Encoders can be used with

High-Quality, Rugged Encoders

Where can I use an encoder?

Encoders are used in all types of motion sensing applications, including machine tooling, semi-conductor positioning and multiaxis positioning. All Koyo encoders feature a reinforced aluminum diecast casing and come equipped with a two-meter cable or MS connector. Use the incremental encoders with our PLC high-speed counter modules for accurate position monitoring and control. Or use our absolute encoders to monitor position with Gray code and standard PLC DC inputs.

Why buy an encoder from us?

There are several distinct advantages to purchasing your encoder from AUTOMATION DIRECT:

Price

As with all of our product lines, our prices are often well below the list prices of traditional automation suppliers. Our direct business model allows us to operate more efficiently than other suppliers and pass the savings on to you.

Quality

All encoders carry a 1-year warranty, and a 30-day moneyback guarantee. If for any reason you are not satisfied with your purchase, send it back and we will refund your money.

What is a modular kit encoder?

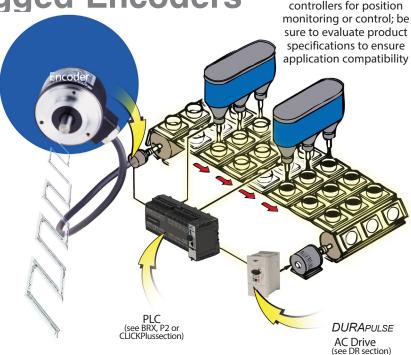
Modular encoders are bolt-on options for SureStep standalone dual-shaft motors and standard integrated motor/ drives. Our kit encoders offer:

- Capacitive and optical technologies
- Designed to fit NEMA 14 to NEMA 42 motors
- · Line driver, NPN open-collector, or push-pull outputs
- Fixed or configurable resolutions up to 4096 ppr

What is a light-duty encoder? Includes series: TRD-SR & TRD-SHR

A light-duty encoder is a cost-effective encoder requiring minimal load on the shaft. Ours offer the following features:

- Size 15 (1.5 inch or 38mm/40mm) diameter body
- Dust Proof (IP50) or spash-proof (IP65) ratings
- 6 mm standard shaft or 8 mm hollow shaft
- Resolution available from 100 pulses/revolution to 2500 pulses/revolution
- · Open collector or line driver outputs
- Up to 200 kHz response frequency



1 Absolute encoders are not compatible with the PLC high-speed countermodules, but can be used with general purpose DC input cards.

What is a medium-duty encoder? Includes series: TRD-N, TRD-NH, TRDA-20,

TRDA-25, TRD-NA

A medium-duty encoder is the most popular encoder we offer. The product line offers the greatest flexibility of choice while maintaining very high quality, all for a very low price. Our medium-duty encoders offer:

- Size 20 (2.0 inch or 50mm) diameter body or Size 25 (2.5 inch flange with 2.0 inch diameter body) frames
- Dust Proof (IP50) or splash-proof (IP65) ratings
- 8 mm or 3/8" standard shaft or 8 mm hollow shaft
- Incremental or absolute (Gray code) operation
- Incremental resolution available from 3 pulses/revolution to 5000 pulses/revolution
- Absolute resolution available from 32 pulses/revolution to 2048 pulses/revolution
- Open collector, Totem-pole or line driver output versions
- Up to 200 kHz response frequency
- MS connector models available

What is a heavy-duty encoder?

Includes series: TRD-GK

A heavy-duty encoder is the most rugged encoder you can buy. Top-of-the-line bearings help maintain a service life of 12 billion revolutions. Our heavy-duty encoders offer:

- Rugged size 30 (3.0 inch or 78mm) diameter body
- · Splash-proof (IP65) rating
- 10 mm standard shaft
- Incremental operation from 30 pulses/revolution to 5000 pulses/revolution
- Totem-pole output
- Up to 100 kHz response frequency

Great Encoder Selection at Great Prices













Kit Encoder AMT

Light-duty TRD-SR

Medium Duty TRDA-25 (w/MS connector)

Medium Duty TRD-N

Medium Duty TRD-NH

Heavy-duty TRD-GK

| | Duty | Family | Size | Encoder Diameter | Shaft Diameter | Solid or Hollow Shaft | Operating Voltage (VDC) and Electrical Output* | IP Rating | Max Radial Load (N) | Max Axial Load (N) | Available Resolutions (PPR) |
|-------------|-----------------|-------------------|------------------------|-------------------------------|--|-----------------------------|---|--------------|------------------------------|-----------------------------|---|
| | ılar/ it | AMT (CUI Devices) | 11, 15 | 28mm, 42mm | 2/3/4/5/6/8/9/10/11/12/13/14mm, 3/16", 1/4", 3/8", 1/2", 5/8" | hollow | 5V Line Driver or 5V P/P | IP20 | NA** | NA** | Programmable Up to 4096 |
| | Modular/ Kit | STP-MTRA-ENC | 12 | 31mm | 5mm, 1/4", 3/8" | hollow | 5V Line Driver or 5V P/P | IP20 | NA** | NA** | 400, 1000 |
| | Light | TRD-SR | 15 | 38 or 40mm | 6mm | solid | 5V Line Driver or 5-26V OC | IP50 or IP65 | 20 | 10 | 100, 200, 360, 500, 600, 1000, 1024, 2000, 2500 |
| | | TRD-SHR | 15 | 38 or 40mm | 8mm | hollow | 5V Line Driver or 5-26V OC | IP50 or IP65 | 20 | 10 | 100, 200, 360, 500, 600, 1000, 1024, 2000, 2500 |
| _ | Medium Duty | TRDA-20 | 20 | 2" | 3/8" | solid | 5V Line Driver or 5-30V P/P | IP50 | 50 | 30 | 100, 360, 500, 1000, 1024, 2500 |
| Incremental | | TRDA-25 | 25 (w/size 20 body) | 2.5" flange (w/ 2.0" body) | 3/8" | solid | 5V Line Driver or 5-30V P/P | IP65 | 50 | 30 | 100, 360, 500, 1000, 1024, 2500 |
| | | TRD-N | 20 | 50mm | 8mm | solid | 5V Line Driver or 5-30V P/P | IP65 | 50 | 30 | 3, 4, 5, 10, 30, 40, 50, 60, 100, 120, 200, 240, 250, 300, 360, 400, 480, 500, 600, 750, 1000, 1024, 1200, 2000, 2500 |
| | | TRD-NH | 20 | 50mm | 8mm | hollow | 5V Line Driver or 5-30V P/P | IP65 | 50 | 30 | 3, 4, 5, 10, 30, 40, 50, 60, 100, 120, 200, 240, 250, 300, 360, 400, 480, 500, 600, 750, 1000, 1024, 1200, 2000, 2500 |
| | Heavy Duty | TRD-GK | 30 | 78mm | 10mm | solid | 10-30V P/P | IP65 | | 50 | 30, 100, 120, 200, 240, 250, 300, 360, 400, 500, 600, 1000, 1200, 2000, 2500, 3600, 5000 |
| Medium | n Duty Absolute | TRD-NA | 20 | 50mm | 8mm | solid | 10-30V OC | IP65 | 50 | 30 | 32. 64. 128, 180, 256, 360, 512, 720, 1024 (grey code) |

Modular/Kit and TRDA-25 encoders have connectors and require separate cables. All other the support of the contraction of theencoders feature an integral 2m cable.

- *Operating Voltage and Electrical Output:
- LD = Line Driver (all Line Drivers require 5VDC supply)
- OC = NPN Open Collector (at Operating Voltage)
- P/P = Push Pull or Totem Pole (at Operating Voltage)

Accessories

Couplings

A variety of couplings - metric-to-metric, inch-to-inch (SAE - SAE), and metric-to-inch are in stock, ready to ship.





Flanges

A collection of flanges that ease encoder mounting. Several models are available with round flanges, square flanges and miscellaneous mounting options.

Mounting brackets

Simplify your installation with a ready-to-use right-angle mounting bracket for light, medium and heavy-duty encoders





Cables

For encoders that require a connector cable, we have cables in stock, priced right and ready to ship.

^{**}Modular/Kitencodersaredirectmount, there are no load ratings.

Encoder Selection Guide

SAE Dimension Encoders & Metric Dimension Encoders

| | | 22 | AF Nimens | sion Encoc | ler Sele | ction | | | | |
|--|--|--|--|---|---|--|---|--|---|--|
| | TRN4-21 | | | | TRDA-25 Series | | | | | |
| Specification | TRDA-2E Series TRDA-2ExxxVD TRDA-2ExxxVD | | | TRDA 20004AhDZD | | | Т | TRDA TRDA | | |
| | TRDA-2ExxxBD | TRDA- | -2ExxxVD | TRDA-20R1Nxxx | RZD IRL | DA-20R1NxxxVD | 25RNxx | 25RNxxxVWDMS | | |
| Description | Light duty incremental e | encoder with | n solid shaft N | Medium duty incre | emental encod | der with solid shaft | | , | coder with solid shaft | |
| Size | Body: 1.5 in. diameter and 1.6 in. depth; Shaft: 0.25 in. diameter | | | Body: 2.0 in. diameter and 1.7 in. depth; Shaft: 0.375 in. diameter | | | Removable Flange: 2.5 in. round; Body: 2.0 in. diameter and 2.15 in. depth; Shaft: 0.375 in. diameter | | | |
| Output Configuration | NPN open collector (BD) | Line dri | iver (VD) | Totem pole (RZ | ZD) Li | ine driver (VD) | Totem p | ole (RZWD) | Line driver (VWD) | |
| Input Power | 12–24 VDC (nominal) Range: 10.8–26.4 VDC | | (nominal) | 5-30 VDC (nomi | | VDC (nominal) e: 4.75–5.25 VDC | | C (nominal) | 5VDC (nominal) ange: 4.75–5.25 VDC | |
| Resolutions Available | 100 to 2500 pulsi | | | | | | - | 00 to 2500 pulses i | _ · | |
| Output Type | Cable – 2m [6 | | 100 to 2500 pulses per revolution Cable – 2m [6.6 ft], tinned | | | Military style (MS) connector | | | | |
| Frequency Response | 2001 | | 100kHz 200kHz | | | 100kHz 200kHz | | | | |
| Rating | IP50 | | | | IP50 | | | IP65 | | |
| Accessories Available | • | | unting flanges couplings, m | | inting bracket, mounting flanges | | cal | cables, couplings, mounting flanges | | |
| | | Met | ric Dimer | nsion Enco | | | <u> </u> | | | |
| | | mo | illo Dillioi | | RD-MX Serie | | | | | |
| Specification | TRD-M | | TRD-MX Series | | | TRD-MXxxxVD | | | | |
| Description | Light duty incremental | | h solid shaft | Light duty increr | nental encode | er with solid shaft | Light du | ty incremental enc | oder with solid shaft | |
| Size | Body: 25mm diamet | Body: 25mm diameter and 29mm | | Body: 25mm | diameter and | d 29mm depth; | Body: 25mm diameter and 29mm depth; | | | |
| | Shaft: 4mm diameter | | | Shaft: 4mm diameter | | | Shaft: 4mm diameter | | | |
| Output Configuration | NPN open collector (AD) | | | NPN open collector (BD) | | | Line driver (VD) | | | |
| Input Power Resolutions Available | 5–12 VDC (nominal); Range: 4.5–13.2 VDC 100 to 1024 pulses per revolution | | | | 12–24 VDC (nominal); Range: 10.8–26.4 VDC | | | 5VDC (nominal); Range: 4.75–5.25 VDC 100 to 1024 pulses per revolution | | |
| Output Type | Cable (two n | | 100 to 1024 pulses per revolution | | | Cable (two meter, tinned) | | | | |
| Frequency Response | 100kH | <i>1)</i> | Cable (two meter, tinned) 100kHz max | | | 100kHz max | | | | |
| Rating | IP50 | | | IP50 | | | IP50 | | | |
| Accessories Available | | | Metric-to- | metric and metric | | uplings, mounting b | rackets | | | |
| | | | | | | | | | | |
| Specification | TRD-S/TRD-SH Series | | | TRD-SR/TRD-SHR Series TRD-S(H) TRD-S(H) TRD-S(H) T | | | RD-S(H) TRD ALIEU TRD ALIEU BZIANO | | | |
| opcomounon | TDD C/U/VVVAD TDD C/ | (H)xxx-BD 1 | TRD-S(H)xxx-VD | | | | cxxVW(0)D | TRD-Nxxx-RZWI | TRD-Nxxx-RZVWD | |
| | · | | | | | | | | | |
| Description | Light duty incremental end | | solid (S) or hollow | | mental encod | er with solid (S) or I | | | remental encoder with | |
| • | Light duty incremental end (SH Body: 38mm diame | H) shaft neter and 30r | mm depth; | Light duty increi | mental encod sh 40mm Ø | er with solid (S) or l naft 38mm Ø | nollow (SH) 40mm Ø | sol Body: 50mm c | lid shaft diameter and 35mm | |
| Size | Light duty incremental end (SH Body: 38mm diam Shaft: 6mm (S) ol NPN open collector NPN open | H) shaft neter and 30r or 8mm (SH) en collector | mm depth; diameter | Light duty increi | mental encod sh 40mm Ø : 6mm (S) or | er with solid (S) or l naft 38mm Ø 8mm (SH) diamete | nollow (SH) 40mm Ø r | sol Body: 50mm o depth; Shaff | lid shaft diameter and 35mm t: 8mm diameter | |
| Size Output Configuration | Light duty incremental end (SH Body: 38mm diam Shaft: 6mm (S) or NPN open collector (AD) (LO 5-12 VDC (nominal) 12 24 VIV | H) shaft neter and 30r or 8mm (SH) nen collector (BD) | mm depth; diameter | Shaft NPN open | mental encod sh 40mm Ø : 6mm (S) or collector | er with solid (S) or laft 38mm Ø 8mm (SH) diamete | 40mm Ø r | Sol Body: 50mm o depth; Shaft Totem pole (RZWD) | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) | |
| Size | Light duty incremental end (SH Body: 38mm diamm Shaft: 6mm (S) oi NPN open collector NPN open (AD) ((5-12 VDC (nominal)) 12-24 VDC Reproce AT 6 13 2 | H) shaft neter and 30r or 8mm (SH) nen collector (BD) | mm depth; diameter | Shaft NPN open | mental encod sł 40mm Ø : 6mm (S) or collector | er with solid (S) or l naft 38mm Ø 8mm (SH) diamete | 40mm Ø r rential) | sol Body: 50mm o depth; Shaff | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) | |
| Size Output Configuration Input Power Resolutions Available | Light duty incremental end (SH Body: 38mm diamm Shaft: 6mm (S) oi NPN open collector (AD) (AD) 12-24 VD (nominal) Range: 4,75-13.2 | H) shaft neter and 30r or 8mm (SH) nen collector (BD) DC (nominal) 0.8–26.4 VDC | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC | 38mm Ø Shaft NPN open (5-26 VDC (Range: 4.75- | mental encod sh 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC | er with solid (S) or laft 38mm Ø 8mm (SH) diamete Line driver (diffe | 40mm Ø r rential) | Sol Body: 50mm c depth; Shafit Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) C Range: 4.75–5.25 VDC sees per revolution | |
| Size Output Configuration Input Power | Light duty incremental end (SH Body: 38mm diamm Shaft: 6mm (S) oi NPN open collector (AD) (AD) (AD) (AD) (AD) (AD) (AD) (AD) | H) shaft neter and 30r or 8mm (SH) nen collector (BD) DC (nominal) 0.8–26.4 VDC | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC | 38mm Ø Shaft NPN open (5-26 VDC (Range: 4.75- | wental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nomi Range: 4.75–5. ses per revolution meter, tinned) | 40mm Ø r rential) | Sol Body: 50mm c depth; Shafit Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75–5.25 VDC ses per revolution o meter, tinned) | |
| Size Output Configuration Input Power Resolutions Available | Light duty incremental enc. (SH Body: 38mm diams. Shaft: 6mm (S) or NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-132 VDC 100 to 2500 pul Cable (two | H) shaft Leter and 30r or 8mm (SH) Len collector Len colle | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC | 38mm Ø Shaft NPN open (5-26 VDC (Range: 4.75- | wental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nomi Range: 4.75–5. | 40mm Ø r rential) | Sol Body: 50mm c depth; Shafit Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) C Range: 4.75–5.25 VDC sees per revolution | |
| Size Output Configuration Input Power Resolutions Available Output Type | Light duty incremental enc. (SH Body: 38mm diams. Shaft: 6mm (S) or NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-132 VDC 100 to 2500 pul Cable (two | H) shaft leter and 30r or 8mm (SH) len collector (BD) DC (nominal) 0.8-26.4 VDC lses per revo | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC | Shaft NPN open (10) S-26 VDC (10) Range: 4.75- | wental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nomi Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 | 40mm Ø r rential) nal) 25 VDC | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75–5.25 VDC ses per revolution meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response | Light duty incremental enc. (SH Body: 38mm diams. Shaft: 6mm (S) or NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-132 VDC 100 to 2500 pul Cable (two | H) shaft neter and 30r or 8mm (SH) nen collector (BD) 0.8-26.4 VDC or lominal) or 8mm (SH) nen collector (BD) or (nominal) or 8mm (SH) neter (BD) or (nominal) or or (Nomin | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) | Shaft NPN open (10) S-26 VDC (10) Range: 4.75- | wental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nomi Range: 4.75–5. ses per revolution meter, tinned) DkHz | 40mm Ø r rential) nal) 25 VDC | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two | did shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75–5.25 VDC Ses per revolution meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available | Light duty incremental end (SH Body: 38mm diamm Shaft: 6mm (S) oi NPN open collector (AD) (AD) (AD) (AD) (AD) (AD) (AD) (AD) | H) shaft neter and 30r or 8mm (SH) nen collector (BD) 0.8-26.4 VDC or lominal) or shaft neter, tinne | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings | Shaft NPN open (10) S-26 VDC (10) Range: 4.75- | wental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric- bran | er with solid (S) or last 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nomi Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings | 40mm Ø r rential) nal) 25 VDC | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pull Cable (two 100kHz max Metric-to-metric couplings, m | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75–5.25 VDC ses per revolution o meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) 1P65 and metric-to-S.A.E. | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating | Light duty incremental end (SH Body: 38mm diamm Shaft: 6mm (S) oi NPN open collector (AD) (AD) (AD) (AD) (AD) (AD) (AD) (AD) | H) shaft neter and 30r or 8mm (SH) nen collector (BD) DC (nominal) 0.8–26.4 VDC Isless per revo | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings | Shaft NPN open 5-26 VDC (Range: 4.75- 100 IP50 Metric-to-metri | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-l brau | er with solid (S) or last 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominange: 4.75–5. ses per revolution meter, tinned) DkHz IP50 IP50 Ivo-S.A.E. couplings ckets TRD-NA Series RD-NAxxxNWD | 40mm Ø r rential) nal) 25 VDC | Sol Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75-5.25 VDC Ses per revolution Defent max (≤3000 ppr) 200kHz max (>3000 ppr) 1P65 and metric-to-S.A.E. Dounting brackets K Series KXXX-RZD | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) or (NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two | H) shaft leter and 30r or 8mm (SH) lene collector (BB) 0.8–26.4 VDC or leter (SH) lene collector (BB) 0.8–26.4 VDC or meter, tinne 0.0kHz IP40 metric-to-S.A TRD-NH S | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx | Shaft NPN open 5-26 VDC (Range: 4.75- 100 IP50 Metric-to-metric | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brad Medium du | er with solid (S) or last 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominance 4.75–5. ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets RD-NAXXXNWD uty absolute encode solid shaft | 40mm Ø r rential) nal) 25 VDC | Sol Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC (100 Pull Cable (two 100 kHz max) Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75-5.25 VDC ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series Kxxx-RZD mental encoder with d shaft | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) or (NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 Metric-to-metric and m TRD-NHxxx-RZW Medium duty inc Body: 50m | H) shaft leter and 30r or 8mm (SH) lener collector (BBD) DC (nominal) 0.8–26.4 VDC or lates per review or meter, tinner 0.0kHz IP40 IP40 IP40 IP40 IP40 IP40 IP40 IP40 | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollow and 35mm depti | Shaft NPN open 5-26 VDC (Range: 4.75- 100 IP50 Metric-to-metric | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brace T Medium du Body: 50mm | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominance 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets TRD-NA Series RD-NAXXXNWD Juty absolute encode solid shaft diameter and 35m | 40mm Ø r rential) nal) 25 VDC | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic cody: 78mm diame | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75-5.25 VDC ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series CXXX-RZD mental encoder with d shaft eter and 60mm depth; | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) or (NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 Metric-to-metric and management of the collector (AD) TRD-NHxxx-RZW Medium duty inc Body: 50m S | H) shaft neter and 30r or 8mm (SH) nen collector (BB) 0.8–26.4 VDC or meter, tinne 0.0kHz 1P40 metric-to-S.A TRD-NH S //D cremental er or midiameter Shaft: 8mm of | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings Frences TRD-NHxxx and 35mm depti diameter | Shaft NPN open of the state of | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brau Medium du Body: 50mm Sha | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominance 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets FRD-NA Series RD-NAXXXNWD Juty absolute encode solid shaft diameter and 35maft. Idiameter and 35maft: 8mm diameter | 40mm Ø r rential) nal) 25 VDC | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pull Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increased ody: 78mm diame Shaft: 10 r | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution o meter, tinned) 100kHz max (≤3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series (xxx-RZD mental encoder with dishaft atter and 60mm depth; mm diameter | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration | Light duty incremental end (SH Body: 38mm diams Shaft: 6mm (S) or NPN open collector (AD) S-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 Metric-to-metric and metric-to-me | H) shaft neter and 30r or 8mm (SH) nen collector (BB) 0.8–26.4 VDC or meter, tinne 0.0kHz 1P40 metric-to-S.A TRD-NH S //D cremental en nm diameter Shaft: 8mm or //D) nat) | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollow and 35mm depti diameter Line driver 5VDC (n | IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brau Medium du Body: 50mm Sha NF | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) 8vpc (nominal) 1000 (100 | Adomm Ø r rential) IP65 mounting or with m depth; B | Sol Body: 50mm of depth; Shaff Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pull Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Ody: 78mm diame Shaft: 10 r Toter 10–30 VD | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution o meter, tinned) 100kHz max (≤3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series Cxxx-RZD mental encoder with d shaft ster and 60mm depth; mm diameter m pole IC (nominal) | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power | Light duty incremental end (SH Body: 38mm diams Shaft: 6mm (S) or NPN open collector (AD) S-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 III Metric-to-metric and material | H) shaft neter and 30r or 8mm (SH) nen collector (BB) DC (nominal) 0.8–26.4 VDC Ilses per revi meter, tinne 0.0kHz IP40 metric-to-S.A TRD-NH S //D cremental en nm diameter Shaft: 8mm of //D) nal) VDC | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollow r and 35mm depti diameter Line driver 5VDC (n Range: 4.75 | IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brad Medium dt Body: 50mm Sha NF 12- Rang | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets FRD-NA Series RD-NAXXXNWD uty absolute encode solid shaft diameter and 35m aft: 8mm diameter PN open collector -24 VDC (nominal) ge: 10.8–26.4 VDC | Adomm Ø r rential) IP65 mounting er with m depth; E | Body: 50mm of depth; Shaff Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 m Totel 10–30 VD Range: 9. | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75-5.25 VDC ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series Kxxx-RZD mental encoder with d shaft eter and 60mm depth; mm diameter m pole IC (nominal) 7-30.9 VDC | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power Resolutions Available | Light duty incremental end (SH Body: 38mm diams Shaft: 6mm (S) or NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 III Metric-to-metric and m TRD-NHxxx-RZW Medium duty ince Body: 50m S Totem pole (RZW 5-30 VDC (nominal) Range: 4.75-30.0 \ 3 to 50 | H) shaft leter and 30r or 8mm (SH) lener collector (BBD) DC (nominal) 0.8–26.4 VDC lises per review meter, tinne 00kHz IP40 metric-to-S.A TRD-NH S //D cremental en nm diameter shaft: 8mm of //D) lial) VDC 000 pulses p | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollor r and 35mm depti diameter Line driver 5VDC (n Range: 4.75 per revolution | IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brar Medium dt Body: 50mm Sha NF 12- Rang 32 to 204 | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets RD-NAXXXNWD uty absolute encode solid shaft diameter and 35m aft: 8mm diameter PN open collector -24 VDC (nominal) ge: 10.8–26.4 VDC 48 pulses per revolution | Adomm Ø r rential) IP65 mounting er with m depth; B | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 r Toter 10–30 VD Range: 9. 30 to 5000 puls | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series Kxxx-RZD mental encoder with dishaft eter and 60mm depth; mm diameter m pole C (nominal) 7-30.9 VDC ses per revolution | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power Resolutions Available Output Type | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) of NPN open collector (AD) NPN open collector (AD) S-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pull Cable (two 20 III Metric-to-metric and m TRD-NHxxx-RZW Medium duty inc Body: 50m S Totem pole (RZW 5-30 VDC (nominal) Range: 4.75-30.0 \ 3 to 56 Cal | H) shaft neter and 30r or 8mm (SH) nen collector (BB) DC (nominal) 0.8–26.4 VDC Ilses per revi meter, tinne 0.0kHz IP40 metric-to-S.A TRD-NH S //D cremental en nm diameter Shaft: 8mm of //D) nal) VDC | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollor and 35mm depti diameter Line driver 5VDC (n Range: 4.75 per revolution ter, tinned) | IP50 IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) i-5.25 VDC | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brar Medium dt Body: 50mm Sha NF 12- Rang 32 to 204 | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 Ito-S.A.E. couplings ckets RD-NAxxxNWD Line driver (diffe 5VDC (nominal) Common Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 Ito-S.A.E. couplings Ckets RD-NAxxxNWD Lity absolute encode solid shaft at diameter and 35m aft: 8mm diameter PN open collector 24 VDC (nominal) Ge: 10.8–26.4 VDC 48 pulses per revolute (two meter, tinned) | Adomm Ø r rential) IP65 mounting er with m depth; B | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 m Totel 10–30 VD Range: 9. 30 to 5000 puls Cable (two | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) SVDC (nominal) Range: 4.75-5.25 VDC Ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) 1P65 and metric-to-S.A.E. nounting brackets K Series CXXX-RZD mental encoder with dishaft eter and 60mm depth; mm diameter m pole IC (nominal) 7-30.9 VDC ses per revolution meter, tinned) | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power Resolutions Available | Light duty incremental end (SH Body: 38mm diams Shaft: 6mm (S) or NPN open collector (AD) 5-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pul Cable (two 20 III Metric-to-metric and m TRD-NHxxx-RZW Medium duty ince Body: 50m S Totem pole (RZW 5-30 VDC (nominal) Range: 4.75-30.0 \ 3 to 50 | H) shaft leter and 30r or 8mm (SH) lener collector (BBD) DC (nominal) 0.8–26.4 VDC lises per review meter, tinne 00kHz IP40 metric-to-S.A TRD-NH S //D cremental en orm diameter Shaft: 8mm of I/D) lal) VDC 000 pulses p ble (two met | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollor and 35mm depti diameter Line driver 5VDC (n Range: 4.75 per revolution ter, tinned) 100kHz max 200kHz max | ILight duty increu 38mm Ø Shaft NPN open 5-26 VDC (Range: 4.75- 10 IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) 5-5.25 VDC (≤3000 ppr) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 brar Medium dt Body: 50mm Sha NF 12- Rang 32 to 204 | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. Ses per revolution meter, tinned) DkHz IP50 to-S.A.E. couplings ckets RD-NAXXXNWD uty absolute encode solid shaft diameter and 35m aft: 8mm diameter PN open collector -24 VDC (nominal) ge: 10.8–26.4 VDC 48 pulses per revolution | Adomm Ø r rential) IP65 mounting er with m depth; B | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 m Totel 10–30 VD Range: 9. 30 to 5000 puls Cable (two | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution of meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) IP65 and metric-to-S.A.E. nounting brackets K Series Kxxx-RZD mental encoder with dishaft eter and 60mm depth; mm diameter m pole C (nominal) 7-30.9 VDC ses per revolution | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power Resolutions Available Output Type | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) of NPN open collector (AD) NPN open collector (AD) S-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pull Cable (two 20 III Metric-to-metric and m TRD-NHxxx-RZW Medium duty inc Body: 50m S Totem pole (RZW 5-30 VDC (nominal) Range: 4.75-30.0 \ 3 to 56 Cal | H) shaft leter and 30r or 8mm (SH) lener collector (BBD) DC (nominal) 0.8–26.4 VDC lises per review meter, tinne 00kHz IP40 metric-to-S.A TRD-NH S //D cremental en nm diameter shaft: 8mm of //D) lial) VDC 000 pulses p | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollor and 35mm depti diameter Line driver 5VDC (n Range: 4.75 per revolution ter, tinned) 100kHz max 200kHz max | ILight duty increu 38mm Ø Shaft NPN open 5-26 VDC (Range: 4.75- 10 IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) 5-5.25 VDC (≤3000 ppr) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 bran Medium du Body: 50mm Sha NF 12- Rang 32 to 204 Cable | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. Ses per revolution meter, tinned) 0kHz IP50 to-S.A.E. couplings ckets RD-NAXXXNWD uty absolute encode solid shaft diameter and 35m aft: 8mm diameter PN open collector -24 VDC (nominal) ge: 10.8–26.4 VDC 48 pulses per revolute (two meter, tinned) 20kHz max IP65 | Alpha (SH) 40mm Ø r rential) IP65 mounting er with m depth; E | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 r Toter 10–30 VD Range: 9. 30 to 5000 puls Cable (two | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) 1P65 and metric-to-S.A.E. nounting brackets K Series (xxx-RZD mental encoder with dishaft eter and 60mm depth; mm diameter m pole C (nominal) 7-30.9 VDC ses per revolution meter, tinned) 0kHz | |
| Size Output Configuration Input Power Resolutions Available Output Type Frequency Response Rating Accessories Available Specification Description Size Output Configuration Input Power Resolutions Available Output Type Frequency Response | Light duty incremental enc (SH Body: 38mm diams Shaft: 6mm (S) of NPN open collector (AD) NPN open collector (AD) S-12 VDC (nominal) Range: 4.75-13.2 VDC 100 to 2500 pull Cable (two 20 III Metric-to-metric and m TRD-NHxxx-RZW Medium duty inc Body: 50m S Totem pole (RZW 5-30 VDC (nominal) Range: 4.75-30.0 \ 3 to 56 Cal | H) shaft leter and 30r or 8mm (SH) lener collector (BBD) DC (nominal) 0.8–26.4 VDC lises per review meter, tinne 00kHz IP40 metric-to-S.A TRD-NH S //D cremental en orm diameter Shaft: 8mm of I/D) lal) VDC 000 pulses p ble (two met | mm depth; diameter Line driver (VD) 5VDC (nominal)Range 4.75–5.25 VDC olution ed) A.E. couplings TRD-NHxxx ncoder with hollor and 35mm depti diameter Line driver 5VDC (n Range: 4.75 per revolution ter, tinned) 100kHz max 200kHz max | ILight duty increu 38mm Ø Shaft NPN open 5-26 VDC (Range: 4.75- 10 IP50 Metric-to-metri x-RZVWD w shaft h; (RZVWD) ominal) 5-5.25 VDC (≤3000 ppr) | mental encod st 40mm Ø : 6mm (S) or collector nominal) 26.4 VDC 0 to 2500 puls Cable (two r 200 IP65 c and metric-1 bran Medium du Body: 50mm Sha NF 12- Rang 32 to 204 Cable | er with solid (S) or haft 38mm Ø 8mm (SH) diamete Line driver (diffe 5VDC (nominal) Range: 4.75–5. ses per revolution meter, tinned) 0kHz IP50 to-S.A.E. couplings ckets RD-NAXXXNWD uty absolute encode solid shaft diameter and 35m aft: 8mm diameter PN open collector -24 VDC (nominal) ge: 10.8–26.4 VDC 48 pulses per revolute (two meter, tinned) 20kHz max | IP65 mounting er with m depth; E | Body: 50mm of depth; Shaft Totem pole (RZWD) 5–30 VDC (nominal) Range: 4.75–30.0 VDC 3 to 5000 pul Cable (two 100kHz max Metric-to-metric couplings, m TRD-Gi TRD-Gi Heavy duty increm solic ody: 78mm diame Shaft: 10 r Toter 10–30 VD Range: 9. 30 to 5000 puls Cable (two increments) IFM Metric-to-metric a | lid shaft diameter and 35mm t: 8mm diameter Line driver (RZVWD) 5VDC (nominal) Range: 4.75-5.25 VDC ses per revolution meter, tinned) 100kHz max (<3000 ppr) 200kHz max (>3000 ppr) 1P65 and metric-to-S.A.E. nounting brackets K Series (xxx-RZD mental encoder with dishaft eter and 60mm depth; mm diameter m pole IC (nominal) 7-30.9 VDC ses per revolution meter, tinned) 0kHz | |

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