



Digital Read Out

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FS-2V



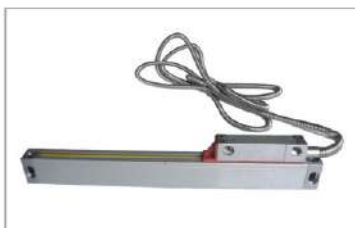
ES-2V



**ES-8 DRO Technical Specifications:**

Function		Model	General Machine Use				
			Miller	Borer	Grinder	Lathe	EDM
Axis	Two Axes	ES-8M2X	ES-8B2X	ES-8G2X	ES-8L2X		ES-8W2X
	Three Axes	ES-8M3X			ES-8L3X	ES-8E	ES-8W3X
Resolution				1 & 5mm			
Basic Function	-Axis speed display						
	-1&5 micron resolutions switchable for each axis						
	-Radius/Diameter switchable for each axis						
	-Multi language	■	■	■	■	■	■
	-Clear zero						
	-Centering (1/2)						
	-in/mm display						
	-Coordinate entry						
	-ans/inc						
	-power of memory						
-199 subdatum							
-REF memory							
Built in calculator		■	■			■	
PCD Pitch circle diameter		■				■	■
LHOLE line hole positioning		■	■			■	■
INCL inclined machining		■				■	
SHANK shrinkage calculatoin		■					
R Function	Simple R	■					
	Smooth R	■					
Linear error compensation		■	■	■	■	■	■
None liner error compensation		■	■	■	■	■	■
Virbration filtering		■	■	■	■	■	■
XZ axes summation							
Z relay outpue						■	

**Glass Scale & Magnetic Scale**





**Technical Specification :**

Description	Model	Glass Scale		Magnetic Scale			
		GS 10	GS 11	FS-M			
Measuring Standard		Glass Scale-Grating Period : 20um (0.020mm)		Magnetic Tape - Pole Length : 5 mm			
Optional Detecting System		Transmissive infrared system, wavelength : 880nm					
Slide Carrier System		Vertical five bearings supporting system		Non Contacting Reader Head			
Resolution		5um	1um	1um	5um	10um	25um
Measurement Length	100-200mm	Every 50mm per Length Specification		From 50mm to 100meter available			
	1300-1300mm						
Accuracy	100-450mm	6um	4um	20um/m	20um/m	30um/m	40um/m
	500-800mm	10um	8um				
	1050-1200mm	15um	12um				
	1300-3000mm	25um					
Repeatability		2um (0.002mm)		2um	5um	10um	25um
Hysteresis		3um (0.002mm)					
Protection		DIN 40050 Ip53		Ip67			
Power Supply		DC5V 5%		DC5V 5%			
Output signals		5um	1um	1um	5um	10um	25um

**Advanced optional Measuring System**

- Reader head use a five bearing a for optical grating linear transducer which has been proven as the most reliable system design in today's market.
- The glass grating slide ways are lapped. and JIS standard p5 grade bearings are used to achieve smooth and accurate movement and long working life.

**Double Seals Design**

- The Plastics seals of GS series scales use an innovative material to offer superior oil resistance. high elastics recovery properties and durability. Carefully designed lips geometry offer low slide resistance.

**100% Laser calibration.**

- All glass grating transducers are individually inspected and calibrated by our in-house laser calibrator to ensure accuracy comply 100% with the specifications

**Industrial Standard Output Signal Interface**

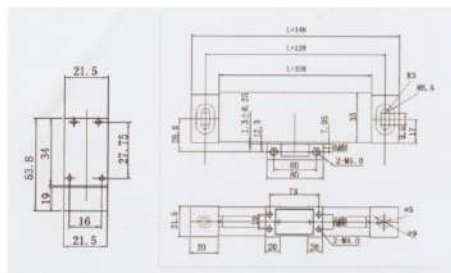
DSUB 9 Connector Plug

DIN 7 Connector plug



	TTL		422A	
	Signal	Signal Wire	Signal	Signal Wire
1				Yellow
2				White
3				Red
4				Sliver
5				Black
6				Green
7				Brown
8				Blue
9				Gray

	Color	TTL Signal
1	Orange	0V
2	-	-
3	Yellow	A
4	Green	B
5	Red	5V
6	Brown	R
7	Silver	Ground Wire
Shell	Silver	Ground Wire



**Features**

- Easy mounting by glueing
- High accuracy Standard  $\pm 40 \mu\text{m/m}$   
optional  $\pm 20 \mu\text{m/m}$
- Resistant to humidity
- Protection class IP67
- Stainless steel cover strip  
( Upside and Downside )
- Nitrile Rubber
- "Slim Line" type aluminum carrier body



## ES-19 Embedded DRO

### Low Cost Easy to install / Readout Everywhere

ES-19 is latest generation embedded DRO launched by Easson on 2015. ES-19 is designed to be Lowest Possible Cost, Stylish & Reliable, Most easy to install embedded DRO which match the dream requirements of even the most demanding customer.

**EASSON**



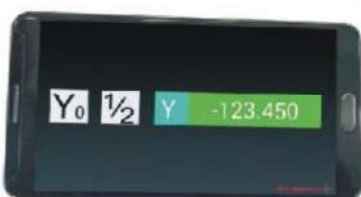
### Comprehensive Data Interfaces

Thank to Easson's latest custom built processor DP-20 ES-19 offers very comprehensive choices of external interfaces for outside world connectivity, such as USB 2.0 Uart (3.3V), RS232C and Bluetooth,

USB 2.0 and UART (3.3V) are standard embody interface, RS232C or Bluetooth are, optional purchase options.

Easson provides comprehensive and extremely simple API and programming examples source codes to help customers handle the ES-19 interfacing with computer or machine controller in shrtest possible time.

ES-19 works with any Linear Scale or Rotary Encoder which have output single in standard digital A Qual B (TIL or RS422) Digitit output display can be in either Length or Angle Selectable.



All Android mobile phone or Pad can be connected with ES-19 via Bluetooth connection



Android Apps. - DRO

