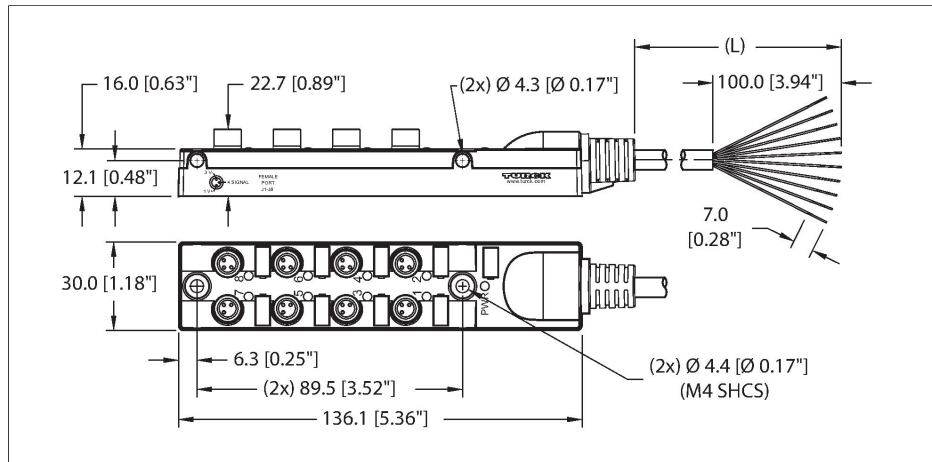


# TB-8M8M-3P2-20

## Passive Actuator/Sensor Junction Box, 8 Ports – M8 × 1 I/O Port with Integral Homerun Cable



### Technical data

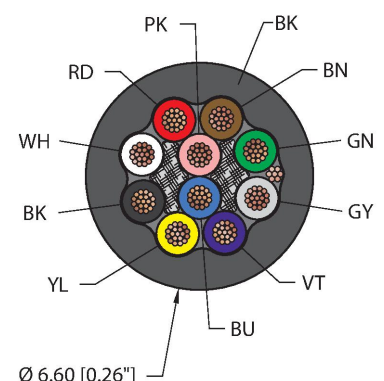
|                           |                                                                               |
|---------------------------|-------------------------------------------------------------------------------|
| Type                      | TB-8M8M-3P2-20                                                                |
| ID                        | UX18917                                                                       |
| Distributed I/O           | Junction box, 8, with integral homerun cable                                  |
| Housing                   | Plastic, PA 6 GF30, Black                                                     |
| Display operating voltage | LED, green                                                                    |
| Display switching state   | LED, yellow                                                                   |
| Switching function        | PNP                                                                           |
| I/O port                  | Female, M8 × 1                                                                |
| Design specification      | acc. to IEC 61076-2-104                                                       |
| Number of Pins            | 3                                                                             |
| Contacts                  | Brass, CuZn, Gold-plated                                                      |
| Contact carriers          | Plastic, PA 4.6 GF30, Black                                                   |
| Seal                      | O ring, Plastic, FKM/FPM                                                      |
| Flange housing            | Brass, CuZn, Nickel-plated                                                    |
| Mechanical lifespan       | > 100 Mating cycles                                                           |
| Pollution degree          | 3                                                                             |
| Protection class          | IP67, IP68, IP69, IP69K                                                       |
|                           | NEMA: 1, 3, 4, 6P, 12                                                         |
| Group terminal            | Cable, Side output                                                            |
| Cable                     |                                                                               |
| Cable ID                  | RF50836                                                                       |
| Number of cores           | 10                                                                            |
| Cable diameter            | Ø 6.6 mm                                                                      |
| Cable length              | 20 m, (+ 50 mm or 4 % of the length/-0.0, depending on which value is larger) |

### Features



- Housing material: Nylon
- Housing color: black
- Protection class IP67
- RoHS conform
- cULus listed
- LED (PNP circuit)
- I/O port (number of pins): 3-pin + PE
- General purpose cable
- PVC jacket, black, shielded, 10 × 24 AWG
- -40 °C cold bending strength
- Fire classes: UL1061, CSA FT1
- Cable length: 20 m

### Cable Cross-Section



### Contact assignment

## Technical data

I/O connector

|                                                                                                                                                                                                       |                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Cable jacket                                                                                                                                                                                          | PVC, Black                                |
| Shielding                                                                                                                                                                                             | Aluminum/polyester (IN)                   |
| Drain wire cross section                                                                                                                                                                              | 26 AWG, TC (tinned copper)                |
| Conductor diameter                                                                                                                                                                                    | 0.044 "                                   |
| Conductor material                                                                                                                                                                                    | TC (tinned copper)                        |
| Core insulation                                                                                                                                                                                       | PVC                                       |
| Core cross-section                                                                                                                                                                                    | 10 x 24 AWG [Similar to 0.25 mm²]         |
| Arrangement of strands                                                                                                                                                                                | 19 x 36 AWG                               |
| Core colors                                                                                                                                                                                           | BU, PK, BN, GN, GY, VT, YL, BK, WH, RD    |
| <b>Electrical properties at +20 °C</b>                                                                                                                                                                |                                           |
| Rated voltage                                                                                                                                                                                         | 30 VDC                                    |
| Current                                                                                                                                                                                               | 2 A per signal contact, total current 6 A |
| <b>Mechanical and chemical properties</b>                                                                                                                                                             |                                           |
| Bending radius (stationary installation)                                                                                                                                                              | ≥ 5 x Ø                                   |
| Bending radius (flexible use)                                                                                                                                                                         | ≥ 15 x Ø                                  |
| Cold flexural strength                                                                                                                                                                                | -40 °C                                    |
| Ambient temperature range (stationary)                                                                                                                                                                | -40 °C...+85 °C                           |
| Ambient temperature range (In motion)                                                                                                                                                                 | 5 °C...+85 °C                             |
| Ambient temperature during installation                                                                                                                                                               | -10 °C...+85 °C                           |
| <b>Approval</b>                                                                                                                                                                                       |                                           |
| Approvals                                                                                                                                                                                             | CE<br>RoHS                                |
| <b>Note</b>                                                                                                                                                                                           |                                           |
| Using the cable in extreme temperatures, when it is exposed to certain chemicals and above the nominal cycle speed or below the nominal bending radius of the cable can reduce the flexural strength. |                                           |
| - We reserve the right to make technical modifications without prior notice.                                                                                                                          |                                           |



Scope of delivery

| Device         | Quantity | Description                            |
|----------------|----------|----------------------------------------|
| Junction boxes | 1        | Passive actuator/sensor junction box   |
| VS-M12-BK      | 2        | Closure caps for M12 female connectors |
| KS9/20         | 5        | Labels                                 |

Accessories

| Ident-No. | Designation             | Description                                                            |
|-----------|-------------------------|------------------------------------------------------------------------|
| 6900197   | CK12-0                  | Field-wireable female M23, 12-pin, straight                            |
| 6931889   | CS12-0                  | Field-wireable male M23, 12-pin, straight                              |
| 6931780   | CKCM12-11-5/S90         | Connection cable, M23 female, straight, 12-pin, 5 m*                   |
| 6931781   | CKCM12-11-10/S90        | Connection cable, M23 female, straight, 12-pin, 10 m*                  |
| 6931885   | CKCWM12-11-5/S90        | Connection cable, M23 female, angled, 12-pin, 5 m*                     |
| 6931886   | CKCWM12-11-10/S90       | Connection cable, M23 female, angled, 12-pin, 10 m*                    |
| 6931782   | CSCM-CK-CM12-11-5/S90   | Extension cable, male M23 - female M23, straight, 12-pin, 5 m *        |
| 6931783   | CSCM-CK-CM12-11-10/S90  | Extension cable, male M23 - female M23, straight, 12-pin, 10 m *       |
| 6931887   | CSCM-CK-CWM12-11-5/S90  | Extension cable, male M23 straight - female M23 angled, 12-pin, 5 m *  |
| 6931888   | CSCM-CK-CWM12-11-10/S90 | Extension cable, male M23 straight - female M23 angled, 12-pin, 10 m * |
| 6625616   | RKC5T-2-RSC5T/TXL       | Actuator/sensor cable, female M12 - male M12, straight, 5-pin, 2 m *   |
| 6936055   | VS-M12-BK               | Closure caps for M12 female connectors                                 |
| 8015002   | KS9/20                  | Labels                                                                 |

\* Other lengths available on request

Circuit Diagram

