#### 932 Sensors & Transducers

# FARNELL Inone

### **Encoders - Incremental - continued**

#### **EC Series Digital Contacting Encoder - continued**

| Cycles Per<br>Revolution | Detents | Mftrs List No.   | Order Code |
|--------------------------|---------|------------------|------------|
| 6                        | 24      | ECW0J-B24-AC0006 | 109-111    |
| 24                       | 24      | ECW1J-B24-AC0024 | 120-0080   |

| 24             | LOW 10-024-A00024                               | 120-00                                                 | 00                                                                                                                                   |                                                                                                  | 207187/406088                                                                                                           |
|----------------|-------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
|                |                                                 |                                                        | Price                                                                                                                                | Each                                                                                             |                                                                                                                         |
|                | Order Code                                      | 1+                                                     | 25+                                                                                                                                  | 50+                                                                                              | 100+                                                                                                                    |
| er, 6 cycles   | 109-111                                         | 310.00                                                 | 240.00                                                                                                                               | 197.00                                                                                           | 177.00                                                                                                                  |
|                | 120-0080                                        | 310.00                                                 | 240.00                                                                                                                               | 197.00                                                                                           | 166.00                                                                                                                  |
| ounting bracke | t <b>219-113</b>                                | 26.00                                                  | 20.00                                                                                                                                | 19.00                                                                                            | 18.00                                                                                                                   |
|                | er, 6 cycles<br>er, 24 cycles<br>ounting bracke | Order Code er, 6 cycles 109-111 er, 24 cycles 120-0080 | Order Code         1+           er, 6 cycles         109-111         310.00           er, 24 cycles         120-0080●         310.00 | Price Order Code 1+ 25+ er, 6 cycles 109-111 310.00 240.00 er, 24 cycles 120-0080● 310.00 240.00 | Price Each Order Code 1+ 25+ 50+ er, 6 cycles 109-111 310.00 240.00 197.00 er, 24 cycles 120-0080● 310.00 240.00 197.00 |

# **Motion Sensors**

### **Stopped Motion Monitor - ROTASTOP3**

**Self-contained** 



- Self-contained, no moving parts
- Universal voltage, two wire operation Simple, low-cost installation
- No contact with moving parts

L=95, Dia.=M18 (overall)

The ROTASTOP SU1MZ is ideal for monitoring chain- or gear-driven machinery such as gearbox drives, screw conveyors etc. but is suitable for almost any application where stoppage detection is needed.

| Supply              | 24 to 240V ac/dc      | Target         | 18mm dia. target for        |
|---------------------|-----------------------|----------------|-----------------------------|
| Ambient temperature | -15°C to +60°C        |                | Maximum range               |
| Operating speed     | 15 to 3600 ppm        | Time delay     | 4 sec.                      |
| Protection          | IP65                  | Start up delay | 4 sec.                      |
| Output              | Normally closed       | Cable          | 2 core, PVC sheathed,       |
|                     | When running          |                | 2m length                   |
| Output rating       | 1.6mA min, 200mA max. | Indication     | LED indication of input     |
|                     | (volt drop 8V)        |                | plused and output energised |
| Operating distance  | 8mm ferrous metal     | Enclosure      | Moulded polycarbonate       |
|                     |                       |                |                             |

|                 |            | Price Each |          |          |
|-----------------|------------|------------|----------|----------|
| Mftrs. List No. | Order Code | 1+         | 5+       | 10+      |
| SU1MZ(A)        | 705-9220   | 7,081.00   | 6,726.00 | 6,373.00 |

# **Proximity Switches - Magnetic**

# Reed, Plastic Housing Miniature





 Magnetic proximity switch with hermetically sealed contacts

212318

- Suitable for position, level sensing and security/anti-tamper
- Contacts closed with magnet present
- Slotted holes for easy fitting and alignment
- Compact housing
- Good protection in harsh environments up to IP65
- **Applications**
- Process control systems
- Intruder alarm, limit and proximity applications

Switch contact operates when the magnet actuator moves in close proximity to the switch, typically 5mm

| typioumy oiliilii             |               |                          |                   |
|-------------------------------|---------------|--------------------------|-------------------|
| Contacts                      | SPNO (Form A) | Switching distance, min. | 5mm               |
| Switching voltage, max.       | 100V ac       | Operating temperature    | -5°C to 70°C      |
| Switching current, max.       | 0.5A          | Case material            | ABS               |
| Switching capacity, resistive | 6VA           | Cable length             | 1m, PVC insulated |
| Contact resistance, max.      | 150m $\Omega$ |                          |                   |

|                   |            |        |                   | 212399 |
|-------------------|------------|--------|-------------------|--------|
| Mftrs. List       | Order Code | 1+     | Price Each<br>50+ | 200+   |
| No.<br>MMPSA 240/ |            |        |                   |        |
| 100               | 117-3767   | 648.00 | 491.00            | 393.00 |
| MMPSM             | 117-3768   | 298 00 | 230.00            | 185 00 |

# Reed, Threaded Barrel



| L=28, ∅=M6      |
|-----------------|
| L=50, ∅=M12     |
| L=90, ∅=M18     |
| L=19, ∅=6       |
| L=30, ∅=10      |
| L=40, ∅=12.5    |
| L=50, ∅=M12     |
| L=50, ∅=M18     |
| 300 (all types) |
|                 |

#### Threaded barrel housings for easy fitting and adjustment

High switching capacity - up to 60VA and 120VA

Suitable for a wide range of position sensing applications

| Barrel size                   | M6                   | M12                 | M18                 |
|-------------------------------|----------------------|---------------------|---------------------|
| Contacts                      | SPNO (form A)        | SPNO (form A)       | SPNO (form A)       |
| Switching voltage, max.       | 470Vac               | 230Vac              | 1500Vac             |
| Switching current, max.       | 0.5A                 | 3A                  | 3A                  |
| Switching capacity, resistive | 10VA max.            | 60VA max.           | 120VA max.          |
| Contact resistance, max.      | 150m $Ω$             | $80 \text{m}\Omega$ | $\Omega$ m $\Omega$ |
| Switching distance, min       | 5 mm                 | 8 mm                | 15 mm               |
| Operating temperature         |                      | -20°C to 85°C       |                     |
| Case material                 | Brass, nickel plated |                     |                     |
| Order Code                    | 730-208              | 732-734             | 732-746             |

|              |             |            |          |          |          | 212356   |
|--------------|-------------|------------|----------|----------|----------|----------|
|              | Mftrs.      | Price Each |          |          |          |          |
| Switches     | List No.    | Order Code | 1+       | 25+      | 100+     | 250+     |
| M6 threaded  | PTA470/30   | 730-208    | 1,116.00 | 950.00   | 817.00   | 751.00   |
| M12 threaded | PTA230/30.  | 732-734    | 1,713.00 | 1,458.00 | 1,254.00 | 1,152.00 |
| M18 threaded | PTA1500/30. | 732-746    | 2,337.00 | 1,990.00 | 1,710.00 | 1,573.00 |
| Magnets      |             |            |          |          |          |          |
| 6mm dia      | PRM         | 607-230    | 65.00    | 57.00    | 49.00    | 41.00    |
| 12mm dia     | PRMM        | 732-758    | 247.00   | 214.00   | 184.00   | 169.00   |
| M12 threaded | PTM12       | 732-760    | 1,285.00 | 1,183.00 | 1,031.00 | 864.00   |
| 18mm dia.    | PRNM        | 732-771    | 384.00   | 332.00   | 286.00   | 263.00   |
| M18 threaded | PTM18       | 732-783    | 1,624.00 | 1,408.00 | 1,211.00 | 1,182.00 |

### **Magnets - High Strength Discs** Miniature, Nickel Plated







- Disc magnets made from strongest permanent magnet material
- Exceptional magnetic strength from small size
- All magnets nickel plated to reduce the onset of corrosion when used under normal conditions
- Suitable for use at temperatures up to 120°C
- Ideal for proximity sensor triggering or biasing where space is a premium

Distance (mm) at which magnets M1219-1=4.1, M1219-2=2.2, M1219-3=1.8, M1219-4=1.2, M1219-5=0.6 measure 1000 gauss

Surface flux measurement (gauss) M1219-1=1500, M1219-2=2500, M1219-3=3200, M1219-4=2500, M1219-5=3500

Magnet material Neodymium Iron Boron

Grade/Energy density Grade N30H, max. energy density 30 MGOe (M1219-4 Grade N35H, energy density 35 MGOe)

Operating temperature

Note: M1219-4 has north-seeking pole identified with a dimple

723-0370

723-0382

Mftrs. List No. M1219-1=723-0345, M1219-3=723-0369, M1219-5=723-0382 M1219-2=723-0357 M1219-4=723-0370,

44.00

212390/406096 Price Each **Order Code** 25 +100 +723-0345 44.00 38.00 33.00 28.00 723-0357 48.00 42.00 36.00 30.00 723-0369 49.00 42.00 57.00 36.00

33.00

28.00

38.00

# Reed, Metal Housing

Size (mm)

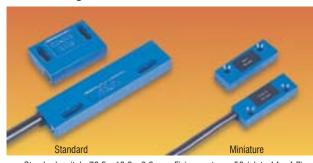
Dia.=3, W=1

Dia. = 3, W = 2

Dia.=4, W=3

Dia. = 6, W = 2

Dia. = 10, W = 5



Standard switch: 79.5 x 19.3 x 9.8, Standard actuator: 38.1 x 25.4 x 9.8, Miniature switch: 38.3 x 12.7 x 7.7, Miniature actuator: 38.3 x 12.7 x 7.7, Fixing centres=50 (slots 14 x 4.7) Fixing centres=28 (slots 14 x 4.7) Fixing centres=25 (hole dia 3.1) Fixing centres=25 (hole dia 3.1)

- Magnetically operated reed proximity switches encapsulated in pressure die castings with a blue powder coated finish
- Solid construction gives protection in harsh environments, **IP64** rating
- Suitable for many applications with resistive loads
- Intruder alarm and limit switch, micro-switch and proximity switch applications
- Normally open or changeover contacts available

Connection is by integral PVC cable, 0.5m for miniature and 0.7m length for standard

932