

# YM2D24-050EF4M2D24

Industrial Ethernet cables and fieldbus cables

**PLUG CONNECTORS AND CABLES** 





#### Ordering information

Туре	Part no.
YM2D24-050EF4M2D24	2129306

Other models and accessories -> www.sick.com/Industrial\_Ethernet\_cables\_and\_fieldbus\_cables



#### Detailed technical data

#### Technical specifications

Accessory family Connection type head A Connection type head B Locking plug connector Connector material Connector color c	•	
Connection type head A Connection type head B Locking plug connector Connector material Connector color Connector material Connector color Locking nut material Tightening torque 0.6 Nm Width across flats 13 Cable Jacket material Jacket color Cable diameter Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation  Bending cycles Nominal voltage, cable Reference voltage Reference voltage Current loading Travesling speed Travelling distance  Male connector, M.12, 4-pin, straight, D-coded  Screw connection  PU  Black Tipu  Black Ti	Accessory group	Plug connectors and cables
Connection type head B         Male connector, M12, 4-pin, straight, D-coded           Locking plug connector         Screw connection           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         5 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Shielding         Shielded           Bending radius         Flexible use Stationary position         > 10 x cable diameter           Drag chain operation         > 8 x cable diameter           Drag chain operation         > 10 x cable diameter           Bending cycles         1,000,000           Nominal voltage, cable         600 V AC           Test voltage, cable         48 V AC           60 V DC           Rated impulse voltage         1,5 kV           Current loading         4 A           Traversing speed         1,2 m/s           Travelling distance         0,6 m	Accessory family	Connection cables
Locking plug connector         Screw connection           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         5 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Shielding         Shielded           Bending radius         * 10 x cable diameter           Stationary position Drag chain operation         > 8 x cable diameter           Pag chain operation         > 10 x cable diameter           Sheding cycles         1,000,000           Nominal voltage, cable         1,500 v AC           Test voltage, cable         1,500 v AC           Reference voltage         48 v AC           60 v DC           Rated impulse voltage         1,5 kV           Current loading         4 A           Traversing speed         1,2 m/s           Travelling distance         0,6 m	Connection type head A	Male connector, M12, 4-pin, straight, D-coded
Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         5 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Shielding         Shielded           Bending radius         > 10 x cable diameter           Stationary position Drag chain operation         > 8 x cable diameter           Prag chain operation Drag chain	Connection type head B	Male connector, M12, 4-pin, straight, D-coded
Connector color Locking nut material Locking nut material Tightening torque  0.6 Nm Width across flats 13 Cable 5 m, 4-wire, TPE Jacket material Jacket color Cable diameter Shielding Bending radius  Flexible use Stationary position Drag chain operation Drag chain operation  Bending cycles Nominal voltage, cable Reference voltage  48 V AC 60 V DC  Rated Impulse voltage 1.2 m/s  Traversing speed Travelling distance  Sind die-cast, nickel-plated  2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 2 linc die-cast, nickel-plated 3 linc die cast, nickel-plated 4 linc die cast, nickel-plated 4 linc die cast, nickel-plated 4 linc die cast, nickel-plated 5 linc die cast, nickel-plated 6 linc die cast,	Locking plug connector	Screw connection
Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         5 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Shielding         Shielded           Bending radius         > 10 x cable diameter           Stationary position         > 8 x cable diameter           Prag chain operation         > 10 x cable diameter           Bending cycles         1,000,000           Nominal voltage, cable         600 V AC           Test voltage, cable         48 V AC           Reference voltage         48 V AC           60 V DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Traversing speed         1.2 m/s           Travelling distance         0.6 m	Connector material	TPU
Tightening torque         0.6 Nm           Width across flats         13           Cable         5 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Shielding         Shielded           Bending radius         > 10 x cable diameter           Stationary position         > 8 x cable diameter           Drag chain operation         > 10 x cable diameter           Bending cycles         1,000,000           Nominal voltage, cable         600 V AC           Test voltage, cable         1,500 V AC           Reference voltage         48 V AC           60 V DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Traversing speed         1.2 m/s           Travelling distance         0.6 m	Connector color	Black
Midth across flats   13   5 m, 4-wire, TPE     Jacket material   TPE     Jacket color   Turquoise     Cable diameter   6.6 mm     Shielding   Shielded     Bending radius     Flexible use   Stationary position     Drag chain operation     Drag chain operation     Drag chain operation     Drag chain operation     Bending cycles   1,000,000     Mominal voltage, cable   1,500 V AC     Test voltage, cable   48 V AC     60 V DC     Rated impulse voltage   1,5 kV     Current loading   4 A     Traversing speed   1,2 m/s     Travelling distance   0.6 m     Travelling distance   1,5 m/s     Cable diameter     > 10 x	Locking nut material	Zinc die-cast, nickel-plated
Cable Jacket material Jacket color Cable diameter Cable diameter Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation  Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage  48 V AC 60 V DC  Rated impulse voltage  4 A  Current loading Traversing speed Travelling distance  5 m, 4-wire, TPE  Traversing speed Tra	Tightening torque	0.6 Nm
Jacket color Cable diameter Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation ON AC  Test voltage, cable Reference voltage Reference voltage A8 V AC 60 V DC  Rated impulse voltage Current loading Traversing speed Travelling distance  Test voltage, cable  1.2 m/s  Traverling distance  Traversing speed Traversing	Width across flats	13
Jacket color Cable diameter Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Prescription Stationary Position Drag chain operation Drag chain opera	Cable	5 m, 4-wire, TPE
Cable diameter Shielding Bending radius  Flexible use Stationary position Drag chain operation  Bending cycles Nominal voltage, cable Test voltage Reference voltage  48 V AC 60 V DC  Rated impulse voltage  Current loading Traversing speed Travelling distance  5 Nielded  5 No x cable diameter  5	Jacket material	TPE
Shielding Bending radius  Flexible use Stationary position Drag chain operation  Bending cycles Nominal voltage, cable Test voltage, cable  Reference voltage  48 V AC 60 V DC  Rated impulse voltage  Current loading Traversing speed Travelling distance  Shielded  > 10 x cable diameter > 8 x cable diameter > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter  > 10 x cable diameter    10 x cable diameter   10 x c	Jacket color	Turquoise
Bending radius  Flexible use Stationary position Drag chain operation  Bending cycles  Nominal voltage, cable  Test voltage, cable  48 V AC 60 V DC  Rated Impulse voltage  Current loading  Traversing speed  Travelling distance  Plexible use > 10 x cable diameter	Cable diameter	6.6 mm
Flexible use Stationary position Drag chain operation Drag chain operation  Nominal voltage, cable Test voltage, cable Reference voltage  48 V AC 60 V DC  Rated impulse voltage Current loading Traverling distance  > 10 x cable diameter	Shielding	Shielded
Stationary position Drag chain operation  Bending cycles 1,000,000  Nominal voltage, cable 1,500 V AC  Test voltage 48 V AC 60 V DC  Rated impulse voltage 1.5 kV  Current loading Traverling distance  > 8 x cable diameter > 10 x cable diameter  1,000,000  AC  400 V AC  1,500 V AC  1,500 V AC  48 V AC 40 V DC  1.5 kV  4 A  1.2 m/s  1.2 m/s  1.2 m/s	Bending radius	
Drag chain operation > 10 x cable diameter  1,000,000  Nominal voltage, cable 600 V AC  Test voltage, cable 1,500 V AC  Reference voltage 48 V AC 60 V DC  Rated impulse voltage 1.5 kV  Current loading 4 A  Traversing speed 1.2 m/s  Travelling distance 0.6 m	Flexible use	> 10 x cable diameter
Bending cycles  Nominal voltage, cable  Test voltage, cable  Reference voltage  48 V AC 60 V DC  Rated impulse voltage  1.5 kV  Current loading  Traversing speed  1.2 m/s  0.6 m	Stationary position	> 8 x cable diameter
Nominal voltage, cable  Test voltage, cable  1,500 V AC  Reference voltage  48 V AC 60 V DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Traversing speed  1.2 m/s  Travelling distance  600 V AC  1,500	Drag chain operation	> 10 x cable diameter
Test voltage, cable  Reference voltage  48 V AC  60 V DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Traversing speed  1.2 m/s  Travelling distance  1,500 V AC	Bending cycles	1,000,000
Reference voltage  48 V AC 60 V DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Traversing speed  1.2 m/s  Travelling distance  0.6 m	Nominal voltage, cable	600 V AC
48 V AC 60 V DC  Rated impulse voltage 1.5 kV  Current loading 4 A  Traversing speed 1.2 m/s  Travelling distance 0.6 m	Test voltage, cable	1,500 V AC
Rated impulse voltage 1.5 kV Current loading 4 A Traversing speed 1.2 m/s Travelling distance 0.6 m	Reference voltage	
Rated impulse voltage 1.5 kV  Current loading 4 A  Traversing speed 1.2 m/s  Travelling distance 0.6 m		
Current loading 4 A  Traversing speed 1.2 m/s  Travelling distance 0.6 m		
Traversing speed 1.2 m/s  Travelling distance 0.6 m		
Travelling distance 0.6 m	Current loading	
	Traversing speed	
Acceleration ≤ 2.4 m/s <sup>2</sup>	Travelling distance	
	Acceleration	≤ 2.4 m/s²

Signal type	Ethernet, EtherNet/IP™
Transmission characteristics	CAT5e
Data transmission rate	≤ 0.1 Gbit/s
Torsion force	270°/1m
Torsion cycles	3,000,000
Cycles per minutes	60
Application	Drag chain operation Robot Zones with oils and lubricants
Authorizations	CE UL
Enclosure rating	IP65 / IP66K / IP67
Ambient operating temperature	
Stationary position	-40 °C +80 °C
Head	-25 °C +85 °C
Contamination rating	3
Insulation resistance	> 100 MΩ
Overvoltage category	III
Specific insulation resistance	< 30 mΩ

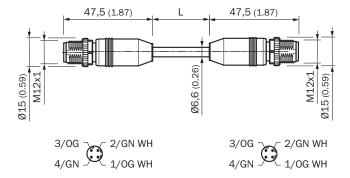
#### Classifications

ECLASS 5.0	27061801
ECLASS 5.1.4	27061801
ECLASS 6.0	27061801
ECLASS 6.2	27061801
ECLASS 7.0	27061801
ECLASS 8.0	27061801
ECLASS 8.1	27061801
ECLASS 9.0	27061801
ECLASS 10.0	27061801
ECLASS 11.0	27061801
ECLASS 12.0	27061801
ETIM 5.0	EC002599
ETIM 6.0	EC002599
ETIM 7.0	EC002599
ETIM 8.0	EC002599
UNSPSC 16.0901	26121604

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#### Dimensional drawing (Dimensions in mm (inch))



### 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.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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