

PRODUCT DESCRIPTION

Spectec's mag-preamps are designed to convert low level sinusoidal signals into stable square wave pulses. They can be used with all magnetic VR type pickups, allowing for greater pickup to target gaps and longer signal transmission distance. The pucks are built to fit "ELBY", "Y", or "GUAL16" type explosion-proof enclosures per 4001 Spec.

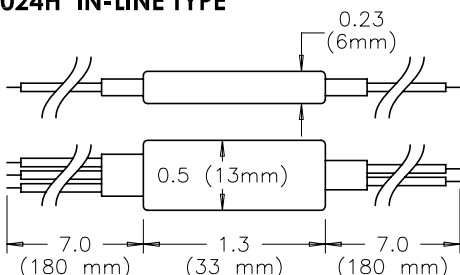
SPECIFICATIONS

- Vs, Supply Voltage:** 7.5 (12) to 30 Vdc regulated
 3.6 Vdc min., unregulated
- Vo, Signal Out:** See page 2
- Is, Supply Current:** 2 mA @ 5 Vdc
 4 mA @ 12 Vdc
 10 mA @ 24 Vdc
 20 mA @ 30 Vdc (OC)
- 4029A only:** 4 to 20 mA current sink:
 ±2 mA, 4 to 40V supply, see page 2 for wiring diagram & R Load spec.
- Input Sensitivity:** 30, 12 or 5 mVpp
- Frequency Range:** 3 Hz to 10 kHz at specified sensitivity, ≤ 40 kHz at increased signal level, varies with target size, distance and pickup sensitivity. (Option: ≤ 100 kHz)
- Rise/Fall Time (N.L.):** .04 / .18 s (Nom.)
- Distance:** 500 ft. max. pickup to preamp
- Temperature Range:** -40° to 221° F (-40° to 105° C)
- Compliance:** CE: EN55011, EN50022-2

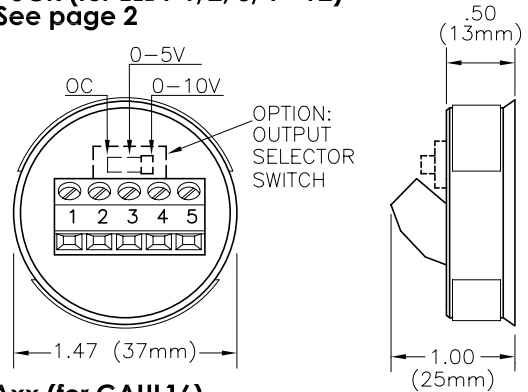
TERMINAL/PIN CONNECTIONS

- 4022, 4023: 1: Vs Supply 4: Mag Pickup
 2: Common 5: Mag Pickup
 3: Vo Signal out
- 4029: See page 2
- 4024: MS3106A-10SL-3S: A: Input Vdc
 B: Common
 C: Pulse out
- 4024H: Red: Vs Supply Yellow: Mag Pickup
 Black: Common Yellow: Mag Pickup
 White: Vo Signal out
 Lead Wires 22 AWG

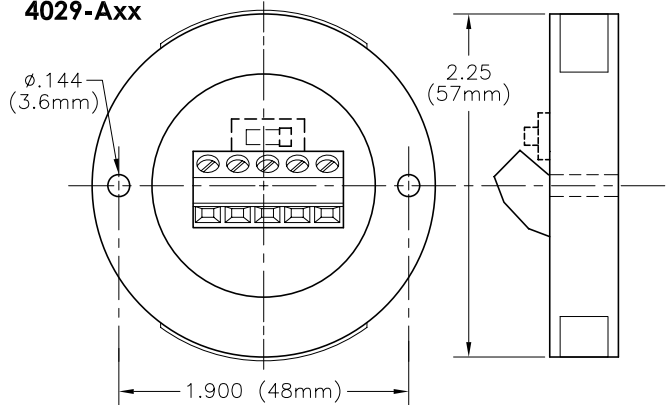
4024H IN-LINE TYPE



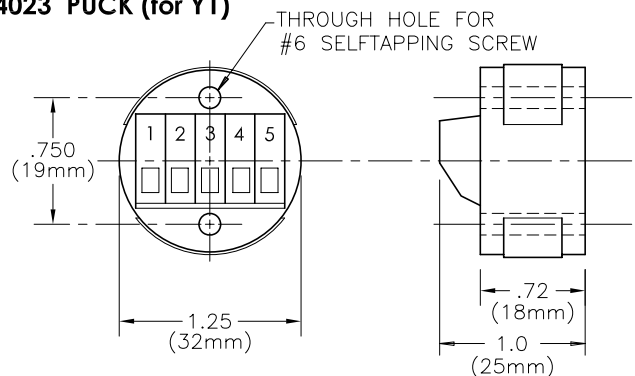
4022 PUCK (for ELBY 1/2, 3/4 - Y2) 4029 See page 2



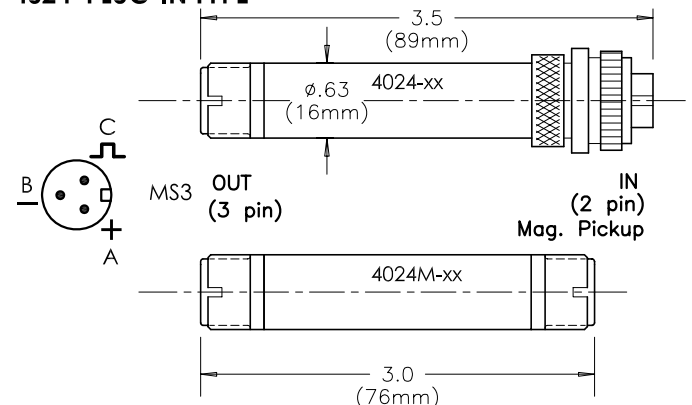
4022-Axx (for GAUL16) 4029-Axx



4023 PUCK (for Y1)



4024 PLUG-IN TYPE



ORDER INFORMATION

4022 - x x MAG PREAMP, PUCK ELBY TYPE
 4022 - A x x MAG PREAMP, PUCK Ø2.25

Vo Output Signal

- 0 — 0 - 12V, NPN (2.2k) @ ≤ 20mA Sink
- 1 — 0 - 10V, NPN (2.2k) @ ≤ 20mA Sink
- 2 — 0 - 5V, NPN (2.2k, TTL) @ ≤ 20mA Sink
- 3 — 0 - Vs, NPN (2.2k) @ ≤ 20mA Sink
- 5 — Selectable, NPN 0 - Vs, OC; 0 - 5V, 0-10V @ ≤ 20mA Sink
- 6 — 0 - Vs, PNP, OC, 50mA (100 mA max) Sourcing
- 7 — 0 - Vs, NPN/PNP Universal Sink/Source

Input Sensitivity

- 0 — 30 mVpp
- 1 — 12 mVpp

4023 - x x MAG. PREAMP, PUCK Y1 TYPE
 4024 - x x MAG. PREAMP, TUBULAR IN-LINE TYPE (Male Threaded & Female Threaded Connectors)
 4024M - x x MAG. PREAMP, TUBULAR IN-LINE TYPE (Male Threaded Connectors, both ends)
 4024H - x x MAG. PREAMP, WAFER TYPE WITH LEAD WIRES

Vo Output Signal

- 0 — 0 - 12V, NPN (2.2k) @ ≤ 20mA Sink
- 1 — 0 - 10V, NPN (2.2k) @ ≤ 20mA Sink
- 2 — 0 - 5V, NPN (2.2k, TTL) @ ≤ 20mA Sink
- 3 — 0 - Vs, NPN (2.2k) @ ≤ 20mA Sink
- 4 — 0 - Vs, OC, NPN (Open Collector) @ ≤ 20mA Sink
- 6 — 0 - Vs, PNP, OC, 50mA (100 mA max) Sourcing
- 7 — 0 - Vs, NPN/PNP Universal Sink/Source

Input Sensitivity

- 0 — 30 mVpp
- 1 — 12 mVpp
- 2 — 5 mVpp

OPTIONS:

For Junction Boxes and adapter hardware, Explosion proof UL & CSA certified, see spec. 4001
 For connector cable assemblies, please see spec. 3000
 Other options: Please contact sales.

4029 - x x MAG PREAMP, DIGITAL OPTO-ISOLATED CURRENT LOOP, PUCK ELBY TYPE
 4029 - A x x MAG PREAMP, DIGITAL OPTO-ISOLATED CURRENT LOOP, PUCK Ø2.25

Current Sink

- 1 — 4 - 20 mA
- 2 — 10 - 50 mA

Input Sensitivity

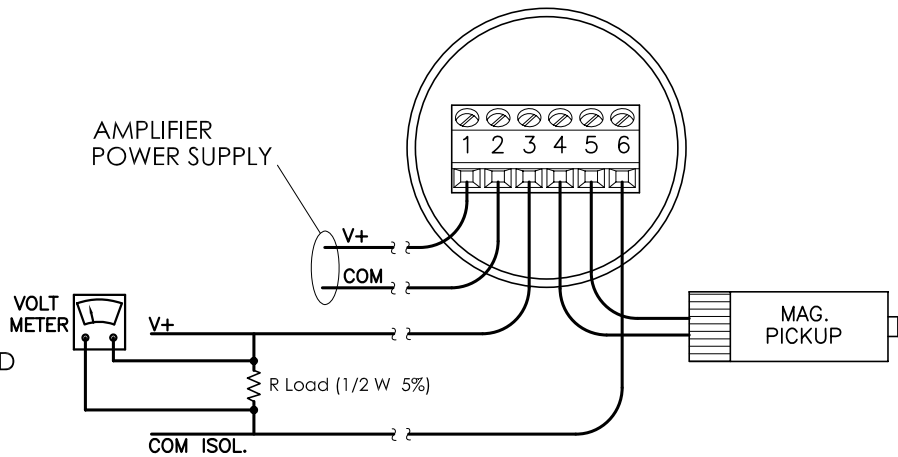
- 0 — 30 mVpp
- 1 — 12 mVpp

WIRING DIAGRAM, OPTION A

$$R \text{ Load} \leq \frac{V_s - 4}{.02A}$$

$V_s \therefore 12 \text{ V} \leq 400 \Omega$
 $24 \text{ V} \leq 1000 \Omega$

DIGITAL OPTO-ISOLATED CURRENT LOOP



WIRING DIAGRAM, OPTION B

$$R \text{ Load} \leq \frac{V_s - 4}{.02A}$$

$V_s \therefore 12 \text{ V} \leq 400 \Omega$
 $24 \text{ V} \leq 1000 \Omega$

DIGITAL OPTO-ISOLATED CURRENT LOOP

