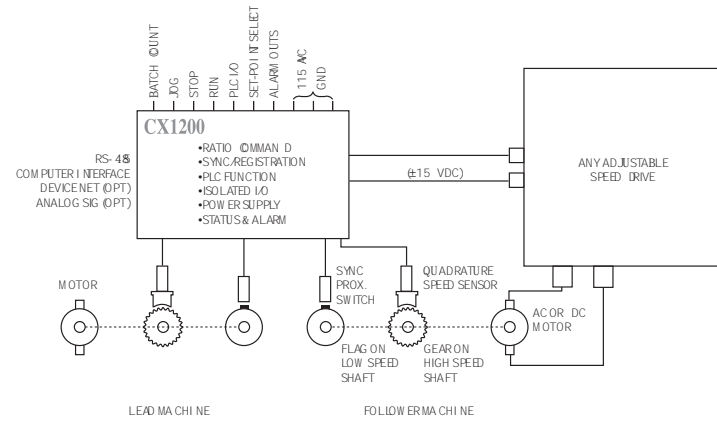


CX-1200



Synchronization Control



Specifications

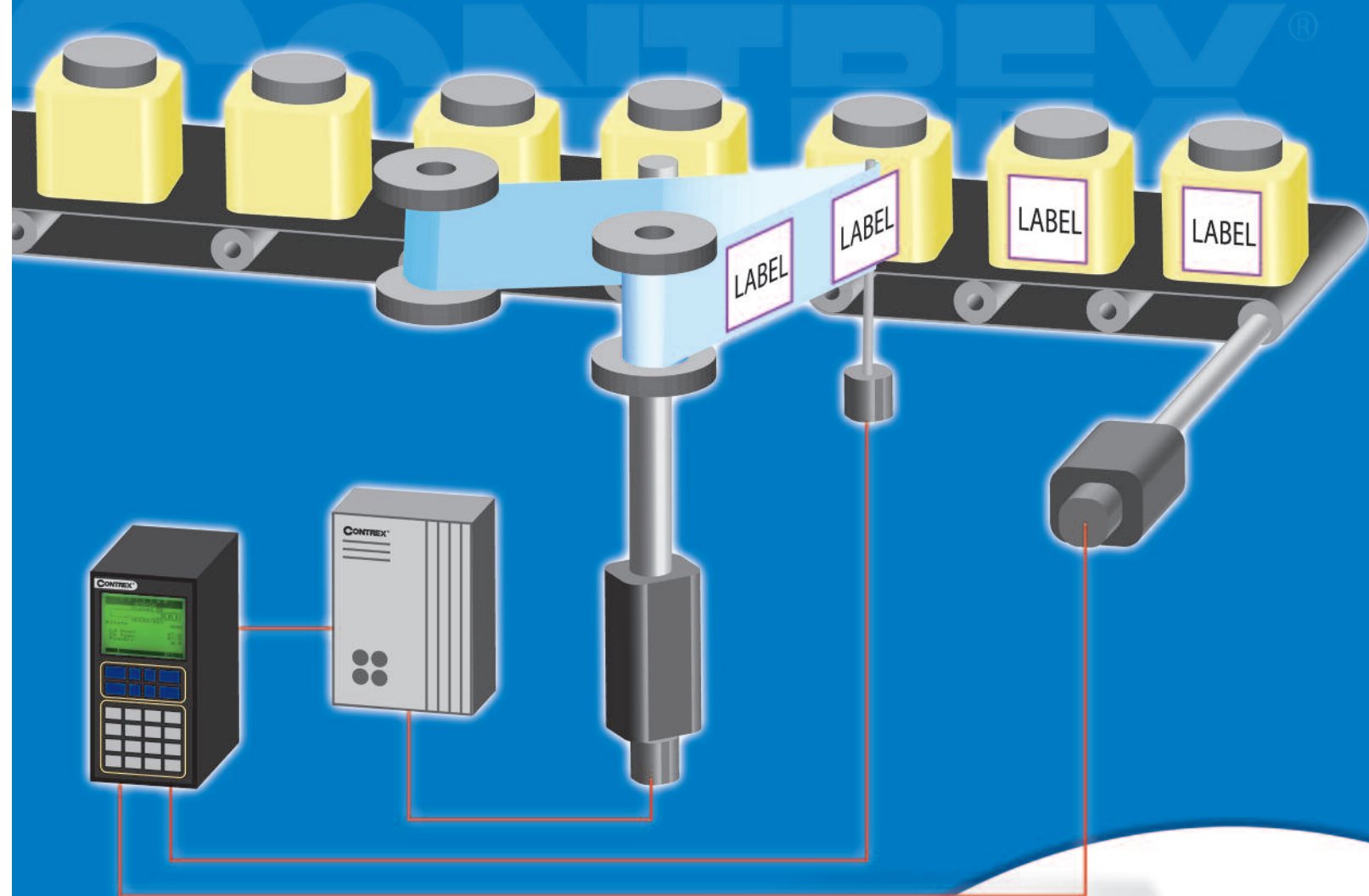
Operating Algorithms:	Master – Independent Operation Follower, with Sync Disabled Follower with Sync Enabled Jog Direct – Manual Output
Frequency Inputs (2):	Encoder signals 0 to 180 kHz 5 to 15 Vdc Operating Voltage Quadrature, or Single-Channel Line Driver, 200mV differential Single-Ended, Current Sinking, 2.5 Vdc switch threshold Optically Isolated (Dig. Com) 2.0 kOhm, 1/8 watt pullup to 5 Vdc
Synchronizing Inputs:	Registration Photoeyes, Marker Pulses, or JobSpace Flags Current Sinking 5 to 15 Vdc Operating Voltage 3.15 V Rising Edge Threshold 0.90 V Falling Edge Threshold 2.0 kOhm, 1/8 watt pullup to 5 Vdc 3 microsec minimum duration
Digital Inputs(16):	(8) pre-defined, (8) assignable via PLC Current Sinking 5 to 24 Vdc Operating Voltage 3.15 V Rising Edge Threshold 0.90 V Falling Edge Threshold 10.0 kOhm, 1/8 watt pullup to 5 Vdc 1 msec response, (DI0 - DI7) 2 msec response, (DI8 - DI15) Optically Isolated (Dig. Com)
Digital Outputs(8):	Assignable via PLC NPN Darlington Current Sinking 24 Vdc standoff voltage 1.0 V saturation at 200 mA typical 200 mA continuous, per channel 750 mA continuous, Total all channels Internal freewheel diodes 2 msec update rate Optically Isolated (Dig. Com)
Speed Command Out:	+/- 5 Vdc, to +/- 15 Vdc bipolar analog Zero / Span software adjustable 16 bit bipolar resolution (15 bit, plus sign) 18 mA max current Optically Isolated (CO. Com)
Stop States:	(Note! These are NOT Safety Stops) R-Stop, decel ramp profile F-Stop, Immediate Zero, no ramp H-Stop, decal ramp to "live zero" hold
Help Screens:	Interactive Help Screens are tied to each parameter Both text, and numerical explanations Display current, backup, and default values

Selectable Blocks:	Change configurations on-the-fly, via switches, or internal PLC 8 Blocks available User selectable parameter list (16 max) Typical usage: jobspace changes, divide-by N, control modes, start/stop sequencing
On-Board Backup:	Save custom configurations to backup Save Parameter values, and PLC logic
Built-in PLC:	8 In / 8 Out assignable ports Access to internal Modes and Status Access to internal Alarms and Limits Access to Lead and Follower Positions 4 Counters, with Trigger Points, 50 Hz max (1 has up/dn and retained attribute) 4 Timers with adjustable Delay & Dwell (3 auto reset, 1 retentive) 4 Comparators with Decimal Fraction Thresholds 64 lines of Boolean Statements Load, LdNot, And, AndNot, Or, OrNot, XOr, XOrNot, Not, and OUT Programmable via KeyPad, or offline w/optional S'ware
DeviceNet Option:	Explicit message, any parameter Polling Mode (4 read + 4 Write) 125/250/500 kBaud
AC Power Input:	115 /230 Vac +15%, -10% 50 / 60 Hz 0.25 Amps
Aux Power Output:	Use for encoder, or prox sensor power +12 Vdc +/- 5% 125 mA max Optically Isolated, (Dig. Com)
Operating Temperature:	0° to 55° C (32° to 131° F) Internal Enclosure 0° to 40° C (32° to 104° F) External Enclosure
Storage Temperature:	-25° to 70° C (-13° to 158° F)
Relative Humidity:	0 to 95% Non-condensing
Panel Dimensions:	Nema 4, 4X, 12, 13, IP65 Compatible Frontpanel 1/2 DIN vertical 18.41 cm (7.25 in) Height 9.27 cm (3.65 in) Width 16.30 cm (6.30 in) Depth

CONTREX®

P.O. BOX 9000
MAPLE GROVE, MINNESOTA 55311-9000
800-342-4411
763-424-7800
Fax: 763-424-8734
www.contrexinc.com
info@contrexinc.com

DS523-A



CX-1200

Synchronize two machines. Register Webs and Films.

Electronic Lineshaft Applications.

Works with AC / DC / Servo / or Vector Drives

Built-In PLC

Optical Isolation

2 Encoder plus 2 Marker Pulse (Photoeye / Prox) inputs.



CONTREX®

CX-1200

Synchronizing Controller



Synchronize Separate Machines:

Transfer product from conveyor to conveyor. Align cleats, bars, pockets, hooks, or grippers. Starwheels, fillers, cappers, and cartoners are easily tied together. Mix machine stations from different manufactures. Mix old and new or rebuilt machines together without mechanical lineshafts.

Register Web Processes:

Die cut in register to printed patterns on webs for labels or bags. Coordinate Form / Fill / Seal applications. Apply labels to cartons or containers.

Coordinate Multi-Motor Systems:

The CX-1200 receives encoder and position information from both the Lead Machine, and the Follower Machine. It precisely controls the follower axis, working through your choice of motor / drive combinations. AC / DC / Servo / Vector drives are all compatible with the CX-1200. Various gear ratios, or encoder counts, are easily accommodated.

Electronic Phase Shifting

Adjust registration phase, on-the-fly, by 3 different methods: Numerical Shift Parameter, remote Advance/Retard pushbuttons, or remote Analog Signal from a potentiometer or host PLC.

Change On-the-Fly:

Control Block Selections allow multiple preset machine configurations.

Learn Modes, and Trending Values:

New machine configurations can be "Learned" on-the-fly. Web Stretch or Shrink is recognized through trending algorithms.

Built-In PLC:

Customize alarms, create start-up sequencing, count production batches, or time vacuum valves or gate actuation. I/O ports are re-assignable. Internal logic, timers, comparators, and counters are easily programmed from the front face.

Factory Automation and System Integration:

Built-In RS485 serial links, and optional DeviceNet card allow connection to host controllers in larger integration schemes.

Synchronize Many Machine Configurations

The CX-1200 accommodates a wide range of configurations. The Universal motor speed control provides digital control to virtually any drive. It accepts 2 quadrature encoders, plus 2 marker pulses or register sensors.

