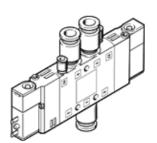
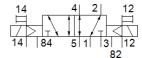
## Solenoid valve CPE14-M1BH-5JS-QS-8 Part number: 196910 Classic - do not use for new projects

High component density

This type is suitable for vacuum.

Modern alternatives can be found by entering the first four characters of the type code in the search field.





**FESTO** 

## **Data sheet**

Valve function 5/2 bistable Type of actuation electrical Width 14 mm Standard nominal flow rate 680 l/min Operating pressure MPa -0.09 1 MPa Working pressure Design structure Piston slide Authorization c UL us - Recognized (OL) Maritime classification see certificate Protection class IP65 with plug socket to IEC 60529 Nominal size 6 mm Exhaust-air function throttleable Sealing principle soft Assembly position Any Manual override with accessories, detenting Pilot air supply external Flow direction Label holder Lap Positive overlap Pilot pressure MPa Pilot pressure Pilot Pilo	Feature	Value
Width Standard nominal flow rate 680 l/min Operating pressure MPa -0.09 1 MPa Working pressure 9.0.9 10 bar Design structure Piston slide Authorization c UL us - Recognized (OL) Maritime classification see certificate Protection class IP65 with plug socket to IEC 60529 Nominal size 6 mm Exhaust-air function throttleable Sealing principle soft Assembly position Manual override with accessories, detenting Pushing Type of piloting Piloted Pilot air supply external Flow direction tabel holder Lap Positive overlap Pilot pressure MPa Pilot pressure Pilot pressure Pilot pressure Pilot pressure Positive reversal Duty cycle Max. positive test pulse with logic 0 1,200 µs  1,200 µs  1009: with holding current reduction Max. positive test pulse with logic 0	Valve function	5/2 bistable
Standard nominal flow rate Operating pressure MPa Operating pressure O	Type of actuation	electrical
Operating pressure MPa       -0.09 1 MPa         Working pressure       -0.9 10 bar         Design structure       Piston slide         Authorization       c UL us - Recognized (OL)         Maritime classification       see certificate         Protection class       IP65         with plug socket to IEC 60529       in IP65         Nominal size       6 mm         Exhaust-air function       throttleable         Sealing principle       soft         Assembly position       Any         Manual override       with accessories, detenting Pushing         Type of piloting       Piloted         Pilot air supply       external         Flow direction       reversible         Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Width	14 mm
Working pressure Design structure Authorization Culturiansification Protection class Protection Protection class Protection class Protection class Protection Protection class cla	Standard nominal flow rate	680 l/min
Design structure       Piston slide         Authorization       c UL us - Recognized (OL)         Maritime classification       see certificate         Protection class       IP65         with plug socket       to IEC 60529         Nominal size       6 mm         Exhaust-air function       throttleable         Sealing principle       soft         Assembly position       Any         Manual override       with accessories, detenting         Pushing       Piloted         Pilot air supply       external         Flow direction       reversible         Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Operating pressure MPa	-0.09 1 MPa
Authorization c UL us - Recognized (OL)  Maritime classification see certificate  Protection class IP65 with plug socket to IEC 60529  Nominal size 6 mm  Exhaust-air function throttleable Sealing principle soft Assembly position Any Manual override with accessories, detenting Pushing  Type of piloting Piloted Pilot air supply external Flow direction reversible  Valve position identification Label holder  Lap Positive overlap Pilot pressure MPa Pilot pressure Switching time reversal Duty cycle Max. positive test pulse with logic 0  IP65 with plug socket to IEC 60529 with plug socket to IEC 60529  With plug socket to IEC 60529  With plug socket to IEC 60529  With plug socket to IEC 60529  With plug socket to IEC 60529  Wether plug socket to IEC 60529  Wether plug socket to IEC 60529  IP65  With accessories, detenting Pushing Ploted Pushing  Type of piloting Piloted Pushing  IP65  With accessories, detenting Pushing Pushing  Type of piloting Piloted Pushing  IP65  With accessories, detenting Pushing Pushing  Type of piloting Piloted Positive overlap Pilot pressure IP66  IP65  IP	Working pressure	-0.9 10 bar
Maritime classification       see certificate         Protection class       IP65         with plug socket       to IEC 60529         Nominal size       6 mm         Exhaust-air function       throttleable         Sealing principle       soft         Assembly position       Any         Manual override       with accessories, detenting Pushing         Type of piloting       Piloted         Pilot air supply       external         Flow direction       reversible         Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Design structure	Piston slide
Protection class    IP65   with plug socket     to   IEC 60529     Nominal size   6 mm     Exhaust-air function   throttleable     Sealing principle   soft     Assembly position   Any     Manual override   with accessories, detenting     Pushing     Type of piloting   Piloted     Pilot air supply   external     Flow direction   reversible     Valve position identification   Label holder     Lape   Positive overlap     Pilot pressure MPa   0.2 0.8 MPa     Pilot pressure MPa   2 8 bar     Switching time reversal   13 ms     Duty cycle   100% with holding current reduction     Max. positive test pulse with logic 0   1,200 μs	Authorization	c UL us - Recognized (OL)
with plug socket to IEC 60529  Nominal size 6 mm  Exhaust-air function throttleable Sealing principle soft Assembly position Any  Manual override with accessories, detenting Pushing  Type of piloting Piloted Pilot air supply external Flow direction reversible Valve position identification Label holder Lap Positive overlap Pilot pressure MPa Pilot pressure MPa Pilot pressure 2 8 bar Switching time reversal 13 ms Duty cycle 100% with holding current reduction Max. positive test pulse with logic 0  1,200 µs	Maritime classification	see certificate
to IEC 60529  Nominal size 6 mm  Exhaust-air function throttleable  Sealing principle soft  Assembly position Any  Manual override with accessories, detenting Pushing  Type of piloting Piloted  Pilot air supply external  Flow direction reversible  Valve position identification Label holder  Lap Positive overlap  Pilot pressure MPa  Positive overlap  Positive overlap  Pilot pressure MPa  Positive overlap  Positive overlap  Pilot pressure MPa  Positive overlap  Pilot pressure MPa  Positive overlap  Pilot pressure MPa  Positive overlap  Positive overlap  Pilot pressure MPa  Pilot pressure MPa  Positive overlap  Pilot pressure MPa  Positive overlap  Pilot pressure MPa  Pilot pressur	Protection class	IP65
Nominal size 6 mm  Exhaust-air function throttleable Sealing principle soft Assembly position Any Manual override with accessories, detenting Pushing  Type of piloting Piloted Pilot air supply external Flow direction reversible  Valve position identification Label holder  Lap Positive overlap Pilot pressure MPa Pilot pressure MPa Pilot pressure Switching time reversal Duty cycle 100% with holding current reduction  Max. positive test pulse with logic 0  soft Any with accessories, detenting Pushing Pushing Pushing Piloted Positive external Flow direction reversible  2 8 bar 13 ms Duty cycle 100% with holding current reduction Max. positive test pulse with logic 0		with plug socket
Exhaust-air function  Sealing principle  Assembly position  Any  Manual override  With accessories, detenting Pushing  Type of piloting  Piloted  Pilot air supply  Flow direction  Valve position identification  Lap  Positive overlap  Pilot pressure MPa  Pilot pressure  Switching time reversal  Duty cycle  Max. positive test pulse with logic 0  Any  With accessories, detenting Pushing  Positive  External  Floted  Positive overlal  Doz 0.8 MPa  13 ms  Duty cycle  100% with holding current reduction  Max. positive test pulse with logic 0		to IEC 60529
Sealing principlesoftAssembly positionAnyManual overridewith accessories, detenting PushingType of pilotingPilotedPilot air supplyexternalFlow directionreversibleValve position identificationLabel holderLapPositive overlapPilot pressure MPa0.2 0.8 MPaPilot pressure2 8 barSwitching time reversal13 msDuty cycle100% with holding current reductionMax. positive test pulse with logic 01,200 μs	Nominal size	6 mm
Assembly positionAnyManual overridewith accessories, detenting PushingType of pilotingPilotedPilot air supplyexternalFlow directionreversibleValve position identificationLabel holderLapPositive overlapPilot pressure MPa0.2 0.8 MPaPilot pressure2 8 barSwitching time reversal13 msDuty cycle100% with holding current reductionMax. positive test pulse with logic 01,200 μs	Exhaust-air function	throttleable
Manual overridewith accessories, detenting PushingType of pilotingPilotedPilot air supplyexternalFlow directionreversibleValve position identificationLabel holderLapPositive overlapPilot pressure MPa0.2 0.8 MPaPilot pressure2 8 barSwitching time reversal13 msDuty cycle100% with holding current reductionMax. positive test pulse with logic 01,200 μs	Sealing principle	soft
PushingType of pilotingPilotedPilot air supplyexternalFlow directionreversibleValve position identificationLabel holderLapPositive overlapPilot pressure MPa0.2 0.8 MPaPilot pressure2 8 barSwitching time reversal13 msDuty cycle100% with holding current reductionMax. positive test pulse with logic 01,200 μs	Assembly position	Any
Type of piloting Pilot air supply external Flow direction reversible Valve position identification Lap Positive overlap Pilot pressure MPa Pilot pressure 2 8 bar Switching time reversal Duty cycle Max. positive test pulse with logic 0 Piloted Piloted Piloted Piloted Piloted Positive Label holder La	Manual override	with accessories, detenting
Pilot air supply       external         Flow direction       reversible         Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs		Pushing
Flow direction       reversible         Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Type of piloting	Piloted
Valve position identification       Label holder         Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Pilot air supply	external
Lap       Positive overlap         Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Flow direction	reversible
Pilot pressure MPa       0.2 0.8 MPa         Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Valve position identification	Label holder
Pilot pressure       2 8 bar         Switching time reversal       13 ms         Duty cycle       100% with holding current reduction         Max. positive test pulse with logic 0       1,200 μs	Lap	Positive overlap
Switching time reversal 13 ms  Duty cycle 100% with holding current reduction  Max. positive test pulse with logic 0 1,200 µs	Pilot pressure MPa	0.2 0.8 MPa
Duty cycle     100% with holding current reduction       Max. positive test pulse with logic 0     1,200 μs	Pilot pressure	2 8 bar
Max. positive test pulse with logic 0 1,200 μs	Switching time reversal	13 ms
	Duty cycle	100% with holding current reduction
May possitive test pulse with legis 1	Max. positive test pulse with logic 0	1,200 μs
max. negative test pulse with logic 1   900 µs	Max. negative test pulse with logic 1	900 μs
Characteristic coil data 24 V DC: 1.28 W	Characteristic coil data	24 V DC: 1.28 W
Permissible voltage fluctuation -15 % / +10 %	Permissible voltage fluctuation	-15 % / +10 %
Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4]	Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium  Lubricated operation possible (subsequently required for further operation)	Note on operating and pilot medium	
Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6	Vibration resistance	
Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and I 60068-2-27	Shock resistance	Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27
Corrosion resistance classification CRC 2 - Moderate corrosion stress	Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity VDMA24364-B1/B2-L		
Medium temperature -5 50 °C	·	·



Feature	Value
Pilot medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Ambient temperature	-5 50 °C
Electrical connection	2-pin
Mounting type	with through hole
Pilot exhaust port 82	M3
Pilot exhaust port 84	M3
Pilot air port 12	M3
Pilot air port 14	M3
Pneumatic connection, port 1	QS-8
Pneumatic connection, port 2	QS-8
Pneumatic connection, port 3	G1/8
Pneumatic connection, port 4	QS-8
Pneumatic connection, port 5	G1/8
Materials note	Conforms to RoHS
Material seals	NBR
Material housing	Aluminum die cast