

M12 male 0° / M12 male 0° D-cod. shielded

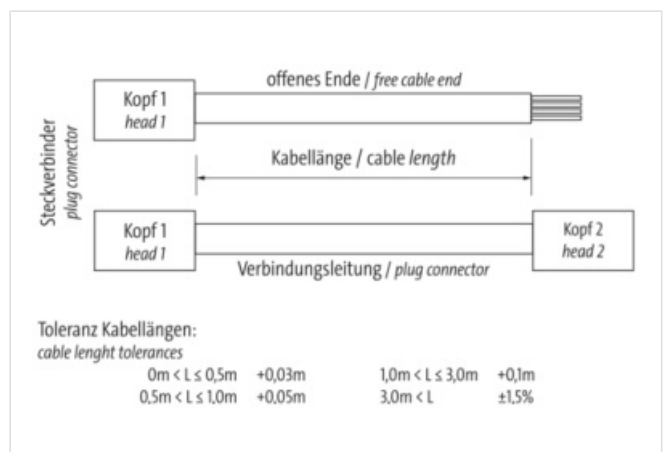
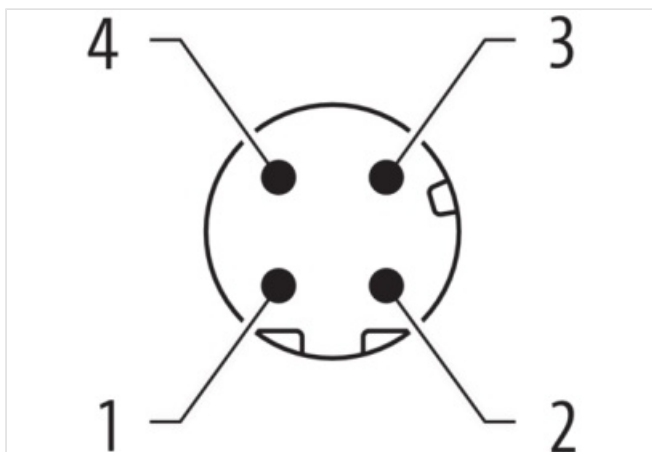
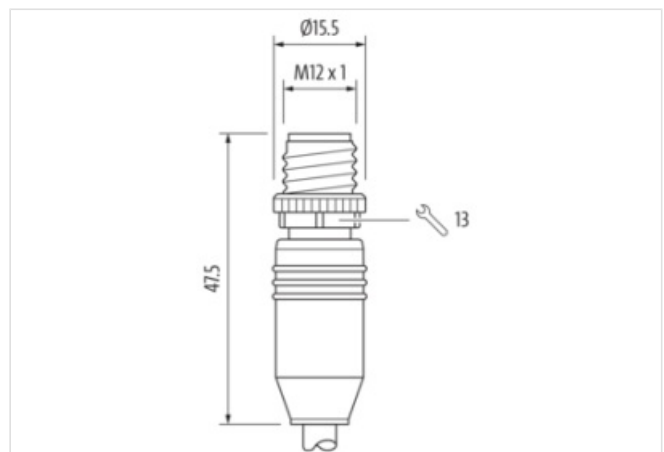
PUR 1x4xAWG22 shielded gn UL/CSA+drag ch. 5m

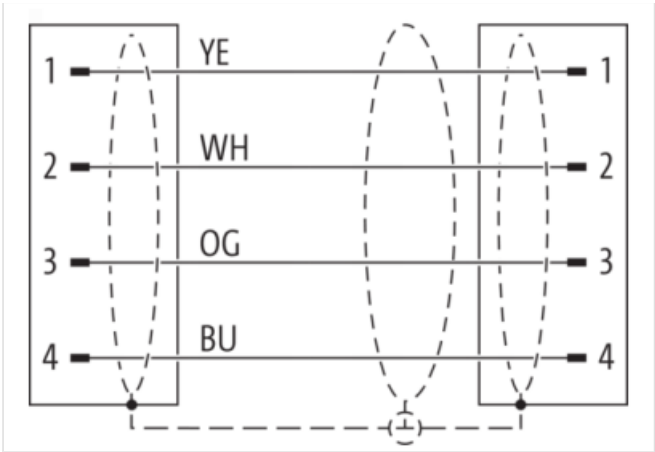
Art.No.: 7000-44511-6590500

Weight: 0.395

Country of origin: HU

Model designation: MSDAL0-DA-T659_5.0-ZS

[Link to Product](#)**Illustration**



Product may differ from Image



Side 1

Family construction form	M12
No. of poles	4
Coding	D
Gender	male
Mounting method	inserted, screwed
Thread	M12 x 1
Tightening torque	0.6 Nm
Width across flats	SW13
Cable outlet	straight
Material	PUR
Material contact	Copper alloy
Coating contact	gold plated
Degree of protection (EN IEC 60529)	IP67, IP66K, IP65

Side 2

Family construction form	M12
No. of poles	4
Coding	D
Gender	male
Mounting method	inserted, screwed
Thread	M12 x 1
Tightening torque	0.6 Nm
Width across flats	SW13
Cable outlet	straight
Material	PUR
Material contact	Copper alloy
Coating contact	gold plated
Degree of protection (EN IEC 60529)	IP67, IP66K, IP65

Commercial data

URL Webshop <https://shop.murrelektronik.com/7000-44511-6590500>

GTIN	4048879630702
ECLASS-6.0	27061801
ECLASS-6.1	27060307
ECLASS-7.0	27060307
ECLASS-7.1	27060307
ECLASS-8.0	27060307
ECLASS-8.1	27060307
ECLASS-9.0	27060307
ECLASS-9.1	27060307
ECLASS-10.0.1	27060307
ECLASS-10.1	27060307
ECLASS-11.0	27060307
ECLASS-11.1	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307
ECLASS-14.0	27060307
ETIM-5.0	EC002599
ETIM-6.0	EC002599
ETIM-7.0	EC002599
ETIM-8.0	EC002599
EAN	4048879630702

Electrical data | Supply

Operating voltage DC max.	60 V
Current operating per contact max.	1.5 A

Industrial communication

Data transmission rate max.	100 MBit/s
Transfer parameters	CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)

Industrial communication | Ethernet functionality

duplex	Full duplex
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Device protection | Electrical

Degree of protection (EN IEC 60529)	IP67, IP66K, IP65
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	1.5 kV
Material group (IEC 60664-1)	I

Mechanical data

Contour for corrugated hose	without
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Mechanical data | Material data

Material screw connection	Zinc die-casting
Coating of fitting	nickel plated

Environmental characteristics | Climatic

Operating temperature min.	-30 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality

Important installation notes

Note on bending radius	Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.
Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.

Conformity

Product standard	DIN EN 61076-2-101 (M12)
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Installation Cable	
Cable identification	659
Function cable	Data
Amount stranding	1
Stranding	4 Wires
Cable shielding (type)	copper braid, tinned
Cable shielding (coverage)	85 %
Banding	Fleece, Foil
Filler	yes
Wire arrangement	white, yellow, blue, orange
Cable weight	89.1 g/m
Material wire insulation	PE
Amount wires	4
Outer diameter insulation	1.4 mm
Outer diameter tolerance core insulation	± 0.05 mm
Shore hardness wire insulation	65
Ingredient freeness wire insulation	CFC-free, halogen-free, lead-free
Amount strands (wire)	7
Diameter of single wires	30 AWG
Conductor crosssection (wire)	22 AWG
Material conductor wire	Stranded copper wire, bare
Outer-diameter (jacket)	7.4 mm
Tolerance outer diameter (sheath)	± 5 %
Material jacket	PUR
Shore hardness jacket	90
Freedom from ingredients (jacket)	CFC-free, halogen-free, lead-free
Material inner jacket	TPE-V
Color (inner jacket)	white
Conductor resistance (wire)	55 Ω/km @ 20 °C
Electrical capacity line constant (wire - wire)	50,000 pF/km
Isolation resistance	5,000 MΩ × km
Nominal voltage AC max.	600 V
Withstand voltage (wire - wire)	2 kV @ 60 s
Withstand voltage (wire - jacket)	2 kV @ 60 s
Withstand voltage (wire - shield)	2 kV @ 60 s
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity min. wire	4.8 A
Characteristic impedance	100 Ω ± 15 % @ 15 %
Min. operating temperature (static)	-40 °C
Max. operating temperature (fixed)	80 °C
Operating temperature min. (dynamic)	-30 °C
Operating temperature max. (dynamic)	70 °C
Storage temperature max.	1,000 °C
Flame resistance	UL 1581 § 1080, IEC 60332-1-2
Oil resistance	IEC 60811-404, IRM 901, NEMA WC55
Ozone resistance	IEC 60811-403
UV resistance	UL 1581§1200
Other resistances	MUD-resistant (NEK 606), resistant to microbes
Bending radius (fixed)	5 × Outer diameter
Bending radius (dynamic)	12 × Outer diameter
No. of bending cycles (C-track)	2 Mio. @ 25 °C
Traversing distance (C-track)	5 m @ 25 °C
Travel speed (C-track)	3.3 m/s @ 25 °C

Acceleration (C-track)

2 m/s² @ 25 °C