



MASTERFLEX[®]

L/S[®] DIGITAL DRIVES

ALL-NEW GRAPHICAL INTERFACE AND A MAINTENANCE-FREE HIGH-ACCURACY MOTOR



- Wider speed range delivers flows from 0.001 to 3400 mL/min with L/S pump tubing
- Graphical LCD shows all operating parameters—ideal for critical process monitoring
- Brushless, maintenance-free motor offers $\pm 0.1\%$ speed control accuracy with a 6000 to 1 turndown
- Menu-driven interface lets you select one of seven languages for programming and operation
- Cumulative volume function tracks total volume pumped or dispensed
- Scalable remote control of speed, direction, and start/stop enable process automation and integration

Applications

Dispensing and filling

Fluid metering, feed, and transfer

Acid/base pH control

Precision additive, flavoring, and colorant delivery

Sterile filtration and fluid transfer

Automated fluid transfer

Food/beverage and dairy process

 **Cole-Parmer[®]**
Delivering Solutions You Trust



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625 E. Bunker Court
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International customers

Call 847-549-7600 to reach our International Sales Department or contact your local dealer.

FREE TECHNICAL APPLICATIONS ASSISTANCE!

These L/S® precision drives offer high-accuracy motors and a graphical interface that makes setup and operation easier than ever. The high-contrast LCD shows four operating modes: continuous run, timed dispense, copy dispense, and volume dispense allowing you to view pump performance continually.

A programmable dispense interval allows hands-free dispensing and filling, and a new cumulative volume feature totalizes volume dispensed over multiple cycles. Programmed calibration ensures dispense and display accuracy—drive stores one calibration value per tubing size.

Computer-compatible models 07551-00 and -10 operate as stand-alone drives or they can be interfaced with a PC.

Process drive 07575-10 features a NEMA 4X / IP66-rated 316 stainless steel housing for sanitary and washdown applications.



L/S variable-speed digital drives are ideal for repetitive filling and dispensing applications. Stack pump heads to reduce pulsation and increase flow rates.

FLOW RATES IN mL/MIN WITH MASTERFLEX L/S® PUMP HEADS*

rpm	Precision pump tubing						High-performance precision pump tubing			
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18	L/S 15	L/S 24	L/S 35	L/S 36
	Standard, Easy-Load, Easy-Load II, Easy-Load 3						Multichannel, Standard, Easy-Load II, Easy-Load 3, High-Performance			
	Cartridge, Multichannel			Cartridge			Easy-Load			
0.1 to 600	0.006 to 36	0.021 to 130	0.08 to 480	0.17 to 1000	0.28 to 1700	0.38 to 2300	0.17 to 1000 (0.18 to 1100)	0.28 to 1700 (0.30 to 1800)	0.38 to 2300 (0.43 to 2600)	0.48 to 2900 (0.57 to 3400)
0.02 to 100	0.001 to 6	0.004 to 21	0.016 to 80	0.033 to 170	0.057 to 280	0.077 to 380	0.033 to 170 (0.036 to 183)	0.057 to 280 (0.057 to 300)	0.077 to 380 (0.086 to 433)	0.096 to 480 (0.113 to 566)

*Flow rates in parentheses are for the L/S High-Performance pump head.

SPECIFICATIONS & ORDERING INFORMATION

ISO9001:2000
SUPPLIER CERTIFIED



2 year
warranty

Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)	
							VAC	Amps
Standard digital drives								
MK-07523-80	0.1 to 600	±0.1% (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33	25.4 x 21.6 x 21.6 cm (10" x 8½" x 8½")	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC
MK-07523-90	0.02 to 100		4					
Computer-compatible/programmable digital drives								
MK-07551-00	0.1 to 600	±0.1% (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33	25.4 x 21.6 x 21.6 cm (10" x 8½" x 8½")	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC
MK-07551-10	0.02 to 100		4					
Process digital drive								
MK-07575-10	0.1 to 600	±0.1% (0.1 rpm at 600 rpm)	2	1/10 hp (75 W)	IP66	30.5 x 22.9 x 23.5 cm (12" x 9" x 9¼")	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC

What's included:

6-ft (1.8-m) line cord with IEC 320/CEE22 socket. Drives are shipped with country-specific plug/cord set.






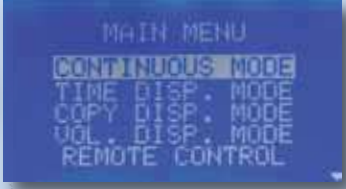


MASTERFLEX® L/S® Series Digital Pump Drives

Quick Start Guide

 Cole-Parmer®

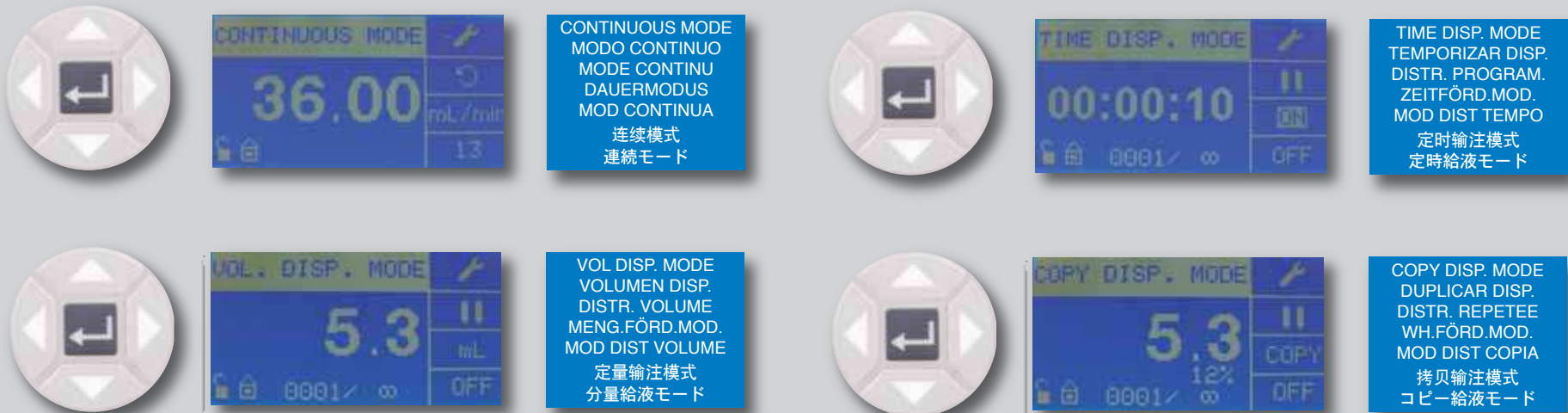


4			<p>LANGUAGE IDIOMA LANGUE SPRACHE LINGUA 语言 言語</p>
5			<p>MAIN MENU MENÚ PRINCIPAL MENU PRINCIPAL HAUPTMENÜ MENU PRINCIPALE 主菜单 メインメニュー</p>
6			<p>CONTINUOUS MODE MODO CONTINUO MODE CONTINU DAUERMODUS MOD CONTINUA 连续模式 連続モード</p>

7



8



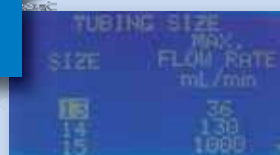
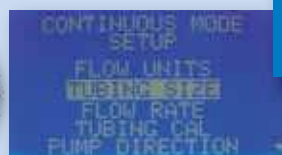


SETUP
MONTAJE
INSTALLATION
SETUP
IMPOSTAZIONE
設置
セッアップ

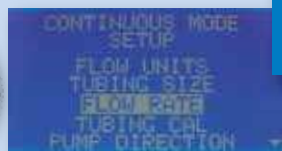
FLOW UNITS
UNIDADES DE FLUJO
UNITÉS DE DÉBIT
DURCHFLOSSEINHEIT
UNITÀ DI FLUSSO
流量單位
フロー単位



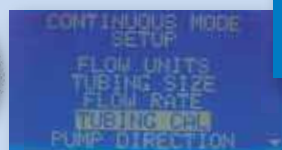
TUBING SIZE
TAMAÑO DEL TUBO
TAILLE DU TUYAU
ROHRLEITUNGSGR.
DIMENSIONE TUBI
管路尺寸
管サイズ



FLOW RATE
CAUDAL
DÉBIT
DURCHFLOßRATE
INDICE DI FLUSSO
流量
流量



TUBING CAL
CAL DE TUBERÍA
ÉTALON. TUYAU
ROHRLEITUNGSKAL
TARATURA TUBI
管路校准
配管校正



CE EN609 2001 MACH. DIR.
EN610 10-1 2001 L.V. DIR.
EN61326-1 2006 EMC DIR.
EN60529 / IEC 60534-5 (IP23)
& (IP66)



2 year
warranty

24
HOUR
DUTY



600 RPM/100 RPM Max



+0C, +32F



+40C, +104F



70 dba @ 1M



-25C, -13F

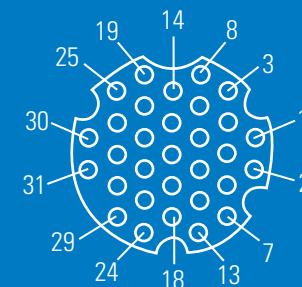


6.8kg/15lbs
or 11.8kg/26lbs




+65C +149F


13 12 11 10 9 8 7 6 5 4 3 2 1
25 24 23 22 21 20 19 18 17 16 15 14



1	1	Speed Control Voltage Input (0-10 V)
3	2	Speed Control Current Input (0-20 mA)
5	3	Speed Control Input Ground Return
7	4	Speed Signal Current Output (0-20 mA)
9	5	Speed Signal Output Ground Reference
11	6	(Motor Running N.O. Default) 1A @24V
13	7	Logic COM (Motor Running)
15	8	(Motor Running N.C. Default) 1A @24V
2	14	Speed Signal Voltage Output (0-10 V)
4	15	Remote Start/Stop Input
6	16	Remote CW/CCW Input
8	17	Remote Start/Stop, CW/CCW, Prime Grnd Ref.
10	18	Tach Ground Reference
12	19	Tach Output (open collector)
14	20	Remote Prime Input
20	23	General Alarm Output
22	24	Local/Remote Indicator
16-19, 21	9-12	Reserved - Not Used
23, 26-31	21-22	Reserved - Not Used
24	25	Aux 24V+
25	13	Aux 24V-

SAFETY PRECAUTIONS

 **DANGER:** High voltages exist and are accessible. Use extreme caution when servicing internal components.


 **WARNINGS:** Tubing breakage may result in fluid being sprayed from pump. Use appropriate measures to protect operator and equipment.


Turn drive off before removing or installing tubing. Fingers or loose clothing could get caught in drive mechanism.

 **CAUTION:** Power must be turned off before connecting the external remote control cable to prevent damage to the drive.

CAUTION: Do not contaminate the lubricant in the container, on the shaft or on the seal with foreign material. Failure to observe this precaution may result in damage to the seal and premature failure of the seal.

CAUTION: No foreign matter should be allowed under the gasket on the back of the front plate or under the heads of the screws. Failure to observe this precaution may result in leakage during washdown of the drive.

 **CAUTION:** To avoid electrical shock, the power cord protective grounding conductor must be connected to ground. Not for operation in wet locations as defined by EN61010-1.

 **CAUTION:** Keep fingers away from rotor while pump is in operation. Stop pump before loading or unloading tubing.

CAUTION: To reduce the possibility of tipping, use the stacking clip provided with the unit.

Explanation of Symbols


 **CAUTION:** Risk of Danger. Consult Operator's manual for nature of hazard and corrective actions.

 **CAUTION:** Risk of crushing. Keep fingers away from rotor while pump is in operation. Stop pump before loading or unloading tubing.

 **CAUTION:** Hot Surface. Do not touch.

 **CAUTION:** Risk of electric shock. Consult Operator's manual for nature of hazard and corrective actions.

WARNING: Product Use Limitation

 This product is not designed for, nor intended for use in patient connected applications; including, but not limited to, medical and dental use, and accordingly has not been submitted for FDA

L/S Standard Digital Drives



L/S Computer-Compatible Drives



L/S Digital Process Drive

 **Cole-Parmer**[®]

1-800-MASTERFLEX (627-8373) (U.S. and Canada only)

11 (847) 549-7600 (Outside U.S.)

(847) 549-7600 (Local)

www.masterflex.com

techinfo@coleparmer.com

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