

PRODUCT GUIDE M12

ENGINEERING SUPERIOR SOLUTIONS

Hyperboloid, Spring Probe, High Speed and Filtered Interconnects

Aerospace & Defense, Industrial, Medical, Space, Test & Measurement, Transportation

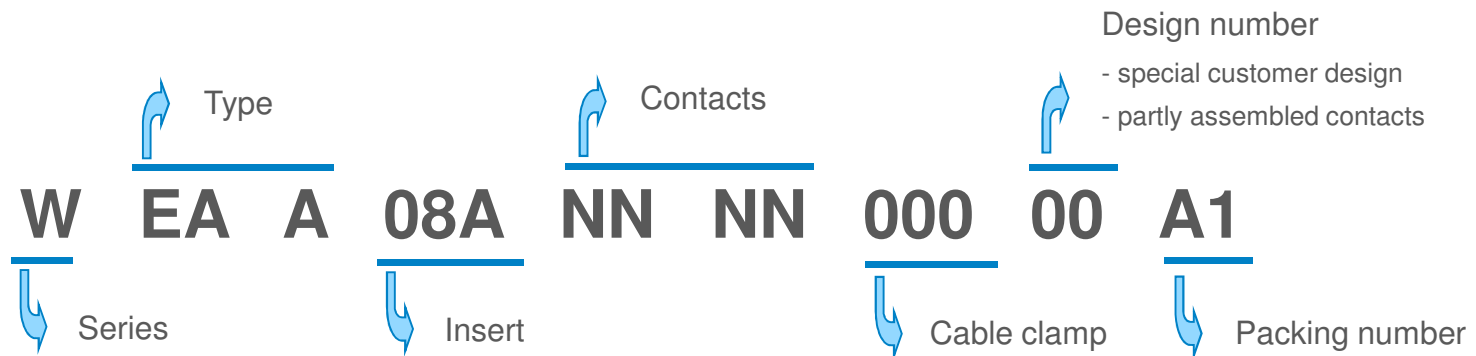
01/07/14 | Sonja Kufner, Engineering



M12 Part number system

Part Number Code:

Series: **W**



Receptacles

W

XX X

XXX

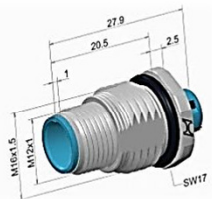
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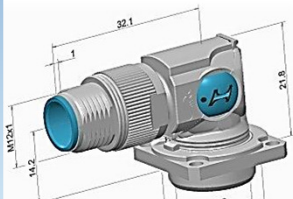
► Part number



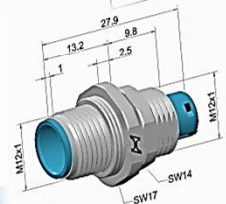
EA A



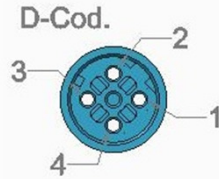
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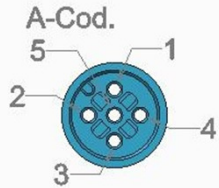
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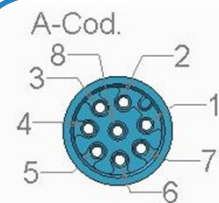
ED A



04D



05D



08D

► Pin $\varnothing 1\text{mm}$ (Stamped contact)

- AWG 32-28 **MHAN**
- AWG 28-24 **MHBN**
- AWG 24-20 **MHCN**



► Pin $\varnothing 1\text{mm}$ (Machined contact)

- AWG 24-20 **MRAN**



► Pin $\varnothing 1\text{mm}$ (Machined contact)

Solder Pin $\varnothing 1\text{mm}$

- Length X=8mm **MDAN**
- Length X=6mm **MDBN**



► Pin $\varnothing 0.8\text{mm}$ (Stamped contact)

- AWG 32-28 **MHEN**
- AWG 28-24 **MHFN**
- AWG 24-20 **MHGN**



Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: $\varnothing 1 \rightarrow 4\text{A} / \varnothing 0.8 \rightarrow 2\text{A}$
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass + zinc - diecast / nickel plated
Insulator : PA66 + PA6
Seals : FKM

Thermal Data

Temperature range: -40°C - +125°C



Panel feed through

W

XX X

XXX

XXXX

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► Part number



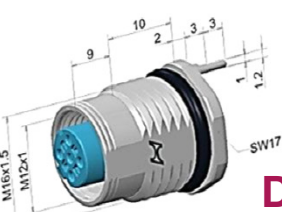
DA A



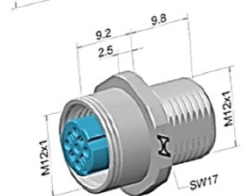
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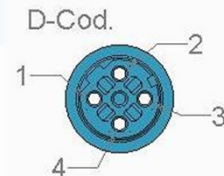
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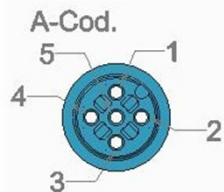
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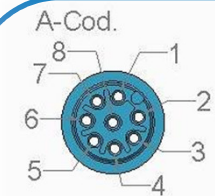
DE A



04C



05C



08C

► Socket HCS \varnothing 1mm (Stamped contact)

- AWG 32-28 **FHAN**
- AWG 28-24 **FHBN**
- AWG 24-20 **FHCN**



► Socket HC \varnothing 1mm (Machined contact)

- AWG 24-20 **FRAN**



► Socket HC \varnothing 1mm (Machined contact)

Solder Pin \varnothing 1mm

- Length X=8mm **FDAN**
- Length X=6mm **FDBN**



► Socket HCS \varnothing 0.8mm (Stamped contact)

- AWG 32-28 **FHEN**
- AWG 28-24 **FHFN**
- AWG 24-20 **FHGN**



Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: \varnothing 1 \rightarrow 4A / \varnothing 0.8 \rightarrow 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass / nickel plated
Insulator : PA66 + PA6
Seals : FKM

Thermal Data

Temperature range: -40°C - +125°C



Connector free assembled

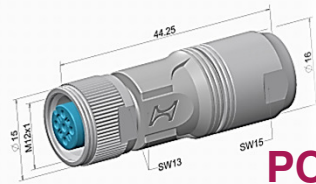
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XX X

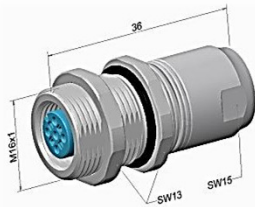
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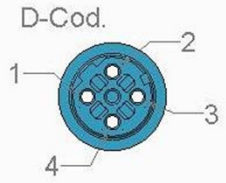
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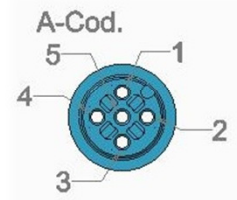
PC A



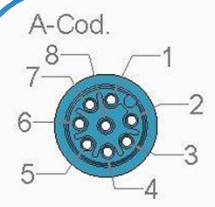
PJ A



04A



05A



08A

- ▶ Socket HCS \varnothing 1mm (Stamped contact)
 - ▶ AWG 32-28 **FHAN**
 - ▶ AWG 28-24 **FHBN**
 - ▶ AWG 24-20 **FHCN**



- ▶ Socket HC \varnothing 1mm (Machined contact)
 - ▶ AWG 24-20 **FRAN**



- ▶ Socket HCS \varnothing 0.8mm (Stamped contact)
 - ▶ AWG 32-28 **FHEN**
 - ▶ AWG 28-24 **FHFN**
 - ▶ AWG 24-20 **FHGN**



- ▶ Cable clamp
 - ▶ **293** \varnothing 3.5-6mm
 - ▶ **294** \varnothing 6-8mm
 - ▶ **283** \varnothing 8-10mm

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: \varnothing 1 \rightarrow 4A / \varnothing 0.8 \rightarrow 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc - die cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Cable clamp: PA6

Thermal Data

Temperature range: -40°C - +125°C



Connector free assembled

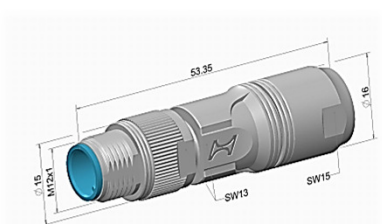
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XX X

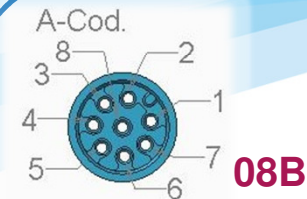
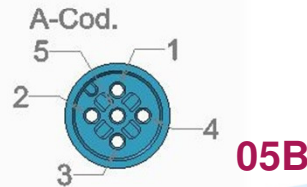
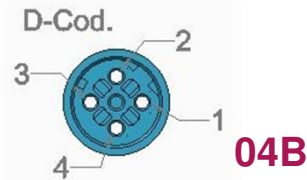
XXX

XXXX

XXX ▶ Part number



RC A



▶ Pin $\varnothing 1\text{mm}$ (Stamped contact)

- ▶ AWG 32-28 **MHAN**
- ▶ AWG 28-24 **MHBN**
- ▶ AWG 24-20 **MHCN**



▶ Pin $\varnothing 1\text{mm}$ (Machined contact)

- ▶ AWG 24-20 **MRAN**



▶ Pin $\varnothing 0.8\text{mm}$ (Stamped contact)

- ▶ AWG 32-28 **MHEN**
- ▶ AWG 28-24 **MHFN**
- ▶ AWG 24-20 **MHGN**



▶ Cable clamp

- ▶ **293** $\varnothing 3.5\text{-}6\text{mm}$
- ▶ **294** $\varnothing 6\text{-}8\text{mm}$
- ▶ **283** $\varnothing 8\text{-}10\text{mm}$

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: $\varnothing 1 \rightarrow 4\text{A} / \varnothing 0.8 \rightarrow 2\text{A}$
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Cable clamp: PA6

Thermal Data

Temperature range: $-40^{\circ}\text{C} - +125^{\circ}\text{C}$



Connector 90° free assembled

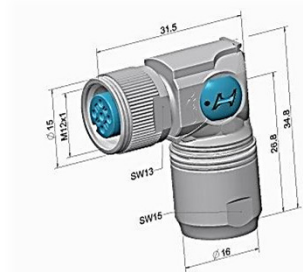
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XX X

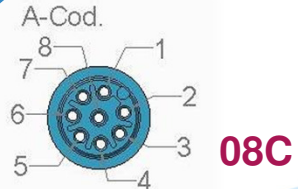
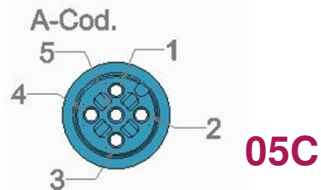
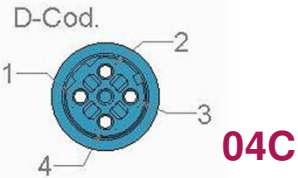
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XXXX

XXX ▶ Part number



PE A



▶ Socket HCS ø1mm (Stamped contact)

- ▶ AWG 32-28 **FHAN**
- ▶ AWG 28-24 **FHBN**
- ▶ AWG 24-20 **FHCN**



▶ Socket HC ø1mm (Machined contact)

- ▶ AWG 24-20 **FRAN**



▶ Socket HCS ø0.8mm (Stamped contact)

- ▶ AWG 32-28 **FHEN**
- ▶ AWG 28-24 **FHFN**
- ▶ AWG 24-20 **FHGN**



▶ Cable clamp

- ▶ **293** ø3.5-6mm
- ▶ **294** ø6-8mm
- ▶ **283** ø8-10mm

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: ø1 → 4A / ø0.8 → 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Cable clamp: PA6

Thermal Data

Temperature range: -40°C - +125°C

Connector 90° free assemble

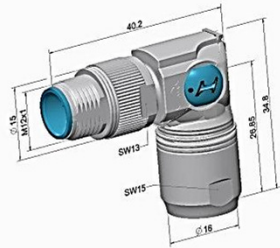
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XX X

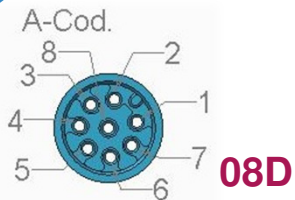
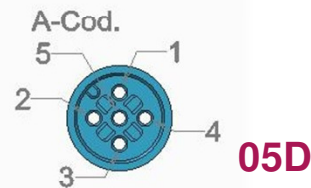
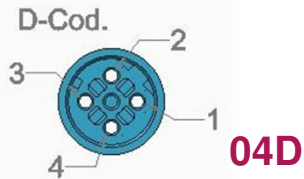
XXX

XXXX

XXX ▶ Part number



RE A



▶ Pin $\varnothing 1\text{mm}$ (Stamped contact)

- ▶ AWG 32-28 **MHAN**
- ▶ AWG 28-24 **MHBN**
- ▶ AWG 24-20 **MHCN**



▶ Pin $\varnothing 1\text{mm}$ (Machined contact)

- ▶ AWG 24-20 **MRAN**



▶ Pin $\varnothing 0.8\text{mm}$ (Stamped contact)

- ▶ AWG 32-28 **MHEN**
- ▶ AWG 28-24 **MHFN**
- ▶ AWG 24-20 **MHGN**



▶ Cable clamp

- ▶ **293** $\varnothing 3.5\text{-}6\text{mm}$
- ▶ **294** $\varnothing 6\text{-}8\text{mm}$
- ▶ **283** $\varnothing 8\text{-}10\text{mm}$

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: $\varnothing 1 \rightarrow 4\text{A} / \varnothing 0.8 \rightarrow 2\text{A}$
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Cable clamp: PA6

Thermal Data

Temperature range: $-40^{\circ}\text{C} - +125^{\circ}\text{C}$



Connector overmoulded

K/W

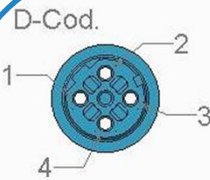
XX X

XXX XXX

/XXXXX ▶ Part number

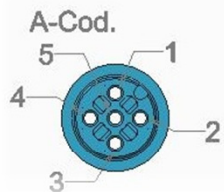


PB M



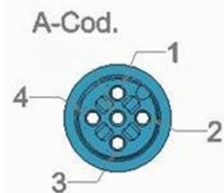
04A 007

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



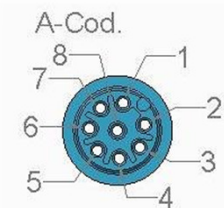
05A 006

PUR-Cable Dragchain line
5x0,35mm²
Socket HC ø1mm



05A 009

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



08A 008

PUR-Cable Dragchain line
4x2x0,25mm²
Socket HC ø0,8mm



▶ Length Cable

- ▶ **00100** 1m
- ▶ **00200** 2m
- ▶ **00500** 3m
- ▶ **00500** 5m
- ▶ **01000** 10m

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: ø1 → 4A / ø0.8 → 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Overmolding: TPU

Thermal Data

Temperature range: -40°C - +85°C

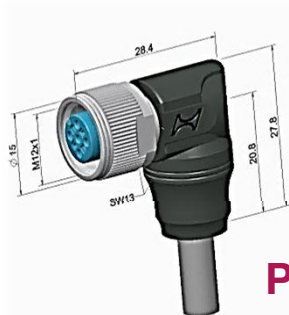
Connector over-moulded

K/W

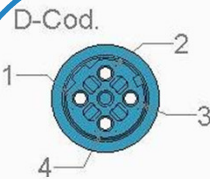
XX X

XXX XXX

/XXXXX ▶ Part number

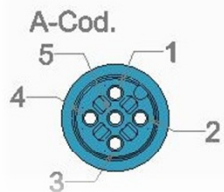


PD M



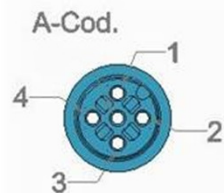
04C 007

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



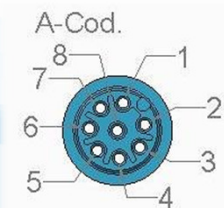
05C 006

PUR-Cable Dragchain line
5x0,35mm²
Socket HC ø1mm



05C 005

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



08C 008

PUR-Cable Dragchain line
4x2x0,25mm²
Socket HC ø0,8mm



▶ Length Cable

- ▶ **00100** 1m
- ▶ **00200** 2m
- ▶ **00500** 3m
- ▶ **00500** 5m
- ▶ **01000** 10m

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: ø1 → 4A / ø0.8 → 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Overmolding: TPU

Thermal Data

Temperature range: -40°C - +85°C

Connector over-moulded

K/W

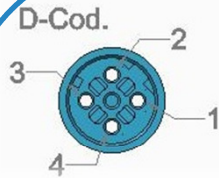
XX X

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/XXXXX ▶ Part number

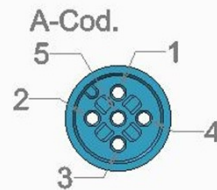


RB M



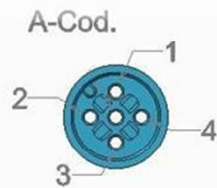
04B 007

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



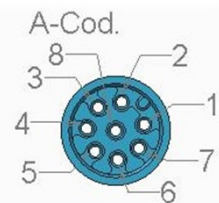
05B 006

PUR-Cable Dragchain line
5x0,35mm²
Socket HC ø1mm



05B 005

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



08B 008

PUR-Cable Dragchain line
4x2x0,25mm²
Socket HC ø0,8mm



▶ Length Cable

- ▶ **00100** 1m
- ▶ **00200** 2m
- ▶ **00500** 3m
- ▶ **00500** 5m
- ▶ **01000** 10m

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: ø1 → 4A / ø0.8 → 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Overmolding: TPU

Thermal Data

Temperature range: -40°C - +85°C

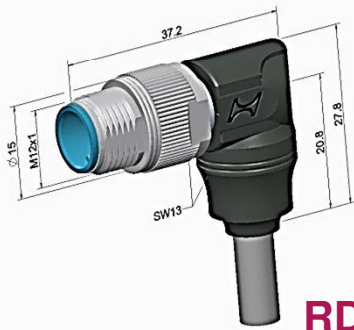
Connector over-moulded

K/W

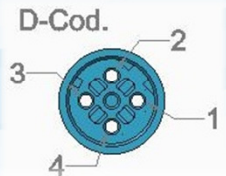
XX X

XXX XXX

/XXXXX ▶ Part number

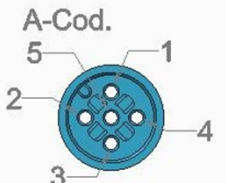


RD M



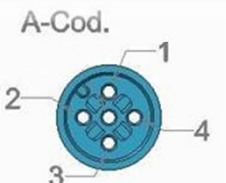
04D 008

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



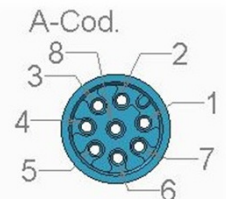
05D 007

PUR-Cable Dragchain line
5x0,35mm²
Socket HC ø1mm



05D 006

PUR-Cable Dragchain line
4x0,35mm²
Socket HC ø1mm



08D 009

PUR-Cable Dragchain line
4x2x0,25mm²
Socket HC ø0,8mm



▶ Length Cable

- ▶ **00100** 1m
- ▶ **00200** 2m
- ▶ **00500** 3m
- ▶ **00500** 5m
- ▶ **01000** 10m

Mechanical Data

IP Code : IP 67 mated
Mating cycles : >500

Electrical Data

Nominal current: ø1 → 4A / ø0.8 → 2A
Contact resistance: < 7mOhm
Operating voltage (AC/DC):
4 D-Cod.: 250V
5 A-Cod.: 90V (NFF 61-030)
8 A-Cod.: 30V
Installation altitude up to : 6000m (8-way)
Over voltage category : III
Contamination Level :
3 (DIN 60664-1)
PD3A (EN 50124-1)

Material / Plating

Shell : Brass, zinc die - cast/ nickel plated
Insulator : PA66 + PA6
Seals : FKM
Overmolding: TPU

Thermal Data

Temperature range: -40°C - +85°C



Connector Codes (polarisation)

W XX X XXX XXXX XXX **XX** ▶ Part number

A - CODE

▶ Male

▶ Female



▶ **00** 5 way



▶ **04** 4 way



▶ **03** 3 way



▶ **02** 2 way

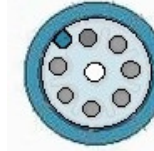
A - CODE

▶ Male

▶ Female



▶ **00** 8 way



▶ **07** 7 way



▶ **06** 6 way

D - CODE

▶ Male

▶ Female



▶ **00** 4 way