

# INTRINSICALLY SAFE ISOLATING RELAY UNIT (Ex eq)

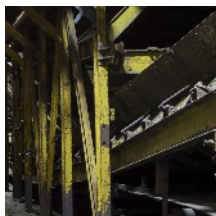
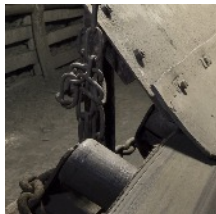


## INSTALLATION & OPERATING DATA



**ATEX**  
M2/M1  
GROUP I  
INTRINSICALLY  
SAFE

**FOUR  
ISOLATING  
RELAYS,  
HOUSED  
IN AN EX EQ  
ENCLOSURE  
FOR  
INTERFACING  
BETWEEN  
EXI AND EXD  
CONTROL  
CURRENTS**



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**INSTALLATION & OPERATING DATA**

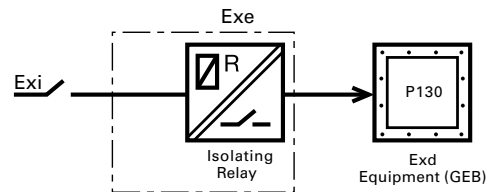


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**1 PRINCIPAL OPERATING FEATURES**

Four isolating relays housed in an Ex eq enclosure for interfacing between Exi and Exd control currents.

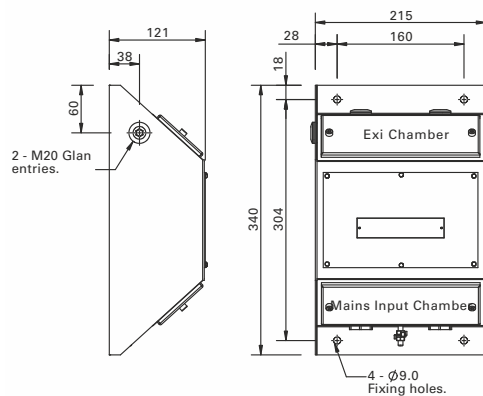
- The operating coils of the relays are Intrinsically Safe and the contacts are clearance compatible for switching non-intrinsically safe apparatus or devices in separate Exd enclosures (eg. P130 pilot circuits).
- The connecting terminals of the relay are Exe standard.
- The relay coils can be rated for either 7.5 V dc or 12 V dc operation and each relay carries one changeover contact.
- Robust stainless steel housing couples directly to standard Trolex housings using a Trolex coupling bush.



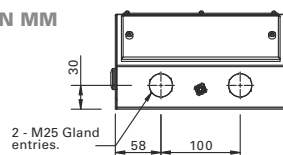
**2 TECHNICAL DETAILS**

Number of Relays:	4
Relay Contact Format:	One changeover per relay
Relay Contact Rating:	5 Amp at 230 V ac max per relay
Relay Coil Voltage:	7.5 V dc or 12 V dc
Relay Coil Current:	27 mA max. 26 mA max per relay
Max. Operating Temperature:	-20°C to +55°C
Storage Temperature:	-20°C to +70°C
Humidity:	0 to 95% RH, non-condensing
Vibration Limits/Low Frequency:	0.25 mm pk, sinusoidal vibration in the range 10Hz to 100Hz in 3 perpendicular planes
Medium Frequency:	2g pk, sinusoidal vibration in the range 10Hz to 600Hz in 3 perpendicular planes
Mechanical Shock:	1000 shocks of 40g minimum in 3 perpendicular planes
Housing Material:	Stainless Steel

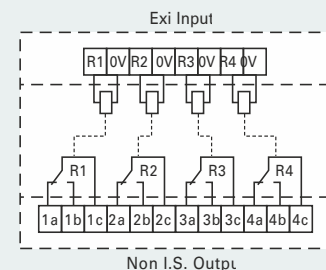
**3 DIMENSIONS**



ALL DIMENSIONS IN MM



**Connections**



## INSTALLATION & OPERATING DATA



### 4 CONFORMITY CHECK

7.5 V dc • 12 V dc

- Does the supply voltage marked on the product agree with the locally available supply?

0.5 A at 30 V dc  
5 A at 250 V ac  
100 V A max

- Check that the output current rating marked on the product is adequate for the total current demand of the system being installed.

Exi Group I

- Ensure that the Power Supply certification details are fully compliant with the monitoring system requirements.  
If in any doubt, please contact the Trolex Sales department.

#### OPTIONS AVAILABLE



TX6661 INTRINSICALLY SAFE ISOLATING RELAY UNIT (Ex eq)

Input Voltage Options:  
7.5 V dc Exi (.109)  
12 V dc Exi (.101)

### 5 PRECAUTIONS

- Ensure that all covers on Exe housings and their fixing devices are properly secured in compliance with statutory regulations before switching on the input supply.
- Never remove the cover of an Exe housing whilst the input supply is connected. Isolate elsewhere before removing the cover in accordance with statutory regulations.
- The housing of all power supplies must be securely earthed in compliance with statutory regulations.
- Ensure that the installation of the isolating relay unit, particularly with regard to the connecting cables, complies with the certification parameters (section 6). **Refer to Section 6**
- The Exe housing must be inspected and maintained regularly in accordance with statutory regulations.
- All cables entering the non I.S. output terminal chamber must be terminated with suitable, certified cable entry devices.
- Do not drill holes in the Exe housing or modify it in any way.
- This enclosure is permanently sealed and repair is not permitted. Please return to Trolex for repair.



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**INSTALLATION & OPERATING DATA**



**6 APPROVALS AND CERTIFICATION**

**6.1 Certification**

The TX6661 Isolating Relay Unit is designed and approved meet the ATEX directive (94/9/EC).



Sira 02ATEX3420X I M2 Ex eq I Mb

Safety description: I.S terminals 3, 5, 7, 9 wrt 0 V Relay contact terminals a, b and c Relays 1-4  
 Ui = 13.0 V (for the 12 V relays) Um = 375 V peak  
 Ui = 8.5 V (for the 9 V relays) li = 5 A

**6.2 Electro Magnetic Compatibility**

The TX6661 Isolating Relay Unit is designed and tested to meet the requirements of the EMC directive (2004/108/EC).



**6.3 Low Voltage**

The TX6661 Isolating Relay Unit is designed and tested to meet the requirements of the Low Voltage directive (73/23/EC).

**6.4 Specific Conditions of Use**

All cables used for external connections shall be made by the use of suitably certified Ex e cable glands. The use of conduit is not permitted.



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