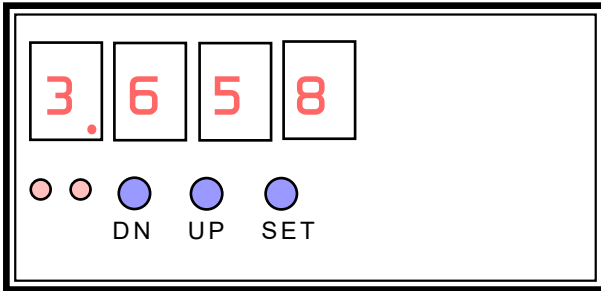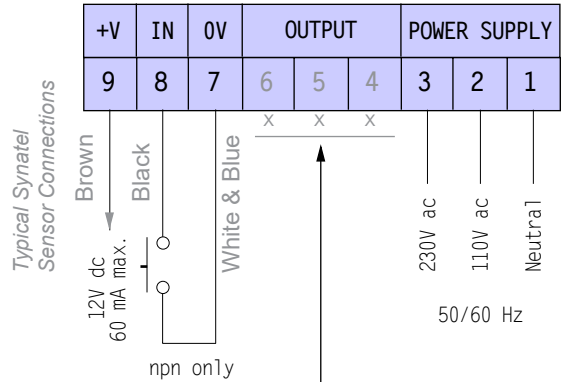# SYNATEL
INSTRUMENTATION LTD.

A multifunction display unit which can be end user programmed to indicate 1:1 Speed, or adjustable Time intervals. The unit incorporates a 4 digit red LED display with auto decimal point, in a DIN 96x48mm enclosure (panel cut-out size: 92x44mm). Select your **function** from Chart ① & ②. Select **program** as detailed below ③. Unit can display time in either Min/Sec analogue or Min/Sec Digital (Decimal) ie: 1min 15 sec or 1.25 min.

UNIT/FUNCTION SETTING

Carefully remove (prise off) front bezel to access controls.
Connect as shown in ④

DN   UP   SET

CONNECTIONS   ④

+V	IN	0V	OUTPUT			POWER SUPPLY		
9	8	7	6	5	4	3	2	1
			x	x	x			

Typical Synatel Sensor Connections

Brown — 12V dc 60 mA max.
Black
White & Blue

npn only

230V ac
110V ac
Neutral

50/60 Hz

Note: DO NOT use terminal 4, 5, & 6.

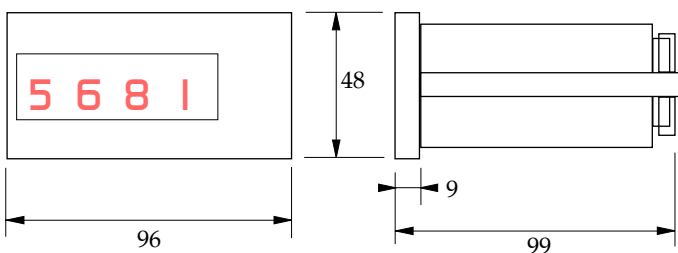| FUNCTION	FUNCTION VALUE ③
SP01	1= Tachometer 2= Bake Time
SP02	Leading Zero Suppression 1= Off 2= On
SP03*	Scaling Factor. (Bake Time) Input Rate x Display(digital min.) = Scale
SP04	Sampling Rate (Normally not required)
SP05	Time as Analogue 1 = MM only or 2 = MM:SS
SP06	Time as Digital. (set '2' above first) 1 = Decimal or 2= Analogue
EXIT	Exit

① ②

SP03*: If unsure of machine speed, programme as a Tachometer first (SP01 = 1), check speed against a known time period. EG: If 20 pulses =30 sec. 30 sec=.5 min. 20 x .5 = 10 scaling factor. If 60 pulses=1m 15 sec. 1m 15 sec=1.25 min. 60 x 1.25 = 75 scaling factor etc. (Round up or round down as appropriate).

Dimensions

48
9
96
99

FUNCTION SETTINGS

To enter programme mode, press & hold 'SET' button whilst applying power, keep the 'SET' button pressed until the display reads 'SET1', release 'SET' button and 'SP01' will be displayed. Do not press 'DN' or 'UP' buttons except where shown. Subsequent press and hold of the 'SET' button will index to the next function. Start as detailed below:

Running Status

Start with power OFF >>

SET 1
Press [SET]   apply power and keep 'SET' pressed until display reads 'SET 1'. Release 'SET' button and display reads 'SP01'.

Select Function: See ①
Set by [DN] & [UP] keys

SP01.*
Press [SET*]   until bottom right decimal point lights* release 'SET', pressing DN/UP buttons displays and alters the set Value.

Select Value: See ③
Set by [DN] & [UP] keys

* Selection of Function SP01-SP06

Value of Function 1, 2 etc.

001
Press [SET*]   until bottom right decimal point turns off*, release 'SET' and the unit displays SP numbers again.

* Selecting a value higher than SP06 displays 'EXIT' and when pressing 'SET' until bottom right LED lights, programming will end and unit enters normal run mode.   ②

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