

**QUESTIONNAIRE**  
**RACO electric actuators in ATEX atmosphere**



Customer: \_\_\_\_\_ Contact Person \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_  
 Zip Code: \_\_\_\_\_ Technician: \_\_\_\_\_  
 City: \_\_\_\_\_ Purchase: \_\_\_\_\_  
 Street: \_\_\_\_\_ E-mail: \_\_\_\_\_

Inquiry No.: \_\_\_\_\_ Date: \_\_\_\_\_ Quantity: \_\_\_\_\_  
 Project: \_\_\_\_\_ Budget: \_\_\_\_\_  
 Remark / Application: \_\_\_\_\_

**Check list for explosion-proof data gathering**

For dimensioning RACO electric actuators according EU directive 2014/34/EU it is essential to fill in this check list and to clarify conscientiously all unanswered questions about explosion-proof. For dimensioning RACO cylinder unit following information have to be considered or/and indicated.

▪ **Equipment group, equipment categories and zone classification**

Equipment group	Please mark
Equipment group I	not possible
Equipment group II	X

Categorie / Zone	Ex-atmosphere	Please mark
Categorie 1 (= Zone 0/20)	..is present continuously or for long periods or frequently	not possible
Categorie 2 (= Zone 1/21)	..occurs in normal operation occasionally	<input type="checkbox"/>
Categorie 3 (= Zone 2/22)	..occurs occasionally for a short period only	<input type="checkbox"/>

▪ **Temperature classes**

Temp.-classes	Permissible surface temperature of the electrical equipment (°C)	Ignition temperature range of the mixture (°C)	Please mark
T 1	450	> 450	<input type="checkbox"/>
T 2	300	300 < ... < 450	<input type="checkbox"/>
T 3	200	200 < ... < 300	<input type="checkbox"/>
T 4	135	135 < ... < 200	<input type="checkbox"/>
T 5	100	100 < ... < 135	not possible
T 6	85	85 < ... < 100	not possible

T1 to T 4 possible, T 5 and T6 not possible

Temperature	Please fill in
Minimum ignition temperature of the dust-air mixture (°C)	
Maximum surface temperature in case of dust (°C)	

▪ **Type of protection**

Standard	Code	Type of ignition protection	Please mark
EN ISO 80079-37	„h“	„c“ protection type constructive safety	X
		„b“ protection by control of ignition sources	Not possible
		„k“ protection type oil / liquid immersion	Not possible

Signature: \_\_\_\_\_

Stamp: \_\_\_\_\_

Date: \_\_\_\_\_

Adresse / Address  
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 58332 Schwelm  
 Germany  
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 DE 73 3406 0094 0008 3874 58

BIC  
 WELADED1SLM  
 COBADEFFXXX  
 VBR5DE33XXX

▪ **Medium**

<b>Gas/vapour or dust atmosphere</b>	<b>Please fill in</b>
Which medium is present (e.g. wood dust, methane, etc.)	

▪ **Ex-Atmosphere**

Gas (group II)	Please mark	Dust (group III)	Please mark
IIA (acetone, ethane, etc.)	<input type="checkbox"/>	IIIA fibers	<input type="checkbox"/>
IIB (ethylene, city gas, etc.)	<input type="checkbox"/>	IIIB non conductive dust	<input type="checkbox"/>
IIC (hydrogen, acetylene)	not possible	IIIC conductive dust	not possible



▪ **Ambient temperature**

<b>Environment</b>	<b>Please fill in</b>
Ambient temperature (only permitted in the range of -20° up to +40°C)	

▪ **Application**

<b>Operating cycles</b>	<b>Please fill in</b>
Double strokes per time interval (e.g. 2 double strokes per hour )	

**Information for projecting the RACO electric actuator:**

**0 Design:**       straight             angled      

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**1 Voltage:**       1 x      **V DC**       1x      **V AC**      **Hz**       3x      **V AC**      **Hz**

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**2 Linear rod speed:**      about      mm/s      Acceleration / Deceleration:      m/s<sup>2</sup>  
**Reproducible intermediate positions:**       Yes       No      Position accuracy:      mm  
**Hand operator:**       Yes       No       Brake „L“ => with voltage brake releases

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**3 Push-pull thrust:**      kN      **static load:**      kN      **guided Load?**       Yes       No  
**Load direction:**       pushing       pulling       pushing and pulling  
**Installation position:**       horizontal       vertical       inclined in an angle of      degrees  
**Motor position:**       at top       at bottom

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**4 Required stroke:**      mm (used stroke)      mm + stroke reserve:      mm)

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**5 Influences to the system:**      Are there **vibrations** at static load?       Yes       No

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**6 Type of mounting:**       Lateral trunnions       Trunnion brackets (movable)       Flange

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**7 Enviromental conditions:**       dry       dusty       humid       tropical  
**Working place:**       outdoor       ocean, outdoors       covered       indoor  
**Kind of protection:**       rod cover (bellow)       solid protection tube       front joint (instead of front clevis)

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**8 Position:**       2       4       6 adjustable mech. limit switches       overload protection  
 analogue position feedback 4-20 mA       analogue position feedback 0-10V

**Extras:**

Signature: \_\_\_\_\_

Stamp:



Date: \_\_\_\_\_