Compact Zero Speed Switch in Sensor Housing: Series ESM B2

SMARTsaa offers compact Zero Speed Switch housed in sensor housing itself. No need of separate control unit. The sensor and control circuit is housed in sensor housing (IP 67). It is simple, cost effective and easily mountable at site.

Features:

- Completely sealed compact housing
- Suitable for outdoor use and in wash down areas
- Under speed or zero speed detection
- LED indicators for instant visual confirmation
- Precision trim pot for accurate relay set point adjustment

Applications:

- Bucket Elevators
- Bulk material handling conveyors
- Chemical processing
- Conveyor systems
- Food processing
- Mining Equipment
- OEM applications
- Paper Manufacturing
- Power Plants
- Recycling Equipment

Working:

The sensor (Inductive Type) and control unit are housed in sensor housing. Sensor is placed in close proximity of the rotating object. On this object, metallic plates are fixed. Sensor detects presence of metal objects which come within the range of their oscillating field giving rise to corresponding pulses. These pulses are fed to the control unit where they are compared with the standard pulses to sense the speed

In case of under speed – zero speed application built-in initial by-pass time delay is provided to allow the rotating machinery to attend the desired speed. If after this set time the motor does not attend the set speed, the load relay is de-energized and the switch resets automatically when the desired speed is attained.

SPECIFICATIONS: SMARTsaa ESM B2

Duty : Under Speed Monitoring

Aux. Supply: 110/230 VAC (Two wire type) or 24 V DC (Three wire type) Please specify any one

Enclosure : Sensor and control unit housed in sensor housing M 30, IP 67

Load Current : 100 mA, suitable load is to be connected as per the connection diagram

Speed Range : 10-100 RPM, other speed ranges also available

Speed setting : Trim pot

Pulses/Rotation : 4 PPR (Please specify if other)

With built-in initial by-pass delay facility of 3-30 Seconds

Cable : 2 core (AC Models) / three cores (DC Models)

Enclosure : Ni Nickel Plated brass, non Flush mounting

Inductive Type, M30, with 2 Meter, 3 core , PVC ,cable, Sensing Range 10-12 mm, Effective: 7-10 m



ESM B2 with Mounting Bracket



ESM B2



Time & Speed Setting Trim pot

SMARTsaa Instruments (I) Pvt. Ltd.

(Formerly Smart Sensors And Automations & Protocontrol Instruments (I) Pvt. Ltd.)

E-12, Mangalmurti Industrial Complex, Plot T-80, Industrial Area, MIDC, Bhosari, Pune : 411026. India

www.smartsaa.com, Email : sales@smartsaa.com, info@smartsaa.com, Ph.: 020 27400973 Mob. : 8055169703, 8055169702

Compact Zero Speed Switch in Sensor Housing Series ESM B2
ORDERING PROFORMA

Series	Gr.I	Gr.II	Gr. III	Gr. IV		
ESM B2	**30**	**A**	**1**	**J**		**Typical Ordering Code**

Group: I: Enclosure: Tubular Threaded, Metallic Enclosure

M30, Inductive, Tubular threaded, with two check nuts, Ni Chrome Plated Brass with 2 Mtr , PVC cable, 10-12 mm sensing range	30
M 48, Inductive, Tubular threaded, with two check nuts, Ni Chrome Plated Brass with 2 Mtr , PVC cable, 15-17 mm sensing range	48

Group: II: Speed Range. Please select required speed range considering your normal working speed of equipment . Speed setting by multi turn Trim pot

10 -100 RPM, 4 Flags	A
5-50, RPM, 4 Flags	B
100-1000 RPM, 4 Flags	C
500-5000 RPM, 2 Flags	D
Other Than Above, please specify	E

Group: III: Control Supply Voltage

24 V DC , PNP O/P, 3 wire	1
24 V DC , NPN O/P, 3 wire	2
110 V AC, 2 Wire, Load is to be connected in series	3
230 V AC, 2 Wire, Load is to be connected in series	4

Group IV: Additional, Add suffix for multiple selection in order code

Extra Junction Box for sensor, for termination of field armored cable, Cast Al, IP 65	J
Flag Assembly	F
Mounting Bracket for Sensor	M

Initial Bypass Time Delay : Adjustanble by trimpot, range 3-30 Sec approx.

SMARTsaa Instruments (I) Pvt. Ltd.
(Formerly Smart Sensors And Automations & Protocontrol Instruments (I) Pvt. Ltd.)
E-12, Mangalmurti Industrial Complex, Plot T-80, Industrial Area, MIDC, Bhosari, Pune : 411026. India
www.smartsaa.com, Email : sales@smartsaa.com, info@smartsaa.com, Ph.: 020 27400973 Mob. : 8055169703, 8055169702