Design Study LynxDrive-20D with HIPERFACE DSL®







Harmonic Drive® Servo Actuators are the perfect combination of highly dynamic compact servo motors, precision Harmonic Drive® Component Sets and integral high load capacity, tilt resistant output bearings.

Compact actuator with single cable solution

The Servo Actuators LynxDrive-20D combine a synchronous servo motor, Unit from the CobaltLine[®]-2UH Series, feedback sensor and a cross roller output bearing.

Available in size 20 with five gear ratios between 50 and 160:1, the actuators can provide maximum torques from 73 to 120 Nm. The output bearing with high tilting capacity can easily withstand and accurately handle heavy payloads.

The assembled HIPERFACE DSL[®] motor feedback as single cable solution is a digital enhancement of the communication between motor and controller. The interface only requires a minimum of connecting lines, because the robust and fail safe data transmission takes place for the first time ever via the motor cable. In addition, data of other sensors can also be transmitted via the digital motor feedback protocol. The innovative motor feedback system offers functional safety with the possibility of remote maintenance into the actuator.

By combining the LynxDrive[®] Actuators with the specially adapted YukonDrive[®] Servo Controllers, it is possible to provide a single source supply for a preconfigured drive system tailored to suit your application.

The accurate positioning of the actuator ensures stable machine characteristics, short cycle times and minimum space requirements. With high protection ratings and corrosion resistance, the series is perfectly suited for use in harsh and demanding environmental conditions.

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- High acceleration torque
- Long service life
- Compact design
- Single cable solution
- HIPERFACE DSL[®] feedback
- Integrated high capacity output bearing
- Corrosion protection

Optimised for your applications:

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- Short cycle times
- High torque/volume ratio
- Long tool life
- Increased operating reliability
- Small machine footprint

- Saving encoder cable
- Low installation costs
- Sustainable interface
- SIL2 (SIL3) compatible
- Transmission of further sensor signals
 possible

QUICKLINK www.harmonicdrive.co.uk/1120

LynxDrive-20D with HIPERFACE DSL®

Customer Benefits

Technical data

Table 4.1

	Unit	LynxDrive-20D				
Ratio	i[]	50	80	100	120	160
Maximum output torque	T _{max} [Nm]	73	96	107	113	120
Maximum output speed	n _{max} [rpm]	130	81	65	54	41
Continuous stall torque	T _o [Nm]	36	58	64	64	64
Weight without brake	m [kg]			2.3		
Weight with brake	m [kg]	2.8				
Transmission accuracy	[arcmin]	<1				
Ambient operating temperature	[°C]	0 40				

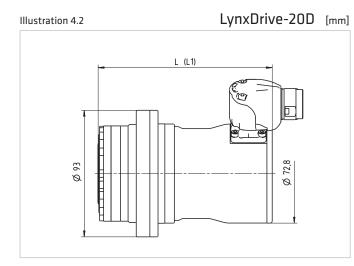


Table 4.3

	Unit	LynxDrive-20D
Length (without brake)	L [mm]	159
Length (with brake)	L1 [mm]	193

