Translation

(1) EU-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** **TÜV 12 ATEX 085253 X** **issue:** 01

(4) for the product: Electro Pneumatic Position Controller ARCAPRO Typ 827A.*ab-cde-fgh-i-k*

(5) of the manufacturer: **ARCA-Regler GmbH**

(6) Address: Kempener Straße 18
47918 Tönisvorst, Germany

Order number: 8000476586

Date of issue: 2018-04-30

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential ATEX Assessment Report No. 18 203 208283.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 + A11: 2013 EN 60079-11: 2012

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 2 G Ex ia IIC T6/T4 Gb
II 3 G Ex ic IIC T6/T4 Gc

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 12 ATEX 085253 X issue 01**

(15) Description of product

The electro pneumatic position controller ARCAPRO type 827A.*ab-cde-fgh-i-k* is used for the control of valve resp. flap positions of pneumatic actuators.

The position controller can be equipped with the following options:

Alarm module	6DR4004-6A	specification d = B
SIA module (Slot initiators)	6DR4004-6G	specification d = S
Contact module	6DR4004-6K	specification d = K
Analog module	6DR4004-6J	specification c = A
Internal NCS module	6DR4004-5LE	specification h = 1
EMC filter module	6DR4004-6F	specification h = 2
OPOS Interface®	6DR4004-5PB	-

Type key:

The type designation of the position controller can be provided with the following specifications:

a = X; N
b = 2; 4
c = 0; A
d = 0; B; S; K
e = 0; H; P; F
f = M; E
g = 1; 2
h = 0; 1; 2
i = G; N; M; P; R; S
k = FIP; LT; SA; SB; SS; SW

Technical data:

<table>
<tr><td rowspan="5">2-wire circuit without HART
Type 827A.a2-cd0-fgh-i-k

2-wire basic device without HART
<u>Auxiliary power supply / control current</u> 4...20 mA
terminals 6+ and 7/8(-)</td><td colspan="5">Type of protection: Ex ia
only for the connection to certified intrinsically safe circuits</td></tr>
<tr><td>Ui</td><td>Ii</td><td>Pi</td><td>Ci</td><td>Li</td></tr>
<tr><td>30 V</td><td>100 mA</td><td>1 W</td><td>11 nF</td><td>207 µH</td></tr>
<tr><td colspan="5">Type of protection: Ex ic
only for the connection to intrinsically safe circuits</td></tr>
<tr><td>Ui</td><td>Ii</td><td rowspan="2"></td><td>Ci</td><td>Li</td></tr>
<tr><td>30 V</td><td>100 mA</td><td>11 nF</td><td>207 µH</td></tr>
<tr><td><u>Binary input</u> (terminals 9 and 10)
galvanically conn. to aux. power supply / control current</td><td colspan="5">jumpered or connected to switch contact</td></tr>
</table>

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2-wire circuit with HART Type **827A.***a***4-***cd***H-***fgh-i***-k **2-wire basic device with HART** Auxiliary power supply / control current 4...20 mA 1) Jumper between terminal 6 and 4/5 2) Control current connection terminals 3+ and 7/8(-) **3/4-wire basic device with HART** Auxiliary power supply 18...30 V (terminals 2+ and 4/5) and Control current 4...20 mA (terminals 6+ and 7/8) 4L: aux. power supply and control current elec. isolated 3L: common base point (terminals 4/5 and 7/8)	**Type of protection: Ex ia** only for the connection to certified intrinsically safe circuits				
	U_i	I_i	P_i	C_i	L_i
	30 V	100 mA	1 W	11 nF	310 µH
	Type of protection: Ex ic only for the connection to intrinsically safe circuits				
	U_i	I_i		C_i	L_i
	30 V	100 mA		11 nF	310 µH
Binary input (terminals 9+ and 10-) galvanically conn. to aux. power supply / control current	jumpered or connected to switch contact				

Basic device with Profibus type **827A.***ab-cd***P-***fgh-i***-k **Basic device with Foundation Fieldbus** type **827A.***ab-cd***F-***fgh-i***-k Bus-circuit (terminals 6+ and 7-)	**Type of protection: Ex ia** only for supply with a certified FISCO power supply				
	U_i	I_i	P_i	C_i	L_i
	17.5 V	380 mA	5.32 W	(*1	8 µH
	Type of protection: Ex ia only for supply with a certified barrier				
	U_i	I_i	P_i	C_i	L_i
	24 V	250 mA	1.2 W	(*1	8 µH
	Type of protection: Ex ic only for supply with a FISCO power supply				
	U_i	I_i		C_i	L_i
	17.5 V	570 mA		(*1	8 µH
	Type of protection: Ex ic only for supply with a barrier				
	U_i			C_i	L_i
	32 V			(*1	8 µH
Binary input (terminals 9+ and 10) galvanically connected to the bus circuit	jumpered or connected to switch contact				

Basic device with Profibus type **827A.***ab-cd***P-***fgh-i***-k **Basic device with Foundation Fieldbus** type **827A.***ab-cd***F-***fgh-i***-k Safe-input (terminals 81+ and 82-) galvanically from bus circuit and binary input isolated	**Type of protection: Ex ia** only for the connection to certified intrinsically safe circuits				
	U_i	I_i	P_i	C_i	L_i
	30 V	100 mA	1 W	(*1	(*1
	Type of protection: Ex ic only for the connection to intrinsically safe circuits				
	U_i	I_i		C_i	L_i
	30 V	100 mA		(*1	(*1

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Option
Alarm module
6DR4004-6A

Binary output circuits
terminals (31+ and 32-); (41+ and 42-); (51+ and 52-)
galvanically safe isolated from each other

Type of protection: Ex ia
only for the connection to certified intrinsically safe circuits

U_i	I_i	P_i	C_i	L_i
15 V	25 mA	64 mW	5.2 nF	(*1

Type of protection: Ex ic
only for the connection to intrinsically safe circuits

U_i	I_i		C_i	L_i
15 V	25 mA		5.2 nF	(*1

Option
Alarm module
6DR4004-6A

Binary input circuits
terminals (11+ and 12)
galvanically safe from binary outputs and basic device isolated
terminals (21 and 22)
jumpered, galvanically from basic device not isolated

Type of protection: Ex ia
only for the connection to certified intrinsically safe circuits

U_i		C_i	L_i
25.2 V		(*1	(*1

Type of protection: Ex ic
only for the connection to intrinsically safe circuits

U_i		C_i	L_i
25.2 V		(*1	(*1

Option
SIA-module
6DR4004-6G

Binary output (fault signal)
terminals (31+ and 32-)

Type of protection: Ex ia
only for the connection to certified intrinsically safe circuits

U_i	I_i	P_i	C_i	L_i
15 V	25 mA	64 mW	5.2 nF	(*1

Type of protection: Ex ic
only for the connection to intrinsically safe circuits

U_i	I_i		C_i	L_i
15 V	25 mA		5.2 nF	(*1

Option
SIA-module
6DR4004-6G

Binary output (Slot initiators)
terminals (41+ and 42-); (51+ and 52-)

Type of protection: Ex ia
only for the connection to certified intrinsically safe circuits

U_i	I_i	P_i	C_i	L_i
15 V	25 mA	64 mW	161 nF	120 µH

Type of protection: Ex ic
only for the connection to intrinsically safe circuits

U_i	I_i	P_i	C_i	L_i
15 V	25 mA	64 mW	161 nF	120 µH

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Option
Mechanical limit switch module
6DR4004-6K

Binary output (fault signal)
terminals (31+ and 32-)

Type of protection: Ex ia only for the connection to certified intrinsically safe circuits				
U_i	I_i	P_i	C_i	L_i
15 V	25 mA	64 mW	5.2 nF	(*1

Type of protection: Ex ic only for the connection to intrinsically safe circuits				
U_i	I_i		C_i	L_i
15 V	25 mA		5.2 nF	(*1

Option
Mechanical limit switch module
6DR4004-6K

Binary outputs (Slot initiators)
terminals (41+ and 42-); (51+ and 52-)

Type of protection: Ex ia only for the connection to certified intrinsically safe circuits				
U_i	I_i	P_i	C_i	L_i
30 V	100 mA	750 mW	(*1	(*1

Type of protection: Ex ic only for the connection to intrinsically safe circuits				
U_i	I_i		C_i	L_i
30 V	100 mA		(*1	(*1

Option
Position feedback module
6DR4004-6J

Only temperature class T4!

Current output
terminals (61+ and 62-)
galvanically from alarm module and basic device isolated

Type of protection: Ex ia only for the connection to certified intrinsically safe circuits				
U_i	I_i	P_i	C_i	L_i
30 V	100 mA	1 W	11 nF	(*1

Type of protection: Ex ic only for the connection to intrinsically safe circuits				
U_i	I_i		C_i	L_i
30 V	100 mA		11 nF	(*1

Option
EMC filter module
6DR4004-6F

Connection module with filter elements for connection of an external position detection system.

Type of protection: Ex ia resp. ic supplied via basic device with Profibus PA resp. Foundation Fieldbus FF type 827A.*ab-cde-fgh-i-k* with the specifications (h = 2) and (e = P or F)				
U_o	I_o	P_o	C_o	L_o
5 V	static: 75 mA short-time: 160 mA	120 mW	1 µF	1 mH

Type of protection: Ex ia resp. Ex ic for supply via other basic devices type 827A.*ab-cde-fgh-i-k* with the specifications (h = 2) and (e = 0 or H)				
U_o	I_o	P_o	C_o	L_o
5 V	100 mA	33 mW	1 µF	1 mH

(*1 = Values negligibly small

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Permissible range of ambient temperature:

Type key	T4	T6
ARCAPRO position controller type 827A.*ab-cde-fgh-i-k* with the specifications (*b* = 2 or 4) resp. (*e* = P or F)	-30 °C ≤ T_a ≤ +80 °C	-30 °C ≤ T_a ≤ +50 °C
ARCAPRO position controller type 827A.*ab-cde-fgh-i-k* with the specifications (*k* = LT) and (*b* = 2 or 4) resp. (*e* = P or F)	-40 °C ≤ Ta ≤ +80 °C	-40 °C ≤ Ta ≤ +50 °C
ARCAPRO position controller **with build-in position feedback module** type 827A.*ab-cde-fgh-i-k* with the specification (*c* = A) **Position feedback module for optional installation** 6DR4004-6J	**Only permissible for T4!** -30 °C ≤ T_a ≤ +80 °C	-
ARCAPRO position controller **with build-in position feedback module** type 827A.*ab-cde-fgh-i-k* with the specifications (*k* = LT) and (*c* = A)	**Only permissible for T4!** -40 °C ≤ T_a ≤ +80 °C	
ARCAPRO position controller **without build-in position feedback module** type 827A.*ab-cde-fgh-i-k* with the specifications (*c* = 0) and (e = 0 or H) and (d = 0 or B or S or K)	-30 °C ≤ T_a ≤ +80 °C	-30 °C ≤ T_a ≤ +60 °C
ARCAPRO position controller **without build-in position feedback module** type 827A.*ab-cde-fgh-i-k* with the specifications (k = LT) and (*c* = 0) and (e = 0 or H) and (d = 0 or B or S or K)	-40 °C ≤ T_a ≤ +80 °C	-40 °C ≤ T_a ≤ +60 °C

(16) Drawings and documents are listed in the ATEX Assessment Report No. 18 203 208283

(17) Specific Conditions for Use

The electropneumatic positioner ARCAPRO type 827A.*ab-cde-fgh-i-k* can also be operated with clean dry natural gas, freely of additions at place of air. The requirement for operation with natural gas is the use of an electric connection with protection level ia, Category 2G.

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The electropneumatic positioner ARCAPRO type 827A.*ab-cde-fgh-i-k* has to be erected in such a way that the plastic window is only exposed to a low level of hazard of mechanical damage.

The capacitance of the labels exceeds the allowed value of 3pF. Operating instructions must be observed.

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -