magnetic circuit and will respond to an external operating magnet, latching 'on' when the magnet passes in one direction and re-setting 'off' when the magnet returns (bistable). No auxiliary electrical supply is needed and the switch will retain its last 'set' under power failure.

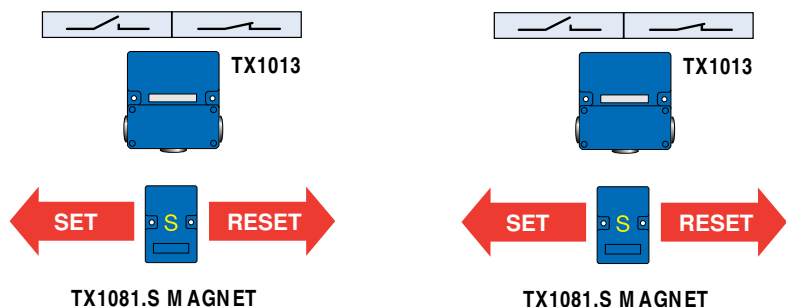
**3 INSTALLATION**

The TX1004 Magnetic Proximity Switch should be used in conjunction with a standard Trolex Operating Magnet (Order Ref. TX1080).



- Mount the switch and magnet face to face, approximately on the same centre line aligned together as shown.
- The contacts close as the magnet passes in one direction and opens when the magnet returns.

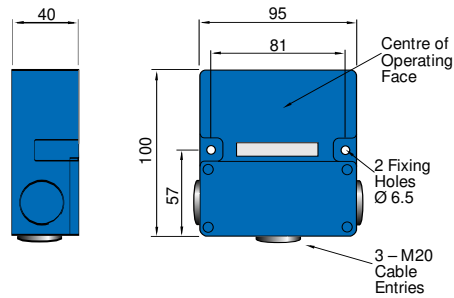
Direction of operation is determined by using either a north pole magnet or a south pole magnet, or simply by inverting the switch housing.



**INSTALLATION & OPERATING DATA**



**4 DIMENSIONS**



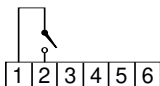
ALL DIMENSIONS IN MM

**5 TECHNICAL DETAILS**

|                            |  |
|----------------------------|--|
| Temperature Limits:        | -20...100°C.   |
| Protection Classification: | Dust and waterproof to IP65.   |
| Housing Material:          | Glass reinforced polycarbonate.  |
| Operating Distance:        | 80mm maximum with TX1081 Magnet.<br>This may be reduced by any surrounding metalwork in close proximity. |
| Nett Weight:               | 1.0Kg.   |

**6 ELECTRICAL DETAILS**

Connections:



Contact Rating: 230V ac, 2A, 50W.

The contacts are suitable for direct switching of small inductive loads such as control relays. Contact protection must be provided to ensure these instantaneous ratings are not exceeded, especially during any peak in-rush or surge conditions which may be present in the circuit – we can advise.

**7 PRECAUTIONS**

DO NOT use inductive test buzzers, bells, or incandescent lamps on the contacts. Current in-rush and voltage spikes may damage the contacts.

**8 ACCESSORIES**

- TX1081.N OPERATING MAGNET
- TX1081.S OPERATING MAGNET

