

No.: 2021312304001193

Applicant

CORTEM S.p.A.

Address

Via Aquileia 10, I - 34070 Villesse (GO), Italy

Manufacturer

CORTEM S.p.A.

Address

Via Aquileia 10, I - 34070 Villesse (GO), Italy

Production Factory

CORTEM S.p.A.

Production Address

Via Aquileia 10, I - 34070 Villesse (GO), Italy

Product

Signal and Control Operators

Model/Type

M-0 *** ** *** **, M-0 *** * **

Ex marking

Ex d IIC Gb, Ex tD A21 IP66

Reference Standards

GB3836.1-2010, GB3836.2-2010, GB12476.1-2013, GB12476.5-2013

Certification mode

Type Test + Initial Factory Inspection + Post-Certification Surveillance

The product(s) is verified and certified according to CNCA-C23-01: 2019 China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product and CNEX-C2301-2019 Guideline of China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product.

See Annex for the detailed product information (5 pages)

Issued on: 2022-04-14

Valid to: 2027-04-13

The validity of this certificate is maintained through the regular supervision of the issuing authority during the validity period.

Where any discrepancy arises between the English translation and the original Chinese version, the Chinese version shall prevail.

Director:





Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



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P.C.: 473008



(Annex)

No.: 2021312304001193

Page 1 of 5

Product information:

- 1. This certificate covers the following models:
 - M-0 *** ** *** ** Signal operators, M-0 *** * ** command, control operators

M-0 *** ** *** ** Identification of Signal operators:

Туре	M-0	***	**	***	**			
	1	2	3	4	5			
1 500	Code whi	Code which identifies the series						
2	Code whi	Code which identifies the model (see table 1.)						
3	- R: Red - V: Gree - I: Colou - G: Yello - B: Blue - BI: Whit	rless w	lable					
4	- 12: 12 V - 24 : 24 V - 110 : 11 - 230 : 23	Nominal voltage ac/dc (for pilot lights only): - 12: 12 V - 24: 24 V - 110: 110 V - 230: 230 V: other voltages available, see below electrical characteristics						
5	Manufacturing material: - Blank: aluminium alloy body (polycarbonate lens for pilot lights only - IN: stainless steel body							

M-0 *** * ** Identification of Command, Control operators:

Туре	M-0	***	1	**)))!//
	1	2	3	4	

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No.: 2021312304001193

Page 2 of 5

1	Code which identifies the series			
2	Code which identifies the model (see table 1.)			
3	Length of shaft (for switches, key handles and emergency buttons only): - F: for fixed length (standard) - V: for variable length			
4	Manufacturing material: - Blank: aluminium alloy body - IN: stainless steel body			

other suffix can be added on the code for particular configuration, type of external handles or internal lever. (suffix is not related to Ex character)

Electrical characteristics:

Command, Control and Signal operators series M-0..:

Nominal voltage: 250 V ac/dc for pilot lights;

240 V ac/dc for Led pilot lights;

600 V for switches and buttons;

Frequency: 50/60 Hz;

Nominal current: 10 A for push buttons;

1000 A for selector switches;

Power consumption: max 3 W for incandescent lamps;

max 1.5 W for Led lamps.

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No.: 2021312304001193

Page 3 of 5

Types of Command, Control operators are listed on the following Table 1:

Command, C	ontrol operators series M	1-0	
Model	Component description	Typical associated equipment, switchgear or lamp	Electrical characteristics of standard equipment
M-0553 M-0438 M-0437 M-0433 M-0435 M-0439 M-0440 M-0441	Operators with handle for switches	Rotary switches, Isolators/circuit breakers.	16A-1000V
M-0428	Signalling button	BA9 incandescent, LED, Contact blocks.	Lamp: 3W-6/250V Contacts:10A-600V
M-0429	Push buttons	Contact blocks.	10A-600V
M-0430	Emergency button	Contact blocks.	10A-600V
M-0445	Emergency button	Contact blocks.	10A-600V
M-0457 Signalling lights		BA9 incandescent, LED.	3W - 6/250V BA9 incandescent lamp or 1.5W - 6/250V LED
M-0427	Double pushbutton Contact blocks.		10A-600V
M-093	Key switch operator	Rotary switches.	16A-600V
M-0447 M-0446 M-0587 M-0588 M-0117		Contact blocks, Rotary switches.	Contacts: 10A-600V Switches: 16A-600V
M-0557	Potentiometer	Rotary potentiometer.	16A-600V
The state of the s			

The Command, Control and Signal operators series M-0.. have the following standard mounting threads types: cylindrical Metric GB/T197 and GB/T2516 from M32×1.5 or M42×1.5.

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(Annex)

No.: 2021312304001193

Page 4 of 5

For series M-0.. handle switches the mounting threads are cylindrical Metric GB/T197 and GB/T2516 from M16×1.5 or M20×1.5.

Ex marking: Ex d IIC Gb, Ex tD A21 IP66

- Producers should organize production in accordance with the technical documents approved by the certification body.
- 2. Specific conditions of safety use:
 - The Command, Control and Signal operators series M-0.. should be assembled on the cover or walls of metallic Ex d enclosures with minimum thickness 8mm, minimum 5 threads engaged and locked with a blocking system against accidental rotation and loosening. The enclosures should be certified, for Group II (gas) and Group dust with suitable degree of protection IP.
 - The coupling of the Command, Control and Signal operators with the enclosures shall be made as indicated by the manufacturer in the documents in order to respect the type of protection of the electrical apparatus on which they are mounted.
 - The Command, Control and Signal operators series M-0.. shall be installed in such a way that the temperature at the mounting point will remain within the service temperature ranges below:

①from - 40 °C up to + 100°C for Signal operators type M-0457 with Polycarbonate lenses only;

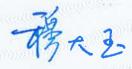
②from - 60 °C up to + 100°C for Signal operators types M-0457AL, M-0457IN and for all other Command, Control and Signal operators with glass lenses;

Furthermore the non-transmission tests have been performed for a maximum ambient temperature of +60°C.

- The IP66 mechanical protection of the Command and Control operators is obtained by inserting an O-ring made of silicon rubber in-between the mounting body and the command rod and furthermore when the mounting body is completely screwed and sealed as shown into the mounting instruction.

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Page 5 of 5

- It is the final assemblers/users' responsibility to ensure the threaded joint between the Command, Control and Signal operators and the associated enclosure meet all the requirements of the applicable standards for the assembly.
- See instruction manual for other information.
- Certificate related report(s):
 - Type test report: CQST2101C030
 - Factory inspection report: CN2021Q010028
- 4. Certificate change information: None.

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