DUS60

Flexible encoder with DIP switches for parameter configuration

SICK
Sensor Intelligence.

DUS60

Technical data overview

Pulses per revolution	1 ... 2,400 [1]
Mechanical design	Solid shaft, face mount flange Blind hollow shaft Through hollow shaft
Shaft diameter	6 mm, With flat 10 mm, With flat 3/8″, With flat 1/4″, With flat 6 mm, Front clamp 8 mm, Front clamp 12 mm, Front clamp 5/8″, Front clamp 1/4″, Front clamp 1/2″, Front clamp 3/8″, Front clamp 10 mm, Front clamp 15 mm, Front clamp 14 mm, Front clamp 8 mm, rear clamping 12 mm, rear clamping 1/2″, rear clamping 5/8″, rear clamping 15 mm, rear clamping 3/8″, rear clamping 10 mm, rear clamping
Connection type	Male connector, M12, 8-pin, universal Male connector, M12, 4-pin, universal Cable, 8-wire, universal
Communication interface	Incremental
Communication Interface detail	TTL / HTL
Supply voltage	4.75 ... 30 V
Enclosure rating	IP65
Programmable/configurable	✓
Output frequency	+ 60 kHz
Operating temperature range	−30 °C ... +90 °C

[1] Available pulses per revolution see type code.

Product description

The DUS60 is a rotary incremental encoder with built-in DIP switch configuration for the resolution, output voltage, and counting direction. The DUS60 configuration switches reduce the number of variants, enable easy replacement and quick commissioning, and increases the likelihood that spare parts will be in stock – all without any additional programming tools. The on-board status and signal LEDs and optional fault output quickly indicate the functionality of the encoder, minimizing time required for both installation and troubleshooting. The DUS60 offers solid shaft and hollow bore mounting with rotating connectors or universal cables for quick and flexible mechanical installation. With resolutions up to 2,400 pulses, the DUS60 is ideal for factory and logistics automation applications.

At a glance

- Pulses per revolution: Up to 2,400
- Housing diameter: 60 mm
- Solid shaft, blind hollow shaft, through hollow shaft
- Enclosure rating: IP65
- Communication interfaces: TTL/HTL
- Connection types: M12 male connector or cable
- Status LEDs, DIP switch for configuring the settings

Your benefits

- Quickly commission the encoder using the built-in DIP switches. No additional programming tool or laptop required
- Status and signal LEDs quickly indicate whether the encoder is properly connected, functional, or needs to be replaced
- Universal power supply and a rotatable connector reduce the number of variants required and provide increased installation flexibility
- Anti-dither functionality maintains a high level of productivity also in high vibration applications
- Compatible with existing and low-cost input cards with output types like Clockwise/Counterclockwise and Signal/Direction

Fields of application

Measuring the position, speed and distance in applications with low speeds and low resolution in the logistics and factory automation markets.

- Conveyor belts
- Packaging machines
- Printing machines
- Storage systems

Type code

Other models and accessories → www.sick.com/DUS60

Hollow shaft

Type

| E | Eco |

Shaft type

B	Blind hollow shaft
R	Through hollow shaft, clamping at the back
T	Through hollow shaft, clamping at the front

Shaft diameter

A	6 mm
B	8 mm
C	3/8"
D	10 mm
E	12 mm
F	1/2"
G	14 mm
H	15 mm
J	5/8"
K	1/4"

Communication interface

| K | 4.75 V ... 30 V, TTL/HTL with DIP switch can be selected [1] |

Connection type

C	Rotating male connector, M12, 8-pin
F	Rotating male connector, M12, 4-pin
K	Cable, 8-wire, universal, 1.5 m
M	Cable, 8-wire, universal, 5 m

Flange type / Stator coupling

| 0 | 2-point stator coupling, slot, drill hole diameter 63 mm - 83 mm |
| A | Without stator coupling |

Output function

A	Channels A and B
B	Direction of rotation CW, CCW
C	Channel A, direction
D	Channel A, error

DIP switch configuration group

A	2400 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
B	2048 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
C	1800 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
D	1500 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
E	240 pulses group
F	60 pulses group, counting direction can be selected
G	48 pulses group

Switching frequency filter

| A | Without switching frequency filter |
| B | With switching frequency filter [2] |

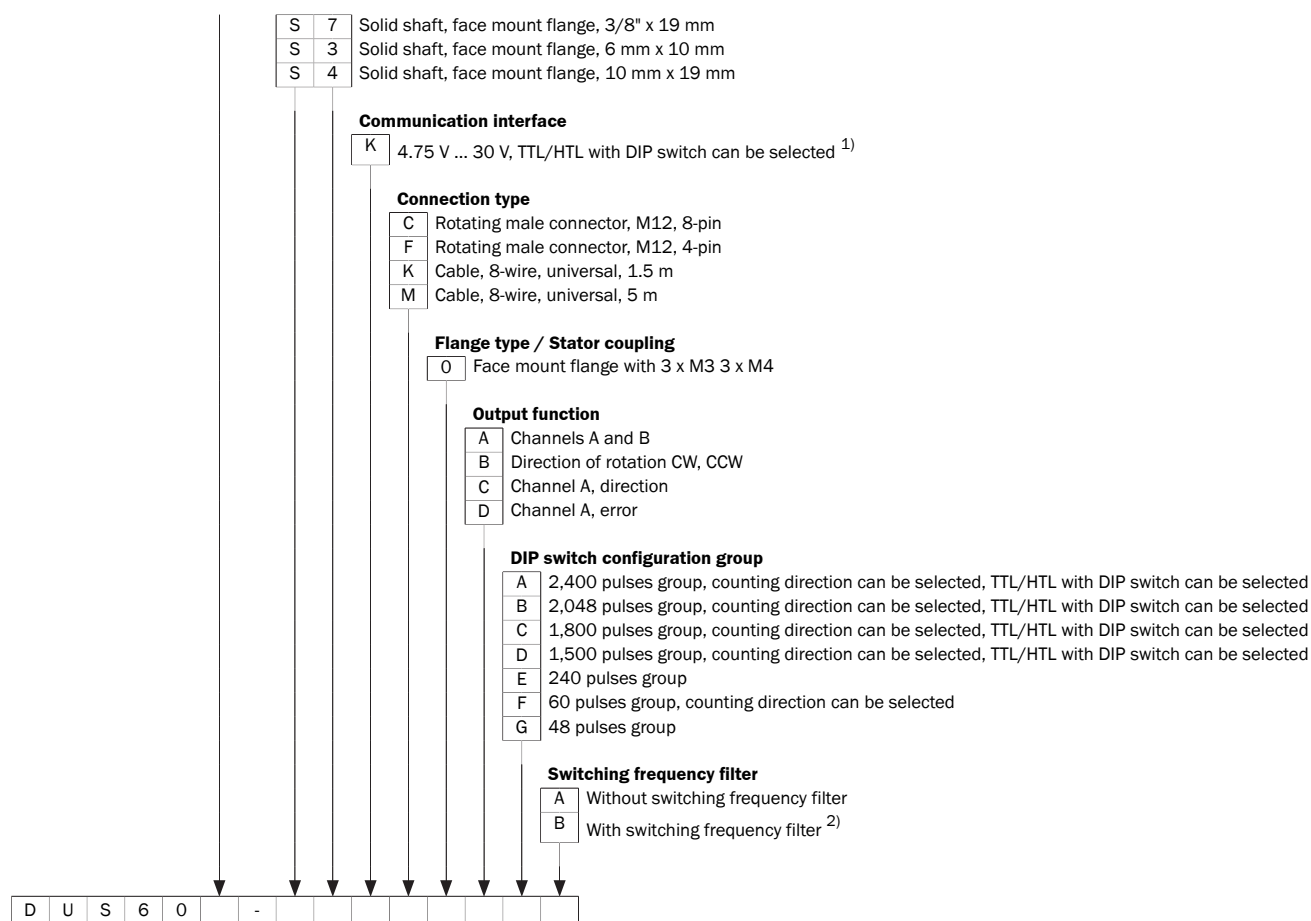| D | U | S | 6 | 0 | - | | | | | | | | | |

[1] Output voltage selection not available for DIP switch configurations E, F and G. Output voltage value depends on supply voltage.

[2] Not available for output function: Channels A and B (A). Connection type must be M12 male connector 4-pin (F).

Solid shaft

Type

| E | Eco |

Mechanical design

| S | 8 | Solid shaft, face mount flange, 1/4" x 10 mm |

S	7	Solid shaft, face mount flange, 3/8" x 19 mm
S	3	Solid shaft, face mount flange, 6 mm x 10 mm
S	4	Solid shaft, face mount flange, 10 mm x 19 mm

Communication interface

K	4.75 V ... 30 V, TTL/HTL with DIP switch can be selected [1]

Connection type

C	Rotating male connector, M12, 8-pin
F	Rotating male connector, M12, 4-pin
K	Cable, 8-wire, universal, 1.5 m
M	Cable, 8-wire, universal, 5 m

Flange type / Stator coupling

O	Face mount flange with 3 x M3 3 x M4

Output function

A	Channels A and B
B	Direction of rotation CW, CCW
C	Channel A, direction
D	Channel A, error

DIP switch configuration group

A	2,400 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
B	2,048 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
C	1,800 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
D	1,500 pulses group, counting direction can be selected, TTL/HTL with DIP switch can be selected
E	240 pulses group
F	60 pulses group, counting direction can be selected
G	48 pulses group

Switching frequency filter

A	Without switching frequency filter
B	With switching frequency filter [2]

D	U	S	6	0		-								

[1] Output voltage selection not available for DIP switch configurations E, F and G. Output voltage value depends on supply voltage.

[2] Not available for output function: Channels A and B (A). Connection type must be M12 male connector 4-pin (F).

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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