

RAMO 22 E, M12, round collar, 2 NC, Gold, M12 5-pin A-coded, reset by rotating, arrows red



fields of application

- > Measurement-control-regulation
- > Electrical engineering
- > Mechanical and system engineering
- > Automotive
- > Signalling systems
- > Vehicle construction
- > Chemical industry
- > Industrial robots

special features

Einteiliges geschlossenes Gehäuse für Schutzarten von mindestens IP 65 Plug & Play mit M12-Anschluss RAMO EDGE: Befestigungswinkel für dezentrale Montage Design passend zu den RAFIX-Befehlsgeräten

CE

description

Emergency stop with M12 terminal

technical data

≻ general		
illuminated	No	direct links
Legending color	red	> RAFI eCatalog
Collar color	yellow	
Collar shape	round	
Operating temperature, min.	-40 °C	
Operating temperature, max.	85 °C	
Storage temperature, min.	-40 °C	
Storage temperature, max.	90 °C	
Shock resistance according to standard IEC 60068-2-27	50 g at 11 ms amplitude semi-sinusoidal	
Packaging	Вох	
Packaging unit	2 pcs.	
Environment resistance	IEC 60068-2-14 IEC 60068-2-30 IEC 60068-2-33	
	IEC 60068-2-78	
Operating life	50,000 Cycles	
B10	65,000 Cycles	
Degree of protection, front side, according to DIN EN 60529	IP65	
Degree of protection, rear side,	IP65	
according to DIN EN 60529	IP67	

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1.10.031.011/0000



	UL Enclosure Type Rating front side	type 4X
	Salt-spray resistance according to standard	IEC 60068-2-11
	RoHS compliant	Yes
	REACH compliant	Yes
	Potential free	yes
	oscillation restistance according	5 g at 10500 Hz
	to standard IEC 60068-2-6	
	SAP MOQ order	2
>	mounting diameters	
	Mounting hole	22.3 mm
	Mounting depth	30.1 mm
	Installation height	39.6 mm
	Grid, min.	30 mm
	Outside dimension, length	30 mm
	Outside dimension, height	69.7 mm
`	mechanical data	
/		
	Actuation function	latching
		latching 2 NC
,	Actuation function	-
,	Actuation function Contact function	2 NC
,	Actuation function Contact function Contact material	2 NC Gold
,	Actuation function Contact function Contact material Resetting	2 NC Gold by rotating
,	Actuation function Contact function Contact material Resetting Fixing	2 NC Gold by rotating Threaded ring
,	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear	2 NC Gold by rotating Threaded ring M12 5-pin A-coded
,	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3 PIN 4	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND Normally closed contact 1
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3 PIN 4 PIN 5	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND Normally closed contact 1
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 electrical data	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND Normally closed contact 1 Normally closed contact 2
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 electrical data Rated voltage, min.	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND Normally closed contact 1 Normally closed contact 2 5 V
	Actuation function Contact function Contact material Resetting Fixing Terminal on the rear PIN 1 PIN 2 PIN 3 PIN 4 PIN 5 electrical data Rated voltage, min. Rated voltage, max.	2 NC Gold by rotating Threaded ring M12 5-pin A-coded Normally closed contact 1 Normally closed contact 2 GND Normally closed contact 1 Normally closed contact 2 5 V 35 V

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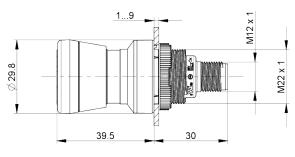
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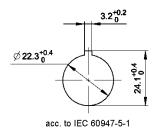


drawings

Dimensioned drawing



Mounting hole drawing



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Schematic diagram



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mounting

LUMOTAST 16, LUMOTAST 22, LUMOTAST 25, RAMO 22, RAMO 30

Betriebsanleitung Not-Halt-Befehlsgeräte (Original)

Operating Instructions EMERGENCY STOP Control Units (Translation of the source text)

() 1. Sicherheitshinweise \wedge

- Ver Inbetriebnahme bitte Betriebsanleitung songfällig lesen. Not-Falt-Befehisgentite erfüllen eine Personenschutz-Funktion. Unsachgemitißer Einbau, sach
- widtige Anwendung oder Manipulationen können zu schweren Verletzungen von Personen three
- Not-Halt-Befehlsgenäte dürfen nicht umgangen, entfernt oder auf andere Weise um gemacht werden!
- . Vor Beginn der Installation Anlage und Gerät spannungsfrei schalten!
- Vor Erst hebstriebnahme frei Maschnes och eine Arplage Not-Halt-Belehisgenit durch Testbestitigung auf korrekte Montage und Funktion überprüfen.
- Not-Halt-Belehisgenite mit sichtbaren Beschildigungen sind unverzüglich auszulauschen. Not-Halt-Eurklicen darf nicht als Ersatz für Schutzmaßnahmen oder andere Sicherheitsfunk
- tionen verwendet werden.
- Not-Falt-Funktion darf die Wirksamkeit von Schutzwinrichtungen oder von Einrichtungen mit anderen Scherheitsfunktionen nicht beeinträchtigen.

(E) 1. Safety instructions

- Please read the operating instructions carefully prior to use.
 EMERGENCY STOP control units are designed to protect persons. Inappropriate installation, (D) 3. Produkt beschreibung improper use or inadmissible manipulation may result in severe injuries! EMERGENCY STOP control units must never be bypassed, removed or disabled in any other
 - way! Disconnect the power supply to the machinery and device prior to installation! Operate the EMERGENCY STOP control unit to test and verify proper installation and function
 - prior to initial start-up of the machine online.
 - An EMERGENCY STOP control unit with an obvious defect must be replaced immediately. The emergency stop function is not to be used for safety measures or safety functions. The emergency stop function must not compromise the effectiveness of safety devices or
 - devices with other safety functions.

(F) 1. Consignes de sécurité

Δ

- I faut soigneusement lire le mode d'emplid avant la mise en service. Les auviliaires de commande d'ARRÊT D'URGENCE remplissent une fonction de protection per
- sonnelle. Un montage inapproprié, une application contre-incliquée ou une manipulation peuvent causer des blessures componeilles graves ! Il est interdit de ponter, d'enlever ou de rendre inopérants les auxiliaires de commande d'ARRÉT
- D'URGENICE!
- Avant d'entamer l'installation i faut mettre l'installation et l'apparei hors tension! Avant la première mise en service de la machine ou de l'installation, contrôler l'auxiliaire de
- commande d'ARRÉT D' URGENCE quant aumontage et à un fonctionnement corrects Les auxiliaires de commande d'ARRÉT D'URGEVCE présentant des dommages visibles sont à emplacer sans tarder
- La fonction d'arrêt d'urgence ne peut pas être utilisée en remplacement de mesures de protec
- tion ou d'autres fonctions de sécurité. La fonction d'arrêt d'urgence ne peut pas entraver l'efficacité de dispositifs de sécurité ou de dispositifs possisidant d'autres fonctions de sécurité
- 2. Allgemeine Beschreibung und bestimmungsgemäße Verwendung
 - Not-Halt-Belehitsperäte sind elektromechanische Schaltgeräte zum Schutz von Personen. Sie denen der schneilen Abschaltung um Maschinen, Fahrzeuge und Anlagen in einen sicheren Zu-stand zu bringen, um Gelahren und Schäden für Mensch und Maschine zu vermeiden oder zu
 - verringern
 - Für die Inbetriebnahme, den Einsatz und technischen Überprüfungen getten im speziellen folger de Vorschriften:
 - Die Maschinenrichtlinie 2006/42/EG
 - Die Sicherheitsvorschriften sowie Die Unfallverhütungsvorschriften / Sicherheitsregeln
 - Hersteller und Benutzer von Maschinen, an denen Not-Halt-Befehlsgeräte eingesetzt werden, tra missier und er blan von waschner, an benen kenne beier biger alser glaas verbruges alser gen die Verantwertung für die Beachtung der Berlebsanleitung, wie auch für die Einheltung der Kirsie geltenden Scherheitsweschriften und regeln. Für den Einbau und Betrieb von Not-Halt-Belehisgeräten müssen zur bestimmungsgemäßen

Verwendung folgende Anforderungen beachtet und eine Gefahrenbewertung durchgeführt wenders

EN ISO 138 48-1:2015 - EN ISO 13850:2015 EN ISO 13848-2:2012 - EN 60204-1/A1:2008

(B) 2. General description and intended use

EMERGENCY STOP control units are electromechanical switching devices designed to protect persons. They are used for instant disconnection to achieve a safe status of machines, vehicles or ther equipment in order to avoid or reduce risks or damage to man and machine. The following standards and regulations apply to their start-up, use and technical inspections

- without limitation: Machinery Directive 2006/42/EC
- Safety standards
- Accident prevention regulations / rules for safety

Manufacturers and users of machines provided with EMERGENCY STOP control units are re sible for ensuring that the operating instructions are observed and the applicable safety standards

and rules complied with.

For the installation and operation of EMERGENCY STOP control devices in line with the intended use, the following requirements must be observed and - EN ISO 13849-1:2015 - EN ISO 13850-2016 - EN ISO 13849-2:2012 - EN 60204-1/A1:2009

- (F) 2. Description générale et application conforme aux prescriptions
 - Les auviliaires de commande d'ARRÉT D'URGEVCE sont des appareils de commutation élec-tromécaniques pour protéger des personnes. Ils servent à couper rapidement les machines, les véhicules et les installations, à les amener dans un état de sécurité fiable pour éviter ou diminuer les risques de dommages orponels et de déglis matrices. Pour la mise en service, l'utilisation et les contrôles techniques, il faut respecter les prescriptions suivantes:

Mode d'emploi auxiliaires de commande d'ARRÊT D'URGENCE (Traduction original)

- La directive sur les machines selon la norme 2006/42/EG
- Les règlements de sécurité ainsi que Les instructions sur la prévention des accidents / règlements de sécurité
- C'est aux fabricants et utilisateurs de machines où des auxiliaires de commande d'ARRÉT
- D'URGENCE sent utilisés, qu'incombe la responsabilité du respect du mode d'emploi ainsi que des prescriptions et règlements de sécurité en vigueur.
- Pour l'installation et l'exploitation de dispositifs d'ARRÉT D'URGENCE, les exigences suivantes doivent être respectées et une évaluation des risques doit être menée en vue d'une utilisation er bonne et due forme:
- EN ISO 13850:2015 EN ISO 13849-1:2015
- EN ISO 13849-22012 EN 60204 - (A 1:2009

- Aufbau Die Not Halt Befehlsgeräte bestähen aus einer Kombination von Betätigem mit einem oder mehreren Schaltelementen. Die Not-Halt-Befehlsgeräte gibt es als Enbauversion oder in einem Gehäuse verbaut. Die Betätigung erfolgt durch Drücken, die Entriegelung erfolgt je nach ariante entweder durch:
- Drehbewegung in beide Richtungen nach links oder nach rechts
- Unteringingen der Betilligungsrichtung
 Zahne ningegen der Betilligungsrichtung
 Täkki v/inaktiv* Varianten: "Aktiv*: belauchtet, not, Not-Fait Funktion gegeben; "Inaktiv*: unbe-lauchtet, transparent, keine Not-Fait Funktion.

(B) 3. Product description

Design: An EMERGENCY \$10 P button is an assembly of actuator combined with one or more contact blocks. EMERGENCY STOP buttons are available either as a panel mounting version or installed in a separate housing. They are operated by pressing. Unlatching is done by one of tw Turning in either direction

Pullingagainst the direction of operation

Polling/approximation consistence of polymetric XARW/Index/VAIrants: "XARW's Humated red, Emergency Step function given; "Inektiv": not Huminated, transparent, no Emergency Step function.

3. Description de produit

Structure: Les boutons-poussoirs d'ARRÉT D'URGENCE sont composés d'une combinaison d'actionneurs ou de plusieurs éléments de commutation. Les boutons-poussoirs d'ARRÉT D'URGENCE sont disponibles en version intégrable ou installés dans un boitier. L'actionnement s'effectue par appui sur ces demiers. Selon la variante, le déverrouillage s'effectue soit par

Un mouvement de rotation dans les deux directions, soit vers la gauche, soit à droite

Soit en tirant dans la direction opposée de la direction d'actionnement

'Aktiv/Inaktiv'-Variantes: 'Aktiv'': lit rouge, d'amét d'urgence fonction donné; 'Inaktiv'': pas lit, transparent, pas de d'arrêt d'urgence fonction.

Pro duk t Pro duct Pro duit	Einbau Ø mm Mounting Ø mm Montage Ø mm	Betäfiger Actuator Actionneur	S chalt dement C ont act block Elément de commutation
LUMOTAST 18	Ø 16,2	$\begin{array}{l} 18 \pm 218 \; 0.04 \; \text{MOM} 0 & 18 \pm 218 \; 100 \; \text{MOM} 0 \\ 18 \pm 218 \; 0.004 \; \text{MOM} 0 & 18 \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.004 \; \text{MOM} 0 & 18 \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.004 \; \text{MOM} 0 & 18 \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.01000 & 118 \; \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.01000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.010000 & 118 \; \pm 218 \; 0.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.064000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0640000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0600 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0600 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0600 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0600 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0600 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.06000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.06000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0000 & 118 \; \pm 218 \; 4.040000 \\ 18 \pm 218 \; 0.0000 & 118 \; \pm 218 \; 4.00000 \\ 18 \pm 218 \; 0.0000 & 118 \; \pm 218 \; 4.00000 \\ 18 \pm 218 \; 0.00000 & 118 \; \pm 218 \; 4.00000 \\ 18 \pm 218 \; 0.00000 & 118 \; \pm 218 \; 4.00000 \\ 18 \pm 218 \; 0.0000$	integriert/incl.
LUMOTAST 22	@22,3	1.15.105.002/0000 1.15.105.032/0000 1.15.105.012/0000 1.15.105.112/0000 1.15.105.022/0000	integriert/incl.
LUMOTAST 25	@16,2	1. 15. 154.006/0301 1. 15. 154.01 6/0301	integriert/incl.
RAMO 22	@22,3	1. 10.031.001/0000 1. 10.031.004/0330 1. 10.031.022/0330 1. 10.031.104/0000	integriert/incl.
RAMO 30	@30,3	1.11.03.1001/0000 1.11.03.1004/0330 1.11.03.1022/0330 1.11.03.1.104/0000	integriert/incl.

Tabelle 3.1 Weitere technische Daten sind dem Katalog zu entnehmen.

ional technical data, please refer to the catalogue

es autres caractéristiques techniques, voir cataloque

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arisk assessment must be performed:	Table 3.1 For addition
	Tableau 3.1 Pour les