OCD-DPC1B-1212-C10S-H3P

Interface

Interface	Profibus DP
Profile	DPV0, DPV1 and DPV2 Class 2 (EN50170 + EN50254)
Diagnostics	Memory
Manual Functions	Address selector switch 0-99 and terminal resistor (with connection cap)
Features	Round Axis
Transmission Rate	≤12 Mbaud
Interface Cycle Time	≥ 1 ms
Programming Functions	Resolution, gearing factor (physical resolution) , velocity scaling + filter, preset (zero point), counting direction, limit switches , node number, teach-in, diagnosis

Outputs

Output Driver	Profibus Data Interface, galvanically isolated via opto-couplers

Electrical Data

Supply Voltage	10 – 30 VDC
Current Consumption	≤ 115 mA @ 10 V DC, ≤ 50 mA @ 30 V DC
Power Consumption	≤ 1.5 W
Start-Up Time	< 1 s
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	109 years @ 40 °C

Sensor

Technology	Optical
Resolution Singleturn	12 bit
Resolution Multiturn	12 bit
Multiturn Technology	Mechanical Gearing (no Battery)
Accuracy (INL)	±0.0220° (14 – 16 bit), ±0.0439° (≤13 bit)
Code	Binary

Environmental Specifications

Protection Class (Shaft)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Storage Temperature	-40 °C (-40 °F) – +85 °C (+185 °F)
Humidity	98% RH, no condensation
Max Temperature	+85 °C (+185 °F)
Min Temperature	-40 °C (-40 °F)

Mechanical Data

Connection Cap Material	Aluminum
Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spay resistance)
Flange Type	Clamp, ø 58 mm (C)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime(10^8 revolutions with Fa/Fr)	430 (20N/40N), 150 (40N/60N), 100 (40N/80N), 55 (40N/110N)
Rotor Inertia	≤ 30 gcm² [≤ 0.17 oz-in²]

Friction Torque	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 1/min
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 10 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 20 g (20 Hz – 2000 Hz, EN 60068-2-6)
Length	80,5 mm (3.17")
Weight	480 g (1.06 lb)

Electrical Connection

Connection Orientation	Radial
Connection Cap Type	Removable for easy replacing encoder without new installation of cable, Rotary switches with visible node number, No active components, Terminal resistor switch cut the outgoing bus too, Big spring clips
Connection Type	3 x Cable Gland

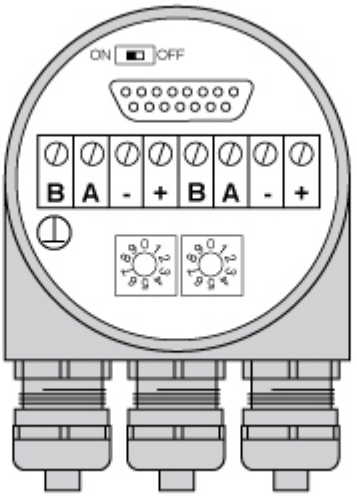
Certification

Approval	CE

Product Life Cycle

Product Life Cycle	Established

Connection Plan



Signal	Pin Number
Bus line B (Bus in)	B
Bus line A (Bus in)	A
GND	−
Power Supply	+
Bus line B (Bus out)	B
Bus line A (Bus out)	A
GND	−
Power Supply	+

Dimensional Drawing

Online Datasheet