

## ELECTRONIC SPEED MONITOR



### TECHINCAL SPECIFICATIONS OF CONTROL UNIT

SR. NO.	PARAMETER	TECHNICAL SPECIFICATION
01	MAKE	MRSON EQUIPMENTS PVT LTD.
02	MODEL	MR-ESM-1-W-3-S-1-S-1-P
03	SUPPLY	<b>230 VAC</b>
04	DUTY	<b>UNDER SPEED</b>
05	SETTING	POTENTIOMETRIC (SETTING DIAL IS LINEAR)
06	INPUT	FROM SENSOR PROBE.
07	SPEED RANGE	<b>10-100 RPM</b>
08	PPR	<b>4</b>
09	INITIAL TIME DELAY	<b>3-30 SECONDS (AS PER SPEED RANGE)</b>
10	NUISANCE TIME DELAY	<b>FIXED</b>
11	INDICATION	LED INDICATION FOR POWER, SIGNAL AND RELAY.
12	RELAY OUTPUT	2 NO + 2 NC
13	RATING	5 A
14	ENCLOSURE	<b>CAST AL. WITH VISIBLE GLASS WINDOW</b>
15	PROTECTION	IP 65
16	CABLE ENTRIES	02 NOS 3/4" ET AND 01 PG9 GLAND FOR SENSOR.

## TECHNICAL SPECIFICATIONS OF SENSOR PROBE

SR. NO.	PARAMETER	TECHNICAL SPECIFICATION
01	MAKE	MRSON EQUIPMENTS PVT LTD.
02	MODEL	MR-SP30N-B
03	SIZE	<b>M30</b>
04	MOUNTING	<b>NON-FLUSH</b>
05	SENSING DISTANCE	<b>10-15 MM</b>
06	FLAG SIZE	<b>30-40 MM MINIMUM.</b>
07	ENCLOSURE	<b>NICKEL PLATED BRASS</b>
08	CABLE	<b>2 METERS 3 CORE PVC</b>
09	INDICATION	LED INDICATION FOR METAL PRESENT IN FRONT OF SENSOR PROBE.
10	PROTECTION	PROVIDED AGAINST REVERSE SUPPLY AND SHORT CIRCUIT OF LOAD.

### NOTE:

**BLUE** COLOURED SPECIFICATIONS CAN BE SELECTED FROM **ORDERING PROFORMA**

## OTHER MODELS OF ELECTRONIC SPEED MONITOR



**DIN RAIL MOUNTING VERSION**



**FLAMEPROOF VERSION**



**ESM WITH DIGITAL DISPLAY**

## MRSON EQUIPMENTS PVT. LTD.

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 Behind Smith House, Near Quality Circle,  
 Telco Road, Bhosari 411026.  
 Maharashtra. INDIA

## ORDERING PROFORMA OR ELECTRONIC SPEED MONITOR

Model Selection for ELECTRONIC SPEED SWITCH		ESM
<b>Gr.1: Application</b>		
Electronic Speed Switch for Under Speed Monitoring		1
Electronic Speed Switch with Digital Display		2
Electronic speed switch for over speed monitoring		4
Electronic Speed Indicator (No control O/P)		5
Electronic Under + Over Speed switch with Digital Display		6
<b>Gr. 2 : Enclosure for Control Unit</b>		
Din Rail Mounting (35 mm), Safe area use, (Group 1 Should not be 2,5,6)		R
Din Rail Mounting (35 mm) intrinsically safe circuit (Group 1 Should not be 2, 5, 6)		N
Field Mounting, Cast Al, IP 65, Powder Coated, Colour Light Gray, IS 631 For other colour options, refer Gr 10)		W
Field Mounting, DMC (FRP)		D
Front Panel Mounting, IP 30 (Group 1 must be 2, 5)		P
Flame Proof, Field Mounting Cast Al, IP 65, (Sensor Group must be N, NO) Powder Coated, Colour Light Gray, IS 631		F
Flame proof Field Mounting, Cast Iron, IP 65, ( Group 4 must be N, NO) Powder Coated, Colour Light Gray, IS 631 For other colour options, refer Gr 10)		FCI
Field mounting Cast Iron IP 65, Powder Coated, Colour Light Gray, IS 631 For other colour options, refer Gr. 10		CI
Combined Sensor + Controller housed in sensor probe (Gr. 1 should be 1, Gr.4: S/H/E, Gr. 5 should be 1, Gr.7 : 6/7, Gr.8 : L)		B2
<b>Gr. 3: Contact Actuation Speed Range:</b>		
Only Indicator, 1-9999 RPM, (2 flags) (Specify type of sensor) Gr.1 selection must be 5)		0
1-10 RPM (8 flags)		1
5-50 RPM (4 Flags)		2
10 - 100 RPM (4 Flags)		3
100 -1000 RPM (4 Flags)		4
50 -500 RPM (4 Flags)		5
500 -5000 RPM (2 Flags)		6
1000-10000 RPM (2 Flags)		7
Other (Please specify)		8
5-5000 RPM by speed range selector (Gr. 2 should not be B2.)		9
<b>Gr.4: Sensor Probe</b>		
Inductive, Tubular threaded, with two check nuts, Ni Chrome Plated Brass with 2 Mtr 3 core PVC cable Specify Cable Length in Mtr. (if sensor cable other than 2 Mtr.) after prefix ( for Ex. S 10 for M 30 sensor with 10 Mtr. cable )		
M30 Sensing range 10-12 mm nominal, 8-10 mm operational		S
M50 Sensing range 15-17 mm nominal, 12-15mm operational		E
M70 Sensing range 25-30 mm nominal, 20-25 mm operational		H
Intrinsically Safe, for Use in hazardous area, Sensing range 10-12 mm		N
Intrinsically safe, other than M30		NO
Square Type, Plastic Sensing range 50 mm nominal, 40 mm operational		B

Special Cast Al heavy duty enclosure for sensor probe (For M 30 & M 50 sensor)		D
Other (Please Specify)		O
Magnetic pickup (Specify No of gear teethes and Min and Max RPM)		M
<b>Gr. 5: Time Delay</b>		
Adjustable Initial Time Delay (3-30 sec) and fixed NTD		1
Adjustable Nuisance Time Delay Initial Time Delay both		2
Other (please specify)		3
<b>Gr.6: Control Supply Voltage</b>		
110 / 230 VAC 50 Hz.		S
24 VDC		U
Other (Please Specify)		V
<b>Gr.7: Out Put Contact</b>		
2 NO + 2 NC, 5 Amp (Not available when Gr.2 is R, N, F, FCI)		1
2 C/O, 5 Amp (To be selected when Gr. 2 is R, N, F, FCI)		2
2 NO+2 NC 10 Amp (Not available when Gr.2 is R, N F, FCI)		4
Other (Please Specify)		5
Solid state O/P for AC Load 150 mA (Gr.2 should B2 and Gr. 6 should be 6		6
Solid State O/P for DC, PNP, Load 250 mA (Gr.2 should B2 and Gr. 6 should be U/S		7
<b>Gr.8: Setting</b>		
Potentiometric		P
Thumbwheel		T
Key pad (Gr. 1 selection must be 2, 6)		K
Only indicator (Gr.1 selection must be 5), No contact O/P		O
Duel Set Point (One C/O relay contact for under and one for over speed setting) Gr. 1 selection should be 6		D
Multi turn Trim pot (Gr.2 should be B2)		L
<b>Gr.9:Optional facility (Add suffix if required)</b>		
Re-Transmission O/P, 4-20mA Isolated		1
MODBUS, RS 485 (Gr 1 selection should be 2, 6 ) ( Gr 2 should not be R,N,F,FCI,B2)		2
<b>Gr.10: Optional Accessories: (Add suffix If required)</b>		
Extra Junction Box for sensor, 3 Terminals, IP 65		JB
Flag Assembly for Sensor probe		F
Mounting Bracket for Sensor		MS
Mounting Plate for Control Unit		MP
Cable Gland, double compression Type, Brass for control unit		CG
<b>Gr. 11 : Special (Add suffix If required)</b>		
Special colour for Field Mounted Control Unit (Gr 2 Must be W, F, CI)		S
Additional Certifications: CCOE (Gr 2 should be F, FCI)		C

Typical ordering code: ESM **MR** **1** **W** **3** **S** **1** **S** **1** **P** **JB**