

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.elkos.nt-rt.ru | | eow@nt-rt.ru

Технические характеристики на СОЛЕНОИДЫ ДИЗЕЛЬНЫХ УСТАНОВОК ESC-046/00-ESC-060/00, ESI-046/00-ESI-060/00 КОМПАНИИ **ELCOS**

ESI-060/00 ML

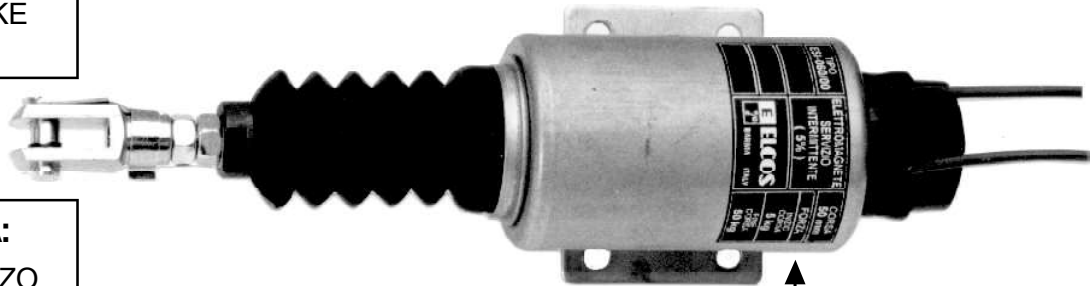
FORZA:
AD INIZIO CORSA
kg 5
A FINE CORSA
kg 50

FORCE:
AT THE BEGIN
OF THE STROKE
kg 5
AT THE END
OF STROKE
kg 50

FUERZA:
AL COMIENZO
DE LA CARRERA
kg 5
AL FINAL
DE LA CARRERA
kg 50

FORCE:
EN DÉBUT
DE LA COURSE
kg 5
EN FIN
DE LA COURSE
kg 50

KRAFT:
AMLAUFBEGINN
kg 5
AMLAUFEINDE
kg 50



BOBINA INGLOBATA CON
RESINA EPOSSIDICA

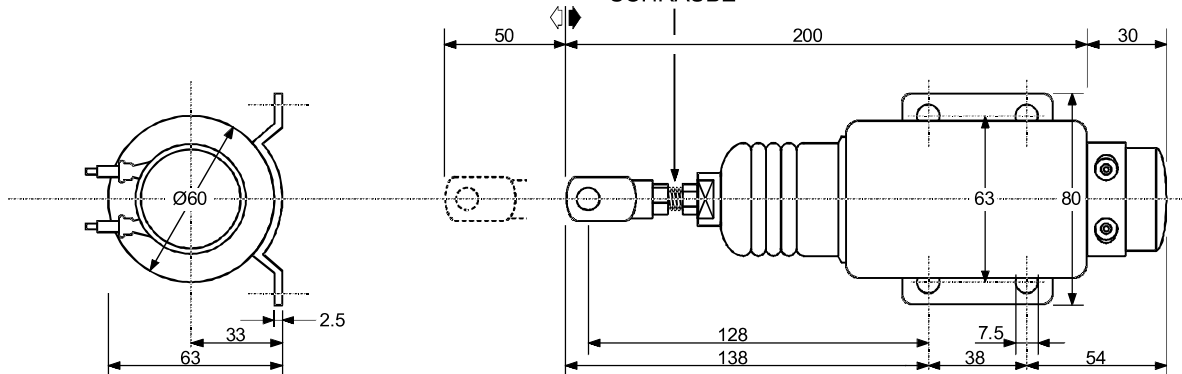
COIL ENBEDDED IN
EPOXY RESIN

BOBINA ENGLOBADA CON
RESINA EPOXÍDICA

BOBINE AMALGAMÉE AVEC
RÉSINE ÉPOXY

SPULE IN EPOXYDHARZ
EINGEGOSSEN

VITE DI
REGISTRO
ADJUSTING
SCREW
TORNILLO DE
REGULACIÓN
VIS DE
RÉGLAGE
EINSTELL-
SCHRAUBE



FUNZIONAMENTO

Collegato alla apposita leva, l'elettromagnete arresta il motore quando è eccitato

COLLEGAMENTI

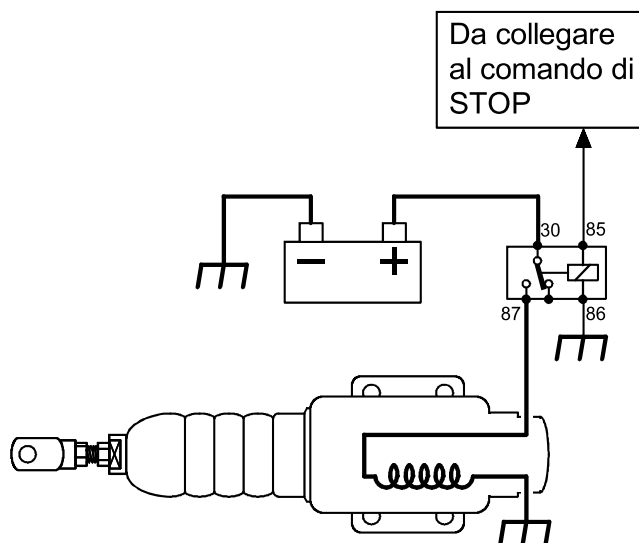
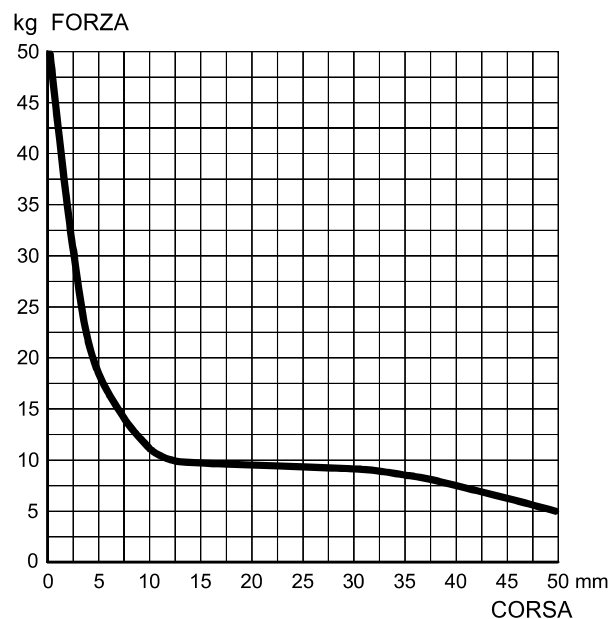


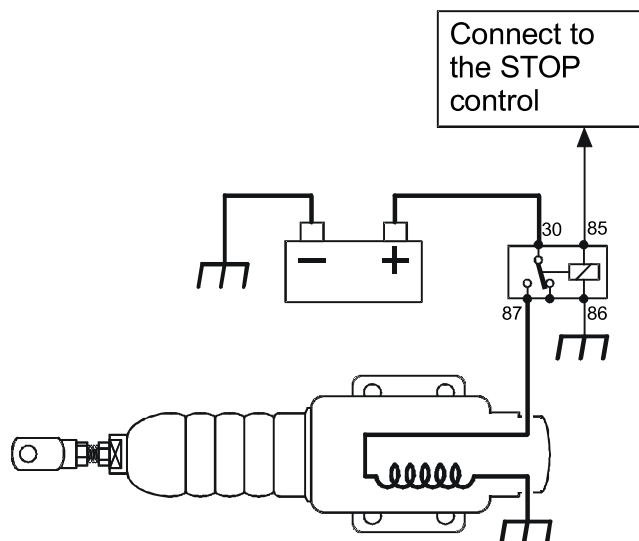
DIAGRAMMA DI FORZA



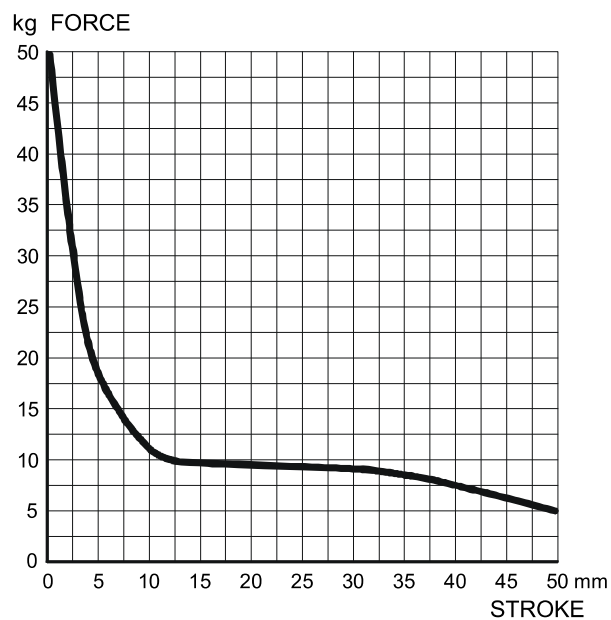
FUNCTIONING

The solenoid stops the engine when it is excited if connected to the proper lever

CONNECTIONS



FORCE CHART



DATITECNICI

A temperatura ambiente (20°C)

	FORZA
AD INIZIO CORSA	5 kg
A FINE CORSA	50 kg
CORRENTE ASSORBITA A 12V	38 A
CORRENTE ASSORBITA A 24V	19 A

-CORSA	50 mm
-GRADO DI PROTEZIONE	IP 31
-LIMITI DI TEMPERATURA	-15 ÷ +70 °C
-RAPPORTO INSERZIONE	5 %
-PESO	1940 g

Il tempo massimo di eccitazione dell'elettromagnete non deve superare i 45 secondi.

Il tempo di diseccitazione dell'elettromagnete deve essere almeno 10 volte superiore al tempo di eccitazione.

TECHNICAL DATA

At room temperature (20°C)

	FORCE
AT THE START OF THE STROKE	5 kg
AT THE END OF STROKE	50 kg
CURRENT AT 12V	38 A
CURRENT AT 24V	19 A

-STROKE	50 mm
-DEGREE OF PROTECTION	IP 31
-TEMPERATURE RANGE	-15 ÷ +70 °C
-INSERTION RATIO	5 %
-WEIGHT	1940 g

The longest excitation time of the solenoid must not be more than 45 seconds.

The solenoid must stay off at least 10 times longer than it was excited.

DATI PER L'ORDINAZIONE

TIPO	ESI-060/00	12V	cod. 00570213
TIPO	ESI-060/00	24V	cod. 00570214

ORDERING INFORMATION

TYPE	ESI-060/00	12V	code 00570213
TYPE	ESI-060/00	24V	code 00570214

DATOS PARA EL PEDIDO

TIPO	ESI-060/00	12V	cód. 00570213
TIPO	ESI-060/00	24V	cód. 00570214

RÉFÉRENCES POUR LA COMMANDE

TYPE	ESI-060/00	12V	code 00570213
TYPE	ESI-060/00	24V	code 00570214

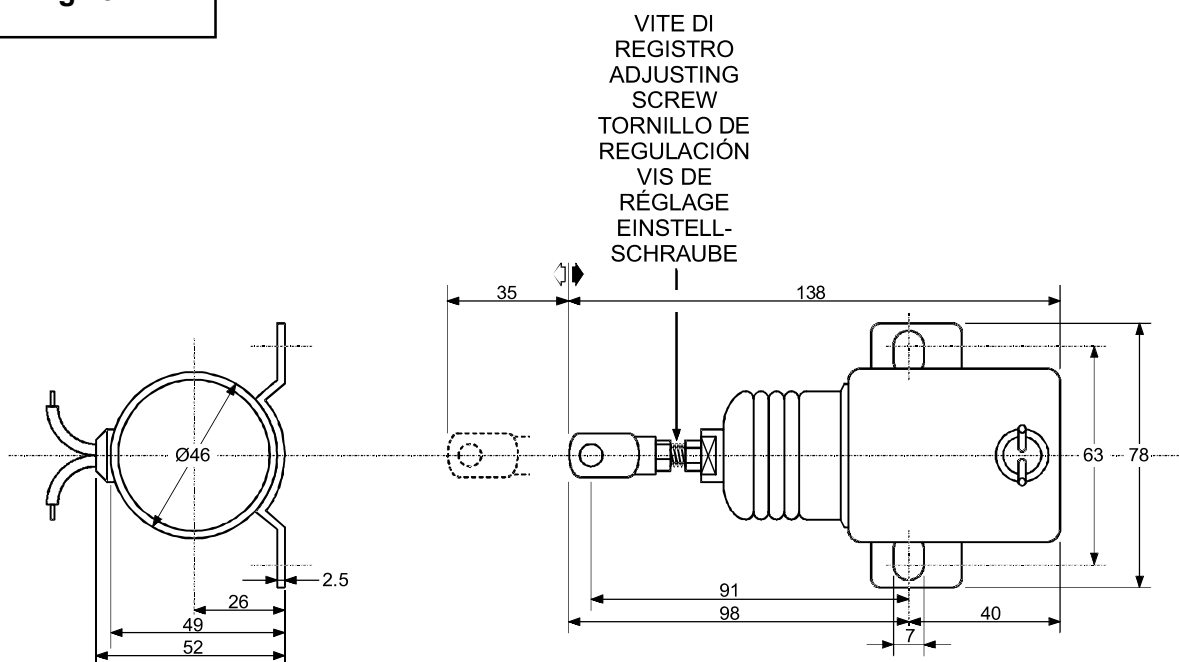
BESTELLDATEN

TYP	ESI-060/00	12V	Bestell Nr. 00570213
TYP	ESI-060/00	24V	Bestell Nr. 00570214

FORZA: AD INIZIO CORSA kg 1 A FINE CORSA kg 25
FORCE: AT THE BEGIN OF THE STROKE kg 1 AT THE END OF STROKE kg 25
FUERZA: AL COMIENZO DE LA CARRERA kg 1 AL FINAL DE LA CARRERA kg 25
FORCE: EN DÉBUT DE LA COURSE kg 1 EN FIN DE LA COURSE kg 25
KRAFT: AMLAUFBEGINN kg 1 AMLAUFEINDE kg 25



- BOBINA INGLOBATA CON RESINA EPOSSIDICA
- COIL ENBEDDED IN EPOXY RESIN
- BOBINA ENGLOBADA CON RESINA EPOXÍDICA
- BOBINE AMALGAMÉE AVEC RÉSINE ÉPOXY
- SPULE IN EPOXYDHARZ EINGEGOSSEN



FUNZIONAMENTO

Collegato alla apposita leva, l'elettromagnete arresta il motore quando è eccitato

COLLEGAMENTI

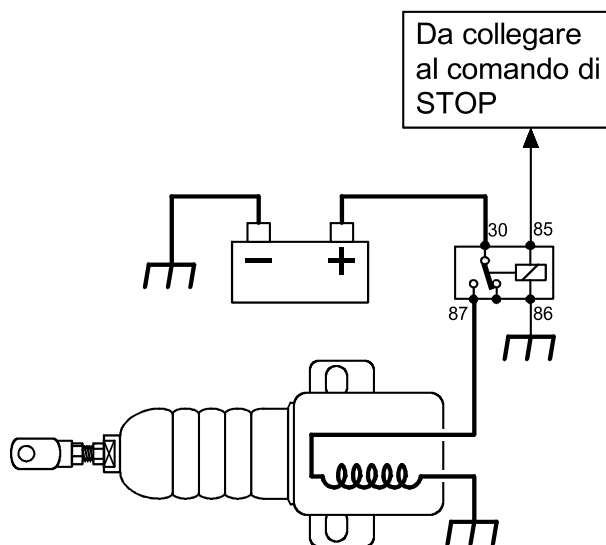
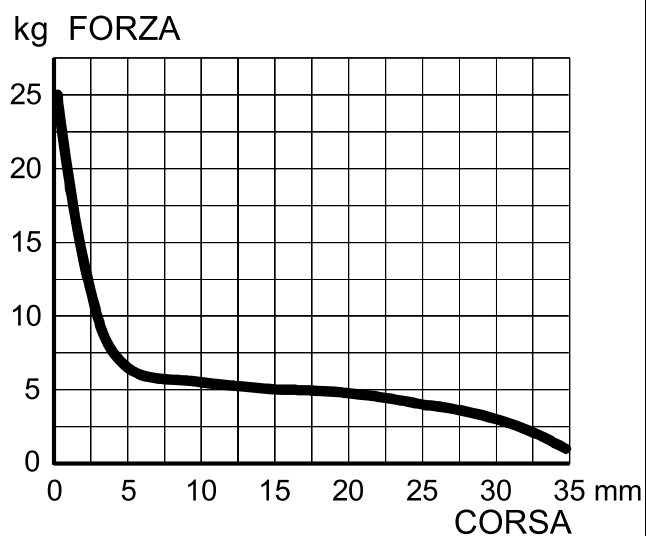


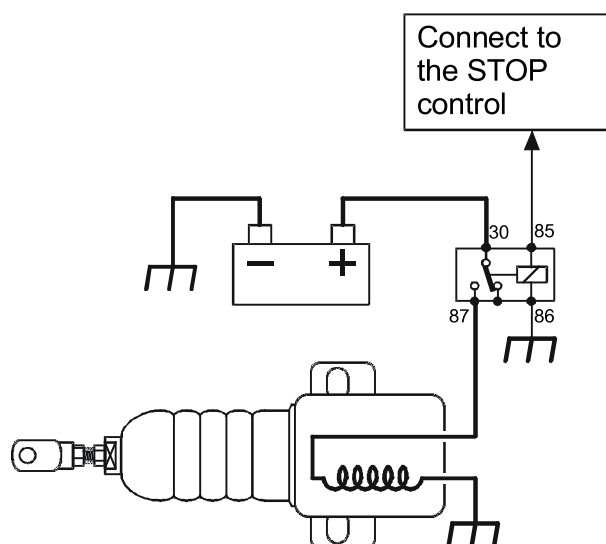
DIAGRAMMA DI FORZA



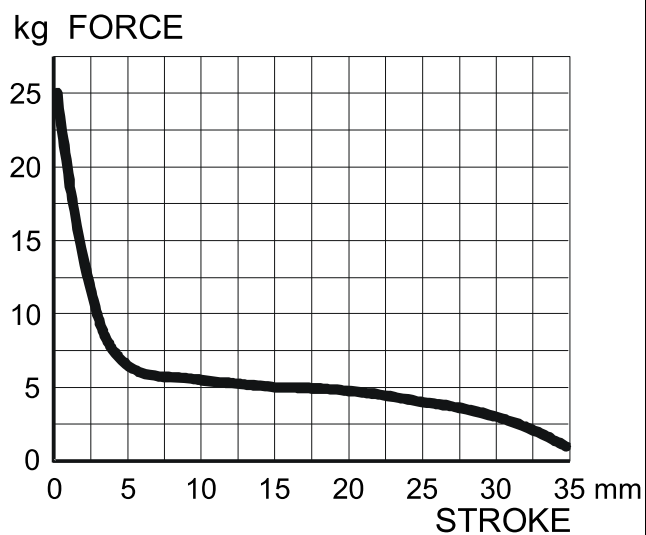
FUNCTIONING

The solenoid stops the engine when it is excited if connected to the proper lever

CONNECTIONS



FORCE CHART



DATITECNICI

A temperatura ambiente (20°C)

	FORZA
AD INIZIO CORSA	1 kg
A FINE CORSA	25 kg
CORRENTE ASSORBITA A 12V	27 A
CORRENTE ASSORBITA A 24V	13 A

-CORSA	35 mm
-GRADO DI PROTEZIONE	IP 31
-LIMITI DI TEMPERATURA	-15 ÷ +70 °C
-RAPPORTO INSERZIONE	5 %
-PESO	750 g

Il tempo massimo di eccitazione dell'elettromagnete non deve superare i 45 secondi.

Il tempo di diseccitazione dell'elettromagnete deve essere almeno 10 volte superiore al tempo di eccitazione.

TECHNICAL DATA

At room temperature (20°C)

	FORCE
AT THE START OF THE STROKE	1 kg
AT THE END OF STROKE	25 kg
CURRENT AT 12V	27 A
CURRENT AT 24V	13 A

-STROKE	35 mm
-DEGREE OF PROTECTION	IP 31
-TEMPERATURE RANGE	-15 ÷ +70 °C
-INSERTION RATIO	5 %
-WEIGHT	750 g

The longest excitation time of the solenoid must not be more than 45 seconds.

The solenoid must stay off at least 10 times longer that it was excited.

DATI PER L'ORDINAZIONE

TIPO	ESI-046/00	12V	cod.	00570203
TIPO	ESI-046/00	24V	cod.	00570204

ORDERING INFORMATION

TYPE	ESI-046/00	12V	code	00570203
TYPE	ESI-046/00	24V	code	00570204

DATOS PARA EL PEDIDO

TIPO	ESI-046/00	12V	cód.	00570203
TIPO	ESI-046/00	24V	cód.	00570204

RÉFÉRENCES POUR LA COMMANDE

TYPE	ESI-046/00	12V	code	00570203
TYPE	ESI-046/00	24V	code	00570204

BESTELLDATEN

TYP	ESI-046/00	12V	Bestell Nr.	00570203
TYP	ESI-046/00	24V	Bestell Nr.	00570204

**ELETTROMAGNETE DI TRAZIONE A SERVIZIO
CONTINUO PER ARRESTO MOTORE DIESEL**

**PULL SOLENOID FOR CONTINUOUS
USE TO STOP THE DIESEL ENGINE**

**ELECTROIMÁN DE TRACCIÓN EN SERVICIO
CONTINUO PARA PARADA MOTOR DIESEL**

**ÉLECTROAIMANT DE TRACTION À SERVICE
CONTINU POUR ARRÊT MOTEUR DIESEL**

**SCHLEPPELEKTROMAGNET DURCHGEHEND
ZUM ANHALTEN EINES DIESELMOTORS**

**TIPO
TYPE
TIPO
TYPE
TYP**

ESC-060/00

FORZA:
AD INIZIO CORSA
kg 7,5
A FINE CORSA
kg 30

FORCE:
AT THE BEGIN
OF THE STROKE
kg 7,5
AT THE END
OF STROKE
kg 30

FORCE:
ENDÉBUT
DE LA COURSE
kg 7,5
EN FIN
DE LA COURSE
kg 30

FUERZA:
AL COMIENZO
DE LA CARRERA
kg 7,5
AL FINAL
DE LA CARRERA
kg 30

KRAFT:
AM LAUFBEGINN
kg 7,5
AM LAUFENDE
kg 30

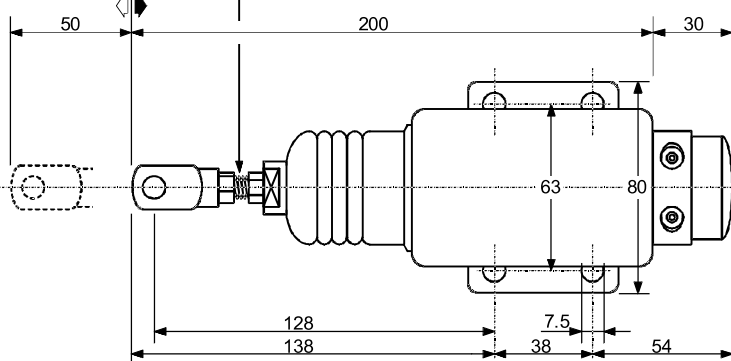
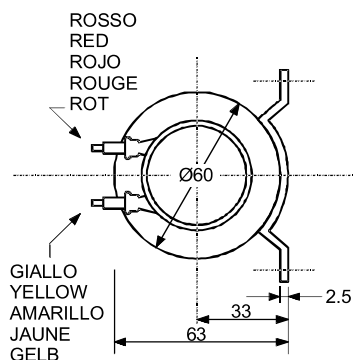
- ROSSO (POTENZA)
- RED (POWER SUPPLY)
- ROJO (POTENCIA)
- ROUGE (TRACTION)
- ROT (LEISTUNG)

CONTATTO INTERNO
INTERNAL CONTACT
CONTACTO INTERNO
CONTACT INTERNE
INTERNER KONTAKT

- GIALLO (TRATTENUTA)
- YELLOW (HOLD)
- AMARILLO (RETENCIÓN)
- JAUNE (RETENUE)
- GELB (RÜCKGEHALTEN)

BOBINA INGLOBATA CON
RESINA EPOSSIDICA
COIL EMBEDDED IN EPOXY RESIN
BOBINA ENGLOBADA CON
RESINA EPOXÍDICA
BOBINE AMALGAMÉE AVEC
RÉSINE ÉPOXY
SPULE IN EPOXYDHARZ
EINGEGOSSEN

VITE DI REGISTRO
ADJUSTING SCREW
TORNILLO DE REGULACIÓN
VIS DE RÉGLAGE
EINSTELLSCHRAUBE



ITALY

FUNZIONAMENTO

Collegato alla apposita leva, l'elettromagnete arresta il motore quando è diseccitato.

Per consentirne l'eccitazione, alimentare la BOBINA DI TRATTENUTA tramite il filo giallo; durante la fase d'avviamento l'elettromagnete viene eccitato con la BOBINA DI POTENZA tramite il filo rosso.

A trazione avvenuta, un contatto interno disinserisce la bobina di potenza, lasciando l'elettromagnete eccitato a servizio continuo, con minimo assorbimento (0.7A a 12V - 0.4A a 24V) e senza surriscaldamento. Interrompendo l'alimentazione della BOBINA DI TRATTENUTA (filo giallo), la leva collegata all'elettromagnete resta libera di tornare nella posizione di arresto.

COLLEGAMENTI

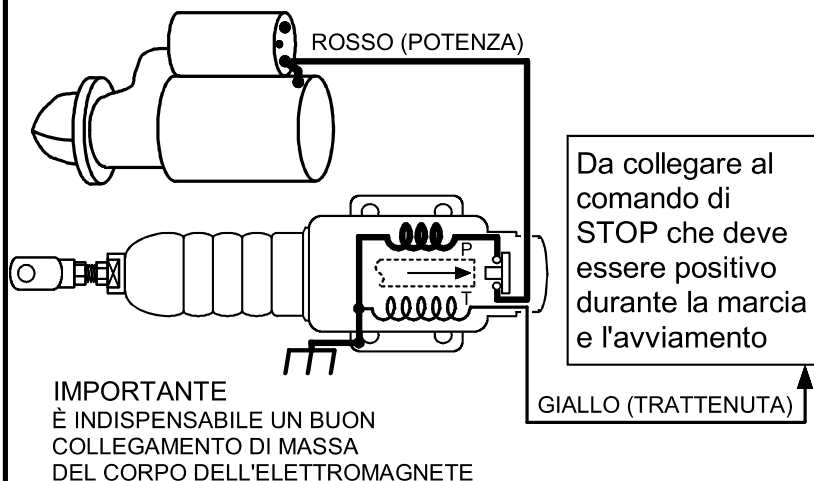
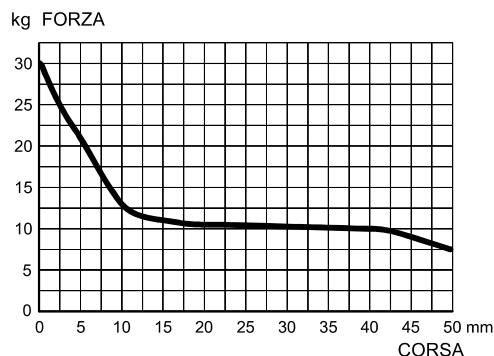


DIAGRAMMA DI FORZA



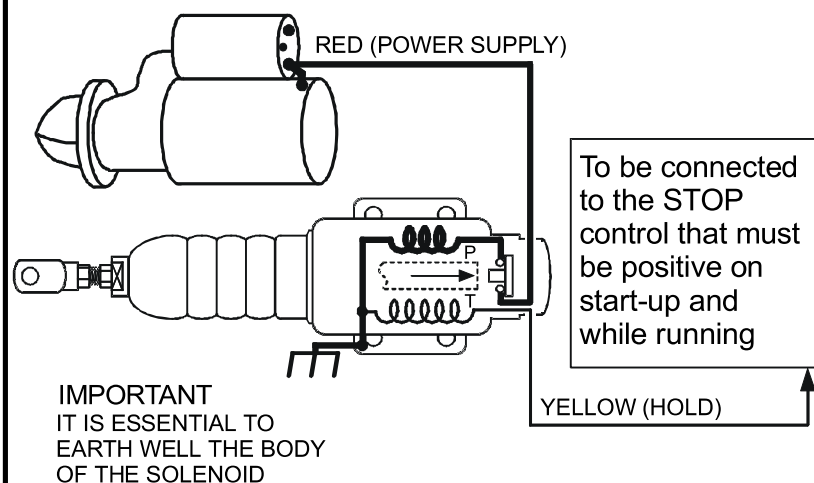
FUNCTIONING

The solenoid stops the engine when it is off if it is connected to the proper lever.

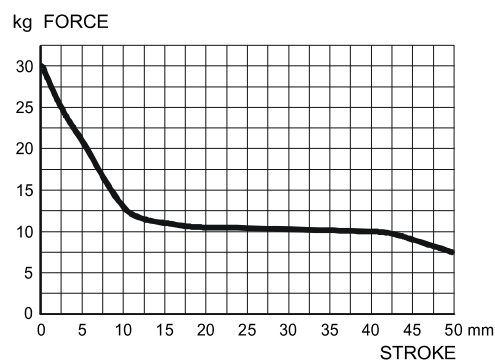
Supply the HOLDING COIL with the yellow wire; while the engine is being started up the solenoid is excited with the POWER COIL through the red wire.

At the end of its stroke an internal contactor disconnects the power coil leaving the solenoid excited with a continuous power supply with minimal power consumption (0.7A at 12V - 0.4A at 24V) and without overheating. Disconnecting the HOLDING COIL (yellow wire), the lever connected to the solenoid is free to return to the stop position.

CONNECTIONS



FORCE CHART

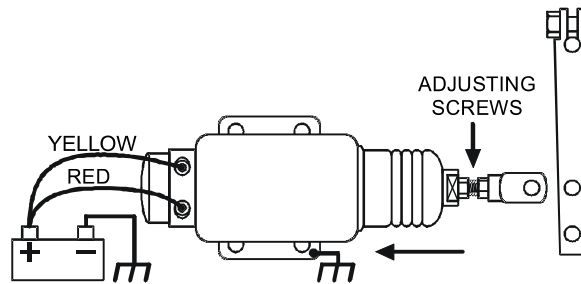


SOLENOID ASSEMBLY

Excited in drive mode, deactivated in stop

Disconnect any levers or tie rods on the pivot of the solenoid.

Excite it by connecting the two wires to the positive pole of a battery.

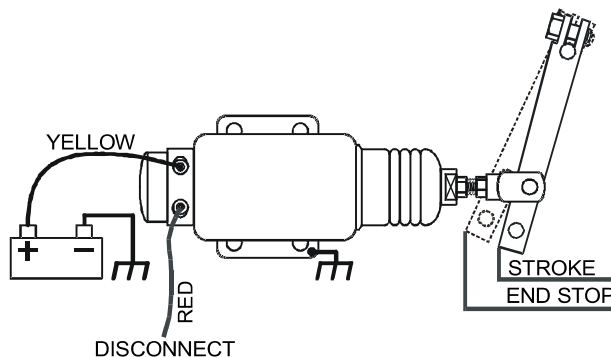


After its stroke disconnect the RED wire **immediately**: the solenoid **must be excited only by the YELLOW wire**.

N.B. Earth the body of the solenoid

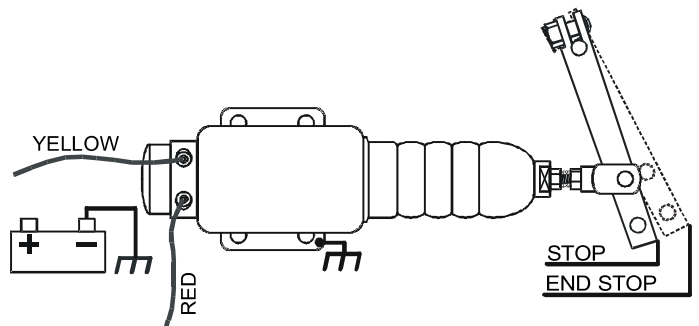
RUNNING

Check that the lever travel has 1.5 mm play before reaching the end stop.



STOP

Turn off the solenoid by disconnecting the yellow wire, check that the stroke of the lever has a 1.5 mm margin before the end stop of solenoid.



TO SAFEGUARD ITS OPERATION THE SOLENOID MUST MAKE A COMPLETE STROKE, TO MAKE SURE THE OPENING OF INTERNAL CONTACTOR, THAT TURNS OFF THE POWER COIL, THUS AVOIDING THE **COILS FROM OVERHEATING AND FAILING**.

After assembly it is advisable to lock the threads and nuts with threadlocking fluid

TECHNICAL DATA

At room temperature (20°C)

FORCE
AT THE START OF THE STROKE 7.5 kg
AT THE END OF STROKE 30 kg

VOLT c.c.	HOLDING COIL Amps.	POWER COIL Amps.
12	0.7	47
24	0.4	24

- STROKE 50 mm
- DEGREE OF PROTECTION IP 31
- TEMPERATURE RANGE -15 ÷ +70 °C
- INSERTION RATE 100 %
- WEIGHT 2000 g

ORDERING INFORMATION

TYPE ESC-060/00 12V code 00570211
TYPE ESC-060/00 24V code 00570212

**ELETTROMAGNETE DI TRAZIONE A SERVIZIO
CONTINUO PER ARRESTO MOTORE DIESEL
PULL SOLENOID FOR CONTINUOUS
USE TO STOP THE DIESEL ENGINE
ELECTROIMÁN DE TRACCIÓN EN SERVICIO
CONTINUO PARA PARADA MOTOR DIESEL
ÉLECTROAIMANT DE TRACTION À SERVICE
CONTINU POUR ARRÊT MOTEUR DIESEL
SCHLEPPELEKTROMAGNET DURCHGEHEND
ZUM ANHALTEN EINES DIESELMOTORS**

**TIPO
TYPE
TIPO
TYPE
TYP**

ESC-046/00

FORZA:
AD INIZIO CORSA
kg 3
A FINE CORSA
kg 12

FORCE:
AT THE BEGIN
OF THE STROKE
kg 3
AT THE END
OF STROKE
kg 12

FORCE:
EN DÉBUT
DE LA COURSE
kg 3
EN FIN
DE LA COURSE
kg 12

FUERZA:
AL COMIENZO
DE LA CARRERA
kg 3
AL FINAL
DE LA CARRERA
kg 12

KRAFT:
AM LAUFBEGINN
kg 3
AM LAUFENDE
kg 12

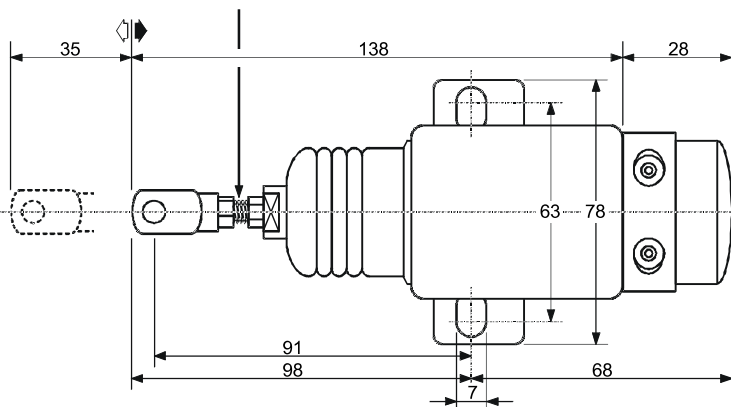
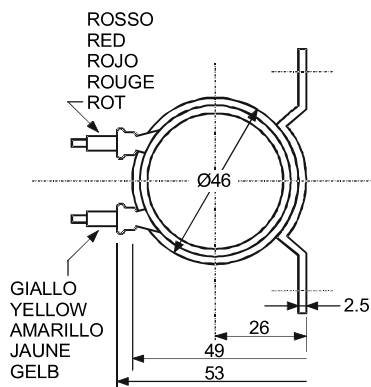
- GIALLO (TRATTENUTA)
- YELLOW (HOLD)
- AMARILLO (RETENCIÓN)
- JAUNE (RETENUE)
- GELB (RÜCKGEHALTEN)

- ROSSO (POTENZA)
- RED (POWER SUPPLY)
- ROJO (POTENCIA)
- ROUGE (TRACTION)
- ROT (LEISTUNG)

CONTATTO INTERNO
INTERNAL CONTACT
CONTACTO INTERNO
CONTACT INTERNE
INTERNER KONTAKT

BOBINA INGLOBATA CON
RESINA EPOSSIDICA
COIL ENBEDDED IN EPOXY RESIN
BOBINA ENGLOBADA CON
RESINA EPOXÍDICA
BOBINE AMALGAMÉE AVEC RÉSINE ÉPOXY
SPULE IN EPOXYDHARZ EINGEGOSSEN

VITE DI REGISTRO
ADJUSTING SCREW
TORNILLO DE REGULACIÓN
VIS DE RÉGLAGE
EINSTELLSCHRAUBE



ITALY

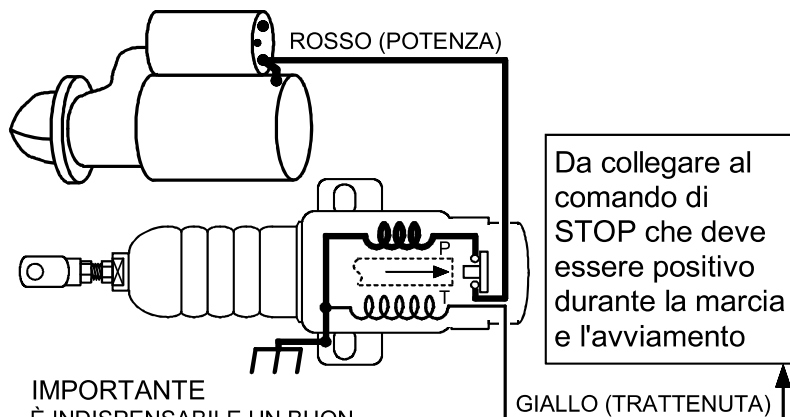
FUNZIONAMENTO

Collegato alla apposita leva, l'elettromagnete arresta il motore quando è diseccitato.

Per consentirne l'eccitazione, alimentare la BOBINA DI TRATTENUTA tramite il filo giallo; durante la fase d'avviamento l'elettromagnete viene eccitato con la BOBINA DI POTENZA tramite il filo rosso.

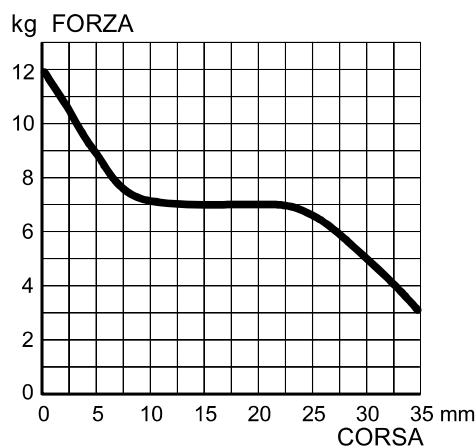
A trazione avvenuta, un contatto interno disinserisce la bobina di potenza, lasciando l'elettromagnete eccitato a servizio continuo, con minimo assorbimento (0.6A a 12V - 0.3A a 24V) e senza surriscaldamento. Interrompendo l'alimentazione della BOBINA DI TRATTENUTA (filo giallo), la leva collegata all'elettromagnete resta libera di tornare nella posizione di arresto.

COLLEGAMENTI



IMPORTANTE
È INDISPENSABILE UN BUON
COLLEGAMENTO DI MASSA
DEL CORPO DELL'ELETTROMAGNETE

DIAGRAMMA DI FORZA



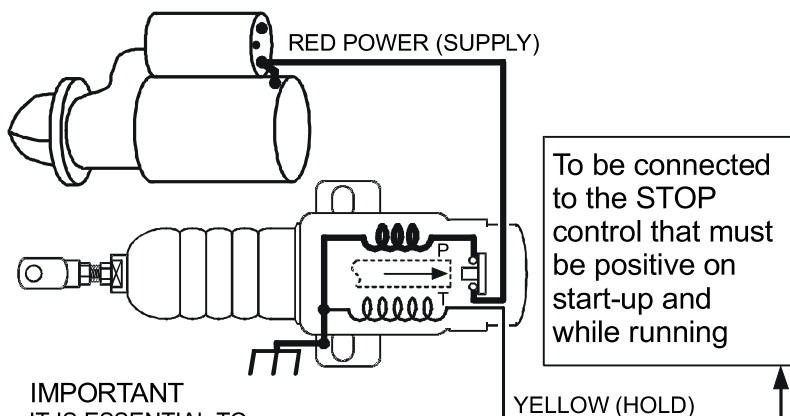
FUNCTIONING

The solenoid stops the engine when it is off if it is connected to the proper lever.

Supply the HOLDING COIL with the yellow wire; while the engine is being started up the solenoid is excited with the POWER COIL through the red wire.

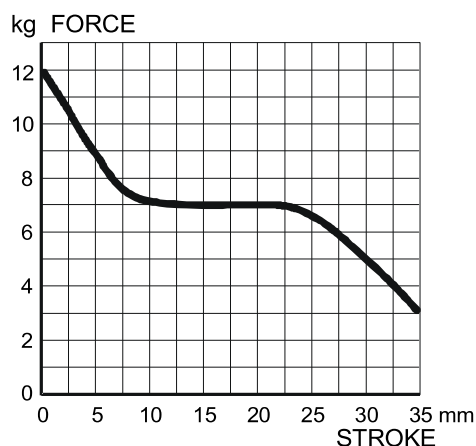
At the end of its stroke an internal contactor disconnects the power coil leaving the solenoid excited with a continuous power supply with minimal power consumption (0.6A at 12V - 0.3A at 24V) and without overheating. Disconnecting the HOLDING COIL (yellow wire), the lever connected to the solenoid is free to return to the stop position.

CONNECTIONS



IMPORTANT
IT IS ESSENTIAL TO
EARTH WELL THE BODY
OF THE SOLENOID

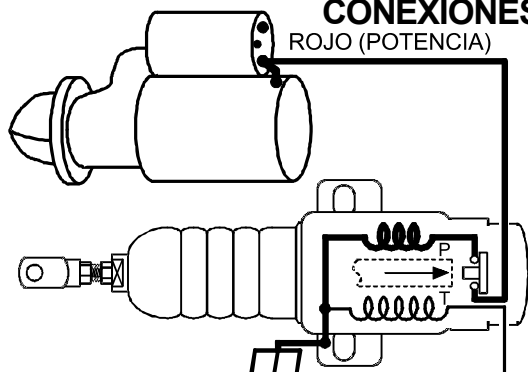
FORCE CHART



FUNCIONAMIENTO

Conectado en la palanca respectiva, el electroimán para el motor cuando está excitado. Para permitir la excitación, alimente la BOBINE DE RETENCIÓN por medio del hilo amarillo; durante la fase de puesta en marcha el electroimán se excita con la BOBINA DE POTENCIA a través del hilo rojo. Después de efectuada la tracción, un contacto interno desconecta la bobina de potencia dejando el electroimán excitado en servicio continuo, con la mínima absorción (0.6A a 12V - 0.3A a 24V) y sin sobrecalentamiento. Interrumpiendo la alimentación de la BOBINA DE RETENCIÓN (hilo amarillo), la palanca conectada al electroimán queda libre para volver a la posición de parada.

CONEXIONES

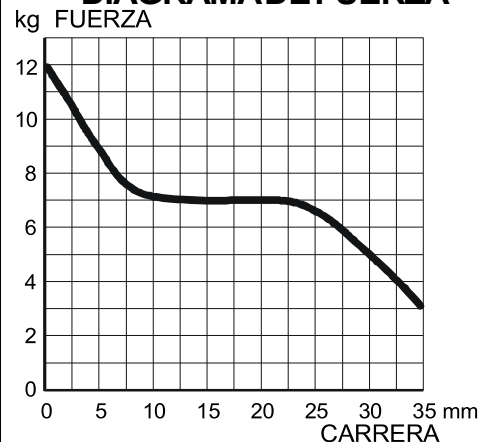


IMPORTANTE
ES INDISPENSABLE UNA BUENA CONEXIÓN DE MASA DEL CUERPO DEL ELECTROIMÁN

AMARILLO (RETENCIÓN)

Conectar al mando de PARADA que debe ser positivo durante la marcha y la puesta en marcha

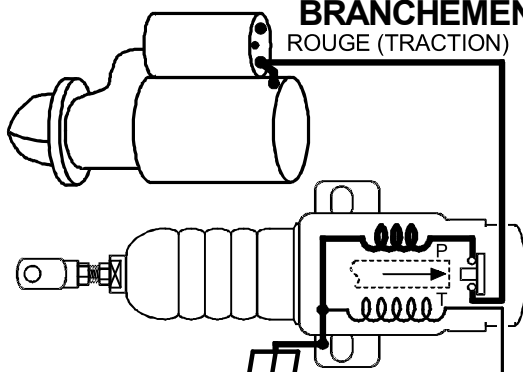
DIAGRAMA DE FUERZA



FONCTIONNEMENT

Relié au levier prévu à cet effet, l'électroaimant coupe le moteur lorsqu'il est désexcité. Pour permettre l'excitation, alimentez la BOBINE DE RETENUE à travers le fil jaune; pendant la phase de démarrage l'électroaimant est excité par la BOBINE DE TRACTION à travers le fil rouge. Après la traction, un contact interne désexcite la bobine de traction en laissant l'électroaimant excité en service continu, avec une absorption minimum (0.6A à 12V - 0.3A à 24V) e sans surchauffe. En interrompant l'alimentation de la BOBINE DE RETENUE (fil jaune), le levier relié à l'électroaimant est libre de revenir à la position d'arrêt.

BRANCHEMENTS

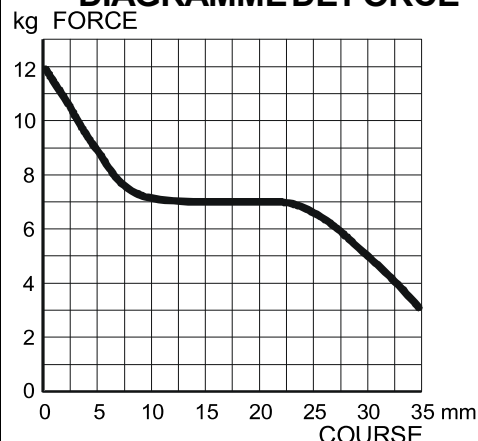


IMPORTANT
UN BRANCHEMENT CORRECT DU CORPS DE L'ÉLECTROAIMANT EST INDISPENSABLE

JAUNE (RETENUE)

À relier à la commande de STOP qui doit être positive pendant la marche et le démarrage

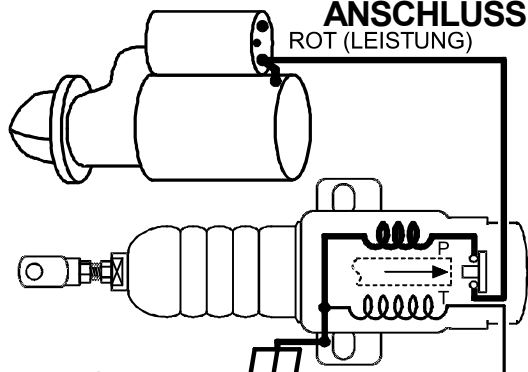
DIAGRAMME DE FORCE



BETRIEBSWEISE

An den speziellen Hebel angeschlossen, hält der Elektromagnet den Motor an, wenn er erregt ist. An den speziellen Hebel angeschlossen, speist er die RÜCKHALTESPULE über den gelben Draht; beim Anlassen wird der Elektromagnet durch die LEISTUNGSSPULE über den roten Draht erregt. Nach erfolgtem Schleppen schaltet ein interner Kontakt die Leistungsspule aus und läßt den Elektromagnet in erregtem Zustand mit Dauerbetrieb und Mindestentnahme (0.6A bei 12V - 0.3A bei 24V) und ohne Übererhitzung. Beim Unterbrechen der Speisung der RÜCKHALTESPULE (gelber Draht) kann der an den Elektromagnet angeschlossene Hebel in die Stopp-Position rückheren.

ANSCHLÜSSE

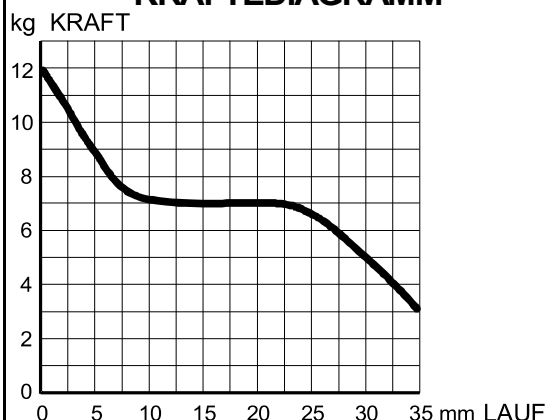


EIN KORREKTER MASSENANSCHLUSS DES ELEKTROMAGNETKÖRPERS IST SEHR WICHTIG

GELB (RÜCKGEHALTEN)

An die STOPP-Steuerung anschliessen die während des Betriebs und beim Anlassen positiv sein muß

KRÄFTEDIAGRAMM

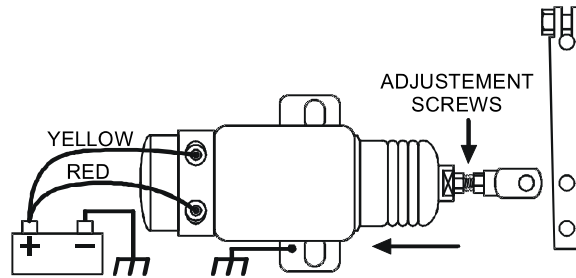


SOLENOID ASSEMBLY

Excited in drive mode, deactivated in stop

Disconnect any levers or tie rods on the pivot of the solenoid.

Excite it by connecting the two wires to the positive pole of a battery.

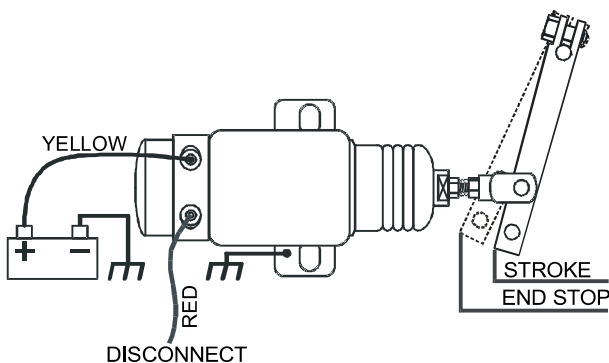


After its stroke disconnect the RED wire **immediately**: the solenoid **must be excited only** by the YELLOW wire.

N.B. Earth the body of the solenoid

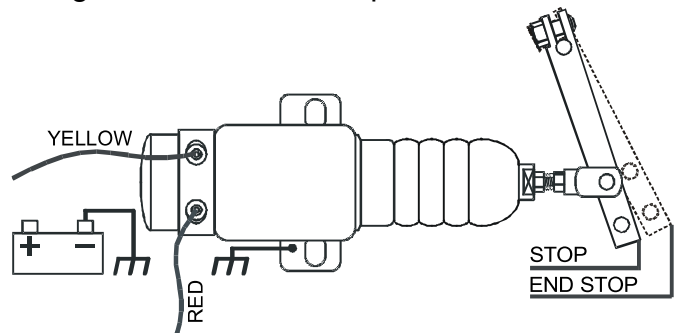
RUNNING

Check that the lever travel has 1.5 mm play before reaching the end stop.



STOP

Turn off the solenoid by disconnecting the yellow wire, check that the stroke of the lever has a 1.5 mm margin before the end stop of solenoid.



TO SAFEGUARD ITS OPERATION THE SOLENOID MUST MAKE A COMPLETE STROKE, TO MAKE SURE THE OPENING OF INTERNAL CONTACTOR, THAT TURNS OFF THE POWER COIL, THUS AVOIDING THE **COILS FROM OVERHEATING AND FAILING**.

After assembly it is advisable to lock the threads and nuts with threadlocking fluid.

TECHNICAL DATA

At room temperature (20°C)

FORCE
AT THE START OF THE STROKE 3 kg
AT THE END OF STROKE 12 kg

VOLT c.c.	HOLDING COIL Amps.	POWER COIL Amps.
12	0.6	46
24	0.3	23

- STROKE 35 mm
- DEGREE OF PROTECTION IP 31
- TEMPERATURE RANGE -15 ÷ +70 °C
- INSERTION RATE 100 %
- WEIGHT 800 g

ORDERING INFORMATION

- TYPE ESC-046/00 12V code 00570201
- TYPE ESC-046/00 24V code 00570202

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.elkos.nt-rt.ru | eow@nt-rt.ru