INCREMENTAL LENGTH AND ANGLE MEASURING

Digital display EP1-SinCos-1 Vpp

The digital display series EP1 SinCos is in combination with incremental encoders or magnetic sensors an ideal solution for data acquisition in machine and plant construction, for example with all common 1 Vpp encoder or with the magnetic length measuring system series EHP1.

- LED display, 8-digit, digit height 8 mm
- 36 mm x 72 mm x 60 mm DIN housing, mounting depth 66 mm
- Power supply 12 - 30 VDC
  including encoder supply 5 V
- Protection: IP4x to IP5x, front side (with sealing IP6x possible on request)
- Absolute incremental change
- Maximum traversing speed: 6 m/s
- Actual value memory, selectable
- Optional: interface RS 485
- Accessories: Housing, brackets, etc.

Pin assignment - digital display EP1-SinCos

Fig.: Connections backside

No.	Function	Note
1	Encoder supply +5 VDC max. 100 mA	Encoder input Sin/Cos with Vss Mean voltage approx. 2,5 V
2	Channel sin	
3	Channel /sin	
4	Channel cos	
5	Channel /cos	
6	Channel index	
7	Channel /index	
8	GND	Encoder mass
9	Reset input +	24 V with optocoupler
10	Reset input -	
11	RS485 - DÜB	
12	RS485 - DÜA	
13	Power supply +12 to 30 VDC	
14	Power supply mass	

External reset : Wiring - digital display EP1-SinCos

External switch, to be affixed by customer

Reset input + (Pin 9) — +15 to 30 VDC (Pin 13)

Reset input - (Pin 10) — Power supply mass (Pin 14)

With external reset set menu item 7 on rFS.

Willtec Messtechnik ek • Eschenweg 4 • 79232 March-Hugstetten
Fon:07665/93465-0 • Fax:07665/93465-22 • Email:info@willtec.de • Internet:www.willtec.de

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Operation - digital display EP1-SinCos			
Key position	**Left**	**Middle**	**Right**
Symbol	Reset-/ reference symbol (arrow left)	Star (arrow up)	Set value symbol (SET)l
Display mode	Reset of ABS-/REL-value to zero or press SET value 1 to 10 sek., depending on programming (5 tSE)	Switchover ABS/ REL value, REL value is indicated by blinking decimal points.	Press and hold 15 sec., to switch over to the programming mode.
Programming mode	Change digit 1 to the left	Increase digit by 1 or change parameter	Accept value and next menue item
Start up sequence: display test (88888888), version display, measured value, interpolation per pole = 1000x			

Programming menu - digital display EP1-SinCos				
Menu item	**Designation**	**Selectable range**	**Default value**	**Note**
1 rEF	Value (reference value)	-99999999 up to 99999999	0	Value (reference value) on which is set during reset
2 SF	Scaling factor	0,0000001 up to 9,9999999	1,0000000	Example: encoder 1000, spindle 5 mm, display 1/100mm-> Scaling factor =500/(4x1000) = 0,1250
3 dP	Decimal places	0, 0.0, 0.00, 0.000	0.0	
4 dir	Counting direction	UP, dn	UP	UP=positive, if turned clockwise dn= negative
5 tSE	Release Reset button	On, OFF 1 SEC, 3 SEC, 5 SEC, 10 SEC	5 SEC	Switched off or the time that you have to push the button to reset the diplay
6 trE	Release ABS-/REL button	On, OFF	On	
7 rESET	Reset	rFS: magnetic scale **with** reference point Index: magnetic scale **without** reference point	rFS	rFS = reset if reset input is active, Index = reset if reset input and A, B, Index = High
8 bri	Display brightness	1 up to 5	5	1=darkest level 5=brightest level
9 Adr	Devide address	1 to 255	001	Only for interface

Ordering example - digital display EP1-SinCos