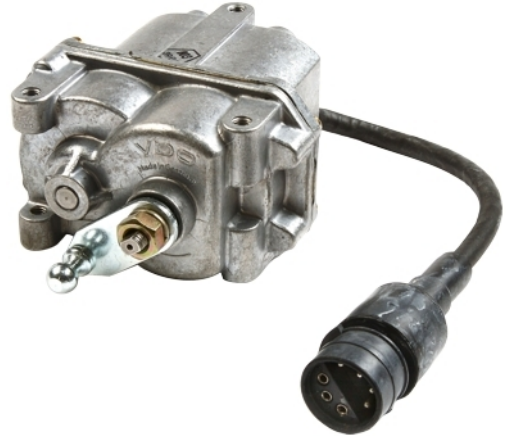


## General description

The electrically controlled servomotor is used for regulating a diesel engine throttle control, i.e. the engine rpm and power output.

The Expansion unit (product Part No. 5010 4000) in the CANmaster control system is provided with special I/Os for control of the servomotor.



## Application areas

- Mobile machinery; diesel engines with mechanically controlled throttle control.
- Automotive industry.

## Technical Data

### Electrical data

Operating voltage: + 24 VDC (min. 20 - max. 30 VDC)  
Type of drive: PWM (Pulse Width Modulated)  
Max. current drain: 750 mA  
Potentiometer, serial resistance, pin 5-7: 1.4 k $\Omega$   
Resistance pin 6-7: ccw-min. 84 $\Omega$ ; cw-max 1.4 k $\Omega$   
Shaft contact (SK) NC in ccw position. Max current: 1 A

### Mechanical data

Output torque: CW/CCW: 180 Ncm  
Electrical operating range: 102°  $\pm$  3°  
Mechanical operating range: 120°  $\pm$  5°  
Response time, full stroke CW/CCW: < 0.5 sec

### Material

Potentiometer housing: Aluminum

### Mounting

Mounting position: Free  
Mountings: Anti-vibration type

### Weight

1.0 kg

### Environmental data

Operating temperature: -30 °C to +120 °C  
Storage temperature: -40 °C to +120 °C  
IP protection class: IP54A (DIN 40050, part 9)  
Vibration: Max  $\pm$  2mm, 10 -24 Hz  
Max. 8g, 24-2000 Hz

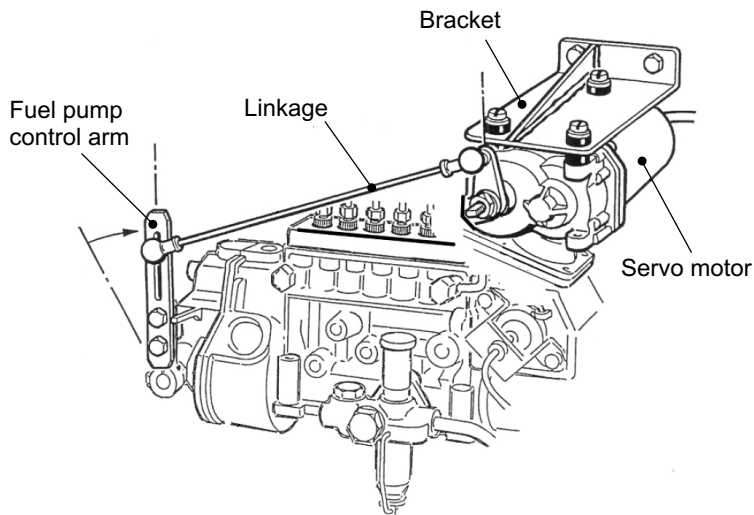
**Note:** The servomotor must not be operated against externally arranged end stops. Arrange the linkage to permit a certain external mechanical play in order for the motor to reach the internal electrical end stop in both cw and ccw direction.

## Ordering Information

Servo motor 180 Ncm                      Part No. 408 403 002 001

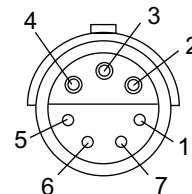
Note: For higher output torque requirements, see servomotor with output torque 250 Ncm:  
Part No. 408 422 006 001, Data sheet No. 2500 0070.

## Installation example



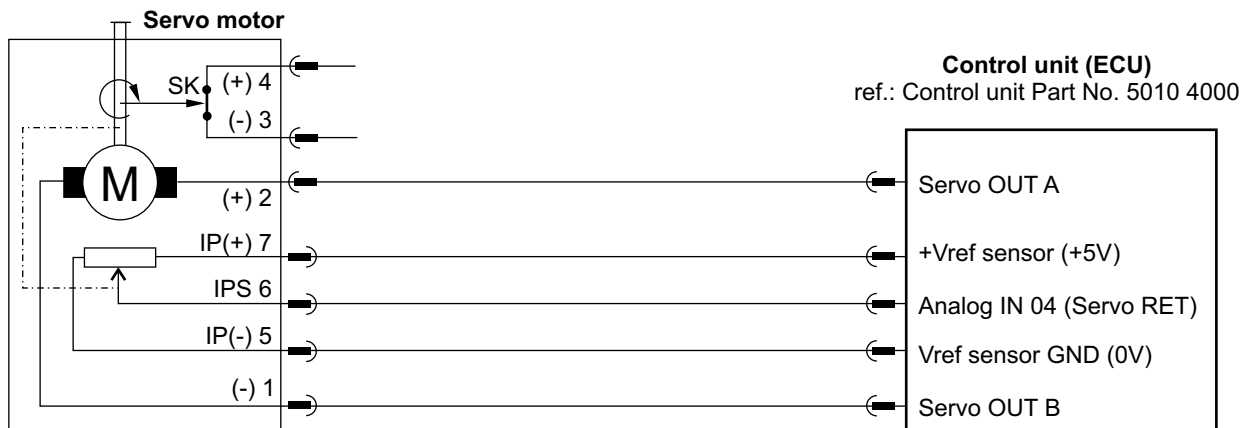
## Electric connector

ITT Cannon Part No.: 120-1873-000

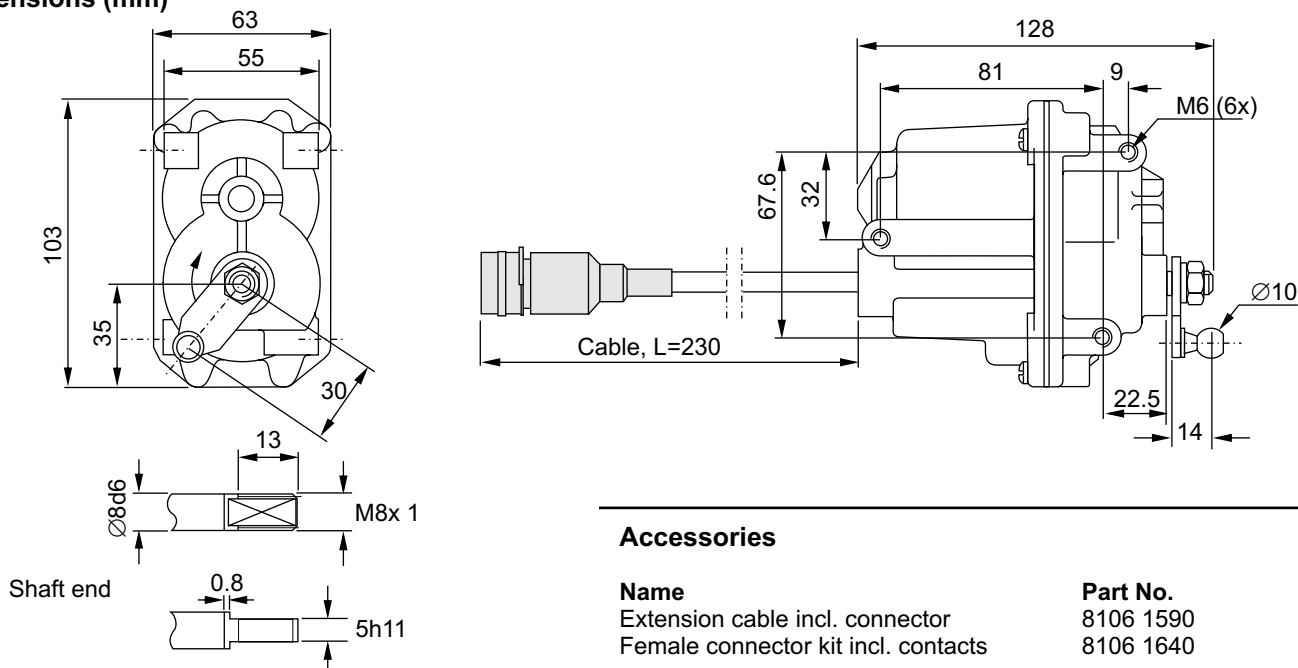


Pin location	Designation
1	Motor (-)
2	Motor (+)
3	SK (-)
4	SK (+)
5	Potentiometer IP(-)
6	Potentiometer IPS
7	Potentiometer IP (+)

## Electric connection to control unit



## Dimensions (mm)



## Accessories

Name	Part No.
Extension cable incl. connector	8106 1590
Female connector kit incl. contacts	8106 1640