

## D-BOX

### Il box di finecorsa Ex d per condizioni ambientali estreme

La custodia del d-box è Ex-d, in alluminio di alta qualità e priva di rame (contenuto max. 0,05%).

La riduzione della quantità di rame contenuto aumenta la naturale resistenza alla corrosione dell'alluminio, facendolo risultare particolarmente resistente ad atmosfere con presenza di salsedine, gas solfurei e nitrato d'ammonio. Il d-box può contenere 1-4 finecorsa meccanici e sensori V3.

Onoltre possono esservi montati 1-2 sensori di tipo slot e 1-2 sensori cilindrici (diametro max. 12 mm / lunghezza max. 35 mm). Tutti i nostri bracket sono regolabili in altezza e larghezza e vengono forniti insieme al tipo di box scelto.

### The Ex d switch box also for extreme environments

The d-box is an Ex d housing made of high class and copper-free aluminum pressure die casting (copper content max. 0,05 %). The reduction of the copper content increases the natural corrosion resistance of aluminum. Copper-free aluminum is particularly resistant to salt atmosphere, sulphur gases and ammonium nitrate. The d-box can contain up to 4 mechanical micro switches and sensors in V3 design. Furthermore 1-2 slot type sensors and 1-2 cylindrical sensors (max. diameter 12mm / max. length 35mm) can be installed. All our brackets are adjustable in height and length and are always included in the delivery.



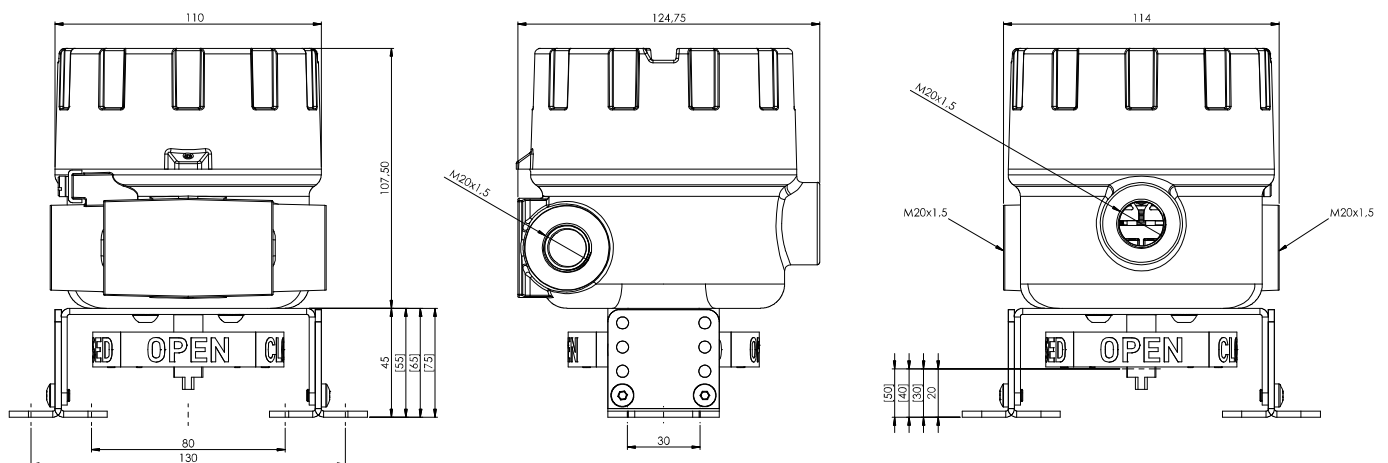
# Box di finecorsa antideflagrante, alluminio senza rame, Ex d / Ex t

Flameproof limit switch box, copper-free aluminum, Ex d / Ex t



<b>Modello box</b> Housing type	<b>DA-D</b>	<b>DA-D-40°C</b> <b>DA-D-55°C</b>
<b>Materiale box/bracket/albero</b> Housing/bracket/shaft material	Alluminio / AISI 304 / AISI 303 Aluminum / Stainless steel AISI 304 / Stainless steel AISI 303	Alluminio / AISI 304 / AISI 303 Aluminum / Stainless steel AISI 304 / Stainless steel AISI 303
<b>Materiale guarnizioni/viti</b> Sealing/screw material	Elastosil, NBR / AISI 316 Elastosil, NBR / Stainless steel AISI 316	-40 °C: Elastosil / NBR, -55 °C: SiliCON / AISI 316 -40 °C: Elastosil / NBR, -55 °C: Silicone / Stainless steel AISI 316
<b>Indicatore di posizione</b> Visual indicator	OPEN-CLOSED (OC)	OPEN-CLOSED (OC)
<b>Foratura attuatore</b> Actuator hole spacings	80x30 mm / 130x30 mm (Optional: 50x25 mm)	80x30 mm / 130x30 mm (Optional: 50x25 mm)
<b>Altezza albero attuatore</b> Actuator shaft heights	20, 30, 40, 50 mm	20, 30, 40, 50 mm
<b>Foratura F05</b> F05 interface	Standard Standard	Standard Standard
<b>Connessioni</b> Connections	3x M20x1,5, <b>senza connessione cavo</b> no cable gland	3x M20x1,5, <b>senza connessione cavo</b> no cable gland
<b>Temperatura ambiente</b> Ambient temperature	T6 / T85 °C: -25 °C ... +75 °C	T6 / T85 °C: -55 °C / -40 °C ... +75 °C

## Dimensioni Dimensions



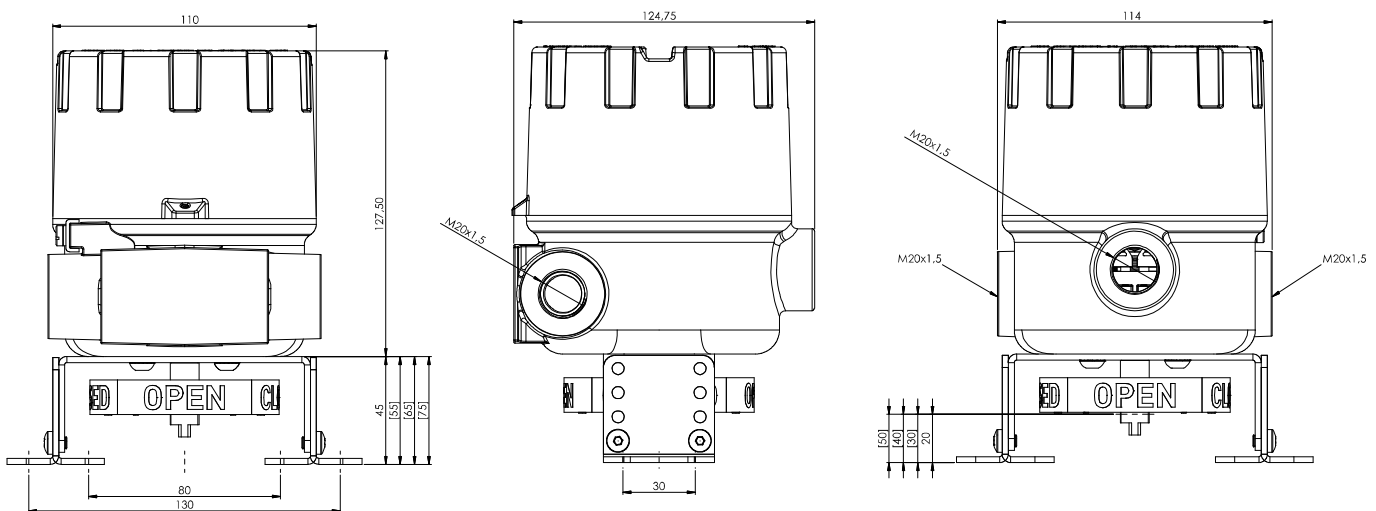
# Box di finecorsa antideflagrante, alluminio senza rame, Ex d / Ex t

Flameproof limit switch box, copper-free aluminum, Ex d / Ex t



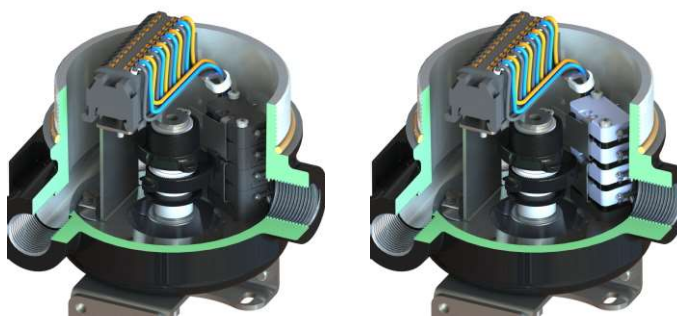
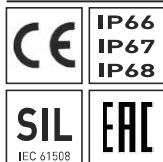
<b>Modello box</b> Housing type	<b>DA-D-2D</b>	<b>DA-D-2D-40°C</b> <b>DA-D-2D-55°C</b>
<b>Materiale box/bracket/albero</b> Housing/bracket/shaft material	Alluminio / AISI 304 / AISI 303 Aluminum / Stainless steel AISI 304 / Stainless steel AISI 303	Alluminio / AISI 304 / AISI 303 Aluminum / Stainless steel AISI 304 / Stainless steel AISI 303
<b>Materiale guarnizioni/viti</b> Sealing/screw material	Elastosil (optional silicone), NBR / AISI 316 Elastosil (optional silicone), NBR / Stainless steel AISI 316	-40 °C: Elastosil / NBR, -55 °C: Silicone / AISI 316 -40 °C: Elastosil / NBR, -55 °C: Silicone / Stainless steel AISI 316
<b>Indicatore di posizione</b> Visual indicator	OPEN-CLOSED (OC)	OPEN-CLOSED (OC)
<b>Foratura attuatore</b> Actuator hole spacings	80x30 mm / 130x30 mm [Optional: 50x25 mm]	80x30 mm / 130x30 mm [Optional: 50x25 mm]
<b>Altezza albero attuatore</b> Actuator shaft heights	20, 30, 40, 50 mm	20, 30, 40, 50 mm
<b>Foratura F05</b> F05 interface	Standard Standard	Standard Standard
<b>Connessioni</b> Connections	3x M20x1,5, senza connessione cavo no cable gland	3x M20x1,5, senza connessione cavo no cable gland
<b>Temperatura ambiente</b> Ambient temperature	T6 / T85 °C: -25 °C ... +75 °C	T6 / T85°C: -55 °C / -40 °C ... +75 °C

## Dimensioni Dimensions



# Box con micro finecorsa meccanici, DPDT, Ex d / Ex t

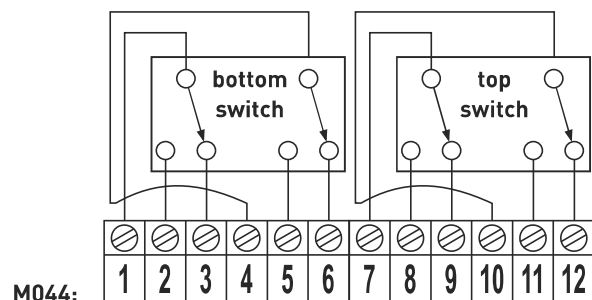
Limit switch box with mechanical micro switches, DPDT, Ex d / Ex t



<b>Modello finecorsa</b> Switch type	<b>CHERRY, D44X-DPDT</b> (DPDT, NO/NC)	<b>CROUZET, 83161.8-DPDT</b> (DPDT, NO/NC)	
<b>Tensione</b> Voltage	12 - 250 V AC / DC	24 - 250 V AC/DC	
<b>Consumo corrente</b> Current consumption	0,1 - 10 A	Argento: AC: 250 V, 10 A / DC: 24 V, 2,5 A Oro: AC: 250 V, 0,1 A / DC: 24 V, 0,1 A	
<b>Contatti</b> Contacts	Argento Silver	Argento / Oro Silver / Gold	
<b>Livello SIL</b> SIL Level	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)	
<b>ATEX/IECEX</b> ATEX/IECEX	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	
<b>Certificazione EU</b> EU-Type examination certificate	EPS 16 ATEX 1031 X IECEX EPS 16.0011 X	EPS 16 ATEX 1031 X IECEX EPS 16.0011 X	
<b>Zone Ex</b> Ex zone	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22	
<b>Temperatura ambiente</b> Ambient temperature	[-40 °C] -25 °C ... +75 °C	[-40 °C] -25 °C ... +75 °C	
<b>Nr. max. di finecorsa</b> Max. number of switches	2	2	
<b>Codice articolo*</b> Part number*	<b>DA2M01-609-D-2D</b>	<b>DA2M01-616-D-2D</b>	

\*Codice articolo alla fine del capitolo  
\*General ordering code at the end of chapter

## Schema elettrico Wiring diagram



## Note Notes

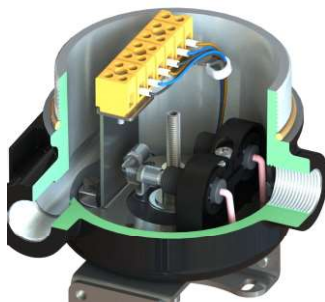
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# Box di finecorsa con sensori magnetici reed

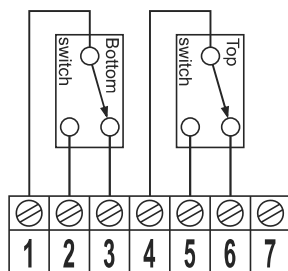
Limit switch box with magnetic reed sensors



<b>Modello finecorsa</b> Switch type	<b>ZF, MP200703</b> (SPDT)		
<b>Tensione</b> Voltage	Max. 30 V AC/DC		
<b>Corrente d'esercizio</b> Operating current	Max. 0,2 A		
<b>Resistenza contatto</b> Contact resistance	Max. 0,100 Ω		
<b>ATEX/IECEx</b> ATEX/IECEx	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex t IIC T85°C Db		
<b>Certificazione EG</b> CE Type examination certificate	EPS 16 ATEX 1031 X IECEx EPS 16,0011 X		
<b>Zona Ex</b> Ex zone	Zone 1, 2 Zone 21, 22		
<b>Temperatura ambiente</b> Ambient temperature	(-40°C) -25°C ... +75°C		
<b>Nr. max. di finecorsa</b> Max. number of switches	2		
<b>Codice articolo*</b> Part number*	<b>DA2R01-614-D</b>		

\*Codice articolo alla fine del capitolo  
\*General ordering code at the end of chapter

## Schema elettrico Wiring diagram



M075:

## Note Notes

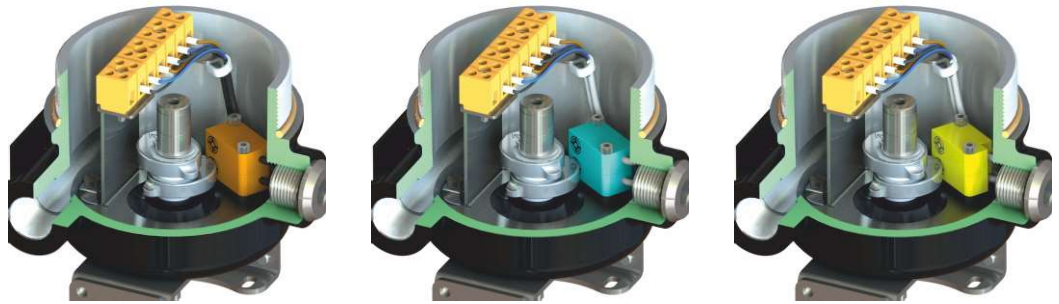
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# Box di finecorsa Ex d / Ex t, con sensori induttivi, 3 fili

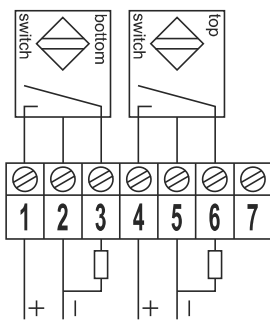
Limit switch box Ex d / Ex t, with inductive proximity switches, 3-wire



Modello finecorsa Switch type	IFM, IS5001 (PNP, NO)	P+F, NBB2-V3-E2 (PNP, NO)	Turck, Bi2-Q10S-AP6X (PNP, NO)
Tensione Voltage	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC
Corrente d'esercizio Operating current	0 - 200 mA	0 - 100 mA	15 - 150 mA
Frequenza Switching frequency	800 Hz	1000 Hz	2000 Hz
Corrente d'al. senza carico I <sub>0</sub> No-load supply current I <sub>0</sub>	≤ 15 mA	≤ 15 mA	≤ 15 mA
Livello SIL SIL Level	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)
ATEX/IECEx ATEX/IECEx	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db
Certificazione EU EU-Type examination certificate	EPS 16 ATEX 1031 X IECEx EPS 16.0011 X	EPS 16 ATEX 1031 X IECEx EPS 16.0011 X	EPS 16 ATEX 1031 X IECEx EPS 16.0011 X
Zona Ex Ex zone	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22
Temperatura ambiente Ambient temperature	-25 °C ... +75 °C	-25 °C ... +75 °C	-25 °C ... +70 °C
Nr. max. di finecorsa Max. number of switches	4	4	4
Codice articolo* Part number*	DA2I01-7-D	DA2I01-D	DA2I01-78-D

\*Codice articolo alla fine del capitolo  
\*General ordering code at the end of chapter

## Schema elettrico Wiring diagram



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## Note Notes

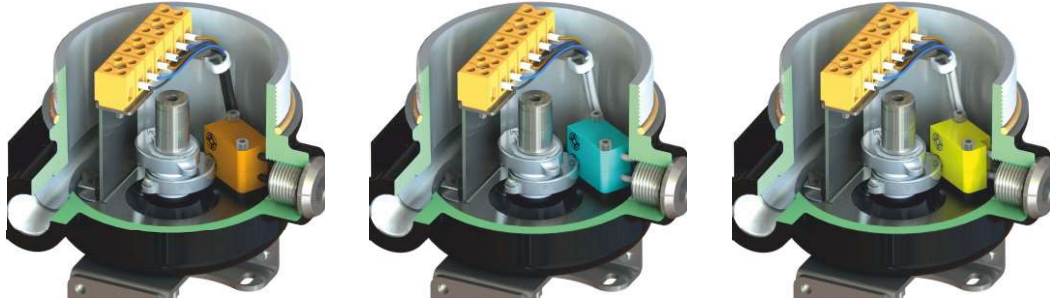
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# Box di finecorsa Ex d / Ex t, con sensori induttivi, 2 fili

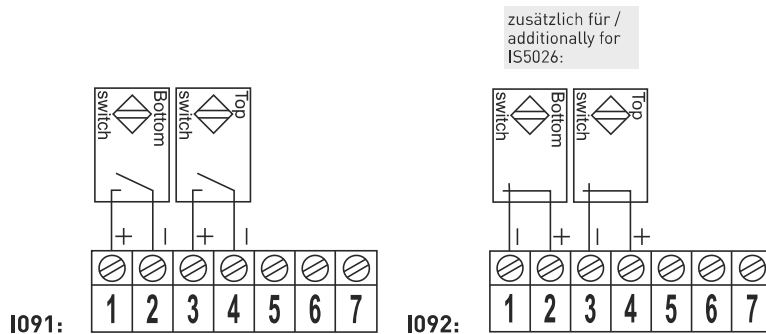
Limit switch box Ex d / Ex t, with inductive proximity switches, 2-wire



<b>Modello finecorsa</b> Switch type	<b>IFM, IS5026</b> (PNP/NPN, NO/NC)	<b>P+F, NBB3-V3-Z4</b> (DC, NO)	<b>Turck, Bi2-Q10S-AZ31X</b> (AC/DC, NO)
<b>Tensione</b> Voltage	5 - 36 V DC	5 - 60 V DC	AC: 20 - 250 V DC: 10 - 300 V
<b>Corrente d'esercizio</b> Operating current	0 - 200 mA	4 - 100 mA	0 - 100 mA
<b>Frequenza</b> Switching frequency	2000 Hz	2000 Hz	20 Hz
<b>Livello SIL</b> SIL Level	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)
<b>ATEX/IECEX</b> ATEX/IECEX	⊕ II 2G Ex d IIC T6 Gb ⊕ II 2D Ex tb IIIC T85 °C Db	⊕ II 2G Ex d IIC T6 Gb ⊕ II 2D Ex tb IIIC T85 °C Db	⊕ II 2G Ex d IIC T6 Gb ⊕ II 2D Ex tb IIIC T85 °C Db
<b>Certificazione EU</b> EU-Type examination certificate	EPS 16 ATEX 1031 X IECEX EPS 16.0011 X	EPS 16 ATEX 1031 X IECEX EPS 16.0011 X	EPS 16 ATEX 1031 X IECEX EPS 16.0011 X
<b>Zona Ex</b> Ex zone	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22
<b>Temperatura ambiente</b> Ambient temperature	-25 °C ... +75 °C	-25 °C ... +75 °C	-25 °C ... +70 °C
<b>Nr. max. di finecorsa</b> Max. number of switches	4	4	4
<b>Codice articolo*</b> Part number*	<b>DA2I01-19-D</b>	<b>DA2I01-9-D</b>	<b>DA2I01-371-D</b>

\*Codice articolo alla fine del capitolo  
\*General ordering code at the end of chapter

## Schema elettrico Wiring diagram



## Note Notes

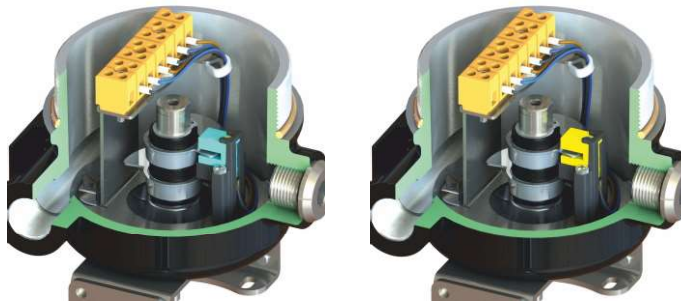
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# Box di finecorsa Ex d / Ex t, con sensori slot, 3 fili

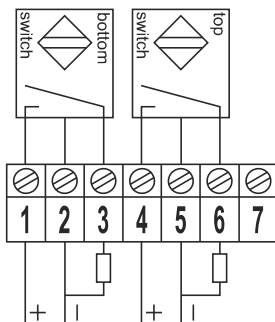
Limit switch box Ex d / Ex t, with inductive slot type sensors, 3-wire



<b>Modello finecorsa</b> Switch type	<b>P+F, SB3,5-E2</b> (PNP, NO)	<b>Turck, Si3,5-K10-AP6X</b> (PNP, NO)	
<b>Tensione</b> Voltage	10 - 30 V DC	10 - 30 V DC	
<b>Corrente d'esercizio</b> Operating current	0 - 100 mA	0 - 200 mA	
<b>Frequenza</b> Switching frequency	3000 Hz	2000 Hz	
<b>Corrente d'al. senza carico I<sub>0</sub></b> No-load supply current I <sub>0</sub>	≤ 7 mA	≤ 15 mA	
<b>Livello SIL</b> SIL Level	SIL 1 - 3 (IEC 61508:2010)	SIL 1 - 3 (IEC 61508:2010)	
<b>ATEX/IECEx</b> ATEX/IECEx	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	Ⓜ II 2G Ex d IIC T6 Gb Ⓜ II 2D Ex tb IIIC T85 °C Db	
<b>Certificazione EU</b> EU-Type examination certificate	EPS 16 ATEX 1031 X IECEx EPS 16.0011 X	EPS 16 ATEX 1031 X IECEx EPS 16.0011 X	
<b>Zona Ex</b> Ex zone	Zone 1, 2 Zone 21, 22	Zone 1, 2 Zone 21, 22	
<b>Temperatura ambiente</b> Ambient temperature	-25 °C ... +70 °C	-25 °C ... +70 °C	
<b>Nr. max. di finecorsa</b> Max. number of switches	2	2	
<b>Codice articolo*</b> Part number*	<b>DA2501-25-D</b>	<b>DA2501-110-D</b>	

\*Codice articolo alla fine del capitolo  
\*General ordering code at the end of chapter

## Schema elettrico Wiring diagram



S030:

## Note Notes

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# Codici articolo

Order code



DA 2 I 01 - 9 - D - - - XY1

**Box Housing**  
**Alluminio senza rame** Copper-free aluminum

**Finecorsa Switches**  
 1 **Pezzo** Piece  
 2 **Pezzi** Pieces  
 3 **Pezzi** Pieces  
 4 **Pezzi** Pieces

**Modello finecorsa** Switch type  
 M **Meccanico** Mechanical  
 I **Induttivo** Inductive  
 S **Slot** Slot type  
 R **Reed** Reed sensor

**Foratura**<sup>1</sup> Hole spacing<sup>1</sup>  
 00 50x25x20 04 130x30x50 08 130x30x40  
 01 80x30x20 05 80x30x40 09 50x25x30  
 02 80x30x30 06 80x30x50 10 F05  
 03 130x30x30 07 130x30x20

**Codice finecorsa** Switch type code

**Protezione ATEX**<sup>2</sup> Explosion protection<sup>2</sup>  
 D **Ex d / Ex t** Zone 1, 2 & Zone 21, 22

**Opzioni e accessori** Options and accessories  
 Su richiesta Upon request

**Cover** Cover  
 Standard Standard  
 2D **Alta** High

**Temperatura ambiente**<sup>3</sup> Ambient temperature<sup>3</sup>  
 Standard Standard  
 #°C **Basse temperature** Low temp. area  
 H#°C **Alte temperature** High temp. area

**Design personalizzabile** Custom design  
 Su richiesta Upon request

## Esempio codificazione Sample part number

<b>DA</b>	<b>Box d-box</b> Switchbox d-box
<b>2</b>	<b>2 finecorsa</b> 2 switches
<b>I</b>	<b>Induttivo</b> Inductive
<b>01</b>	<b>80x30x20 mm</b>
<b>9</b>	<b>P+F, NBB3-V3-Z4</b>
<b>D</b>	<b>Ex d / Ex t</b>
	<b>Senza accessori</b> No accessories
	<b>Cover standard</b> Standard cover
	<b>Temperature standard</b> Standard temperature range
<b>XY1</b>	<b>Design personalizzato 1</b> Custom design 1

**Pro**cess

Fluid Measure & Control

<https://www.proxess.it>  
 proxess@proxess.it

<sup>1</sup> **Bracket disponibili solo in acciaio inox.**  
 Brackets available in stainless steel only.

<sup>2</sup> **Ulteriori protezioni ATEX sono disponibili su richiesta.**  
 Further explosion protection types available upon request.

<sup>3</sup> **Margine di basse temperature: inferiori a -25 °C | Margine di alte temperature: superiori a +80 °C**  
 Low temperature range: below -25 °C | High temperature range: above +80 °C.