

# YM2D24-060EF4MRJA4

Industrial Ethernet cables and fieldbus cables

**PLUG CONNECTORS AND CABLES** 





#### Ordering information

Туре	Part no.
YM2D24-060EF4MRJA4	2117686

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



#### Detailed technical data

#### Technical specifications

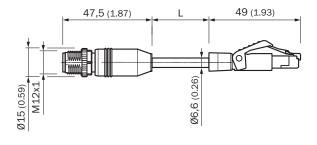
Accessory group         Plug connectors and cables           Accessory family         Connection cables           Connection type head A         Male connector, M12, 4-pin, straight, D-coded           Connection type head B         Male connector, M12, 4-pin, straight           Locking plug connector         Screw-on connection (M12), snap-in locking (RJ45)           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Wildth across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket material         TPE           Jacket material         TPE           Conductor cross section         0.227 mm²           Shielded         Shielded           Bending radius         Flexible use Stationary position Prag chain operation         > 10 x cable diameter           Stationary position Prag chain operation         > 8 x cable diameter           Sending cycles         \$1,000,000           Nominal voltage, cable         \$1,000 vAC           Test voltage, cable         \$60 V DC           Reference voltage         \$48 V AC         \$60 V DC	•	
Connection type head A         Male connector, M12, 4-pin, straight, D-coded           Connection type head B         Male connector, RJ45, 4-pin, straight           Locking plug connector         Screw-on connection (M12), snap-in locking (RJ45)           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Uidenaction strate         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket material         TPE           Jacket color         Urquoise           Cable diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         10 x cable diameter           Flexible use         2 x cable diameter           Stationary position         2 x x cable diameter           Stationary position         2 x x cable diameter           Stavillage, cable         4 x x cable diameter           Stavillage, cable         4 x x cable diameter           Stavillage, cable         4 x x x C           GOV XC         4 x X C           GOV DC         4 x X C           GOV DC         4 x X C	Accessory group	Plug connectors and cables
Connection type head B         Male connector, RJ45, 4-pin, straight           Locking plug connector         Screw on connection (M12), snap-in locking (RJ45)           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket material         TPE           Jacket material         TPE           Jacket color         Turquoise           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         Flexible use Stationary position         > 10 x cable diameter           S x cable diameter         > 8 x cable diameter           Stationary position         > 10 x cable diameter           S x cable diameter         > 10 x cable diameter           S x cable diameter         4 x 00 x 000           Nominal voltage, cable         4 x 00 x 00           Reference voltage         48 Y AC           GOV DC         48 Y AC           GOV DC         48 X 02           Couries to locked	Accessory family	Connection cables
Locking plug connector         Screw-on connection (M12), snap-in locking (RJ45)           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cohle diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         * 10 x cable diameter           Flexible use         > 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         40 V AC           Test voltage, cable         48 V AC           60 V DC           Rated impulse voltage         1 kV           Current loading         ≤ 1.5 A           Traversing speed         1.2 m/s	Connection type head A	Male connector, M12, 4-pin, straight, D-coded
Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Conductor cross section         0.227 mm²           Shelding         Shelded           Bending radius         > 10 x cable diameter           Stationary position         > 8x cable diameter           Prag chain operation         > 10 x cable diameter           Porag chain operation         > 10 x cable diameter           Stationary position         > 10 x cable diameter           Porag chain operation         > 10 x cable diameter           Stationary position         > 10 x cable diameter           Porag chain operation         > 10 x cable diameter           Stationary position         > 2 (000,000           Nominal voltage, cable         48 v AC           Gov V DC           Rated impulse voltage         1 kW           Current loading         1 kW           Current loading         1 x y S           Takes y MC         1 x y S           Late y MC         1 x	Connection type head B	Male connector, RJ45, 4-pin, straight
Connector color     Black       Locking nut material     Zinc die-cast, nickel-plated       Tightening torque     0.6 Nm       Width across flats     13       Cable     6 m, 4-wire, TPE       Jacket material     TPE       Jacket color     Turquoise       Conductor cross section     0.227 mm²       Shielding     Shielded       Bending radius     Flexible use Stationary position Drag chain operation     > 10 x cable diameter       Prag chain operation Drag chain operation Stationary Drag chain operation Drag chain operation Stationary Drag chai	Locking plug connector	Screw-on connection (M12), snap-in locking (RJ45)
Locking nut material         Zinc die-cast, nickel-plated           Tightening torque         0.6 Nm           Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         * 10 x cable diameter           Flexible use         * 8 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         48 V AC           60 V DC           Rated impulse voltage         1 kV           Current loading         \$ 1.5 A           Traversing speed         1.2 m/s	Connector material	TPU
Tightening torque         0.6 Nm           Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         > 10 x cable diameter           Flexible use         > 8 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 ∨ AC           Test voltage, cable         48 ∨ AC           Reference voltage         48 ∨ AC           60 ∨ DC           Rated impulse voltage         1 kV           Current loading         ≤ 1.5 A           Traversing speed         1.2 m/s	Connector color	Black
Width across flats         13           Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         > 10 x cable diameter           Stationary position 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         1,500 V AC           Reference voltage         48 V AC           60 V DC           Rated impulse voltage         1 kV           Current loading         ≤ 1.5 A           Traversing speed         1.2 m/s	Locking nut material	Zinc die-cast, nickel-plated
Cable         6 m, 4-wire, TPE           Jacket material         TPE           Jacket color         Turquoise           Cable diameter         6.6 mm           Conductor cross section         0.227 mm²           Shielding         Shielded           Bending radius         Flexible use Stationary position 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 kV           Current loading         ≤ 1.5 A           Traversing speed         1.2 m/s	Tightening torque	0.6 Nm
Jacket color  Cable diameter Conductor cross section Shielding Bending radius  Flexible use Stationary position Drag chain operation  Bending cycles Nominal voltage, cable  Reference voltage Reference voltage  Rated impulse voltage Current loading Telexible use Stationary Pose Station	Width across flats	13
Jacket color Cable diameter 6.6 mm Conductor cross section 0.227 mm² Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation  Shominal voltage, cable 600 V AC Test voltage, cable Reference voltage 48 V AC 60 V DC Rated impulse voltage 1.5 A Traversing speed 1.2 m/s  Turquoise 6.6 mm 1.2 m/s  Turquoise 6.6 mm 6.6 m	Cable	6 m, 4-wire, TPE
Cable diameter       6.6 mm         Conductor cross section       0.227 mm²         Shielding       Shielded         Bending radius       > 10 x cable diameter         Flexible use Stationary position 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       1,500 V AC         Reference voltage       48 V AC         60 V DC         Rated impulse voltage       1 kV         Current loading       ≤ 1.5 A         Traversing speed       1.2 m/s	Jacket material	TPE
Conductor cross section  Shielding  Bending radius  Flexible use Stationary position Drag chain operation  Drag chain operation  Nominal voltage, cable  Test voltage, cable  Reference voltage  48 ∨ AC 60 ∨ DC  Rated impulse voltage  Current loading  Traversing speed  0.227 mm²  Shielded  0.227 mm²  Shielded  10 x cable diameter  > 8 x cable diameter  > 10 x cable	Jacket color	Turquoise
Shielding Bending radius  Flexible use Stationary position Drag chain operation  Drag chain operation  Drag chain operation  Sending cycles  Flexible use > 10 x cable diameter > 8 x cable diameter > 10 x cable diameter > 10 x cable diameter > 10 x cable diameter	Cable diameter	6.6 mm
Flexible use Stationary position Drag chain operation Drag chain Drag	Conductor cross section	0.227 mm <sup>2</sup>
Flexible use Stationary position Drag chain operation  Bending cycles  Nominal voltage, cable  Test voltage, cable  Reference voltage  48 ∨ AC 60 ∨ DC  Rated impulse voltage  1.5 A  Traversing speed  > 10 x cable diameter > 8 x cable diameter > 10 x cable diameter > 8 x cable diameter > 10 x cable diameter > 8 x cable diameter > 10 x cable diameter    10 x cable diameter   10 x	Shielding	Shielded
Stationary position Drag chain operation Drag chain operation  Bending cycles  Nominal voltage, cable Test voltage, cable  Reference voltage  48 ∨ AC 60 ∨ DC  Rated impulse voltage  1,50 ∨ AC  Traversing speed  2 × x cable diameter  > 10 × Cable diameter	Bending radius	
Drag chain operation > 10 x cable diameter  Sending 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 kV  Current loading ≤ 1.5 A  Traversing speed 1.2 m/s	Flexible use	> 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       60 V DC         Rated impulse voltage       1 kV         Current loading       ≤ 1.5 A         Traversing speed       1.2 m/s	Stationary position	> 8 x cable diameter
Nominal voltage, cable  Test voltage, cable  1,500 ∨ AC  Reference voltage  48 ∨ AC  60 ∨ DC  Rated impulse voltage  1 kV  Current loading  ≤ 1.5 A  Traversing speed  600 ∨ 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 kV  Current loading  ≤ 1.5 A  Traversing speed  1,500 V AC	Bending cycles	≤ 1,000,000
Reference voltage  48 V AC 60 V DC  Rated impulse voltage 1 kV  Current loading ≤ 1.5 A  Traversing speed  1.2 m/s	Nominal voltage, cable	600 V AC
48 V AC 60 V DC  Rated impulse voltage 1 kV  Current loading ≤ 1.5 A  Traversing speed 1.2 m/s	Test voltage, cable	1,500 V AC
60 V DC  Rated impulse voltage 1 kV  Current loading ≤ 1.5 A  Traversing speed 1.2 m/s	Reference voltage	
Rated impulse voltage     1 kV       Current loading     ≤ 1.5 A       Traversing speed     1.2 m/s		48 V AC
Current loading ≤ 1.5 A  Traversing speed 1.2 m/s		60 V DC
Traversing speed 1.2 m/s		
Travelling distance 0.6 m	Traversing speed	1.2 m/s
	Travelling distance	0.6 m

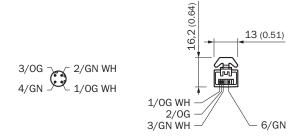
Acceleration	$\leq 2.4 \text{ m/s}^2$
Signal type	Fieldbus
Transmission characteristics	CAT5e
Data transmission rate	≤ 0.1 Gbit/s
Torsion force	270°/1m
Torsion cycles	3,000,000
Cycles per minutes	60
Application	Zones with oils and lubricants Robot Drag chain operation
Authorizations	CE UL
UL File No.	E513908
Enclosure rating	IP67 (M12), IP20 (RJ45)
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	19030312
ECLASS 5.1.4	19030312
ECLASS 6.0	27060304
ECLASS 6.2	27060304
ECLASS 7.0	27060304
ECLASS 8.0	27060304
ECLASS 8.1	27060304
ECLASS 9.0	27060304
ECLASS 10.0	27060304
ECLASS 11.0	27060304
ECLASS 12.0	27060304
ETIM 5.0	EC000830
ETIM 6.0	EC000830
ETIM 7.0	EC003249
ETIM 8.0	EC003249
UNSPSC 16.0901	26121604

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





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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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