INSTALLATION INSTRUCTIONS FOR THE AEROSPACE PROXIMITY SENSOR, GAPS AND HAPS SERIES

32318767-001
Issue C

⚠WARNING
IMPROPER INSTALLATION

- Consult with local safety agencies and their requirements when designing a machine control link, interface, and all control elements that affect safety.
- Strictly adhere to all installation instructions.

Failure to comply with these instructions could result in death or serious injury.

⚠WARNING
INCORRECT WIRING

Incorrect wiring will damage units. Strictly adhere to all installation instructions.

Failure to comply with these instructions could result in death or serious injury.

TABLE 1. GAPS SERIES INTERFACE DETAILS

SUPPLY VOLTAGE	SUPPLY CURRENT	OUTPUT TYPE	OUTPUT CONDITION	CONNECTOR	CATALOG LISTING	PIN CONFIGURATION
12 Vdc to 32 Vdc	20 mA max.	Current sink	**Target near:** 4 mA ≤ Io ≤ 6 mA **Target far:** 12 mA ≤ Io ≤ 16 mA **Internal fault:** 9 mA ≤ Io ≤ 11 mA or Io <1 mA	D38999/25YA98PN	LGXXD3AAX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				D38999/25YA98PA	LGXXD3ABX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				EN2997Y10803MN	LGXXD3ACX-000	Pin 1: Supply excitation Pin 2: Supply return Pin 3: Output
12 Vdc to 32 Vdc	20 mA max.	Open collector (normally closed)	**Target near:** Switch open, Io <50 µA **Target far:** Switch close, Vo <1 V @ 20 mA of Io	D38999/25YA98PN	LGXXD3BAX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				D38999/25YA98PA	LGXXD3BBX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				EN2997Y10803MN	LGXXD3BCX-000	Pin 1: Supply excitation Pin 2: Supply return Pin 3: Output
12 Vdc to 32 Vdc	20 mA max.	Open collector (normally open)	**Target near:** Switch close, Vo<1 V @ 20 mA of Io **Target far:** Switch open, Io<50 µA	D38999/25YA98PN	LGXXD3CAX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				D38999/25YA98PA	LGXXD3CBX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				EN2997Y10803MN	LGXXD3CCX-000	Pin 1: Supply excitation Pin 2: Supply return Pin 3: Output

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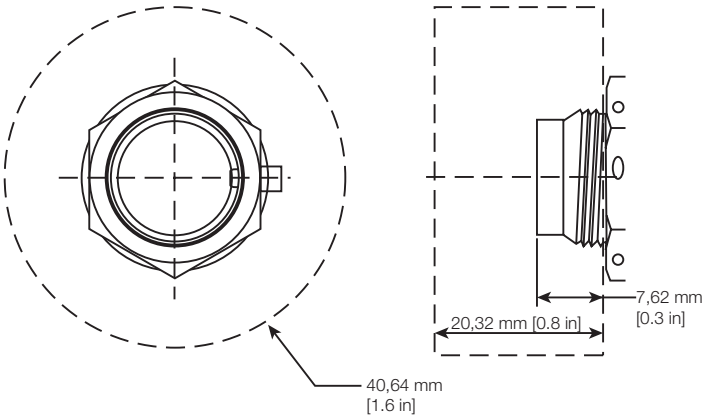
TABLE 4. HAPS SERIES INTERFACE DETAILS

SUPPLY VOLTAGE	SUPPLY CURRENT	OUTPUT TYPE	OUTPUT CONDITION	CONNECTOR	CATALOG LISTING	PIN/WIRE CONFIGURATION
12 Vdc to 28 Vdc	10 mA max.	Current sink	**Target near:** 4 mA ≤ Io ≤ 6 mA **Target far:** 12 mA ≤ Io ≤ 16 mA **Internal fault:** 9 mA ≤ Io ≤ 11 mA or Io <1 mA	D38999/25YA98PN	1PXXX3AANX-000	Pin A: Supply excitation Pin B: Supply return Pin C: Output
				D38999/25YA98PA	1PXXX3ABNX-000	
				EN2997Y10803MN	1PXXX3ACNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply return
				M83723/90Y1005N	1PXXX3ADNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply return Pin 4: No connection Pin 5: No connection
				M83723/90Y10056	1PXXX3AENX-000	
				M83723/90Y10057	1PXXX3AFNX-000	
				M83723/90Y10058	1PXXX3AGNX-000	
				Pigtail (Flying Lead)	1PXXX3AHXX-000	White wire (orange stripes): Supply excitation White wire (blue stripes): Output White wire (no stripes): Supply return
12 Vdc to 28 Vdc	10 mA max.	Open collector (normally closed)	**Target near:** Switch open, Io <50 µA **Target far:** Switch close, Vo <1 V @ 20 mA of Io	D38999/25YA98PN	1PXXX3AANX-000	Pin A: Supply excitation Pin B: Output Pin C: Supply return
				D38999/25YA98PA	1PXXX3ABNX-000	
				EN2997Y10803MN	1PXXX3ACNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply return
				M83723/90Y1005N	1PXXX3ADNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply return Pin 4: No connection Pin 5: No connection
				M83723/90Y10056	1PXXX3AENX-000	
				M83723/90Y10057	1PXXX3AFNX-000	
				M83723/90Y10058	1PXXX3AGNX-000	
				Pigtail (Flying Lead)	1PXXX3AHXX-000	White wire (orange stripes): Supply excitation White wire (blue stripes): Output White wire (no stripes): Supply return
12 Vdc to 28 Vdc	10 mA max.	Open collector (normally open)	**Target near:** Switch close, Vo<1 V @ 20 mA of Io **Target far:** Switch open, Io<50 µA	D38999/25YA98PN	1PXXX3AANX-000	Pin A: Supply excitation Pin B: Output Pin C: Supply return
				D38999/25YA98PA	1PXXX3ABNX-000	
				EN2997Y10803MN	1PXXX3ACNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply Return
				M83723/90Y1005N	1PXXX3ADNX-000	Pin 1: Supply excitation Pin 2: Output Pin 3: Supply return Pin 4: No connection Pin 5: No connection
				M83723/90Y10056	1PXXX3AENX-000	
				M83723/90Y10057	1PXXX3AFNX-000	
				M83723/90Y10058	1PXXX3AGNX-000	
				Pigtail (Flying Lead)	1PXXX3AHXX-000	White wire (orange stripes): Supply excitation White wire (blue stripes): Output White wire (no stripes): Supply return

KEEP-OUT ZONE

It is recommended not to place any metal/magnetic material in the keep-out zone other than target material. Placing any material within the keep-out zone will influence the sensor performance.

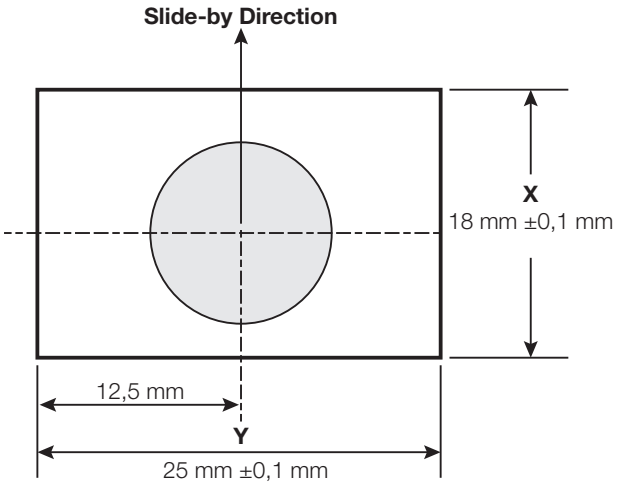
FIGURE 1. KEEP OUT ZONE MAP



TARGET PROFILE

Target material: Stainless steel 17-4PH heat-treated to condition H1025. Typical thickness of target is 3 mm ±0,1 mm.

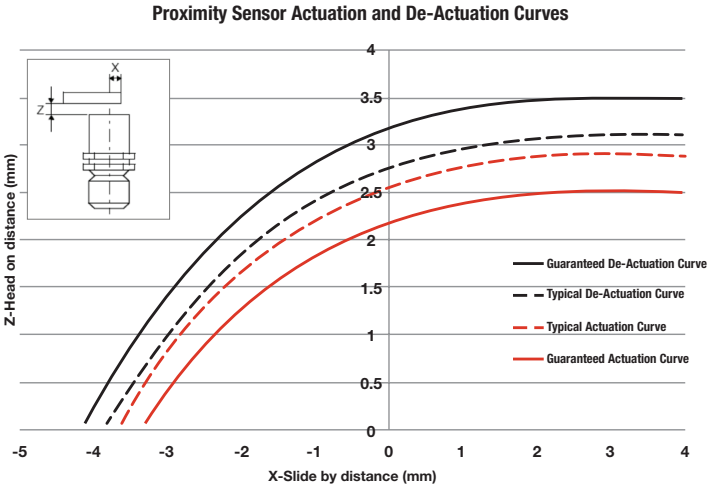
FIGURE 2. TYPICAL TARGET PROFILE



Proximity Switch Actuation and De-Actuation Curves

The proximity switch shall actuate and de-actuate in accordance with the slide-by curves as per Figure 3.

FIGURE 3. TYPICAL ACTUATION AND DE-ACTUATION CURVE



GAPS WIRING DIAGRAMS

FIGURE 4. GAPS SERIES D38999/25YA98PN CONNECTOR

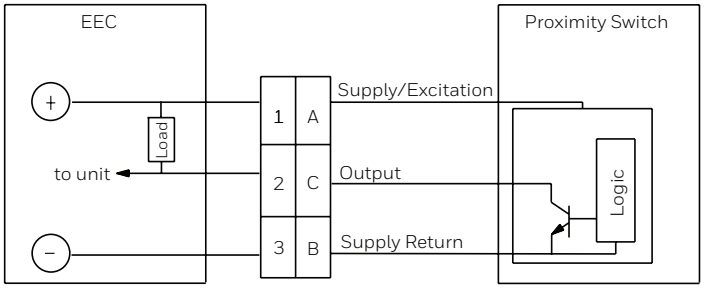
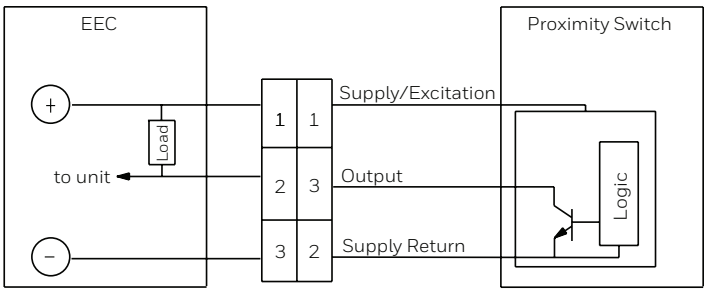


FIGURE 5. GAPS SERIES EN2997Y10803MN CONNECTOR



HAPS WIRING DIAGRAMS

FIGURE 6. HAPS SERIES: CYLINDRICAL, FLANGED HOUSING WITH EN2997Y10803MN CONNECTOR

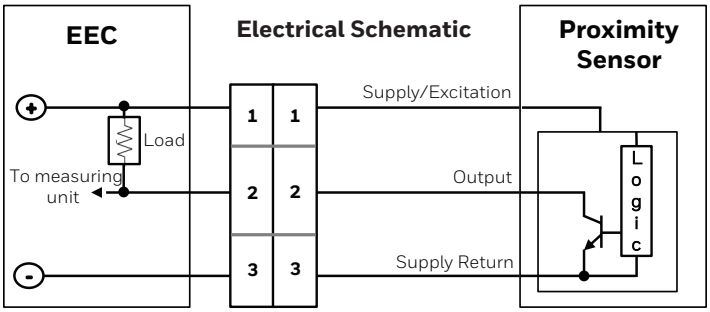


FIGURE 7. HAPS SERIES: CYLINDRICAL, FLANGED HOUSING WITH M83723/90Y1005N CONNECTOR

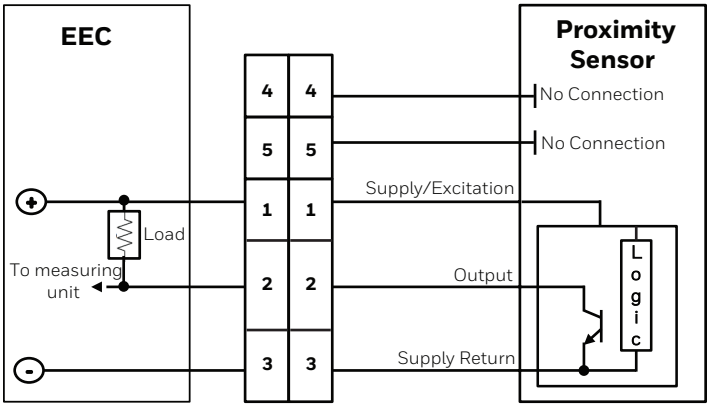


FIGURE 8. HAPS SERIES: CYLINDRICAL HOUSING WITH D38999/25YA98PN CONNECTOR

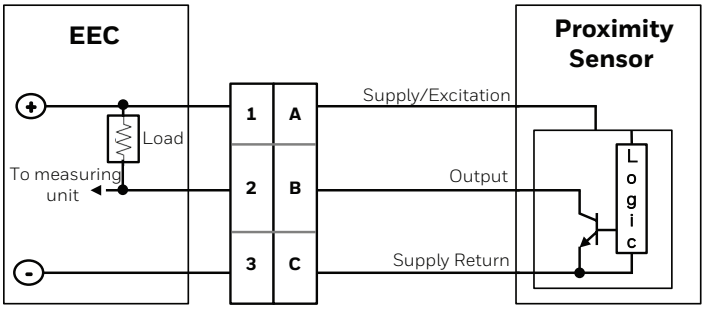


FIGURE 9. HAPS SERIES: CYLINDRICAL HOUSING WITH PIGTAIL CONNECTION

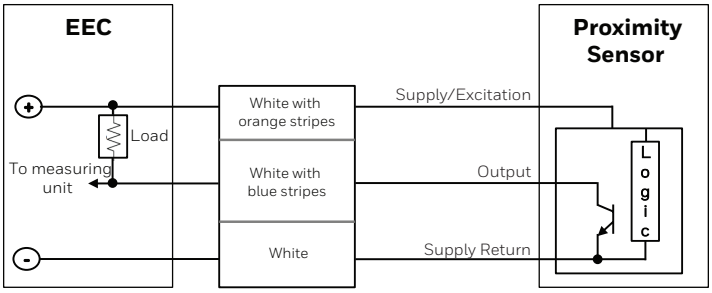


FIGURE 10. HAPS SERIES: RIGHT ANGLE, FLANGED HOUSING WITH D38999/25YA98PN CONNECTOR

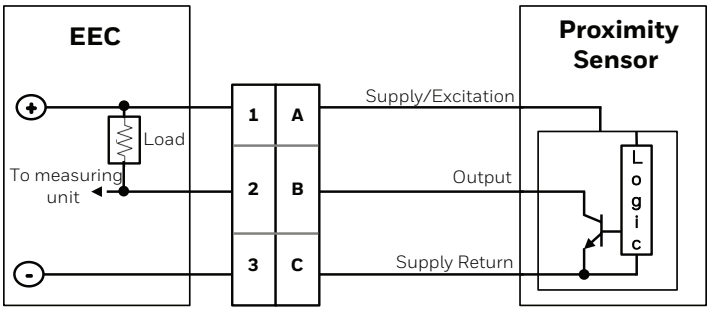


FIGURE 11. HAPS SERIES: RIGHT ANGLE WITH EN2997Y10803MN CONNECTOR

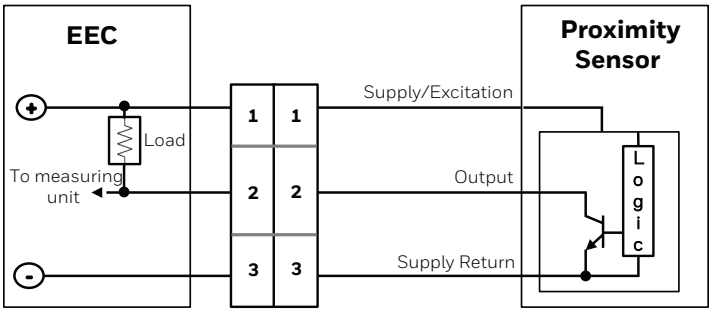


FIGURE 12. HAPS SERIES: RIGHT ANGLE, FLANGED HOUSING WITH PIGTAIL CONNECTION

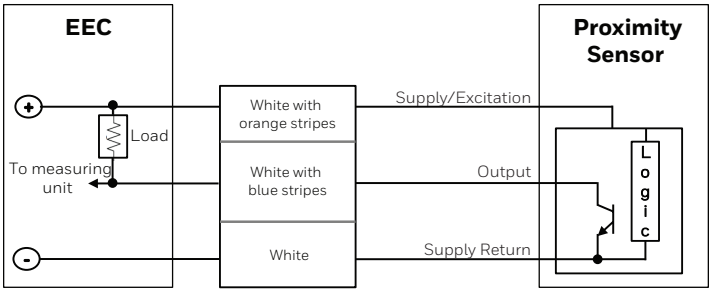
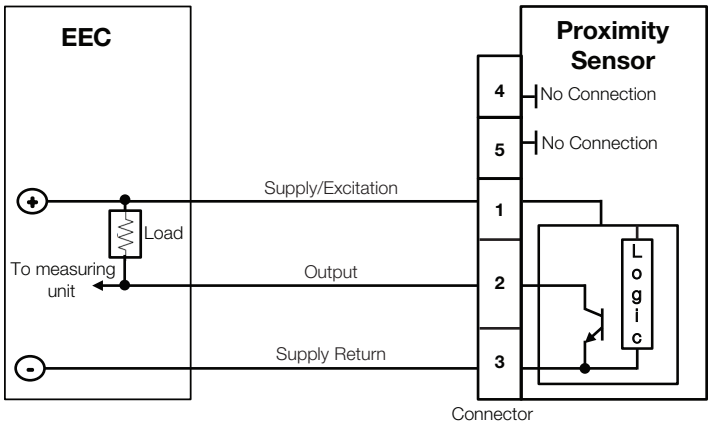


FIGURE 13. RIGHT ANGLE WITH M83723/90Y1005N CONNECTOR



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

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