

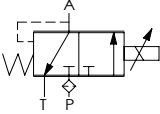
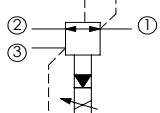
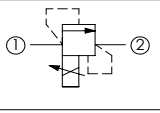
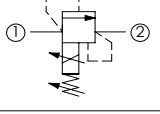
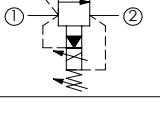
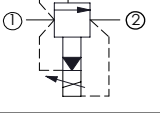
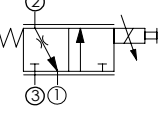
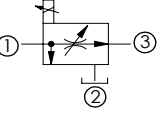
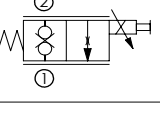
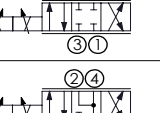
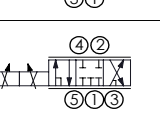
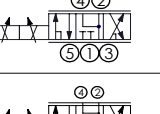
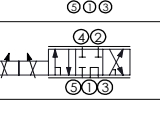
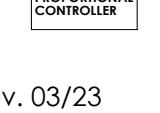




**ATLANTIC**  
Fluid Tech

## **SECTION 16**

Proportional  
Cartridges

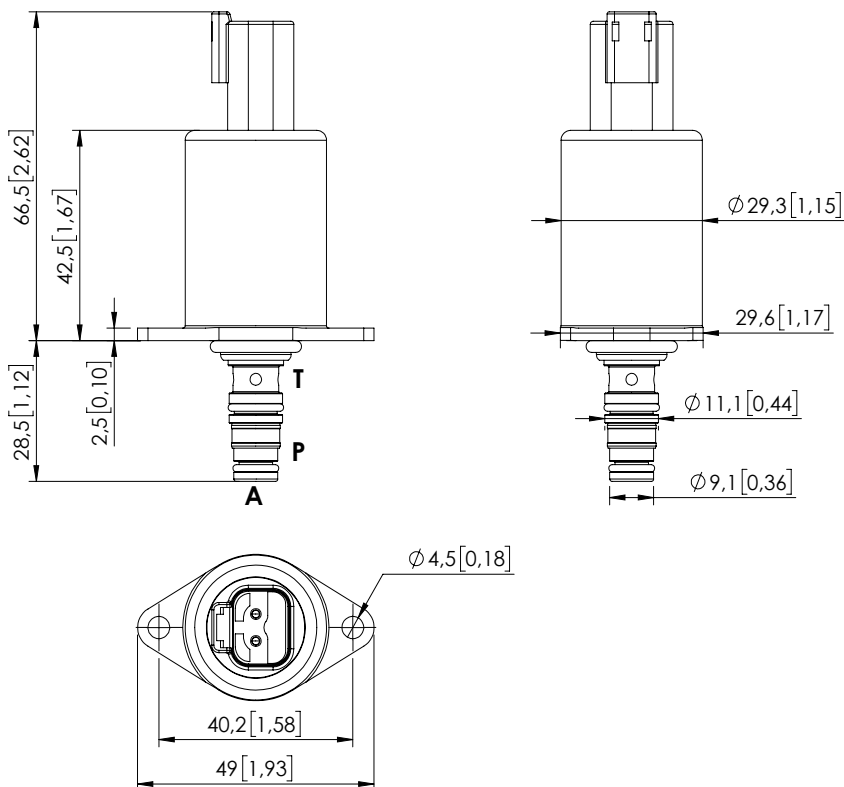
# PROPORTIONAL CARTRIDGES

Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	<a href="#">CECS-005-PRPN</a>	Proportional, direct operated, pressure reducing	5 (1,3)	50 (700)	DT04-2P	VP000371	16.01. <b>010</b>
	<a href="#">CECT-080-PRPS</a>	Proportional, pilot operated, reducing and relieving	80 (21)	250 (3600)	Cartridge	SAE-10-3N	16.02. <b>020</b>
	<a href="#">CEBD-005-PLPS</a>	Proportional, poppet type relief	5 (1,3)	350 (5000)	Cartridge	SAE-08-2N	16.03. <b>030</b>
	<a href="#">CEBD-001-PMPS</a>	Proportional, poppet type relief, for inverse controlled	0,6 (0,1)	350 (5000)	Cartridge	SAE-08-2N	16.04. <b>040</b>
	<a href="#">CEBT-120-PMPS</a>	Proportional, pilot operated, relieving, for fan drive	120 (32)	350 (5000)	Cartridge	SAE-10-2N	16.05. <b>050</b>
	<a href="#">CEBT-120-PLPS</a>	Proportional, pilot operated, relieving	120 (32)	350 (5000)	Cartridge	SAE-10-2N	16.06. <b>060</b>
	<a href="#">CEBT-300-PLPS</a>	Proportional, pilot operated, relieving	300 (79)	350 (5000)	Cartridge	SAE-16-2N	16.06. <b>070</b>
	<a href="#">CEBT-500-PLPS</a>	Proportional, pilot operated, relieving	500 (132)	350 (5000)	Cartridge	SAE-20-2N	16.06. <b>080</b>
	<a href="#">CECS-020-FSPS</a>	Proportional, non compensated, flow regulator	20 (5)	210 (3000)	Cartridge	SAE-10-3N	16.07. <b>090</b>
	<a href="#">CECS-030-FSPS</a>	Proportional, non compensated, flow regulator	30 (8)	210 (3000)	Cartridge	SAE-10-3N	16.07. <b>090</b>
	<a href="#">CECS-040-FSPS</a>	Proportional, non compensated, flow regulator	40 (11)	210 (3000)	Cartridge	SAE-10-3N	16.07. <b>090</b>
	<a href="#">CECS-050-FRPM</a>	Proportional, direct operated, flow regulator	50 (13)	320 (4600)	Cartridge	SAE-10-3N	16.08. <b>100</b>
	<a href="#">CECS-140-FRPM</a>	Proportional, direct operated, flow regulator	140 (37)	320 (4600)	Cartridge	SAE-16-3N	16.08. <b>110</b>
	<a href="#">CEBS-020-PEPS</a>	Proportional, normally closed	20 (5)	210 (3000)	Cartridge	SAE-08-2N	16.09. <b>120</b>
	<a href="#">CEBS-020-PEPS</a>	Proportional, normally closed	20 (5)	210 (3000)	Cartridge	VP000064	16.09. <b>130</b>
	<a href="#">CEES-010-SEPN</a>	Proportional, direct operated	10 (3)	350 (5000)	Cartridge	SAE-08-4N	16.10. <b>140</b>
	<a href="#">CEES-030-SEFN</a>	Proportional, direct operated	30 (8)	350 (5000)	Cartridge	SAE-10-4N	16.11. <b>190</b>
	<a href="#">CEES-010-SEPN</a>	Proportional, direct operated	10 (3)	350 (5000)	Cartridge	SAE-08-4N	16.10. <b>150</b>
	<a href="#">CEES-030-SEPN</a>	Proportional, direct operated	30 (8)	350 (5000)	Cartridge	SAE-10-4N	16.11. <b>200</b>
	<a href="#">CEFS-010-SEPN</a>	Proportional, direct operated	10 (3)	350 (5000)	Cartridge	SAE-08-5N	16.12. <b>160</b>
	<a href="#">CEFS-030-SEFN</a>	Proportional, direct operated	30 (8)	350 (5000)	Cartridge	SAE-10-5N	16.12. <b>210</b>
	<a href="#">CEFS-010-SEPN</a>	Proportional, direct operated	10 (3)	350 (5000)	Cartridge	SAE-08-5N	16.13. <b>170</b>
	<a href="#">CEFS-030-SEPN</a>	Proportional, direct operated	30 (8)	350 (5000)	Cartridge	SAE-10-5N	16.13. <b>220</b>
	<a href="#">CEFS-010-SEPN</a>	Proportional, direct operated	10 (3)	350 (5000)	Cartridge	SAE-08-5N	16.14. <b>180</b>
	<a href="#">CEFS-030-SEFN</a>	Proportional, direct operated	30 (8)	350 (5000)	Cartridge	SAE-10-5N	16.15. <b>230</b>
	<a href="#">ELPC-030-SCCB</a>	Proportional electronic controller	-	-	DIN 43650	-	16.16. <b>240</b>

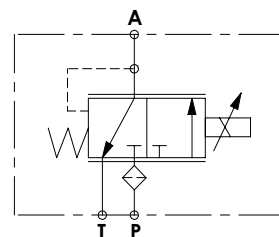
# SOLENOID OPERATED CARTRIDGE

# CECS-005-PRPN

PROPORTIONAL VALVES  
DIRECT OPERATED  
PRESSURE REDUCING



Dimensions: mm [inches]



## SPECIFICATIONS

Max. P pressure:	50 bar (700 psi)
Max. T pressure:	30 bar (400 psi)
Rated flow:	5 l/min (1.3 gpm)
Cavity:	VP000371
Weight:	0,2 kg (0,44 lbs)
Connector type:	Deutsch DT04-2P
Internal leakage:	15 cc/min @ 25 bar, 46 cSt (0,9 in <sup>3</sup> /min @ 363 psi, 46 cSt)
Protection class:	Up to IP6K6 / IPX9K
PWM range recommended:	100 Hz
Seal kit:	RC100371
Mounting screw torque:	3,5 Nm (2,5 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Filter on P port:	125 µm

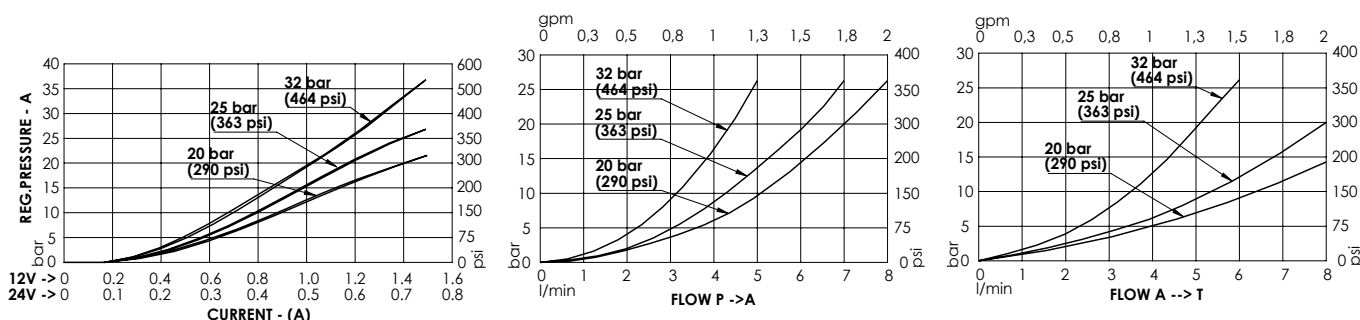
## NOTES

Mounting screw not included

Mounting screw: 2 x M4x10 [M4x0,39] class 8.8

For other configurations/quick codes not available in this catalogue page please consult factory

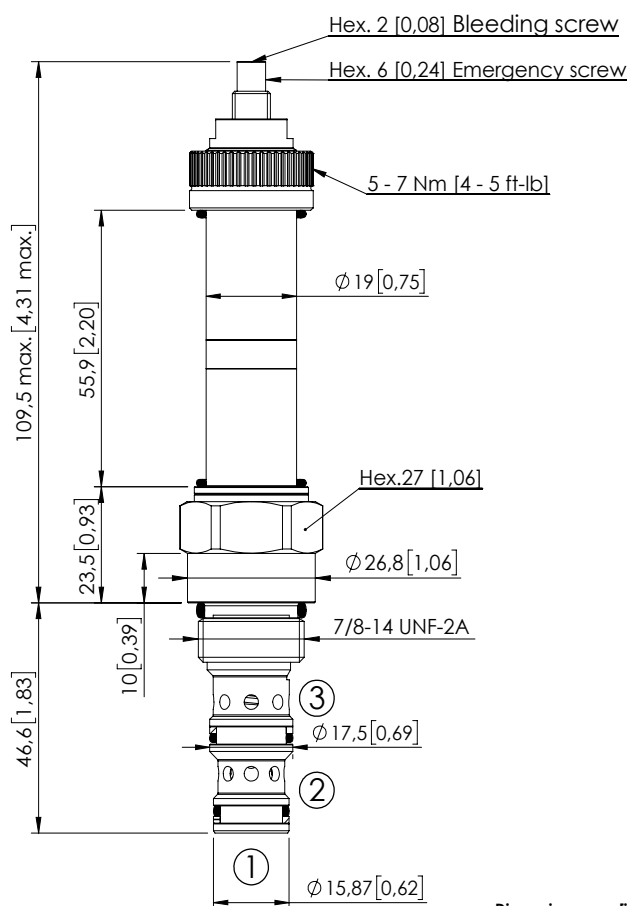
## CURVES



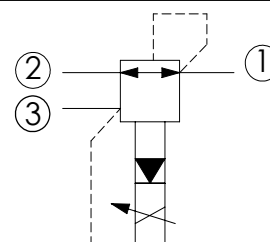
## ORDERING CODES

Quick code	Description	Regulated pressure range	Voltage (V)	Current (mA)	Resistance (Ω) ± 5%	Hysteresis pA
CE000850	CECS-005-PRPN-95-371-N020-12DT	0-20 bar (0-290 psi)	12	1500	4.72	< 0.4 bar (< 5,8 psi)
CE000851	CECS-005-PRPN-95-371-N020-24DT	0-20 bar (0-290 psi)	24	750	20.8	< 0.4 bar (< 5,8 psi)
CE000852	CECS-005-PRPN-95-371-N025-12DT	0-25 bar (0-363 psi)	12	1500	4.72	< 0.5 bar (< 7,3 psi)
CE000853	CECS-005-PRPN-95-371-N025-24DT	0-25 bar (0-363 psi)	24	750	20.8	< 0.5 bar (< 7,3 psi)
CE000893	CECS-005-PRPN-95-371-N032-12DT	0-32 bar (0-464 psi)	12	1500	4.72	< 0.7 bar (< 10,2 psi)
CE000862	CECS-005-PRPN-95-371-N032-24DT	0-32 bar (0-464 psi)	24	750	20.8	< 0.7 bar (< 10,2 psi)

Revision A1



Dimensions: mm [inches]



## SPECIFICATIONS

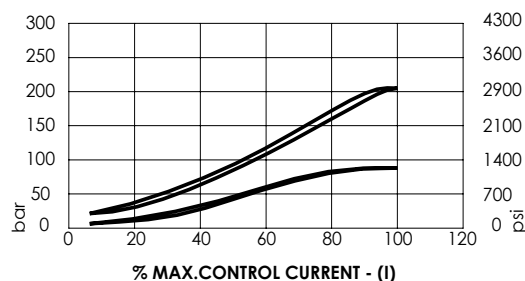
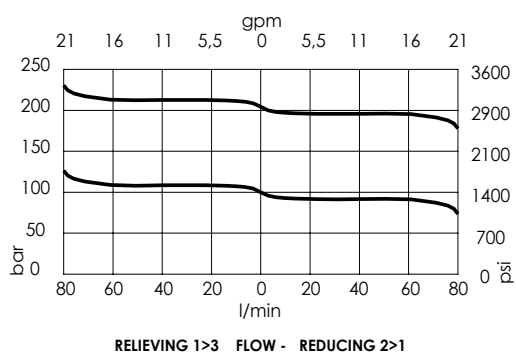
Max. operating pressure:	250 bar (3600 psi)
Rated flow:	80 l/min (32 gpm)
Cavity:	SAE-10-3N
Weight:	0,33 kg (0,46 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	120-150 Hz
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
Seal kit:	RA100092
MTTFd:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

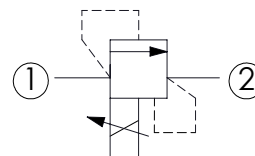
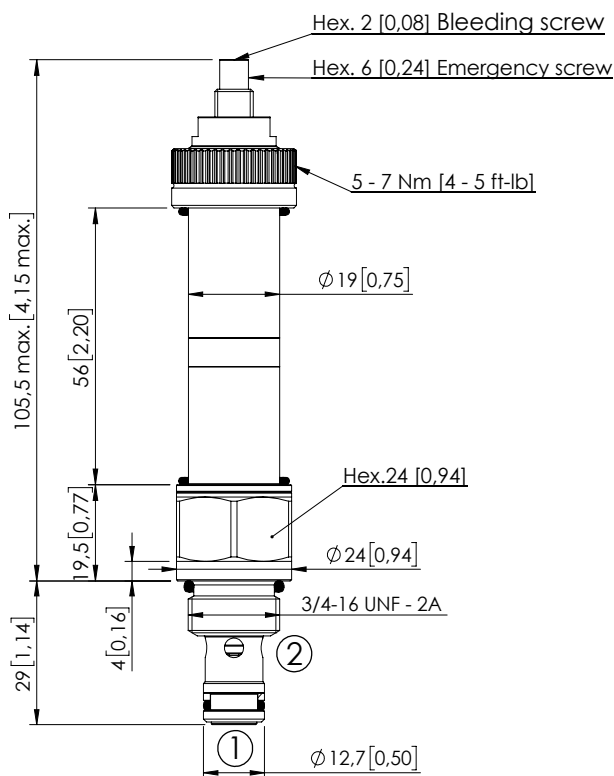
## CURVES



## ORDERING CODES

Quick code	Description	Regulated pressure range	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE000122	CECT-080-PRPS-96-S10-V210	20-220 bar (300-3100 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style	
CE000915	CECT-080-PRPS-96-S10-V080	4-80 bar (60-1200 psi)	200 mA (+/-7%)	1800 mA (+/-7%)	Screw style	

Revision B3



## SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	5 l/min (1,3 gpm)
Cavity:	SAE-08-2N
Weight:	0,27 kg (0,35 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	45 - 50 Nm (33 - 37 ft-lb)
Seal kit:	RA100081
MTF <sub>d</sub> :	150 - 1200 years: See technical spec.

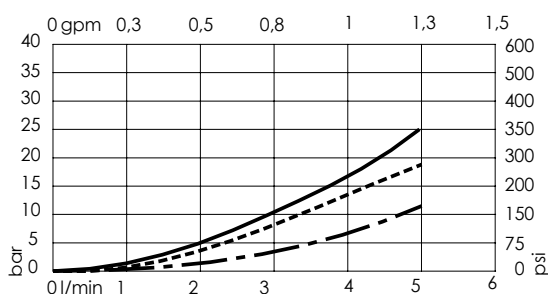
Dimensions: mm [inches]

## NOTES

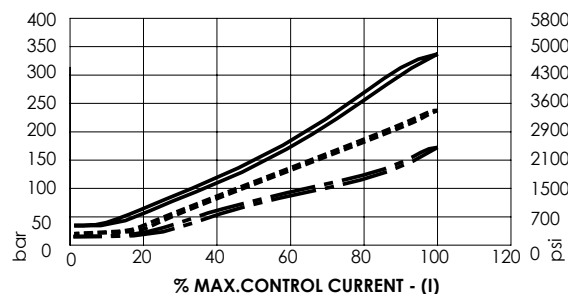
Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



CE000910 ———



CE000911 -----

CE000912 - - - - -

## ORDERING CODES

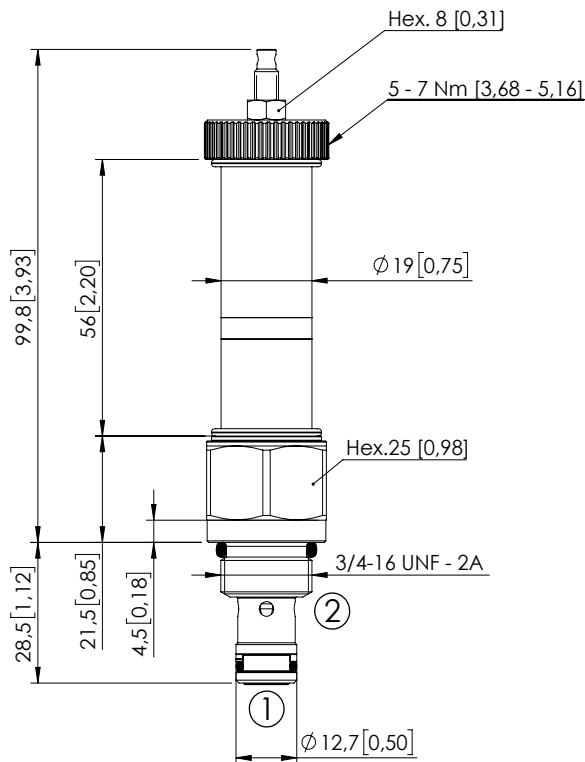
Quick code	Description	Setting range	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE000910	CEBD-005-PLPS-92-S08-V350	25-340 bar (350-4500 psi)	250 mA (+/-7%)	1800 mA (+/-7%)	Screw style	
CE000911	CEBD-005-PLPS-92-S08-V200	17-250 bar (250-3600 psi)	200 mA (+/-7%)	1800 mA (+/-7%)	Screw style	
CE000912	CEBD-005-PLPS-92-S08-V100	9-160 bar (130-2300 psi)	200 mA (+/-7%)	1800 mA (+/-7%)	Screw style	

Revision B3

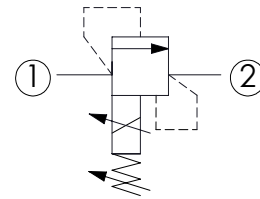
## SOLENOID OPERATED CARTRIDGE

## CEBD-001-PMPS

PROPORTIONAL VALVES  
POPPET TYPE RELIEF  
SPOOL TYPE  
FOR INVERSE CONTROLLED



Dimensions: mm [inches]



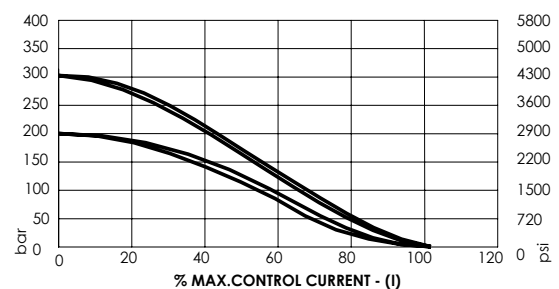
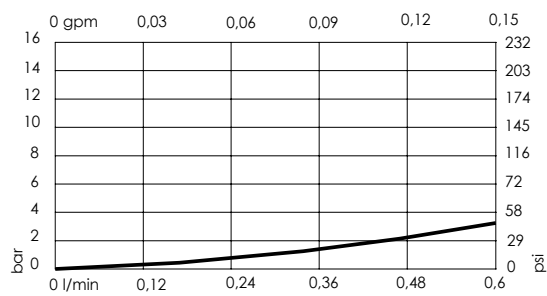
## SPECIFICATIONS

Max. operating pressure:	320 bar (4600 psi)
Rated flow:	0,6 l/min (0,15 gpm)
Cavity:	SAE-08-2N
Weight:	0,12 kg (0,44 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	45 - 50 Nm (33,2 - 36,9 ft-lb)
Seal kit:	RA100081
MTFa:	150 - 1200 years: See technical spec.

## NOTES

Pressure decreasing with current increasing.  
Maximum pressure value can be adjusted manually within a range.  
For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



## ORDERING CODES

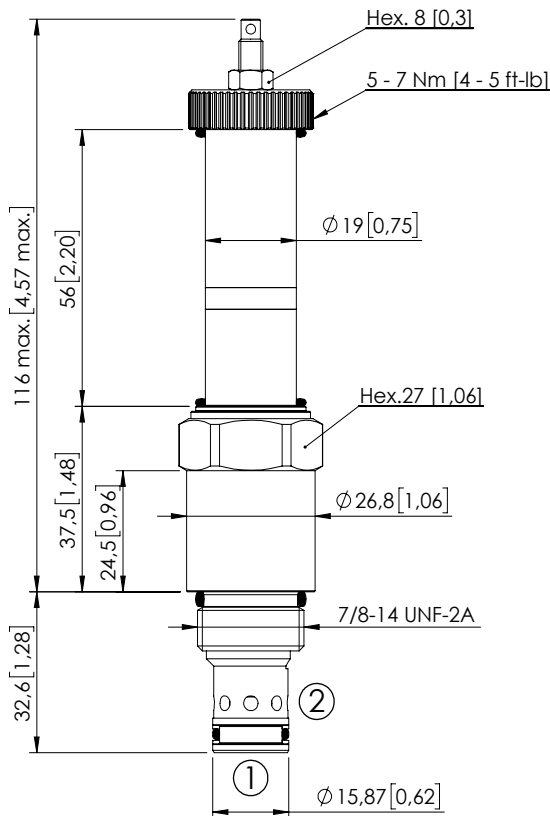
Quick code	Description	Max. pressure setting range	Standard setting	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override
CE001120	CEBD-001-PMPS-92-S08-V320	200-320 bar (2900-4600 psi)	210 bar (3000 psi)	200 mA (+/-7%)	1600 mA (+/-7%)	Screw style

Revision B

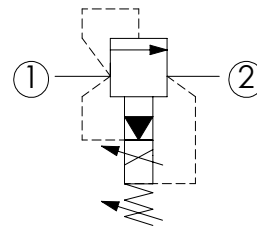
# SOLENOID OPERATED CARTRIDGE

## CEBT-120-PMPS

PROPORTIONAL VALVES  
POPPET TYPE RELIEF  
SPOOL TYPE  
FOR INVERSE CONTROLLED



Dimensions: mm [inches]



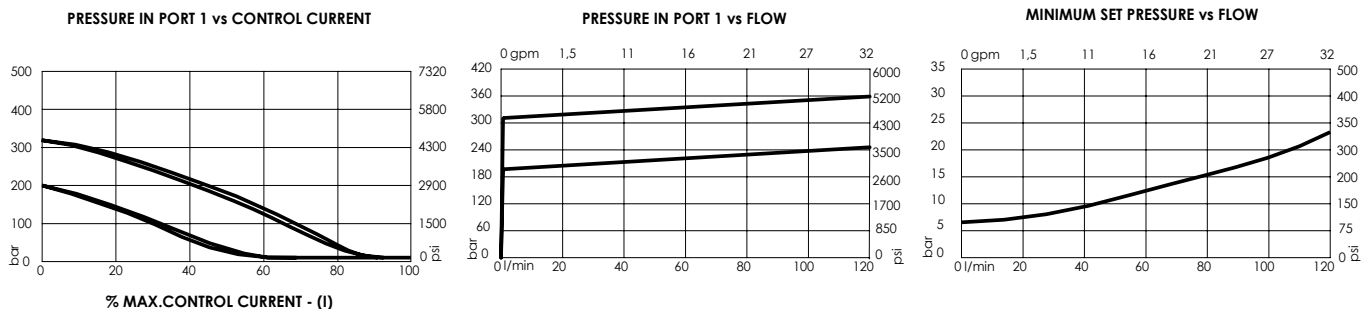
### SPECIFICATIONS

Max. operating pressure (port 1):	320 bar (4600 psi)
Max. operating pressure (port 2):	250 bar (3600 psi)
Rated flow:	120 l/min (32 gpm)
Pilot oil:	< 0,8 l/min (<0,2 gpm)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Viscosity range:	10 to 380 mm <sup>2</sup> /s
Contamination class to ISO 4406:	See technical spec.
Max. int. leakage:	200 cm <sup>3</sup> /min (@46 cSt, Δp=250 bar) 0,05 in <sup>3</sup> /min (@46 cSt, Δp=3600 psi)
Step response:	80 ms (Depending on the system)
Cavity:	SAE-10-2N
Weight:	0,21 kg (0,46 lbs)
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Hysteresis:	< 4% of the max. set pressure
PWM range recommended:	150-180 Hz
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
Seal kit:	RB100082
MTF <sub>d</sub> :	150 - 1200 years: See technical spec.

### NOTES

Pressure decreasing with current increasing.  
Maximum pressure value can be adjusted manually within a range.  
For other configurations/quick codes not available in this catalogue page please consult factory

### CURVES



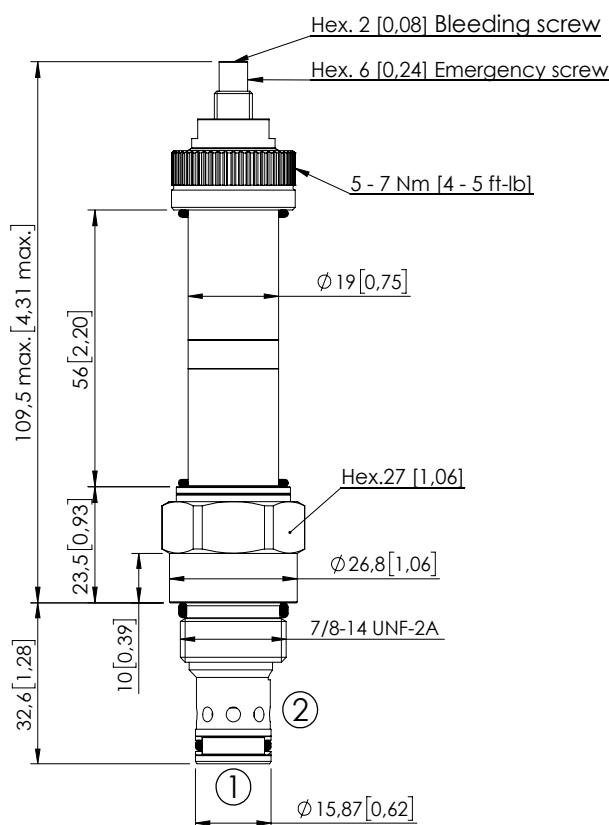
### ORDERING CODES

Quick code	Description	Minimum pressure	Max. pressure setting range	Standard setting	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)
CE000890	CEBT-120-PMPS-91-S10-V320	7 bar (100 psi)	200-320 bar (2900-4600 psi)	210 bar (3000 psi)	200 mA (+/-7%)	1600 mA (+/-7%)

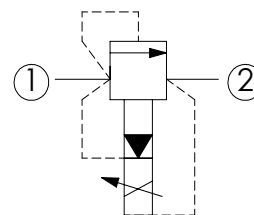
Revision B3

## SOLENOID OPERATED CARTRIDGE

## CEBT-120-PLPS

PROPORTIONAL VALVES  
PILOTED RELIEF  
SPOOL TYPE

Dimensions: mm [inches]



## SPECIFICATIONS

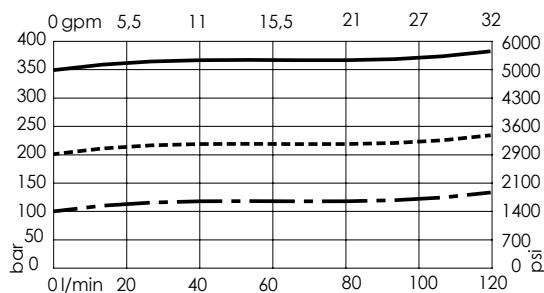
Max. operating pressure:	350 bar (5000 psi)
Rated flow:	120 l/min (32 gpm)
Cavity:	SAE-10-2N
Weight:	0,31 kg (0,44 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
Max. int. leakage:	200 cm <sup>3</sup> /min (@46 cSt) 12 in <sup>3</sup> /min (@46 cSt)
Seal kit:	RB100082
MTTFd:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

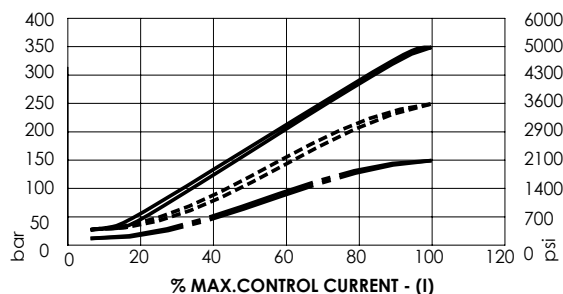
## CURVES



CE000119 1&gt;2—————

CE000120 1&gt;2-----

CE000121 1&gt;2— — — —



## ORDERING CODES

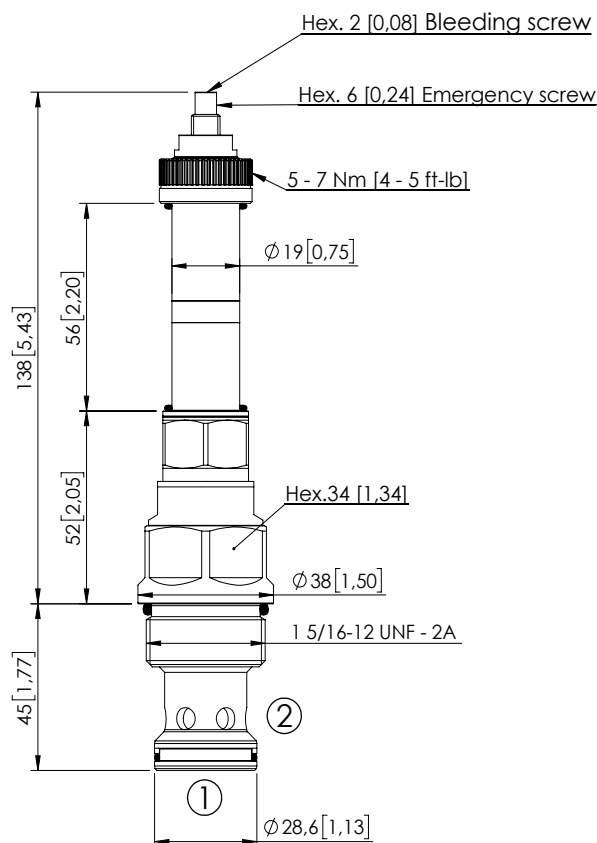
Quick code	Description	Setting range	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE000119	CEBT-120-PLPS-91-S10-V350	30-350 bar (450-5000 psi)	200 mA (+/-7%)	1600 mA (+/-7%)	Screw style	
CE000120	CEBT-120-PLPS-91-S10-V200	20-220 bar (300-3100 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style	
CE000121	CEBT-120-PLPS-91-S10-V100	15-90 bar (200-1300 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style	

Revision B3

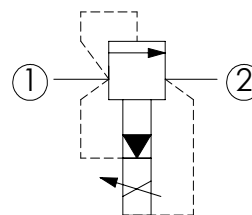


## SOLENOID OPERATED CARTRIDGE

## CEBT-300-PLPS

PROPORTIONAL VALVES  
PILOTED RELIEF  
SPOOL TYPE

Dimensions: mm [inches]



## SPECIFICATIONS

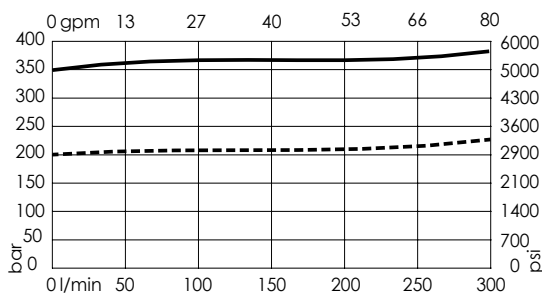
Max. operating pressure:	350 bar (5000 psi)
Rated flow:	300 l/min (80 gpm)
Cavity:	SAE-16-2N
Weight:	0,6 kg (1,10 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	118 - 132 Nm (87 - 97 ft-lb)
Max. int. leakage:	200 cm <sup>3</sup> /min (@46 cSt) 12 in <sup>3</sup> /min (@46 cSt)
Seal kit:	RA100084
MTF <sub>d</sub> :	150 - 1200 years: See technical spec.

## NOTES

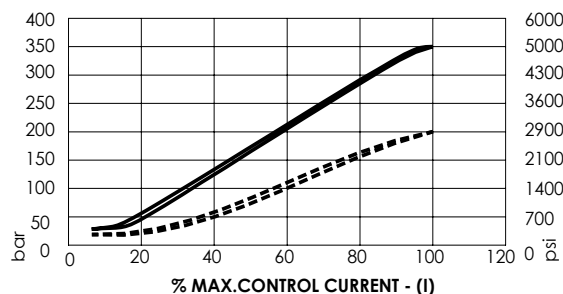
Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



CE000880 1&gt;2————



CE000895 1&gt;2-----

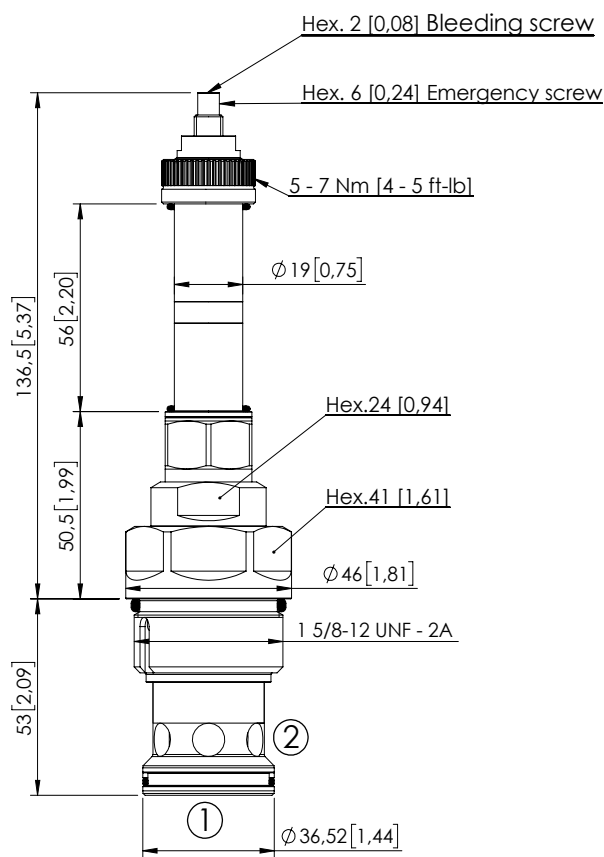
## ORDERING CODES

Quick code	Description	Proportional setting range	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE000880	CEBT-300-PLPS-91-S16-V350	30-350 bar (450-5000 psi)	200 mA (+/-7%)	1600 mA (+/-7%)	Screw style	
CE000895	CEBT-300-PLPS-91-S16-V200	20-200 bar (300-2900 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style	

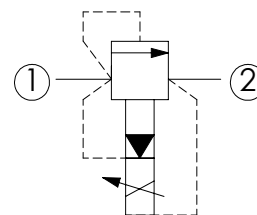
Revision B3

## SOLENOID OPERATED CARTRIDGE

## CEBT-500-PLPS

PROPORTIONAL VALVES  
PILOTED RELIEF  
SPOOL TYPE

Dimensions: mm [inches]



## SPECIFICATIONS

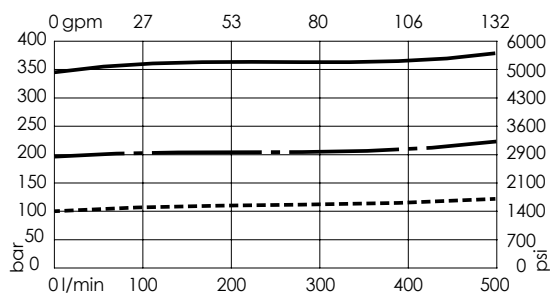
Max. operating pressure:	350 bar (5000 psi)
Rated flow:	500 l/min (132 gpm)
Cavity:	SAE-20-2N
Weight:	0,8 kg (1,76 lbs)
Type hydraulic fluid:	See Technical spec.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	230 - 250 Nm (170 - 184 ft-lb)
Max. int. leakage:	200 cm <sup>3</sup> /min (@46 cSt) 12 in <sup>3</sup> /min (@46 cSt)
Seal kit:	RA100085
MTTFa:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

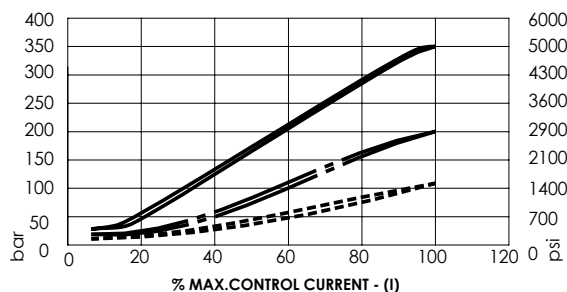
## CURVES



CE000770 1&gt;2———

CE000771 1&gt;2———

CE000772 1&gt;2-----



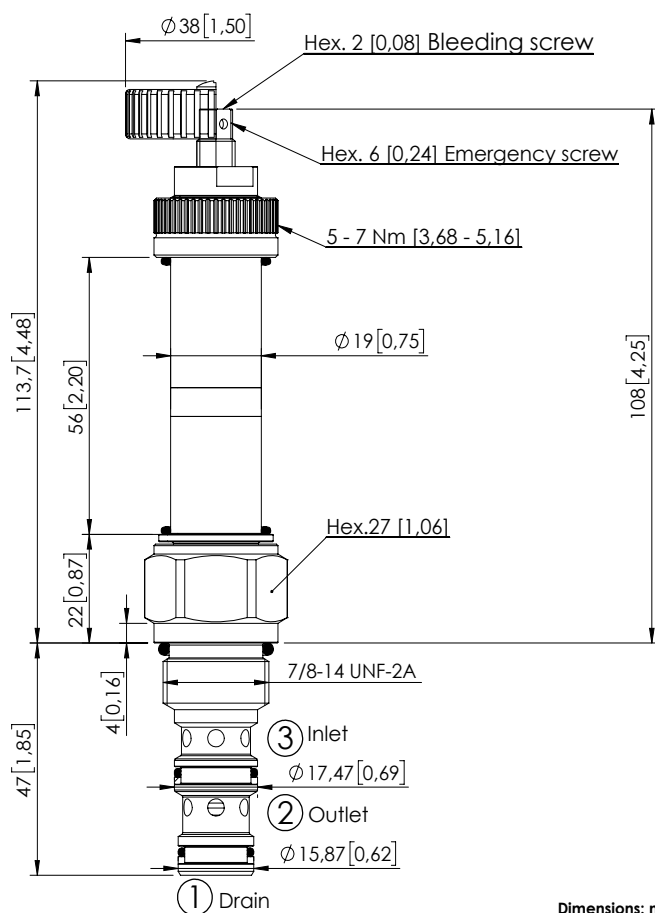
## ORDERING CODES

Quick code	Description	Proportional setting range	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override
CE000770	CEBT-500-PLPS-91-S20-V350	30-350 bar (450-5000 psi)	200 mA (+/-7%)	1600 mA (+/-7%)	Screw style
CE000771	CEBT-500-PLPS-91-S20-V200	20-220 bar (300-3100 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style
CE000772	CEBT-500-PLPS-91-S20-V100	15-90 bar (200-1300 psi)	200 mA (+/-7%)	1700 mA (+/-7%)	Screw style

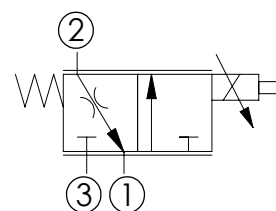
Revision B3

## SOLENOID OPERATED CARTRIDGE

## CECS-040-FSPS

PROPORTIONAL VALVES  
NON COMPENSATED  
FLOW REGULATOR

Dimensions: mm [inches]



## SPECIFICATIONS

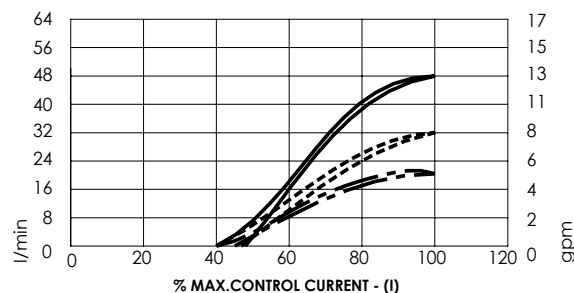
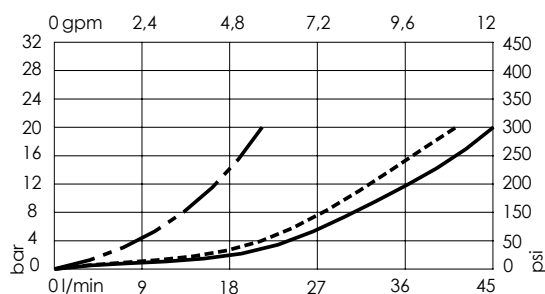
Max. operating pressure:	210 bar (3000 psi)
Rated flow:	40 l/min (11 gpm)
Cavity:	SAE-10-3N
Weight:	0,22 kg (0,49 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
Max. int. leakage:	150 cm <sup>3</sup> /min (@46 cSt) 9 in <sup>3</sup> /min (@46 cSt)
Seal kit:	RA100092
MTTFd:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



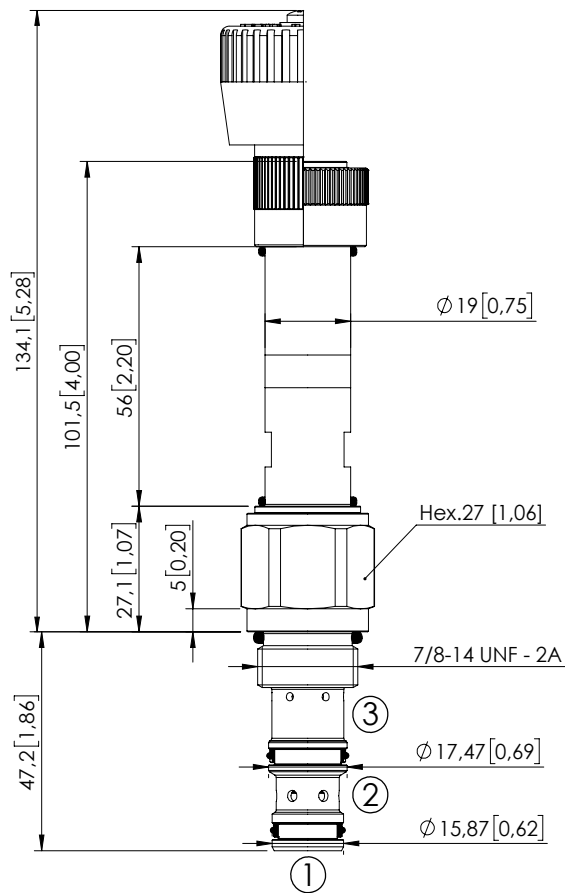
## ORDERING CODES

Quick code	Description	Rated flow	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE000111	CECS-040-FSPS-85-S10-V210	40 l/min (11 gpm)	800 mA (+/-7%)	1600 mA (+/-7%)	Screw style	
CE000112	CECS-030-FSPS-85-S10-V210	30 l/min (8 gpm)	700 mA (+/-7%)	1500 mA (+/-7%)	Screw style	
CE000113	CECS-020-FSPS-85-S10-V210	20 l/min (6 gpm)	700 mA (+/-7%)	1400 mA (+/-7%)	Screw style	
CE000960	CECS-040-FSPV-85-S10-V210	40 l/min (11 gpm)	800 mA (+/-7%)	1600 mA (+/-7%)	Handknob style	
CE000906	CECS-030-FSPV-85-S10-V210	30 l/min (8 gpm)	700 mA (+/-7%)	1500 mA (+/-7%)	Handknob style	
CE000489	CECS-020-FSPV-85-S10-V210	20 l/min (6 gpm)	700 mA (+/-7%)	1400 mA (+/-7%)	Handknob style	

Revision B3

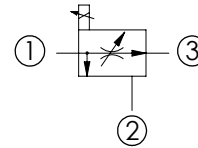
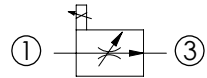
## SOLENOID OPERATED CARTRIDGE

## CECS-050-FRPN

PROPORTIONAL VALVES  
FLOW REGULATOR  
3 WAYS COMBINATION

Dimensions: mm [inches]

3 way application

2 way application,  
port 2 not connected

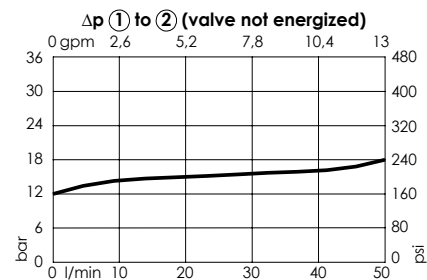
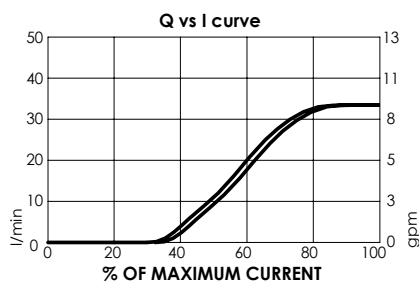
## SPECIFICATIONS

Max. operating pressure:	320 bar (4600 psi)
Max. flow (in inlet port ①):	50 l/min (13 gpm)
Max. flow ① to ③:	35 l/min REGULATED (9 gpm)
Cavity:	SAE-10-3N
Weight:	0,250 kg (0.55 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Voltage:	12- 24 V dc
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Pressure differential (① to ③):	7-11 bar (101 - 159 psi)
Hysteresis (ramp up and down):	5 %
Max current (12 V dc):	1800 mA
Max current (24 V dc):	1200 mA
Coil resistance (12 V dc):	3.3-5.8 Ω
Coil resistance (24 V dc):	7.2-13 Ω
Surface protection proportional solenoid:	Coating DIN 50962 Fe8/ Zi-Ni with passivation
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
Seal kit:	RB100092
MTF <sub>d</sub> :	150 - 1200 years: See technical spec.

## NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



## ORDERING CODES

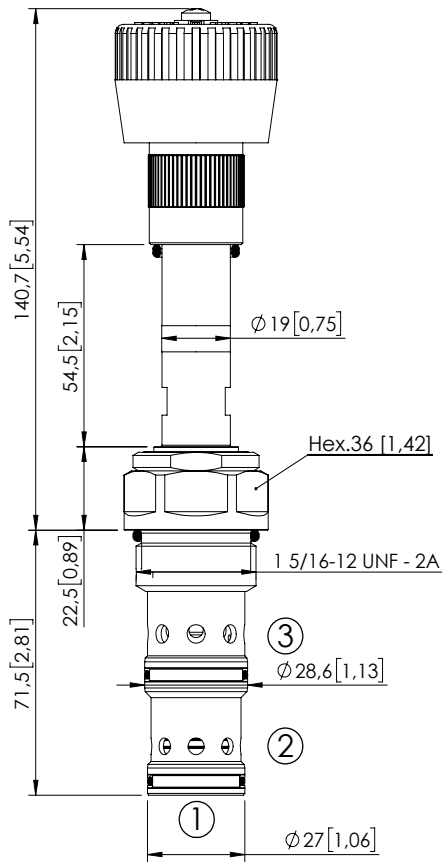
Quick code	Description	Regulated flow range	Adjustment type	
CE001144	CECS-050-FRPN-35-S10-V320	0-35 l/min (0-9 gpm)	Standard	
CE001882	CECS-050-FRPN-35-S10-V320	0-35 l/min (0-9 gpm)	Handknob	

Revision B

# SOLENOID OPERATED CARTRIDGE

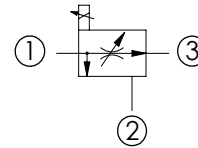
## CECS-140-FRPM

PROPORTIONAL VALVES  
FLOW REGULATOR  
PRIORITY TYPE

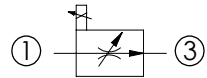


Dimensions: mm [inches]

3 way application



2 way application,  
port 2 not connected



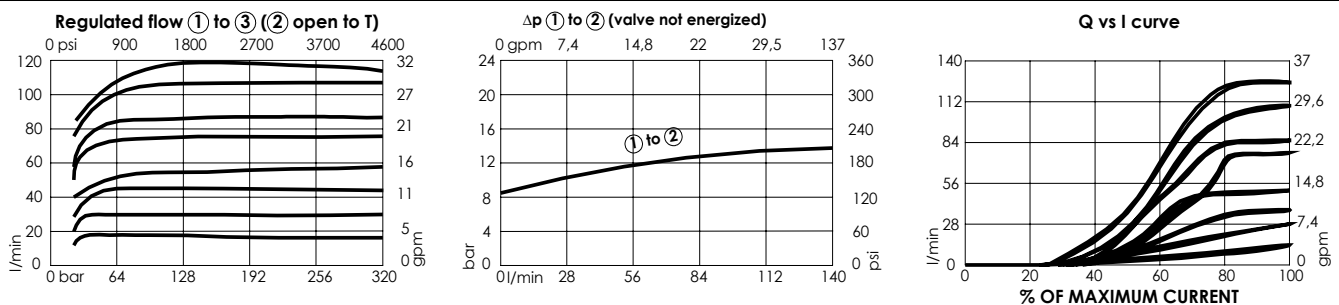
### SPECIFICATIONS

Max. operating pressure:	320 bar (4600 psi)
Max. flow (in inlet port ①):	140 l/min (37 gpm)
Max. flow ① to ③:	120 l/min REGULATED (32 gpm)
Cavity:	SAE-16-3N
Weight:	0,6 kg (1.32 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M15 type
Voltage:	12- 24 V dc
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Pressure differential (① to ③):	7- 11 bar (101 - 159 psi)
Hysteresis (ramp up and down):	1,5 - 3 %
Max current (12 V dc):	1800 mA
Max current (24 V dc):	1200 mA
Coil resistance (12 V dc):	3,3-5,8 Ω
Coil resistance (24 V dc):	7,2-13 Ω
Surface protection proportional solenoid:	Coating DIN 50962 Fe8/ Zi-Ni with passivation
Installation torque:	118 - 132 Nm (160 - 179 ft-lb)
Seal kit:	RB100094
MTF <sub>a</sub> :	150 - 1200 years: See technical spec.

### NOTES

If port 2 is blocked the valve operates as a two way flow regulator.  
Port 2 can be pressurized.  
For other configurations/quick codes not available in this catalogue page please consult factory

### CURVES

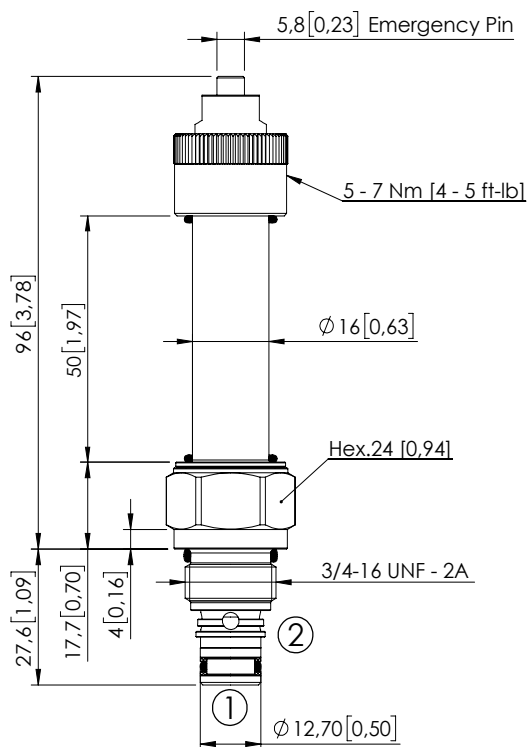


### ORDERING CODES

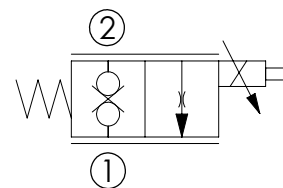
Quick code	Description	Regulated flow range	Adjustment type
CE000831	CECS-140-FRPM-15-S16-V320	0-15 l/min (0-4 gpm)	Handknob
CE000832	CECS-140-FRPM-25-S16-V320	0-25 l/min (0-7 gpm)	Handknob
CE000833	CECS-140-FRPM-40-S16-V320	0-40 l/min (0-11 gpm)	Handknob
CE000834	CECS-140-FRPM-50-S16-V320	0-50 l/min (0-13 gpm)	Handknob
CE000835	CECS-140-FRPM-65-S16-V320	0-65 l/min (0-17 gpm)	Handknob
CE000836	CECS-140-FRPM-80-S16-V320	0-80 l/min (0-21 gpm)	Handknob
CE001034	CECS-140-FRPM-100-S16-V320	0-100 l/min (0-27 gpm)	Handknob
CE001184	CECS-140-FRPM-120-S16-V320	0-120 l/min (0-32 gpm)	Handknob

Revision F

## CEBD-020-PEPS

PROPORTIONAL VALVE  
NORMALLY CLOSED

Dimensions: mm [inches]



## SPECIFICATIONS

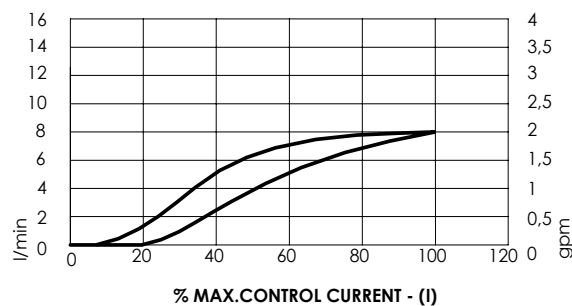
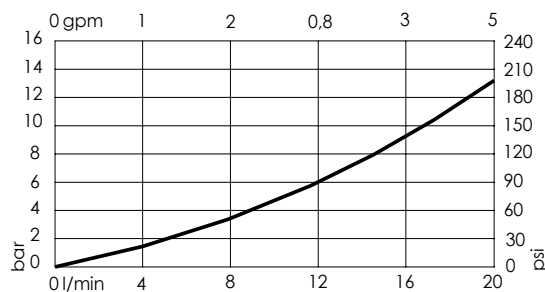
Max. operating pressure:	210 bar (3000 psi)
Rated flow:	20 l/min (5 gpm)
Cavity:	SAE 08-2N
Weight:	0,21 kg (0,33 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M16 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	120-150 Hz
Installation torque:	45 - 50 Nm (33 - 37 ft-lb)
Seal kit:	RA100081
MTTFd:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



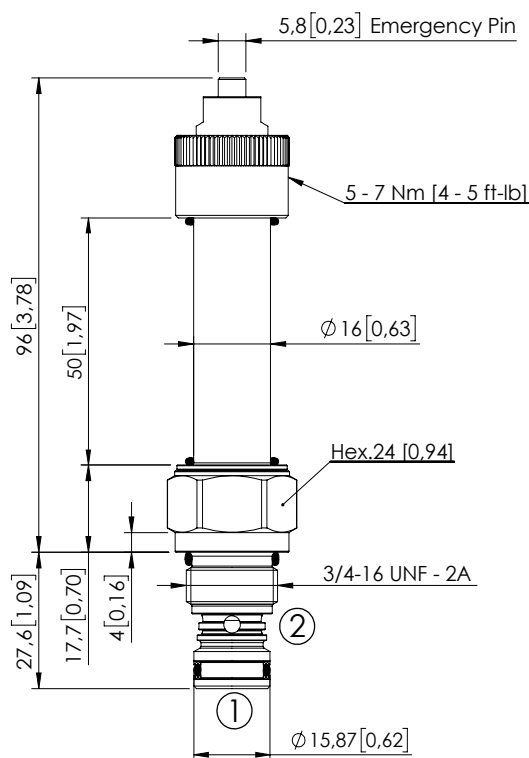
## ORDERING CODES

Quick code	Description	Rated flow	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE001190	CEBD-020-PEPS-103-S08-V210	20 l/min (5 gpm)	1000 mA (+/-7%)	2000 mA (+/-7%)	Push style	

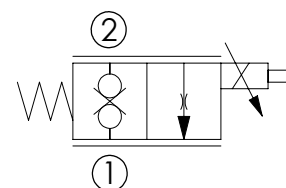
Revision B3

## SOLENOID OPERATED CARTRIDGE

## CEBD-020-PEPS

PROPORTIONAL VALVE  
NORMALLY CLOSED

Dimensions: mm [inches]



## SPECIFICATIONS

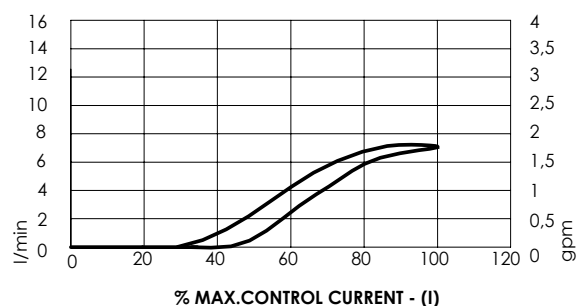
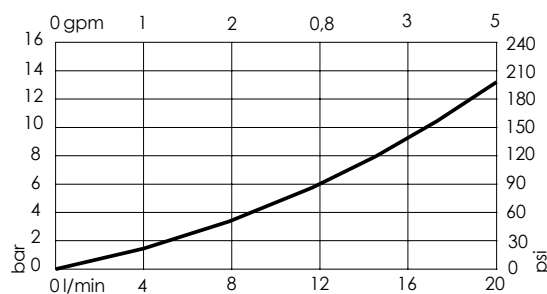
Max. operating pressure:	210 bar (3000 psi)
Rated flow:	20 l/min (5 gpm)
Cavity:	VP000064
Weight:	0,21 kg (0,33 lbs)
Type hydraulic fluid:	See Technical specif.
Hydraulic fluid temp. range:	-30/+100 °C (-22/+212 °F)
Contamination class to ISO 4406:	See technical spec.
Coil type:	M16 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
PWM range recommended:	150-180 Hz
Installation torque:	45 - 50 Nm (33 - 37 ft-lb)
Seal kit:	RA100081
MTFa:	150 - 1200 years: See technical spec.

## NOTES

Bleed air before use

For other configurations/quick codes not available in this catalogue page please consult factory

## CURVES



## ORDERING CODES

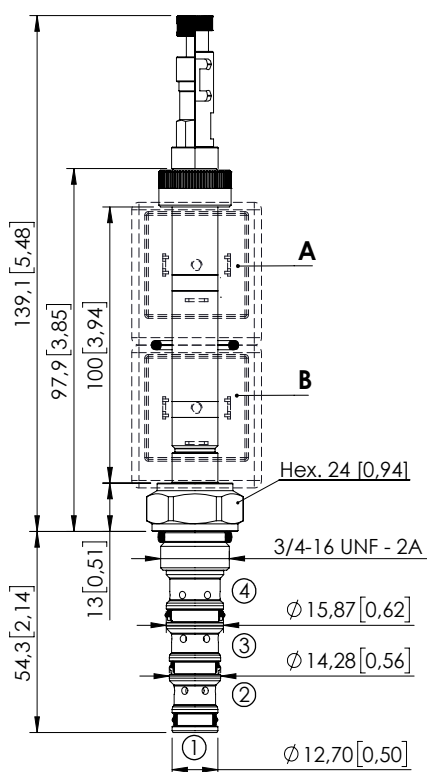
Quick code	Description	Rated flow	Threshold current (with 12VDC coil)	Max control current (with 12V DC coil)	Override	
CE001116	CEBD-020-PEPS-103-064-V210	20 l/min (5 gpm)	1000 mA (+/-7%)	2000 mA (+/-7%)	Push style	

Revision B3

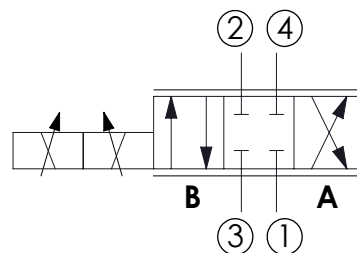
# SOLENOID OPERATED CARTRIDGE

## CEES-010-SEPN-51

DIRECT OPERATED  
SPOOL TYPE



Dimensions: mm [inches]



### SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Cavity:	SAE-08-4N
Weight:	0,13 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M7 or M3 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB600101
Installation torque:	45 - 50 Nm (41 - 46 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

### NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

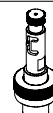
### OPTIONS



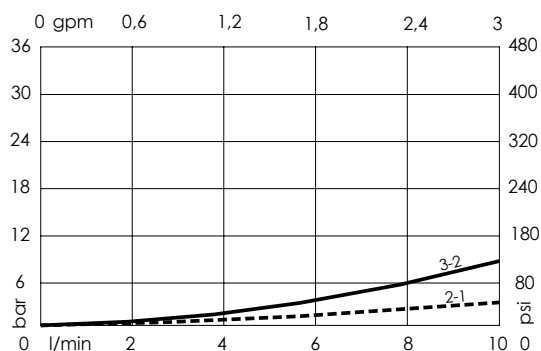
Standard



Push and  
pull manual  
override



Push pull and  
twist manual  
override



### ORDERING CODES

Quick code	Description	Options
CE001832	CEES-010-SEPN-51-S08-N350	Standard
CE001833	CEES-010-SEPL-51-S08-N350	Push and pull manual override
CE001834	CEES-010-SEPG-51-S08-N350	Push pull and twist manual override

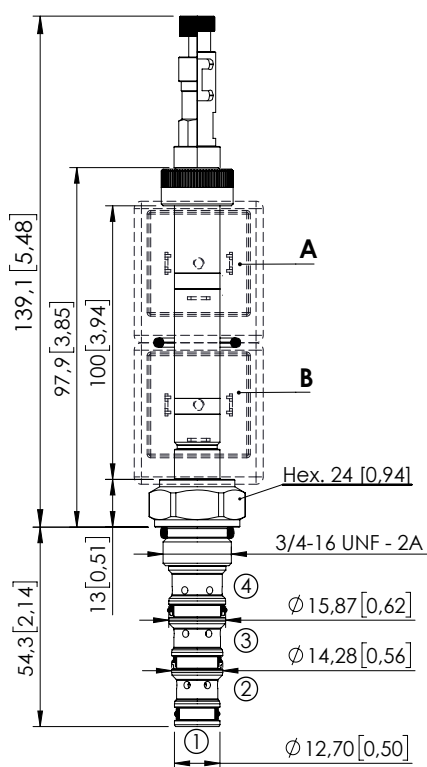
Revision B



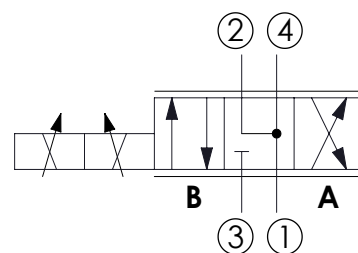
# SOLENOID OPERATED CARTRIDGE

# CEES-010-SEPN-52

DIRECT OPERATED  
SPOOL TYPE



Dimensions: mm [inches]



## SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Cavity:	SAE-08-4N
Weight:	0,13 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M7 or M3 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB600101
Installation torque:	45 - 50 Nm (41 - 46 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

## NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

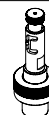
## OPTIONS



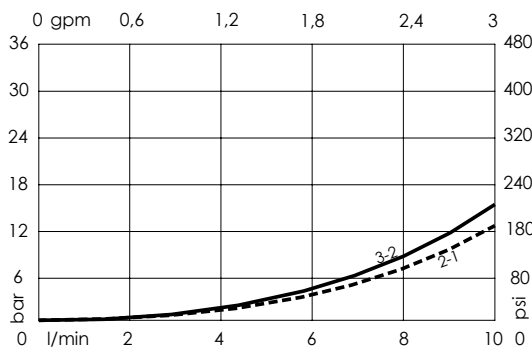
Standard



Push and  
pull manual  
override



Push pull and  
twist manual  
override



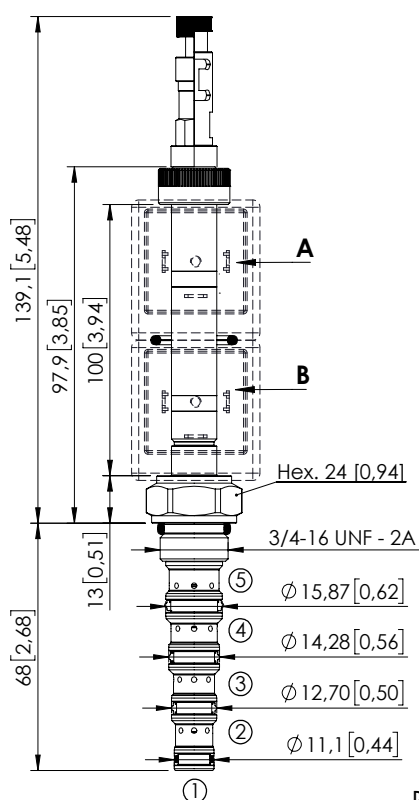
## ORDERING CODES

Quick code	Description	Options	
CE001835	CEES-010-SEPN-52-S08-N350	Standard	
CE001836	CEES-010-SEPL-52-S08-N350	Push and pull manual override	
CE001837	CEES-010-SEPG-52-S08-N350	Push pull and twist manual override	

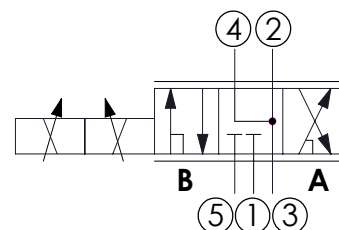
Revision B



## SOLENOID OPERATED CARTRIDGE

**CEFS-010-SEPN-107**DIRECT OPERATED  
SPOOL TYPE

Dimensions: mm [inches]

**SPECIFICATIONS**

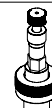
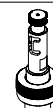
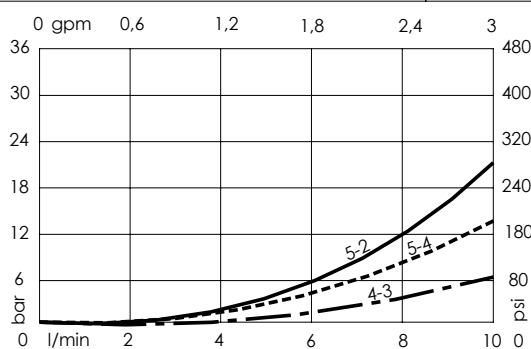
Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Cavity:	SAE-08-5N
Weight:	0,25 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M7 or M3 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB900106
Installation torque:	45 - 50 Nm (41 - 46 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

**NOTES**

For other configurations/quick codes not available in this catalogue page please consult factory

**OPTIONS**

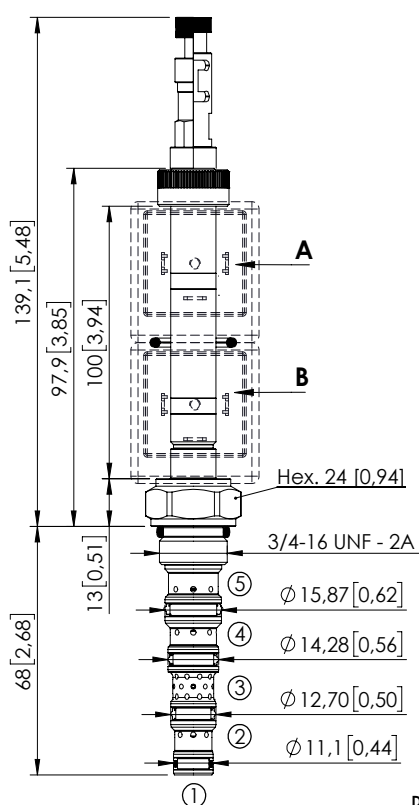
Standard

Push and  
pull manual  
overridePush pull and  
twist manual  
override**ORDERING CODES**

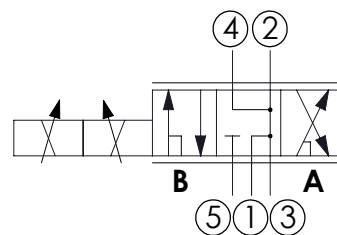
Quick code	Description	Options
CE001844	CEFS-010-SEPN-107-S08-N350	Standard
CE001845	CEFS-010-SEPL-107-S08-N350	Push and pull manual override
CE001846	CEFS-010-SEPG-107-S08-N350	Push pull and twist manual override

Revision A

## SOLENOID OPERATED CARTRIDGE

**CEFS-010-SEPN-115**DIRECT OPERATED  
SPOOL TYPE

Dimensions: mm [inches]

**SPECIFICATIONS**

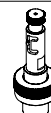
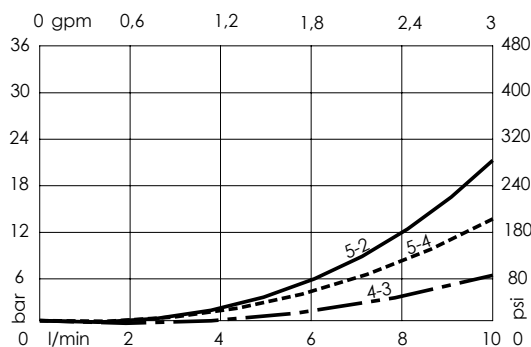
Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Cavity:	SAE-08-5N
Weight:	0,25 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M7 or M3 type
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB900106
Installation torque:	45 - 50 Nm (41 - 46 ft-lb)
MTTF <sub>a</sub> :	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

**NOTES**

For other configurations/quick codes not available in this catalogue page please consult factory

**OPTIONS**

Standard

Push and  
pull manual  
overridePush pull and  
twist manual  
override**ORDERING CODES**

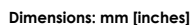
Quick code	Description	Options	
CE001850	CEFS-010-SEPN-115-S08-N350	Standard	
CE001851	CEFS-010-SEPL-115-S08-N350	Push and pull manual override	
CE001852	CEFS-010-SEPG-115-S08-N350	Push pull and twist manual override	

Revision A

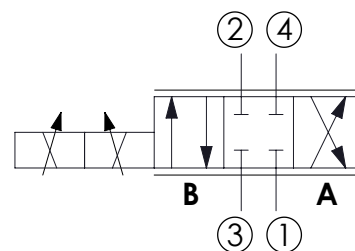
**CEES-030-SEPN-51**



**ATLANTIC**  
Fluid Tech



**For other configurations/quick codes not available in this catalogue page please consult factory**

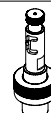


Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	30 l/min (8 gpm)
Cavity:	SAE-10-4N
Weight:	0,21 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M16
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB600102
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
MTTF <sub>d</sub> :	150 years
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7.3 in <sup>3</sup> /min (@46 cSt)

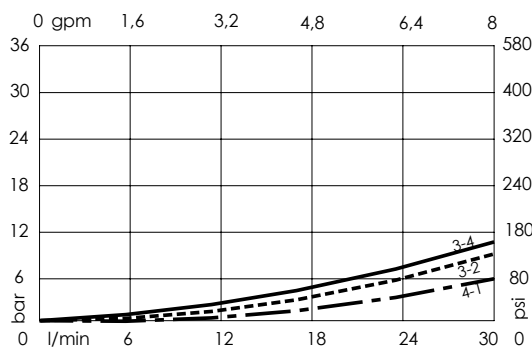
## Standard



**Push and pull manual override**

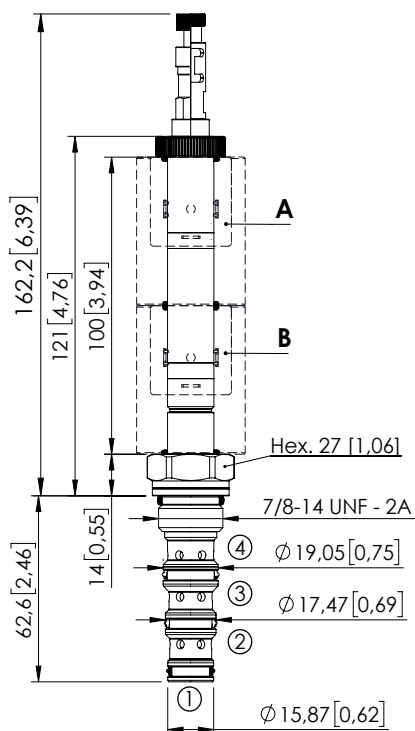


**Push pull and twist manual override**

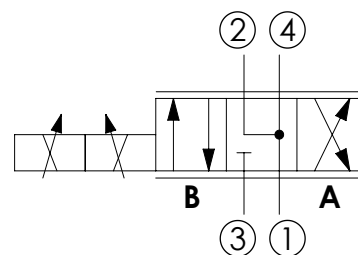


Quick code	Description	Options	
CE001853	CEES-030-SEPN-51-S10-N350	Standard	
CE001854	CEES-030-SEPL-51-S10-N350	Push and pull manual override	
CE001855	CEES-030-SEPG-51-S10-N350	Push pull and twist manual override	

Revision A



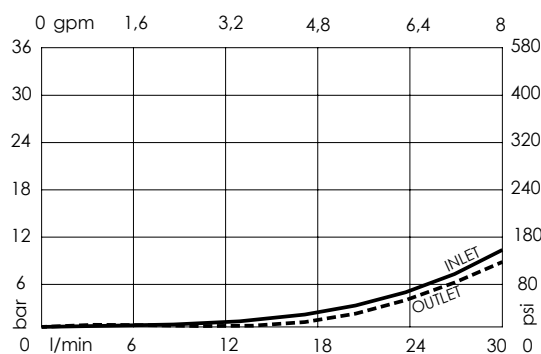
Dimensions: mm [inches]

**SPECIFICATIONS**Max. operating pressure: **350 bar (5000 psi)**Max. operating pressure on port 1: **210 bar (3000 psi)**Rated flow: **30 l/min (8 gpm)**Cavity: **SAE-10-4N**Weight: **0,21 kg (0.68 lbs)**Min. voltage required: **90% of nominal**Coil type: **M16**Ambient temperature: **-20/+50 °C (-4/+122 °F)**Contamination class to ISO 4406: **See technical spec.**Seal kit: **RB600102**Installation torque: **55 - 62 Nm (41 - 46 ft.-lb)**MTTFa: **150 - 1200 years: See technical spec.**Leakage: **120 cm<sup>3</sup>/min (@46 cSt)  
7,3 in<sup>3</sup>/min (@46 cSt)****NOTES**

For other configurations/quick codes not available in this catalogue page please consult factory

**OPTIONS**

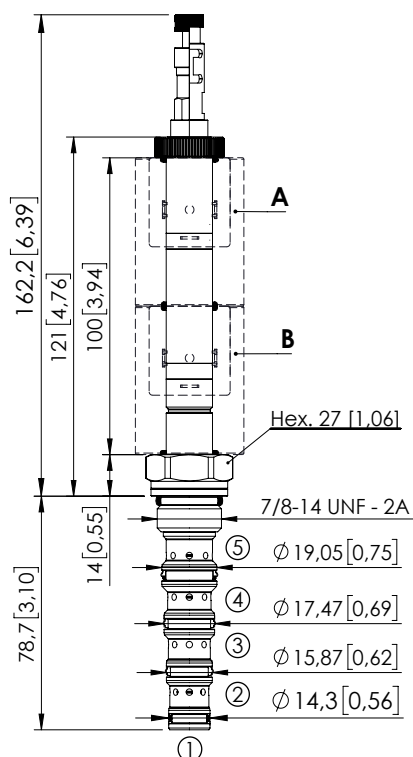
Standard

Push and  
pull manual  
overridePush pull and  
twist manual  
override**ORDERING CODES**

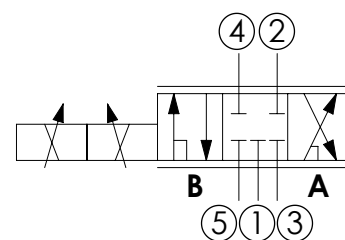
Quick code	Description	Options	
CE001856	CEES-030-SEPN-52-S10-N350	Standard	
CE001857	CEES-030-SEPL-52-S10-N350	Push and pull manual override	
CE001858	CEES-030-SEPG-52-S10-N350	Push pull and twist manual override	

Revision D

## SOLENOID OPERATED CARTRIDGE

**CEFS-030-SEPN-106**DIRECT OPERATED  
SPOOL TYPE

Dimensions: mm [inches]

**SPECIFICATIONS**

Max. operating pressure: 350 bar (5000 psi)

Max. operating pressure on port 1: 210 bar (3000 psi)

Rated flow: 30 l/min (8 gpm)

Cavity: SAE 10 5N

Weight: 0,22 kg (0,68 lbs)

Min. voltage required: 90% of nominal

Coil type: M16

Ambient temperature: -20/+50 °C (-4/+122 °F)

Contamination class to ISO 4406: See technical spec.

Seal kit: RB900107

Installation torque: 55 - 62 Nm (41 - 46 ft-lb)

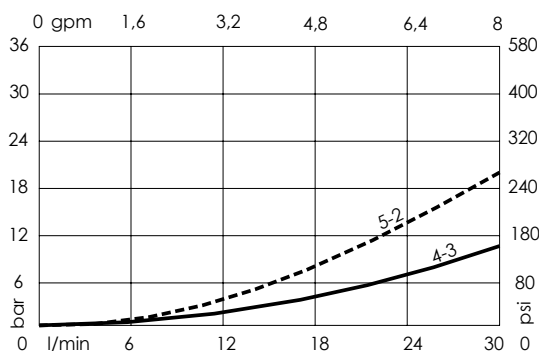
MTTFa: 150 - 1200 years: See technical spec.

Leakage: 120 cm<sup>3</sup>/min (@46 cSt)  
7,3 in<sup>3</sup>/min (@46 cSt)**NOTES**

For other configurations/quick codes not available in this catalogue page please consult factory

**OPTIONS**

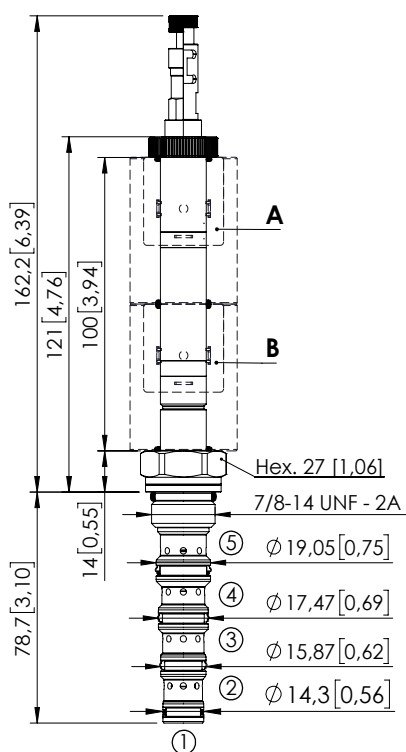
Standard

Push and  
pull manual  
overridePush pull and  
twist manual  
override**ORDERING CODES**

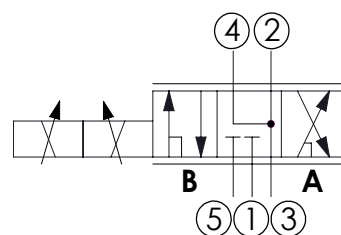
Quick code	Description	Options
CE001862	CEFS-030-SEPN-106-S10-N350	Standard
CE001863	CEFS-030-SEPL-106-S10-N350	Push and pull manual override
CE001864	CEFS-030-SEPG-106-S10-N350	Push pull and twist manual override

Revision A

## SOLENOID OPERATED CARTRIDGE

**CEFS-030-SEPN-107**DIRECT OPERATED  
SPOOL TYPE

Dimensions: mm [inches]

**SPECIFICATIONS**

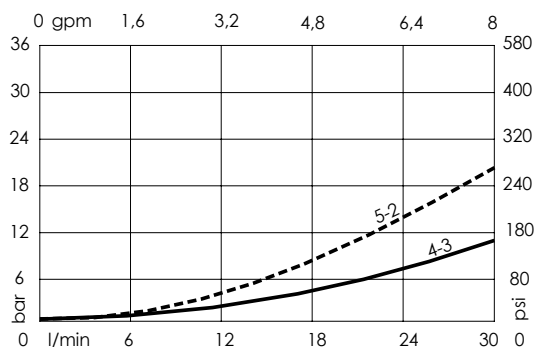
Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	30 l/min (8 gpm)
Cavity:	SAE 10 5N
Weight:	0,22 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M16
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB900107
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

**NOTES**

For other configurations/quick codes not available in this catalogue page please consult factory

**OPTIONS**

Standard

Push and  
pull manual  
overridePush pull and  
twist manual  
override**ORDERING CODES**

Quick code	Description	Options
CE001865	CEFS-030-SEPN-107-S10-N350	Standard
CE001866	CEFS-030-SEPL-107-S10-N350	Push and pull manual override
CE001867	CEFS-030-SEPG-107-S10-N350	Push pull and twist manual override

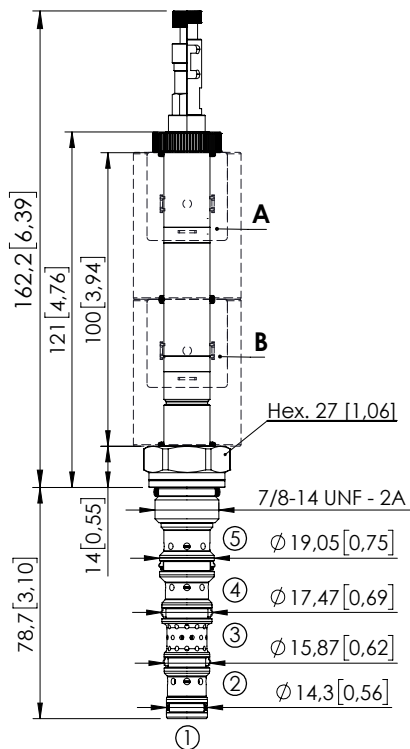
Revision A



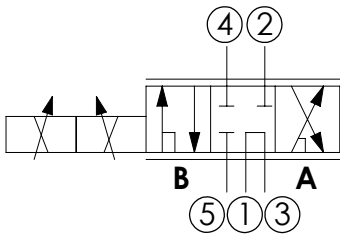
SOLENOID OPERATED CARTRIDGE

CEFS-030-SEPN-108

DIRECT OPERATED  
SPOOL TYPE



Dimensions: mm [inches]



SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Max. operating pressure on port 1:	210 bar (3000 psi)
Rated flow:	30 l/min (8 gpm)
Cavity:	SAE 10 5N
Weight:	0,22 kg (0,68 lbs)
Min. voltage required:	90% of nominal
Coil type:	M16
Ambient temperature:	-20/+50 °C (-4/+122 °F)
Contamination class to ISO 4406:	See technical spec.
Seal kit:	RB900107
Installation torque:	55 - 62 Nm (41 - 46 ft-lb)
MTTFd:	150 - 1200 years: See technical spec.
Leakage:	120 cm <sup>3</sup> /min (@46 cSt) 7,3 in <sup>3</sup> /min (@46 cSt)

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

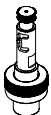
OPTIONS



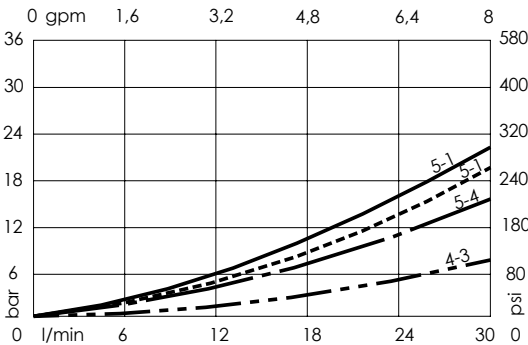
Standard



Push and  
pull manual  
override



Push pull and  
twist manual  
override

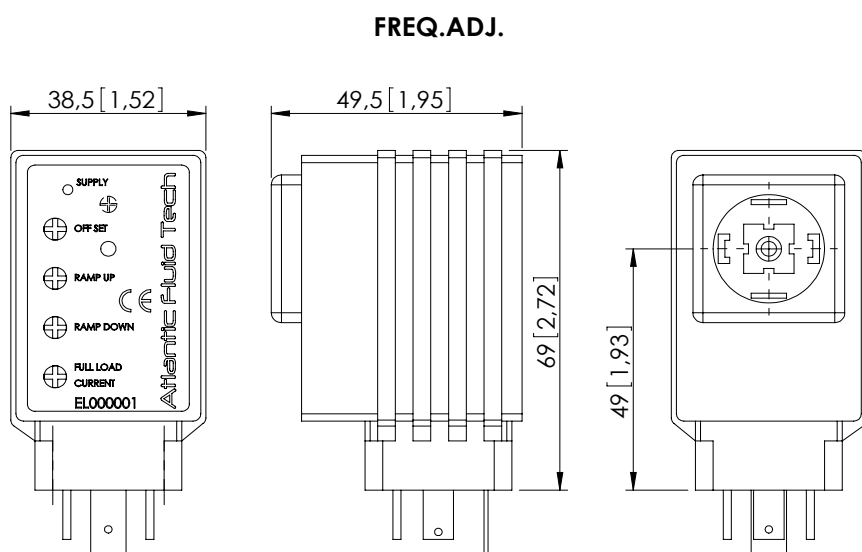
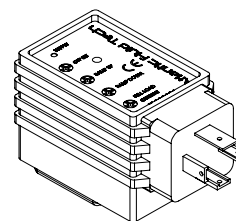


ORDERING CODES

Quick code	Description	Options
CE001868	CEFS-030-SEPN-108-S10-N350	Standard
CE001869	CEFS-030-SEPL-108-S10-N350	Push and pull manual override
CE001870	CEFS-030-SEPG-108-S10-N350	Push pull and twist manual override

Revision A

# ELPC-030-SCCB



Max torque 0,5 Nm [0,37 ft-lb]

## SPECIFICATIONS

**Supply voltage:** 12 - 30 VDC  
Coil rating must be matched with supply voltage:  
 $R_{coil} < (V_{supply} - 1,5V) / I_{max}$

**Control input signal options:**  
**5K $\Omega$  external potentiometer**  
(accepts 2K $\Omega$  to 10K $\Omega$ ), or 0-10 VDC signal  
(see connection diagram)

**Output current:** up to 2A

**Minimum current:** 0 - 0,6 A

**Max current deviation in temperature range:** 3%

**Ramp up / ramp down:** 0,1 to 10 sec  
Ramp setting independent from current range

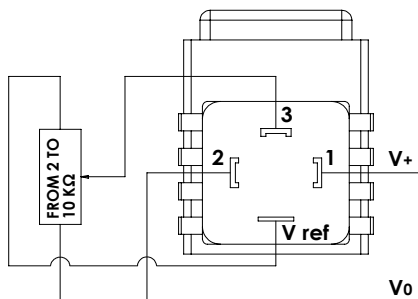
**PWM frequency:** 100 - 500 Hz

**Operating conditions:** -20 TO +70°C  
0 to 85% relative humidity

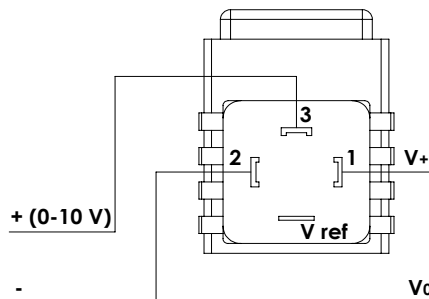
**Environmental protection:** IP65  
with cover and seals installed

**Connector type:** DIN 43650 - ISO 4400

### CONNECTION EXAMPLE WITH JOYSTICK OR POTENTIOMETER



### CONNECTION EXAMPLE WITH ANALOGIC SIGNAL



### IMPORTANT

**DO NOT REMOVE** controller from solenoid when energized to avoid the risk of damaging it

## SETTING INSTRUCTIONS

**SUPPLY:** led is on when current is supplied

**OFFSET:** to be used to set minimum current value (l/min-gpm), turn clockwise to increase setting

**RAMP UP:** to be used to set the ramp time from minimum (l/min-gpm) to maximum current value (l max-g max)

**RAMP DOWN:** to be used to set the ramp time from maximum (l max-g max) to minimum current value (l/min-gpm)

**FULL LOAD CURRENT:** to be used to set maximum current value (l max-g max), turn clockwise to increase setting

**FREQ. ADJ.:** this trimmer is inside the controller and is preset by factory, to be used to modify the PWM frequency

## ORDERING CODES

Quick code	Description	
EL000001	Proportional controller ELPC-030-SCCB	

For other configurations/quick codes not available in this catalogue page please consult factory