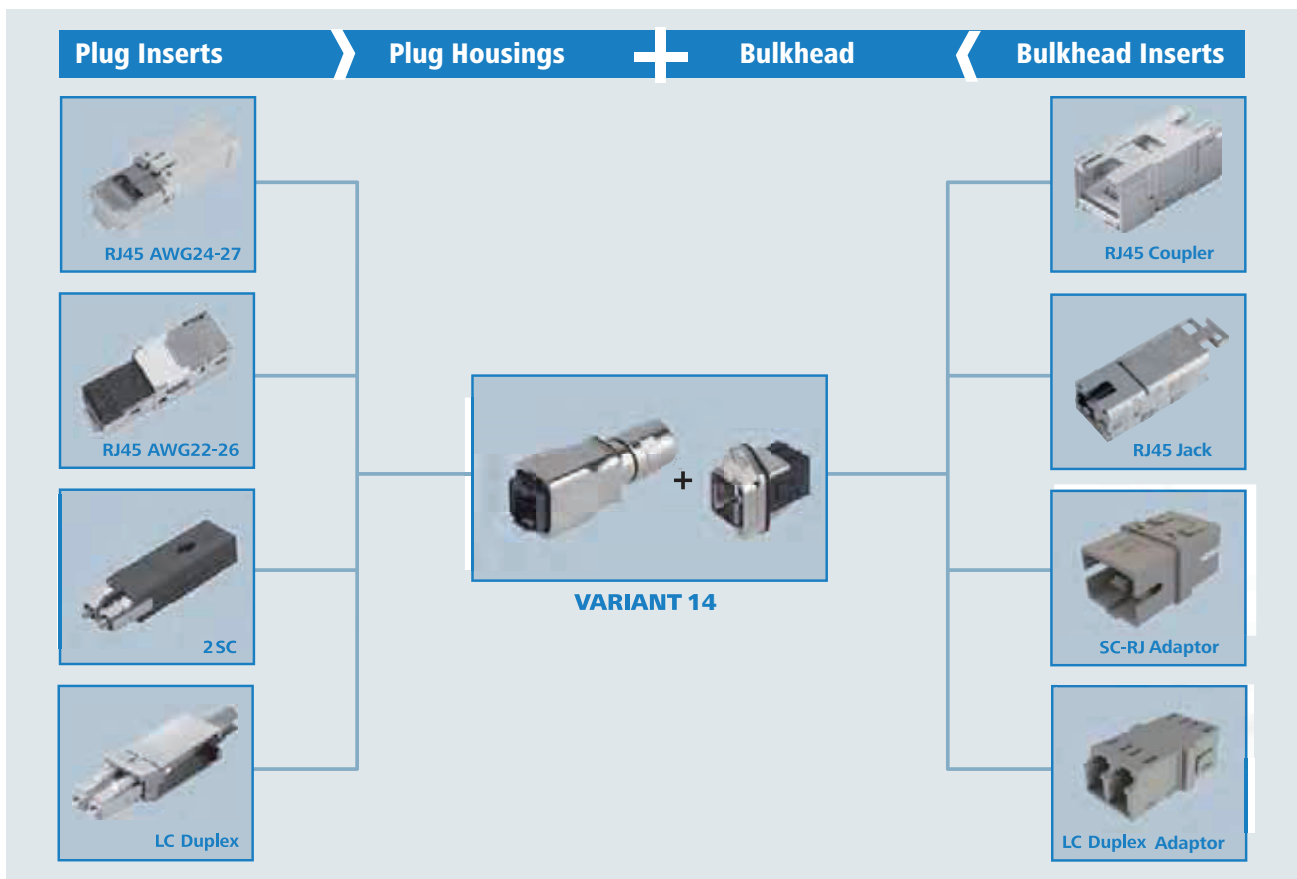


For the installation of data networks as per IEC 61918, IEC 61784-5 and PROFINET system guide, Telegärtner recommends for harsh environments the Push-Pull connector of Variant 14 acc. to IEC 61076-3-117. Moreover this connector series is compliant to the requirements of AIDA (Automation Initiative of the German Automotive Industry) guaranteeing protection class IP67. The modular principle - which is used on

all connectors with STEADYTEC®-Technology - allows us to offer a wide range of products. Benefit from maximum flexibility and choose the insert you need! The RJ45 inserts stand out due to high power reserves and offer transmission characteristics up to 10 Gbit Ethernet. The FO plug and bulkhead inserts are available for GOF and POF/PCF fibres and provide the most suitable solution for every application.

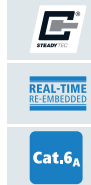
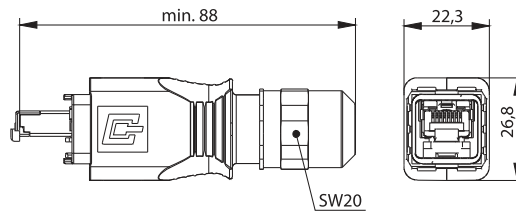
### Performance Characteristics

- Variant 14 acc. to IEC 61076-3-1117
- protection class IP67
- available with RJ45 Cat.6A, Cat.6 Class EA, USB or FO insert
- rugged zinc-diecast housing, nickel plated
- plug housing suitable for cables with diameter 5-10 mm
- pre-assembled plugs and set products for simple assembly
- bulkhead version having round cutout for central screw mounting
- bulkhead version having rectangular cutout for mounting with M3 screws
- NBR aigulette at the protection cap
- bay for marking labels

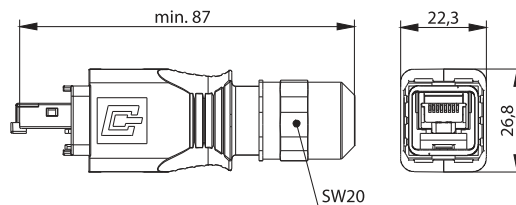


## RJ45 Plug Sets Variant 14

3.8.1



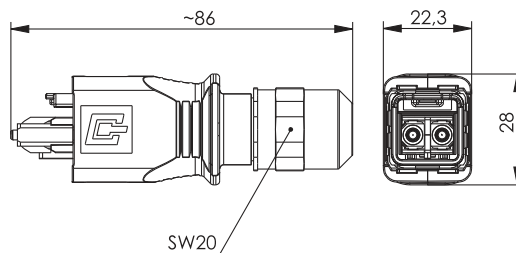
Order no.	Description	Solid/Stranded	Housing	Remarks
J80026A0019	STX V14 RJ45 plug set Cat.6 <sub>A</sub>	AWG24-27	metal	without bend protection



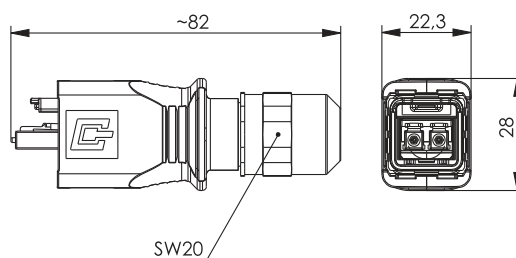
Order no.	Description	Solid/Stranded	Housing	Remarks
J80026A0021	STX V14 RJ45 plug set Cat.6 Class E <sub>A</sub>	AWG22-26	metal	field assembly, without bend protection

## FO Plug Sets Variant 14

3.8.2



Order no.	Description	Housing	Connector type	Fiber type	Remarks
J88083A0024	STX V14 FO plug set	metal	2SC	Singlemode	without bend protection
J88083A0022	STX V14 FO plug set	metal	2SC	Multimode	without bend protection
J88083A0026	STX V14 FO plug set	metal	2SC	POF	without bend protection



Order no.	Description	Housing	Connector type	Fiber type	Remarks
J88073A0014	STX V14 FO plug set	metal	LC Duplex	Singlemode	without bend protection
J88073A0012	STX V14 FO plug set	metal	LC Duplex	Multimode	without bend protection

3.8

# Components for Field Cabling

## - M12/RJ45/FO

## 3.8

## Variant 14

## 3.8.3

## RJ45 Plug Inserts Variant 14

	Plug Insert AWG24-27	Plug Insert AWG22-26
<b>Standards</b>		
Custom-designed cabling systems	-	PROFINET Installation Guideline
Generic cabling systems	ISO/IEC 11801; EN 50173-1; ISO/IEC 24702; IEC 61918	
Connectors	IEC 60603-7-51	IEC 60603-7-5
Degrees of protection provided by enclosures (IP code)	IEC 60529	IEC 60529
<b>Mechanical Characteristics</b>		
Insertion force	≤ 30 N	≤ 30 N
Durability (mating cycles)	≥ 750	≥ 750
Material: connector housing	PC UL94 V0 crystal clear	zinc diecast, nickel plated
Material: contacts	phosphor bronze	tin bronze
Material: contact finish	min. 0.8 µm Au on 2.54 µm Ni	min. 0.8 µm Au on 2.54 µm Ni
Material: contact IDC termination	-	tin bronze
Material: IDC termination finish	-	tin plated
Material: shield	0.5 mm brass	German silver
Material: shield finish	2 µm Ni	-
Cu-Conductor diameter: stranded	0.46 - 0.61 mm AWG 27/7 - AWG 24/7	0.48 - 0.76 mm AWG 26/7 - AWG 22/7
Cu-Conductor diameter: solid	0.36 - 0.51 mm AWG 27/1 - AWG 24/1	0.41 - 0.64 mm AWG 26/1 - AWG 22/1
Core Diameter	0.85 - 1.05 mm	0.85 - 1.6 mm
Cable diameter	5.0 - 7.3 mm	5.5 - 8.5 mm
<b>Environmental Requirements</b>		
Protection against particulate ingress	IP2X	IP2X
Protection against water / immersion	IPX0	IPX0
Ambient temperature	-40° C to + 70° C	-40° C to + 70° C
Rapid change of temperature	-40° C to + 70° C / 25 cycles t=30 min.	-40° C to + 70° C / 25 cycles t=30 min.
Climatic damp heat	+25° C / +65° C / 93% RH // -10° C / 21 cycles	
Flowing mixed gas	+25° C / 73% RH / 4 days, H <sub>2</sub> S / SO <sub>2</sub>	
<b>Climatic Characteristics</b>		
Temperature range [°C]	-40° C to 70° C	-40° C to 70° C
<b>Electrical Characteristics</b>		
Current carrying capacity at 50°C	1 A	1 A
PoE+ acc to IEEE 802.3at	fulfilled	fulfilled
<b>Transmission Characteristics</b>		
10 Gigabit Ethernet acc. to IEEE 802.3an	fulfilled	fulfilled
Category 6A (Component)	ISO/IEC 11801, DIN EN 50173-1	-
Class E <sub>A</sub> (Channel)	ISO/IEC 11801, DIN EN 50173-1	ISO/IEC 11801, DIN EN 50173-1

## 3.8.4

## FO Plug Inserts Variant 14

	Plug Insert 25C	Plug Insert LC Duplex
<b>Standards</b>		
Generic cabling systems	ISO/IEC 11801; EN 50173-1; ISO/IEC 24702; IEC 61918	
Custom-designed cabling systems	PROFINET Installation Guideline	-
Connectors	similar to IEC 61754-24	IEC 61754-20
Degrees of protection provided by enclosures (IP code)	IEC 60529	IEC 60529
<b>Mechanical Characteristics</b>		
Insertion force	≤ 30 N	≤ 30 N
Durability (mating cycles)	≥ 500	≥ 500
Material: plug retainer	PA 66	zinc diecast, nickel plated
Material: plug	SC	LC
Material: ferrule	Zirconia	Zirconia
Material: fixing part	-	PBT
Material: crimp sleeve	Copper nickel-plated	Copper nickel plated
Material: cable boot	TPE black	TPE black
Material: protection cap	TPE	PP
Buffered optical fiber diameter	0.9 mm	0.9 mm
Subcable diameter	2.5-3 mm	2.5-3 mm
Overall cable diameter	5.0-8.0 mm	5.0-8.0 mm

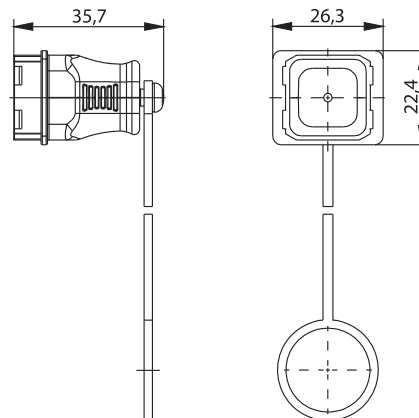
	Plug Insert 25C	Plug Insert LC Duplex
<b>Environmental Requirements</b>		
Protection against particulate ingress	IP2X	IP2X
Protection against water / immersion	IPX0	IPX0
Ambient temperature	-40° C to +65° C	-40° C to + 70° C
Rapid change of temperature	-40° C bis +65° C / 25 cycles t=30 min	-40° C to +85° C / 25 cycles t=30 min
Climatic damp heat	-40° C / +65° C / rhmax=85% / rhmin=20% / 21 cycles	
<b>Electrical Characteristics</b>		
Insertion loss	Singlemode: max. 0.5 dB; Multimode: max. 0.4 dB	Singlemode: max. 0.5 dB; Multimode: max. 0.4 dB
Return loss	min. 30 dB	min. 30 dB

## Protection Cap for Plug Variant 14

3.8.5

### Performance Characteristics

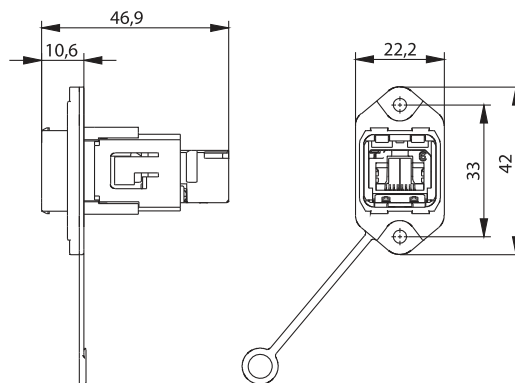
- plug protective cap for plug housing complying with IEC 61076-3-117 Variant 14
- to protect plug inserts inside of plug housing Variant 14
- protection class IP67 in combination with plug housing
- protection class IP67 in combination with bulkhead protective cap
- rugged PA UL 94V-0
- high resistance to chemicals
- captive, attached protective cap
- grip facility for pulling off
- push-pull locking



Order no.	Description	Remarks
H80030A0003	STX V14 plug protection cap	plastic

## RJ45 Bulkhead Sets Variant 14

3.8.6



Order no.	Description	Housing	Insert	Remarks	Mount. dim.
J80020A0010	STX V14 standard bulkhead set	metal	RJ45 coupler Cat.6 Class E <sub>A</sub>	rectangular mounting cutout	Z132

3.8


## Components for Field Cabling - M12/RJ45/FO





3.8

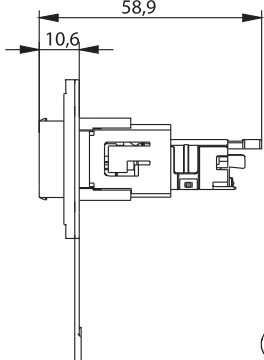
Variant 14

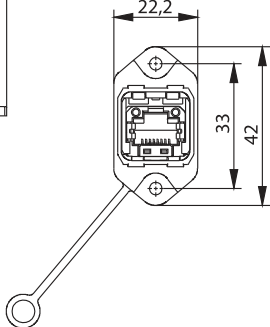
3.8.6

RJ45 Bulkhead Sets Variant 14






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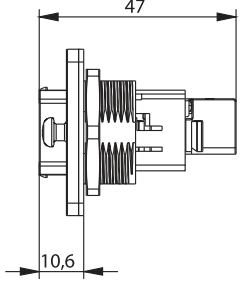


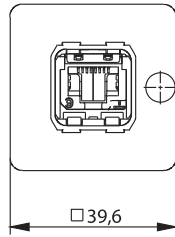


Order no.	Description	Housing	Insert	Remarks	Mount. dim.
J80020A0011	STX V14 standard bulkhead set	metal	RJ45 Modul A Cat.6 <sub>A</sub>	rectangular mounting cutout	Z132








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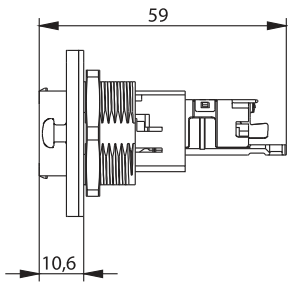


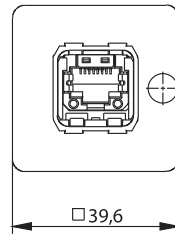


Order no.	Description	Housing	Insert	Remarks	Mount. dim.
J80020A0012	STX V14 central bulkhead set	metal	RJ45 coupler Cat.6 Class E <sub>A</sub>	round mounting cutout	Z133

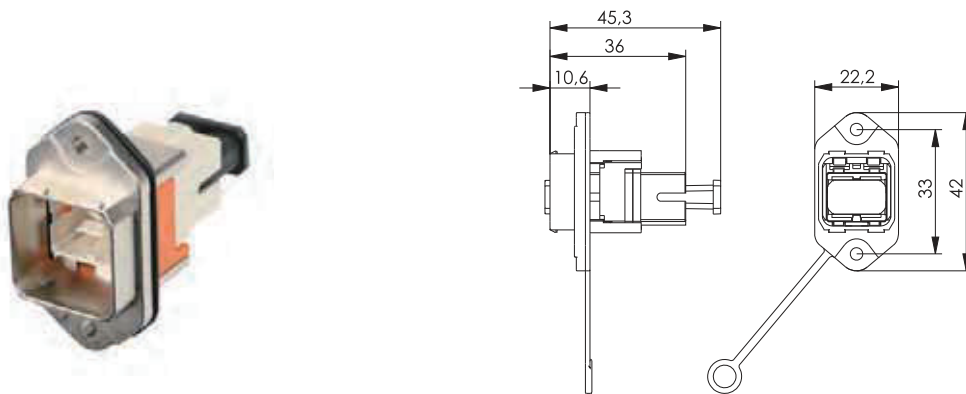


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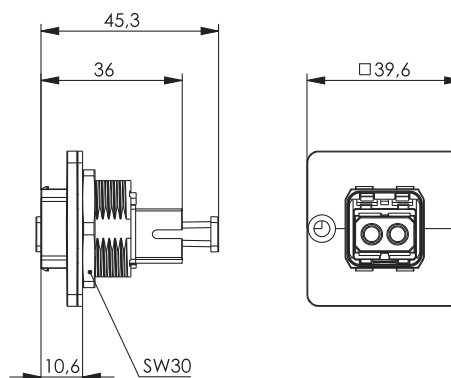




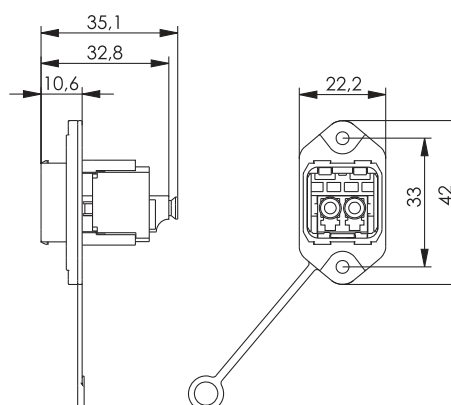
Order no.	Description	Housing	Insert	Remarks	Mount. dim.
J80020A0013	STX V14 central bulkhead set	metal	RJ45 Modul A Cat.6 <sub>A</sub>	round mounting cutout	Z133



Order no.	Description	Housing	Fiber type	Insert	Remarks	Mount. dim.
J88084A0007	STX V14 standard bulkhead set	metal	Singlemode	SC-RJ adaptor	rectangular mounting cutout	Z132
J88084A0006	STX V14 standard bulkhead set	metal	Multimode	SC-RJ adaptor	rectangular mounting cutout	Z132



Order no.	Description	Housing	Fiber type	Insert	Remarks	Mount. dim.
J88084A0009	STX V14 central bulkhead set	metal	Singlemode	SC-RJ adaptor	round mounting cutout	Z133
J88084A0008	STX V14 central bulkhead set	metal	Multimode	SC-RJ adaptor	round mounting cutout	Z133



Order no.	Description	Housing	Fiber type	Insert	Remarks	Mount. dim.
J88074A0007	STX V14 standard bulkhead set	metal	Singlemode	LC Duplex adaptor	rectangular mounting cutout	Z132
J88074A0006	STX V14 standard bulkhead set	metal	Multimode	LC Duplex adaptor	rectangular mounting cutout	Z132

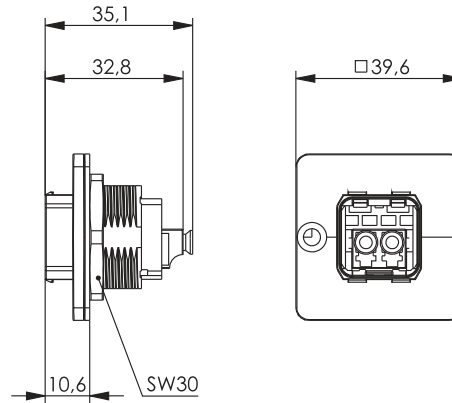
## Components for Field Cabling - M12/RJ45/FO

### 3.8

#### Variant 14

#### 3.8.7

##### FO Bulkhead Sets Variant 14



Order no.	Description	Housing	Fiber type	Insert	Remarks	Mount. dim.
J88074A0009	STX V14 central bulkhead set	metal	Singlemode	LC Duplex adaptor	round mounting cutout	Z133
J88074A0008	STX V14 central bulkhead set	metal	Multimode	LC Duplex adaptor	round mounting cutout	Z133

#### 3.8.8

##### RJ45 Bulkhead Inserts Variant 14

	STX RJ45 Jack	STX RJ45 Coupler
<b>Standards</b>		
Custom-designed cabling systems	ISO/IEC 11801; EN 50173-1; ISO/IEC 24702; IEC 61918	
Generic cabling systems	PROFINET Installation Guideline	PROFINET Installation Guideline
Connectors	IEC 60603-7-51	IEC 60603-7-5
Degrees of protection provided by enclosures (IP code)	IEC 60529	IEC 60529
<b>Mechanical Characteristics</b>		
Insertion force	≤ 30 N	≤ 30 N
Durability (mating cycles)	≥ 750	≥ 750
Material: jack housing	zinc diecast	zinc diecast
Material: housing finish	CuSnZn	nickel plated
Material: contacts	spring steel	spring steel
Material: contact finish	min. 0.8 μm Au on 1.2 μm Ni	min. 0.8 μm Au on 1.2 μm Ni
Material: shield	German silver	German silver
Material: contact IDC termination	CuNi2Si	-
Material: IDC termination finish	min. 3-6 μm Sn	-
Cu-Conductor diameter: stranded	0.46 - 0.76 mm AWG 27/7 - AWG 22/7	-
Cu-Conductor diameter: solid	0.41 - 0.64 mm AWG 26/1 - AWG 22/1	-
Core Diameter	0.9 - 1.6 mm	
Reusable IDC for AWG 22/1; AWG 22/7	≤4 cycles	
Reusable IDC für AWG 23/1 - AWG 26/1; AWG 24/7 - AWG 26/7	≤10 cycles	
<b>Environmental Requirements</b>		
Protection against particulate ingress	IP2X	IP2X
Protection against water / immersion	IPX0	IPX0
Ambient temperature	-40° C to + 70° C	-40° C to + 70° C
Rapid change of temperature	-40° C to + 70° C / 25 cycles t=30 min.	-40° C to + 70° C / 25 cycles t=30 min.
Climatic damp heat	+25° C / +65° C / 93% RH // -10° C / 21 cycles	
Flowing mixed gas	+25° C / 73% RH / 4 days, H <sub>2</sub> / SO <sub>2</sub>	
<b>Climatic Characteristics</b>		
Temperature range [°C]	-40° C to 70° C	-40° C to 70° C
<b>Electrical Characteristics</b>		
Current carrying capacity at 50°C	1 A	1 A
PoE+ acc to IEEE 802.3at	fulfilled	fulfilled