

LG

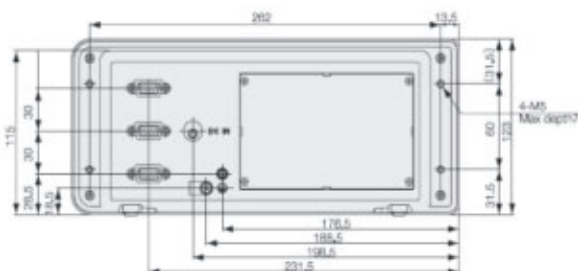
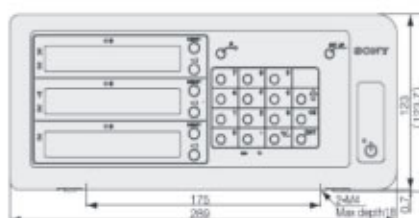
LG20

Counter of standard function.

- Selectable display resolution
- Scale input signal : A/B quadrature signal
- Machine Error Compensation
- Data Storage
- Preset / Recall
- Flicker Control



Dimensions



Unit : mm/inch

Specifications

Model	LG20-1	LG20-2	LG20-3
Display axis	1-axis	2-axis	3-axis
Display	7 digits and minus display, Color amber		
Connectable measuring unit	GB-EF, SJ300, SJ700A, PL20C Series (Direct), unit DG-B (Requires a conversion adaptor which is sold separately.)		
Measuring unit input resolution	0.1 μ m, 0.5 μ m, 1 μ m, 2 μ m, 5 μ m, 10 μ m, 20 μ m, 25 μ m, 50 μ m, 100 μ m		
Display resolution	Measuring unit input resolution or higher and diameter display		
Input signal	A/B quadrature signal (Conforms to EIA-422.)		
Minimum input phase difference	100 ns		
Quantization error	± 1 count		
Alarm display	Measuring unit disconnected, Excess speed, Maximum display amount exceeded, Power failure, Error in stored data		
Preset	It is possible to store/recall 3 kinds of numbers.		
Data storage	The value displayed before the power was turned off and setting values are stored		
Linear error compensation	A fixed compensation is applied to the measuring unit's count value. Compensation amount: ± 600 unim		
Sleep	The display is turned off when no operations are made for a preset time. (The time can be set.)		
Power supply	DC 12 V Rating 0.75 A Max. 1A AC 100 to 240 V $\pm 10\%$ (When using AC adaptor which is sold separately.)		
Power consumption	Max. 32 VA (connected at AC power supply)		
Operating temperature range	0 to 40°C (no condensation)		
Storage temperature range	-20 to 60°C (no condensation)		
Mass	Approx. 1.5 kg		

LH

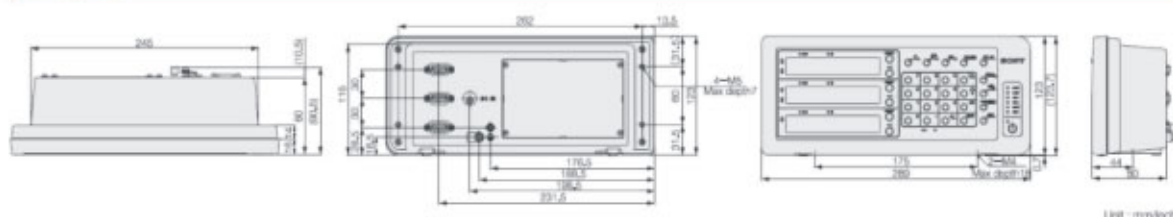
LH70/71 SERIES

High performance counter flexibly adapting
to the diverse field uses with its compact size

- Counter for Milling machine (LH70/71) and Lathe(LH71-3)
- Display Resolution Switching
- Machine error compensation
- Data Storage. ● Reset/Preset/Restart
- Detecting Reference Point of Measurement Unit
- Program function ● Multi datum point ● Scaling
- Milling function (Bolt hole circle / Easy R cutting / Line hole)
- Lathe function (Tool coordinating / Adding function)



Dimensions



Specifications

Common Specifications

Model	LH71-1	LH71-2	LH71-3
Display	7 digits and minus display, Color amber		
Connectable measuring unit	GB-ER, SJ300 series, SJ700A, PL20C series (Direct) DG-B (Necessary to use the conversion adaptor which is sold separately.)		
Measuring unit input resolution	Standard: 0.1 μ m, 0.5 μ m, 1 μ m, 5 μ m, 10 μ m, 1 s, 10 s, 1 min, 10 min Expanded: 100 μ m, 50 μ m, 25 μ m, 20 μ m, 2 μ m, 0.05 μ m and 1 degree can be added.		
Display resolution	Measuring unit input resolution or higher and diameter display (except for angle display)		
Input signal	A/B quadrature signal, Z signal (Conforms to IEC-422.)		
Minimum input phase difference	100 ns		
Quantization error	± 1 count		
Alarm display	Measuring unit disconnected, Excess speed, Maximum display amount exceeded, Power failure, Error in stored data		
Reset	Resettable by key switch		
Preset	It is possible to store/call 3 kinds of numbers.		
Reference point detection	The reference point of the measuring unit can be detected, and the datum point can be relocated (during connection of measuring unit with a reference point)		
Data storage	The value displayed before the power was turned off and setting values are stored		
Linear error compensation	A fixed compensation is applied to the measuring unit's count value. Compensation amount Standard: ± 600 μ m/m (Expanded: ± 1000 μ m/m)		
Segmented error compensation	The movement range of the measuring unit with a reference point can be divided into maximum of 32 sections, and error compensation is performed for each of these sections. Compensation amount: ± 600 μ m (at each section)(LH71 only)		
Scaling	Scaling factor: 0.100000 to 9.999999(LH71 only)		
Program	Machining coordinates can be programmed (number of program steps: 850 max.) 1. Manual programming by key switch 2. Automatic programming by playback 3. Mirror image during program execution 4. A canned cycle (bolt hole, line hole, simple R cutting) can be inserted in the program. (LH71 only)		
Angle display	Can be displayed as an angle value when the Digiruler is pasted to the arc surface, and the diameter and Digiruler resolution are entered		
Sleep	The display is turned off when no operations are made for a preset time. (The time can be set.)		
Power supply	DC 12 V Rating 0.75 A Max, 1 A AC 100 to 240 V $\pm 10\%$ (When using AC adaptor which is sold separately.)		
Power consumption	Max. 32 VA (connected at AC power supply)		
Operating temperature range	0 to 40°C (no condensation)		
Storage temperature range	-20 to 60°C (no condensation)		
Mass	Approx. 1.5 kg		

When the LH70/71 general-purpose applications or milling machine function are selected (General setting in the model type selection mode of the basic settings)

Model	LH70-1	LH71-1	LH70-2	LH71-2	LH70-3	LH71-3
Display	1-axis		2-axis		3-axis	
Multi datum point	10	150	10	150	10	150
Bolt hole circle	—		Displays coordinates for opening equidistant holes along the perimeter of a designated diameter			
Simple R cutting	—		Display coordinates for simple R cutting			
Line hole	—		Displays coordinates for opening equidistant holes along a designated straight line(LH71 only)			

When the LH70/71 lathe function is selected (Lathe setting in the model type selection mode of the basic settings)

Model	LH70-3	LH71-3
Display axis	2-axis display (2-axis or 3-axis input)	
Tool offset	12	99
Measuring unit input addition	2-axis addition display is available	
Display hold	The displayed value can be held and the tool coordinate entered.	

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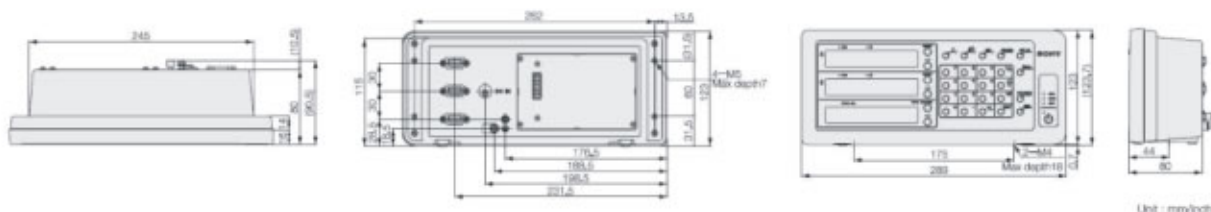
LH72

High performance counter for lathes flexibly adapting to diverse field uses with its compact size

- Counter for Lathe(LH72-3)
- Display Resolution Switching
- Machine error compensation
- Data Storage.
- Reset/Preset/Restart
- Detecting Reference Point of Measurement Unit
- Program function ● Scaling
- Lathe function (Tool coordinating / Adding function)



Dimensions



Specifications

Common Specifications

Model	LH72-3
Display	7 digits and minus display, Color amber
Connectable measuring unit	GB-ER, SJ300 series, SJ700A, PL20C series (Direct) DG-B (Necessary to use the conversion adaptor which is sold separately.)
Measuring unit input resolution	Standard: 0.1 μ m, 0.5 μ m, 1 μ m, 5 μ m, 10 μ m, 1 s, 10 s, 1 min, 10 min Expanded: 100 μ m, 50 μ m, 25 μ m, 20 μ m, 2 μ m, 0.05 μ m and 1 degree can be added.
Display resolution	Measuring unit input resolution or higher and diameter display (except for angle display)
Input signal	A/B quadrature signal, Z signal (Conforms to EIA-422.)
Minimum input phase difference	100 ns
Quantization error	± 1 count
Alarm display	Measuring unit disconnected, Excess speed, Maximum display amount exceeded, Power failure, Error in stored data
Reset	Resettable by key switch or remote reset.
Preset	It is possible to store/recall 3 kinds of numbers.
Reference point detection	The reference point of the measuring unit can be detected, and the datum point can be relocated (during connection of measuring unit with a reference point)
Data storage	The value displayed before the power was turned off and setting values are stored
Linear error compensation	A fixed compensation is applied to the measuring unit's count value, Compensation amount Standard: ± 600 μ m/m (Expanded: ± 1000 μ m/m)
Segmented error compensation	The movement range of the measuring unit with a reference point can be divided into a maximum of 32 sections, and error compensation is performed for each of these sections, Compensation amount: ± 600 μ m (at each section)
Scaling	Scaling factor: 0.100000 to 0.999999
Program	Machining coordinates can be programmed (number of program steps: 850 max.) 1. Manual programming by key switch 2. Automatic programming by playback 3. Mirror image during program execution 4. A canned cycle (bore hole, line hole, simple R cutting) can be inserted in the program. (LH71A only)
Angle display	Can be displayed as an angle value when the Digiruler is pasted to the arc surface, and the diameter and Digiruler resolution are entered
Sleep	The display is turned off when no operations are made for a preset time. (The time can be set.)
Power supply	DC 12 V Rating 0.75 A Max. 1 A AC 100 to 240 V $\pm 10\%$ (When using AC adaptor which is sold separately.)
Power consumption	Max. 32 VA (connected at AC power supply)
Operating temperature range	0 to 40°C (no condensation)
Storage temperature range	-20 to 60°C (no condensation)
Mass	Approx. 1.5 kg

When the lathe function is selected (Lathe setting in the model type selection mode of the basic settings)

Model	LH72-3
Display axis	2-axis display (2-axis or 3-axis input)
Tool offset	99
Measuring unit input addition	2-axis addition display is available
Display hold	The displayed value can be held and the tool coordinate entered.

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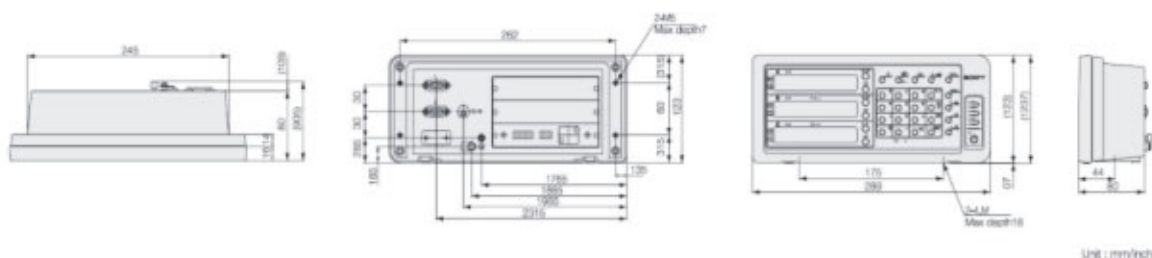
LY71 SERIES

For measurements and control in diverse field uses.
The required output board can be extended.

- Various outputs are enabled by mounting extension boards
 - BCD Output (Option)
 - Comparator Function: Relay / Open-collector (Option)
- Peak Hold Function Convenient for Statistical Measurement
- Convenient External Input Functions for Automatic Measurement
- Display Resolution Switching ● Data Storage.
- Reset/Preset/Restart ● Detecting Reference Point of Measurement Unit
- Scaling ● Flicker Control



Dimensions



Specifications

Model	LY71
Display	7 digits and minus display, Color amber
Number of input shafts	1 or 2 axes (2-axis add function available: addition only is displayed when adding)
Display data	Current (1st axis, 2nd axis, addition axis), maximum, minimum and peak-to-peak values
Measuring unit input resolution	Standard : 0.1 μ m, 0.5 μ m, 1 μ m, 5 μ m, 10 μ m, 1 s, 10 s, 1 min, 10 min Expanded : 100 μ m, 50 μ m, 25 μ m, 20 μ m, 2 μ m, 0.05 μ m, and 1 can be added.
Input signal	A/B quadrature signal, Z signal (Conforms to IEC-422)
Display resolution	Measuring unit input resolution or higher and supported inch units Inch: Basic : 0.000006", 0.00001", 0.00005", 0.0002", 0.0005" Inch: Expanded: 0.000002", 0.00001", 0.0001", 0.0002", 0.0005"
Minimum input phase difference	100 ns
Alarm display	Measuring unit disconnected, Excess speed, Maximum display amount exceeded, Power failure, Error in stored data
Reset	Current value reset, Alarm cancel
Restart	Restart of peak value calculation for each axis/all axes
Preset	It is possible to store/edit up to three values for each axis.
Master calibration function	The master calibration value is relocated when going past the reference calibration reference point after the power is turned on.
Datum point operations	It is possible to store/edit one value for each axis (when not using the point master calibration function).
Reference point operations	It is possible to store/edit one value for each axis (when not using the point operations master calibration function).
Hold function	Selectable from latch and pause Latch : Display held while latched (Display hold) Pause : Peak calculation stopped while paused (Peak calculation hold)
Linear compensation	*A fixed compensation amount is applied to the measuring unit's count value. Compensation amount Standard: ± 600 _r/m (Expanded: ± 1000 _r/m)*
Scaling	Scaling factor: 0.100000 to 0.999999
Power supply	DC 12 V Rating 0.75 A Max, 1 A
Power consumption	AC 100 V - 240 V ± 10 % (When using the AC adaptor PSS-21 (option)) Max. 32 VA (connected to AC power supply)
Operating temperature	0 to 40 °C (no condensation)
Storage temperature	-20 to 60 °C (no condensation)
Mass	Approx. 1.5 kg

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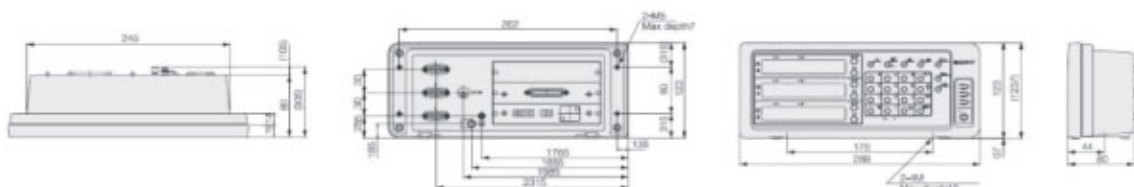
LY72 SERIES

For measurements and control in diverse field uses.
Multifunction counter with RS-232C interface

- RS-232C standard function
- Peak Hold Function Convenient for Statistical Measurement
- Convenient External Input Functions for Automatic Measurement
- Display Resolution Switching
- Data Storage.
- Reset/Preset/Restart
- Detecting Reference Point of Measurement Unit
- Scaling ● Flicker Control



Dimensions



Unit : mm/inch

Specifications

Model	LY72	
Specifications by application	Applications as gauge (set axis labels A, B, and C)	Applications as scale (set axis labels X, Y, and Z)
Display	7 digits and minus display, Color amber	
Number of input shafts	1 to 3 axis	
Display data	Current (1st axis, 2nd axis, addition axis), maximum, minimum and peak-to-peak values	Current (1st axis, 3rd axis, addition axis)
Measuring unit input resolution	Standard : 0.1 μ m, 0.5 μ m, 1 μ m, 5 μ m, 10 μ m, 1 s, 10 s, 1 min, 10 min Expanded : 100 μ m, 50 μ m, 25 μ m, 20 μ m, 2 μ m, 0.05 μ m, and 1 can be added.	
Input signal	A/B quadrature signal, Z signal (Conforms to JIS-B-422)	
Display resolution	Measuring unit input resolution or higher and supported inch units Inch: Basic : 0.000005", 0.00001", 0.00005", 0.0002", 0.0005" Inch: Expanded: 0.000002", 0.00001", 0.0001", 0.0002", 0.0005"	
Minimum input phase difference	100 ns	
Alarm display	Measuring unit disconnected, Excess speed, Maximum display amount exceeded, Power failure, Error in stored data	
Reset	Current value reset, Alarm cancel	
Restart	Restart of peak value calculation for each axis/all axes	
Preset	It is possible to store/edit up to three values for each axis.	
Master calibration function	The master calibration value is relocated when going past the reference calibration reference point after the power is turned on.	—
Datum point operations	It is possible to store/edit one value for each axis (when not using the point master calibration functions).	
Reference point operations	It is possible to store/edit one value for each axis (when not using the point operations master calibration functions).	
Hold function	Selectable from latch and pause Latch : Display held while latched (Display hold) Pause : Peak calculation stopped while paused (Peak calculation hold)	Display hold
Linear compensation	A fixed compensation amount is applied to the measuring unit's count value. Compensation amount Standard: ± 600 μ m/m (Expanded: ± 1000 μ m/m)	
Scaling	Scaling factor: 0.100000 to 9.999999 Data format : All axes on same line/How line for each axis Peak-to-peak value Transfer rate : 38400/19200/9600/4800/2400/1200 bps Parity : None / Odd / Even Stop bit : 1 or 2 Data length : 8 bits or 7 bits	
RS-232C		
Timer	OFF/0.2/0.5/1/5/10/30/60/300 seconds	—
Output data selection	Current value/Maximum value/Minimum value	Current value
Power supply	DC 12 V Rating 0.75 A Max. 1 A	
Power consumption	AC 100 V - 240 V ± 10 % (When using the AC adaptor PSB-21 (option) Max. 32 VA (connected to AC power supply))	
Operating temperature	0 to 40 $^{\circ}$ C (no condensation)	
Storage temperature	-20 to 60 $^{\circ}$ C (no condensation)	
Mass	Approx. 1.5 kg	

Diese Daten können jederzeit ohne Vorankündigung geändert werden

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