

Product Overview

# Harnessflex TempGuard system

## High temperature wiring harnesses

**Harnessflex**  
SPECIALIST CONDUIT SYSTEMS

Power and productivity  
for a better world™ **ABB**

# Harnessflex TempGuard system

## High temperature wiring harnesses



The **NEW** TempGuard range from Harnessflex has been designed to satisfy the market demand for a complete wiring harness protection solution, which can handle long term exposure to high temperatures.

As a leading designer and manufacturer of flexible conduit systems, fittings and connector interfaces, Harnessflex is well known for providing automotive manufacturers across the globe, with solutions that protect vehicle wiring against damage from mechanical abrasion, liquid and dust ingress, and corrosive salts.

Our **NEW** TempGuard system has been designed to meet the increasing demands of today's engines. EGR systems that recycle an engine's waste gases, the use of single or multiple turbos to improve tractability, power and fuel efficiency have all contributed to higher temperature areas within a vehicle's engine. The TempGuard conduit and fittings system is designed to work specifically with high temperature wiring, allowing them to successfully operate at up to 200°C, with long term heat aging, tensile and impact strength testing carried out to ensure the reliability and validity of the range. Through improved system performance and integrity TempGuard reduces running costs, minimises breakdowns and downtime, increasing overall productivity.

### Features & benefits

- High temperature range of (up to 200°C) for conduit and fittings - offering greater protection for wiring
- Very high flexibility & fatigue life, with protection from heat, abrasion, vibration and automotive fluids in all harness routing areas
- High temperature Polyamide fittings
- High temperature Co-Polyester conduit
- UL94 V2 certified fittings
- Products tested for tensile and impact strength

Harnessflex TempGuard allows increased usage of components at higher engine temperatures, due to:

- Turbo use
- Increased engine efficiency
- Reduced noise





We offer advice on any specific application, e-mail the technical team at [cmg.conduitsystems@tnb.com](mailto:cmg.conduitsystems@tnb.com)

### Applications

The TempGuard launch range includes:

- HTC08 to HTC20 conduit
- T & Y-Piece fittings
- Straight & elbow fittings

Connector Interfaces:

- AMP Junior and Mini Timer
- AMP Superseal
- Ampseal 16 connectors
- Bosch connectors
- Deutsch connectors
- FCI Apex 2.8 connectors



# Harnessflex TempGuard system

## Solving automotive routing temperature issues



### Approvals

**CE Mark** to the Low Voltage Directive

**RoHS Compliant** to 2011/65/EU

Conforms with **End of Life Vehicle directive (ELV) EU200/53/EC**



Designed to operate at temperatures up to 200°C, TempGuard systems provide a complete high temperature solution for the automotive market.

Modern engine design has continually evolved to meet changing times. Global regulations such as Euro 6, USA10, and Tier 4 for off-highway heavy duty vehicles have mandated that manufacturers reduce emission levels. This required reduction, along with changes to engine design to improve safety, reduce noise and improve efficiency, have resulted in higher engine temperatures and led to the automotive industry actively looking for a complete and effective solution to protect the wiring and connectors in their engines.

Harnessflex have responded to market demand, by creating it's new range of high temperature conduits and fittings, designed to operate at temperatures up to 200°C. Created from the outset for use as a full system, the range is made from specialist co-polyester and polyamide respectively, that provide long-term heat, age, tensile, and impact strength to protect vital cable connections. The system has endured long term heat age testing to ensure consistent performance.

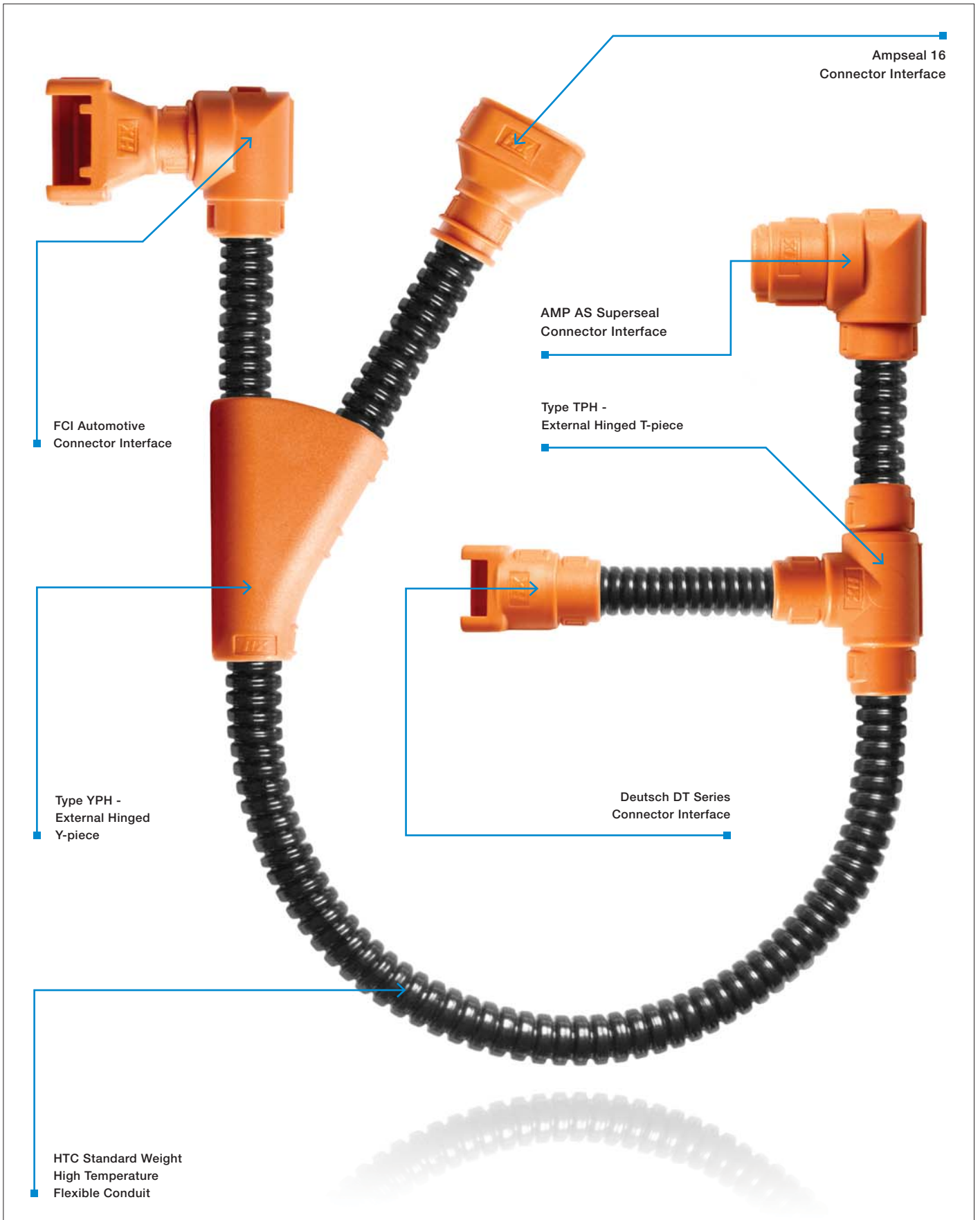
The TempGuard system is manufactured from low smoke, zero halogen materials, with a temperature operating range suited to the heat demands of today's engines.

The system provides higher performance levels of flexibility, impact and abrasion resistance, combined with enhanced chemical resistances especially to oils and greases for aggressive engine compartment environments. The range includes HTC08 - HTC20 conduit, with respective T and Y-Piece fittings, straight and elbow joiners, along with connectors for AMP, Bosch, Deutsch and FCI.

**A working high temperature sample harness is available for order and global shipping (see the sample harness opposite).**

# Harnessflex TempGuard system

## High temperature harness - Sample



# Harnessflex TempGuard system

## Range overview



Type	Type JPH - External Hinged Joiner	Type EPH - External Hinged Elbow	Type TPH - External Hinged T-Piece	Type YPH - External Hinged Y-Piece	Two-piece X Configuration fitting	AMP AS Superseal Swivel Interface
Part number	JPH	EPH	TPH	YPH	XPH	CIH-AS
Description	One-piece joiner hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit or unslit conduit, maintaining maximum conduit bore. Can be used as a reducer as well as an enlarger.	One-piece elbow joiner hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit or unslit conduit, maintaining maximum conduit bore. Can be used as a reducer as well as an enlarger.	One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of Harnessflex conduits in extreme temperature applications.	One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.	Two-piece X configuration fitting. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.	Single junction straight and 90° elbow interfaces providing high integrity connections between AS - AMP Superseal connectors and Harnessflex conduit systems. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.
Material	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)
For use with	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit
<b>Colour</b>						
Orange	•	•	•	•	•	•
Black	–	–	–	–	–	–
<b>IP Rating (with appropriate fitting)</b>						
IP40	•	•	•	•	•	•
<b>Characteristics</b>						
<b>Temperature Range</b>						
Minimum	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C
Permanent max.	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C
Long term max. (30,000 hrs)	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C
Short term max. (3000 hrs)	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C
Mechanical protection	Medium	Medium	Medium	Medium	Medium	Medium
UV resistance	High	High	High	High	High	High
Flexibility	–	–	–	–	–	–
Fatigue life	–	–	–	–	–	–
Low smoke / Halogen free	•	•	•	•	•	•
Self extinguishing	•	•	•	•	•	•
High abrasion resistance	•	•	•	•	•	•
<b>Approvals</b>						
CE	•	•	•	•	•	•
UL94 V2	•	•	•	•	•	•
RoHS to 2011/65/EU	•	•	•	•	•	•
ELV EU200/53/EC	•	•	•	•	•	•
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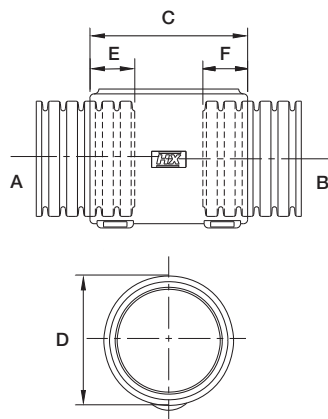
# TempGuard hinged fittings

## Type JPH & EPH - External hinged joiner & external hinged elbow



Type JPH  
External High Temperature  
Hinged Joiner

### Dimensions



### Type JPH - External High Temperature Hinged Joiner

One-piece joiner and elbow hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

Part No.	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
	A	B	A	B	C	D	E	F
JPH1212	12	12	10	10	36mm	16mm	10mm	10mm
JPH1612	16	12	13	10	36mm	21mm	10mm	10mm

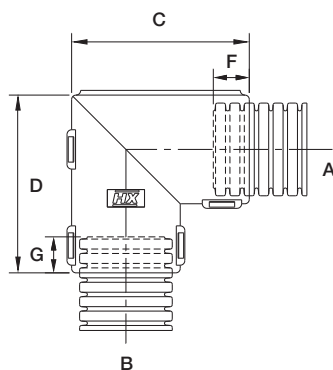
Part No.	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
	A	B	A	B	C	D	E	F
JPH1208*	12	08	10	7.5	38mm	16mm	10mm	10mm
JPH1616*	16	16	13	13	36mm	21mm	10mm	10mm
JPH2008*	20	08	17	7.5	38mm	26mm	12mm	10mm
JPH2016*	20	16	17	13	38mm	26mm	12mm	10mm
JPH2020*	20	20	17	17	38mm	26mm	12mm	12mm

\*Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime



Type EPH  
External High Temperature  
Hinged Elbow

### Dimensions



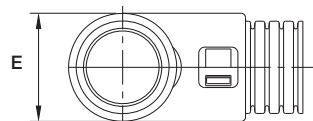
### Type EPH - External High Temperature Hinged Elbow

One-piece joiner and elbow hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

Part No.	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
	A	B	A	B	C	D	E	F	G
EPH1612	16	12	13	10	34mm	34mm	21mm	10mm	10mm
EPH1616	16	16	13	13	34mm	34mm	21mm	10mm	10mm
EPH2020	20	20	17	17	41mm	41mm	26mm	12mm	12mm

Part No.	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
	A	B	A	B	C	D	E	F	G
EPH08S08*	08	08	7.5	7.5	38mm	29mm	20mm	10mm	10mm
EPH12S12*	12	12	10	10	38mm	29mm	20mm	10mm	10mm
EPH1608*	16	08	10	7.5	34mm	34mm	21mm	10mm	10mm
EPH2008*	20	08	17	7.5	41mm	39mm	26mm	12mm	10mm
EPH2016*	20	16	17	13	41mm	41mm	26mm	12mm	10mm

\*Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime



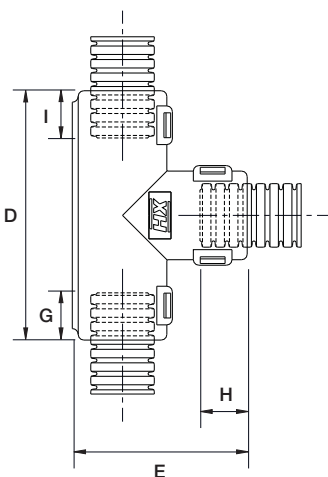
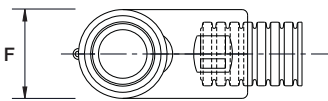
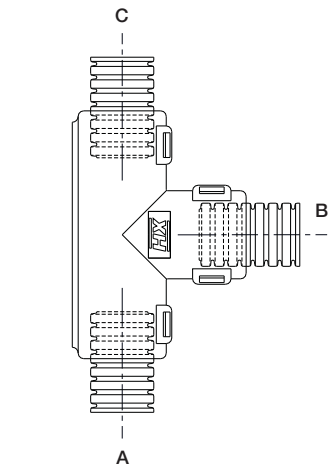
# TempGuard hinged fittings

## Type TPH - External hinged T-piece



Type TPH  
External High Temperature  
Hinged T-piece

### Dimensions



### Type TPH - External High Temperature Hinged T-piece

One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore.

Part No.	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
TPH080808	08	08	08	7.5	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH081208	08	12	08	7.5	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH120808	12	08	08	10	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH120812	12	08	12	10	7.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121208	12	12	08	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121212	12	12	12	10	10	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121612	12	16	12	10	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH160812	16	08	12	13	7.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH160816	16	08	16	13	7.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161212	16	12	12	13	10	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161216	16	12	16	13	10	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161608	16	16	08	13	13	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161612	16	16	12	13	13	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161616	16	16	16	13	13	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH162012	16	20	12	13	17	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH162016	16	20	16	13	17	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH200816	20	08	16	17	7.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPH200820	20	08	20	17	7.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
TPH201216	20	12	16	17	10	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPH201220	20	12	20	17	10	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
TPH201616	20	16	16	17	13	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPH201620	20	16	20	17	13	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
TPH202012	20	20	12	17	17	10	56.5mm	41.0mm	26mm	12mm	12mm	10mm
TPH202016	20	20	16	17	17	13	56.5mm	41.0mm	26mm	12mm	12mm	10mm
TPH202020	20	20	20	17	17	17	56.5mm	41.0mm	26mm	12mm	12mm	12mm

Part No.	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
TPH081612*	08	16	12	7.5	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH100808*	10	08	08	8.5	7.5	7.5	45.2mm	31.7mm	17mm	10mm	10mm	10mm
TPH101010*	10	10	10	8.5	8.5	8.5	45.2mm	31.7mm	17mm	10mm	10mm	10mm
TPH101012*	10	10	12	8.5	8.5	13	45.2mm	31.7mm	17mm	10mm	10mm	10mm
TPH121010*	12	10	10	10	8.5	8.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121012*	12	10	12	10	8.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121210*	12	12	10	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH160808*	16	08	08	13	7.5	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161012*	16	10	12	13	8.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH161016*	16	10	16	13	8.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPS201016*	20	10	16	17	8.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPS201020*	20	10	20	17	8.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
TPS201612*	20	16	12	17	13	10	56.5mm	41.0mm	26mm	12mm	10mm	10mm

\*Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime

# TempGuard hinged fittings

## Type YPH - External hinged Y-piece



Type YPH  
External High Temperature  
Hinged Y-piece

### Type YPH - External High Temperature Hinged Y-piece

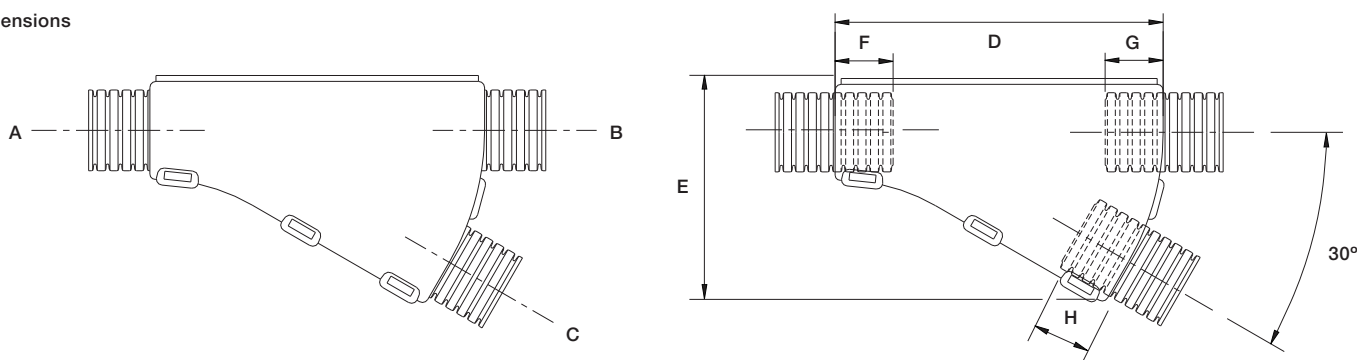
One-piece asymmetrical 3 junction fittings allow a variety of conduit variations. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore.

Part No.	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
	A	B	C	A	B	C	D	E	F	G	H
YPH080808	08	08	08	7.5	7.5	7.5	55mm	37mm	10mm	10mm	10mm
YPH120808	12	08	08	10	7.5	7.5	55mm	37mm	10mm	10mm	10mm
YPH120810	12	08	10	10	7.5	8.5	55mm	37mm	10mm	10mm	10mm
YPH121208	12	12	08	10	10	7.5	55mm	37mm	10mm	10mm	10mm
YPH121212	12	12	12	10	10	10	55mm	37mm	10mm	10mm	10mm
YPH161208	16	12	08	13	10	7.5	55mm	40mm	10mm	10mm	10mm
YPH161212	16	12	12	13	10	10	55mm	40mm	10mm	10mm	10mm
YPH161608	16	16	08	13	13	7.5	55mm	40mm	10mm	10mm	10mm
YPH161612	16	16	12	13	13	10	55mm	40mm	10mm	10mm	10mm
YPH201212	20	12	12	17	10	10	43mm	37mm	12mm	10mm	10mm
YPH201616	20	16	16	17	13	13	48mm	40mm	12mm	10mm	10mm
YPH202008	20	20	08	17	17	7.5	56mm	45mm	12mm	10mm	10mm
YPH202012	20	20	12	17	17	10	58mm	45mm	12mm	12mm	10mm
YPH202016	20	20	16	17	17	13	64mm	48mm	12mm	12mm	10mm

Part No.	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
	A	B	C	A	B	C	D	E	F	G	H
YPH080812	08	08	12	7.5	7.5	10	55mm	37mm	10mm	10mm	10mm
YPH081208	08	12	08	7.5	10	7.5	55mm	37mm	10mm	10mm	10mm
YPH101010	10	10	10	8.5	8.5	8.5	55mm	37mm	10mm	10mm	10mm
YPH121010	12	10	10	10	8.5	8.5	55mm	37mm	10mm	10mm	10mm
YPH121210	12	12	10	10	10	8.5	55mm	37mm	10mm	10mm	10mm
YPH161010	16	10	10	13	8.5	8.5	55mm	40mm	10mm	10mm	10mm
YPH161210	16	12	10	13	10	8.5	55mm	40mm	10mm	10mm	10mm
YPH161610	16	16	10	13	13	8.5	55mm	40mm	10mm	10mm	10mm
YPH200808	20	08	08	17	7.5	7.5	43mm	37mm	12mm	10mm	10mm
YPH201208	20	12	08	17	10	7.5	43mm	37mm	12mm	10mm	10mm
YPH201210	20	12	10	17	10	8.5	43mm	37mm	12mm	10mm	10mm
YPH201608	20	16	08	17	13	7.5	43mm	37mm	12mm	10mm	10mm
YPH201612	20	16	12	17	13	10	48mm	40mm	12mm	10mm	10mm
YPH202010	20	20	10	17	17	8.5	58mm	45mm	12mm	12mm	10mm

\*Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime

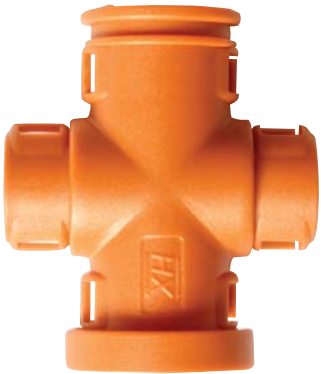
### Dimensions





# TempGuard two-piece fitting & Swivel interface

## Two-piece X configuration fitting & AMP AS Superseal

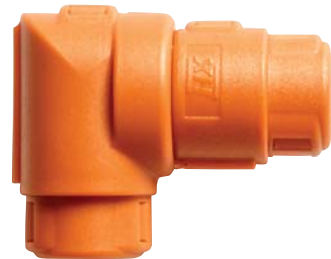
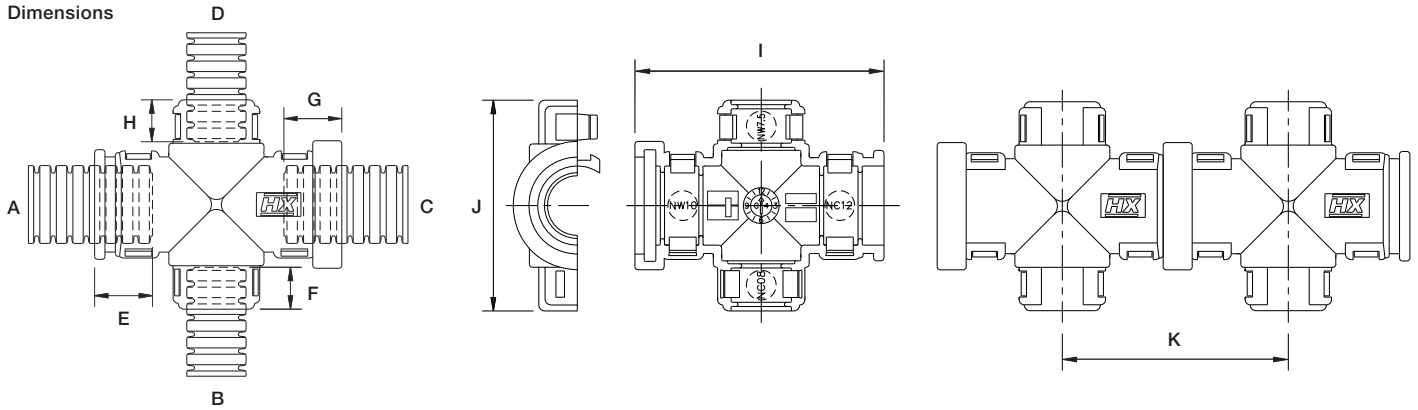


### Two-piece X Configuration Fitting

Two-piece X configuration fitting providing protection for in-line connectors, fuse links, circuit breakers and splicing areas. The strong construction allows for the protection of delicate connections, or as an alternative when an interface/backshell isn't available. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore.

Part No.	Conduit Size (NC)				Conduit Size (NW)				Conduit Engagement				Nominal Dimensions		
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K
XPH1208	12	08	12	08	10	7.5	10	7.5	9.5mm	7mm	9.5mm	7mm	42.3mm	5.5mm	38mm

### Dimensions



### AMP AS Superseal Swivel Interface - High Temperature External Hinged Connector Interface

Single junction straight and 90° elbow interfaces providing high integrity, high temperature connection protection between AS - AMP Superseal connectors and Harnessflex conduit systems. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement or vibration.



AMP AS Superseal  
High Temperature Straight &  
90° Elbow Swivel Interface

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>AMP AS Superseal Straight Interface</b>								
CIH08-AS2	08	7.5	22.4mm	20.5mm	18.0mm	10.0mm	2 Way	282080-1*
CIH08-AS3	08	7.5	22.4mm	26.5mm	18.0mm	10.0mm	3 Way	282087-1*
CIH08-AS4	08	7.5	34.0mm	33.0mm	18.0mm	10.0mm	4 Way	282088-1*
CIH12-AS2	12	10	22.4mm	20.5mm	18.0mm	10.0mm	2 Way	282080-1*
CIH12-AS4	12	10	34.0mm	33.0mm	19.0mm	10.0mm	4 Way	282088-1*

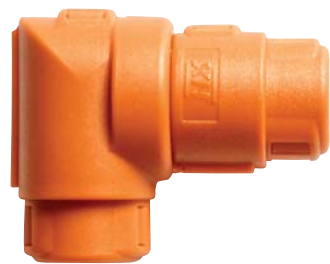
Part No.	Conduit Size Nominal		Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>AMP AS Superseal 90° Elbow Swivel Interface</b>								
CIH08-90-AS2	08	7.5	33.3mm	30.3mm	18.0mm	10.0mm	2 Way	282080-1*

### Dimensions

Dimensional drawings are the same as AMP Junior & Mini Timer  
See diagrams opposite, on page 13

# TempGuard external hinged connector interfaces

## AMP Junior & Mini timer



AMP Junior & Mini Timer  
High Temperature Straight &  
90° Elbow Swivel Interface

### AMP Junior & Mini Timer - High Temperature External Hinged Connector Interface

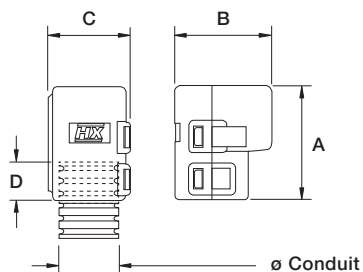
Single junction straight and 90° elbow interfaces providing high integrity, high temperature connection protection between AMP Superseal or Junior timer connectors and Harnessflex conduit systems in elevated temperature areas. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement or vibration.

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>AMP Junior &amp; Mini Timer Straight Interface</b>								
CIH08-AM2	08	7.5	24.9mm	21.3mm	18.0mm	10.0mm	2 Way	347887-3*
CIH08-AM3	08	7.5	24.9mm	27.2mm	18.0mm	10.0mm	3 Way	1-827578-1*
CIH08-AM4	08	7.5	37.0mm	32.0mm	19.0mm	10.0mm	4 Way	281804-1*
CIH12-AM2	12	10	24.9mm	21.3mm	18.0mm	10.0mm	2 Way	347887-3*
CIH12-AM4	12	10	37.0mm	32.0mm	19.0mm	10.0mm	4 Way	281804-1*

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>AMP Junior &amp; Mini Timer 90° Elbow Swivel Interface</b>								
CIH08-90-AM2	08	7.5	35.7mm	30.3mm	21.3mm	7.0mm	2 Way	347887-3*
CIH08-90-AM3	08	7.5	35.7mm	30.3mm	27.2mm	7.0mm	3 Way	1-827578-1*
CIH08-90-AM4	08	7.5	39.5mm	30.3mm	32.0mm	7.0mm	4 Way	281804-1*
CIH12-90-AM2	12	10	35.7mm	30.3mm	21.3mm	7.0mm	2 Way	347887-3*

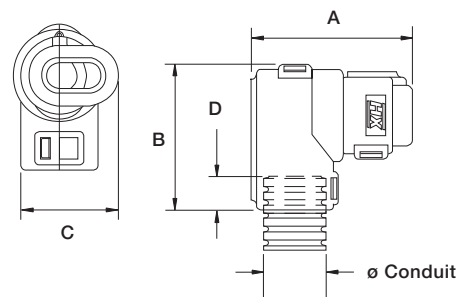
#### Dimensions

External straight connector interface



#### Dimensions

External 90° elbow connector interface



# TempGuard external hinged connector interfaces

## Ampseal 16



AMPSEAL 16  
High Temperature Straight  
& 90° Elbow Interface

### Ampseal 16 - High Temperature External Hinged Connector Interface

A range of straight and 90° elbow fittings offering a compact and high integrity connection between Ampseal automotive connectors and Harnessflex conduit systems. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure washing, helping to maintain the sealing integrity of the connector.

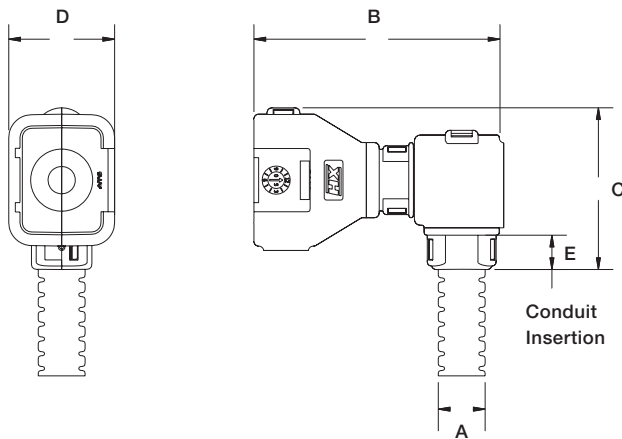
Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
<b>Ampseal 16 Straight Interface</b>								
CIH08-AT2PL	08	7.5	23.0mm	18.0mm	34.0mm	12.0mm	2 Way	776427-1*
CIH08-AT3PL	08	7.5	28.0mm	18.0mm	33.0mm	11.0mm	3 Way	776427-1*
CIH08-AT4PL	08	7.5	29.0mm	23.0mm	39.0mm	13.0mm	4 Way	776487-1*
CIH12-AT4PL	12	10	29.0mm	23.0mm	37.0mm	11.0mm	4 Way	776487-1*
CIH12-AT6PL	12	10	29.0mm	23.0mm	37.0mm	11.0mm	6 Way	776433-1*
CIH12-AT8PL	12	10	32.0mm	23.0mm	37.0mm	11.0mm	8 Way	776494-1*

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
<b>Ampseal 16 90° Elbow Interface</b>								
CIH08-90-AT2LP	08	7.5	37.3mm	25.0mm	17.0mm	7.1mm	2 Way	776427-1*
CIH08-90-AT3LP	08	7.5	39.8mm	29.0mm	17.1mm	7.1mm	3 Way	776427-1*
CIH08-90-AT2PL	08	7.5	49.0mm	32.0mm	20.0mm	7.1mm	2 Way	776427-1*
CIH08-90-AT3PL	08	7.5	49.0mm	34.0mm	20.0mm	7.1mm	3 Way	776427-1*
CIH12-90-AT2LP	12	10	38.0mm	23.0mm	20.0mm	7.1mm	2 Way	776427-1*
CIH12-90-AT3LP	12	10	40.2mm	27.1mm	17.1mm	7.1mm	3 Way	776427-1*
CIH12-90-AT3LR	12	10	40.2mm	27.1mm	17.1mm	7.1mm	3 Way	-
CIH12-90-AT6LP	12	10	43.1mm	27.5mm	22.5mm	7.1mm	6 Way	776433-1*

NOTE: LP = Plug, LR = Receptacle

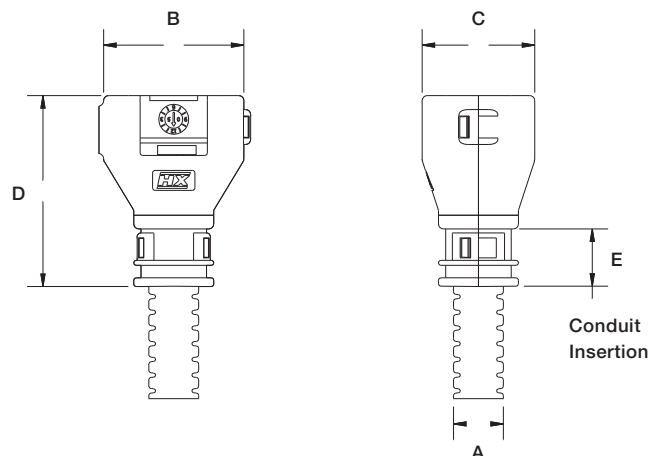
#### Dimensions

External 90° elbow connector interface



#### Dimensions

External straight connector interface





# TempGuard external hinged connector interfaces

## Bosch Compact



Bosch Compact  
High Temperature Straight  
& 90° Elbow Interface

### Bosch Compact - High Temperature External Hinged Connector Interface

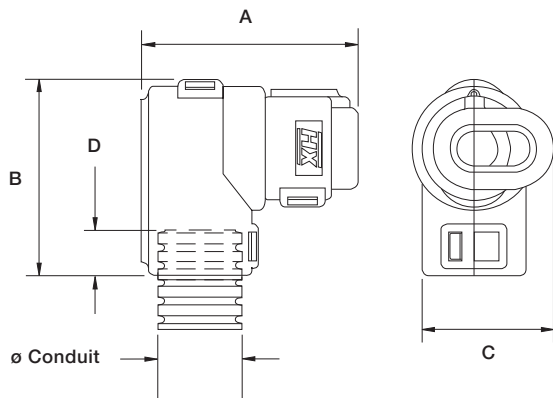
Single junction straight and 90° elbow fittings providing high integrity, high temperature connection between Bosch Compact connectors and Harnessflex conduit systems in elevated temperature areas. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement or vibration.

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>Bosch Compact Straight Interface</b>								
CIH08-BC2	08	7.5	25.0mm	21.3mm	18.0mm	10.0mm	2 Way	1 928 403 137*
CIH08-BC3	08	7.5	25.0mm	26.7mm	18.0mm	10.0mm	3 Way	1 928 403 110*
CIH12-BC2	12	10	25.0mm	21.3mm	18.0mm	10.0mm	2 Way	1 928 403 137*
CIH12-BC3	12	10	25.0mm	26.7mm	18.0mm	10.0mm	3 Way	1 928 403 110*

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>Bosch Compact 90° Elbow Swivel Interface</b>								
CIH08-90-BC2	08	7.5	33.3mm	30.3mm	20.5mm	10.0mm	2 Way	1 928 403 137*
CIH08-90-BC3	08	7.5	33.3mm	30.3mm	26.7mm	10.0mm	3 Way	1 928 403 110*
CIH12-90-BC2	12	10	33.3mm	30.3mm	20.5mm	10.0mm	2 Way	1 928 403 137*

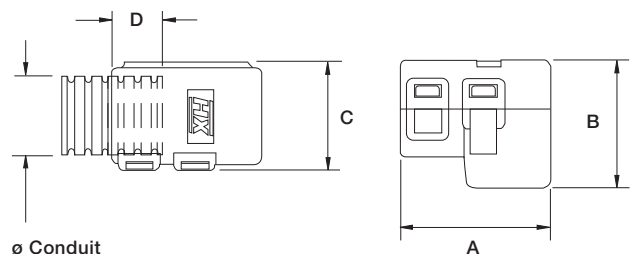
### Dimensions

External 90° elbow connector interface



### Dimensions

External straight connector interface



# TempGuard external hinged connector interfaces

## Deutsch - DT Series



Deutsch - DT Series  
High Temperature Straight &  
90° Elbow Swivel Interface

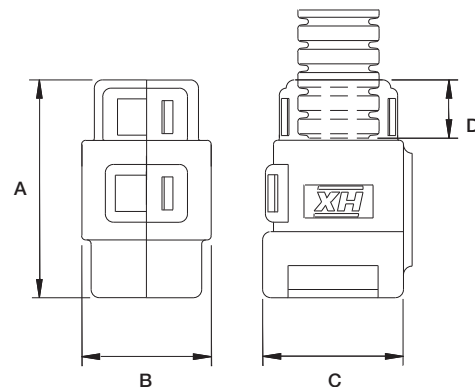
### Deutsch - DT Series Interface - High Temperature External Hinged Connector Interface

Single junction straight and 90° elbow fittings providing high integrity connections between Deutsch DT connectors and Harnessflex conduitsystems. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement or vibration.

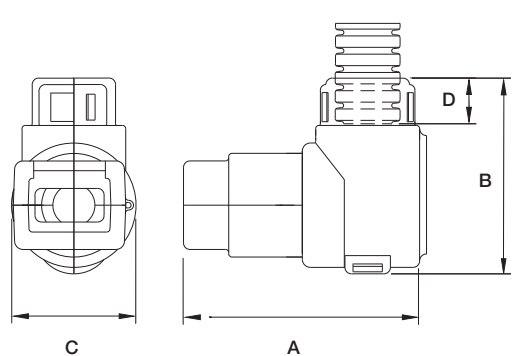
Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>Deutsch - DT Series Straight Interface</b>								
CIH08-DT2	08	7.5	26.0mm	16.0mm	18.0mm	7.0mm	2 Way	DT06-2S*
CIH08-DT3	08	7.5	30.0mm	22.0mm	24.0mm	12.0mm	3 Way	DT06-3S*
CIH08-DT4	08	7.5	42.0mm	18.0mm	27.0mm	12.0mm	4 Way	DT06-4S*
CIH12-DT2	12	10	26.0mm	16.0mm	18.0mm	7.0mm	2 Way	DT06-2S*
CIH12-DT3	12	10	29.0mm	22.0mm	24.0mm	7.0mm	3 Way	DT06-3S*
CIH12-DT4	12	10	40.0mm	18.0mm	27.0mm	7.0mm	4 Way	DT06-4S*
CIH12-DT6	12	10	40.0mm	22.0mm	27.0mm	10.0mm	6 Way	DT06-6S*
CIH12-DT8	12	10	40.0mm	25.0mm	30.0mm	10.0mm	8 Way	DT06-8S*

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
<b>Deutsch - DT Series 90° Elbow Swivel Interface</b>								
CIH08-90-DT2	08	7.5	36.0mm	30.0mm	19.0mm	7.0mm	2 Way	DT06-2S*
CIH08-90-DT4	08	7.5	48.0mm	30.0mm	25.0mm	7.0mm	4 Way	DT06-4S*
CIH12-90-DT2	12	10	36.0mm	30.0mm	19.0mm	7.0mm	2 Way	DT06-2S*

**Dimensions**  
Straight connector



**Dimensions**  
90° Connector



# TempGuard external hinged connector interfaces

## FCI Automotive Apex



FCI Automotive Apex  
High Temperature Straight &  
90° Elbow Swivel Interface

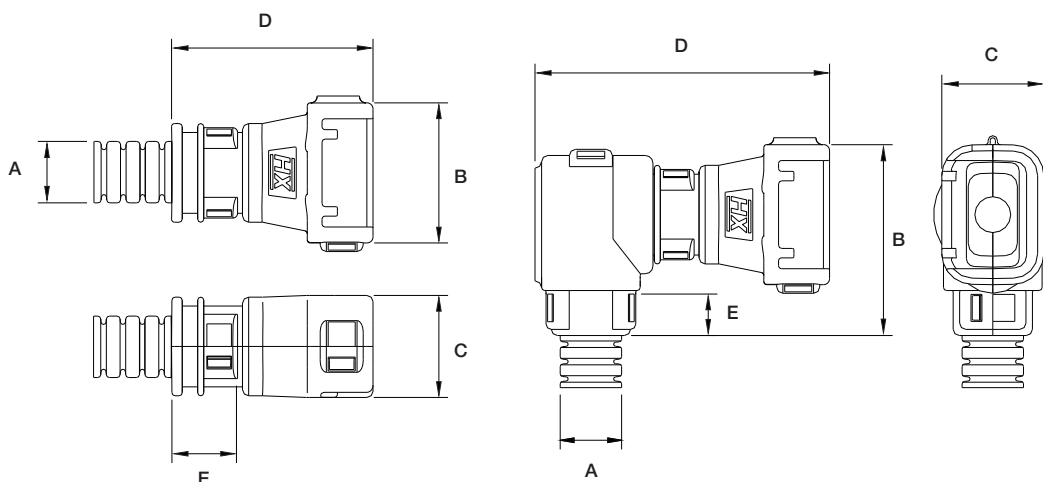
### FCI Automotive Apex Interface - High Temperature External Hinged Connector Interface

A range of straight and 90° elbow fittings offering a compact and high integrity, high temperature connection protection between FCI Apex automotive connectors or junior timer connectors and Harnessflex conduit systems in elevated temperature areas. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure washing, helping to maintain the sealing integrity of the connector.

Part No.	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
<b>FCI Automotive Apex Straight Interface</b>						
CIH08-FCI02	08	7.5	25.0mm	17.0mm	33.0mm	12.0mm
CIH08-FCI03	08	7.5	34.0mm	17.0mm	34.0mm	12.0mm
CIH08-FCI04	08	7.5	39.0mm	17.0mm	34.0mm	12.0mm
CIH12-FCI02	12	10	25.0mm	17.0mm	27.0mm	7.0mm
CIH12-FCI03	12	10	35.0mm	17.0mm	29.0mm	7.0mm
CIH12-FCI04	12	10	38.0mm	17.0mm	29.0mm	7.0mm
CIH12-FCI14	12	10	53.0mm	26.0mm	34.0mm	10.0mm

Part No.	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
<b>FCI Automotive Apex 90° Elbow Swivel Interface</b>						
CIH08-90-FCI02	08	7.5	31.0mm	19.0mm	48.0mm	10.0mm
CIH08-90-FCI03	08	7.5	35.0mm	19.0mm	49.0mm	10.0mm
CIH12-90-FCI02	12	10	32.0mm	19.0mm	48.0mm	10.0mm

### Dimensions







# High temperature conduit

## HTC High temperature, Modified Co-Polyester



HTC Medium Weight  
High Temperature Conduit

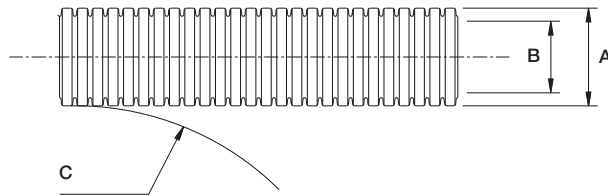
### HTC Medium Weight High Temperature - Conduit

High temperature conduit / Materials: Modified Co-Polyester / Colour: Black (BL)

Part No.	Conduit Size		Nominal O/D A	Min. Bore B	Min. Static Bend Radius C	Reel Length
	NC	NW				
HTC08	08	7.5	9.8mm	6.2mm	20mm	50m
HTC10	10	8.5	11.5mm	8.7mm	15mm	50m
HTC12	12	10	13.0mm	9.4mm	25mm	50m
HTC16	16	13	16.0mm	11.0mm	30mm	50m
HTC20	20	17	21.2mm	16.1mm	40mm	50m
HTC25*	25	22	25.3mm	21.0mm	45mm	50m
HTC28*	28	23	28.5mm	22.5mm	45mm	50m

\*Parts numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime  
To order quote part number & reel length, e.g. HTC08/50m

#### Dimensions



#### Applications

This conduit has been developed for use in where elevated temperatures occur. Suitable for long term exposure, up to 190°C.









# Harnessflex TempGuard system High temperature wiring harnesses





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## Order code classification

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CIH08-90-AM4	7TCA298010R1135	13	CIH12-FCI14	7TCA298010R1058	17	TPH201220	7TCA298010R1148	10
CIH08-90-AS2	-	12	EPH1612	7TCA298010R1053	9	TPH201612	7TCA298010R1162	10
CIH08-90-AT2LP	7TCA298010R1189	14	EPH1616	7TCA298010R1054	9	TPH201616	7TCA298010R1149	10
CIH08-90-AT3LP	7TCA298010R1190	14	EPH2020	7TCA298010R1067	9	TPH201620	7TCA298010R1150	10
CIH08-90-AT2PL	7TCA298010R1091	14	EPH08S08	7TCA298010R1068	9	TPH202012	7TCA298010R1151	10
CIH08-90-AT3PL	7TCA298010R1092	14	EPH12S12	7TCA298010R1071	9	TPH202016	7TCA298010R1152	10
CIH08-90-BC2	7TCA298010R1202	15	EPH1608	7TCA298010R1072	9	TPH202020	7TCA298010R1153	10
CIH08-90-BC3	7TCA298010R1203	15	EPH2008	7TCA298010R1069	9	XPH1208	7TCA298010R1231	12
CIH08-90-DT2	7TCA298010R1212	16	EPH2016	7TCA298010R1070	9	YPH080808	7TCA298010R1039	11
CIH08-90-DT4	7TCA298010R1109	16	HTC08	7TCA298010R1126	19	YPH080812	7TCA298010R1170	11
CIH08-90-FCI02	7TCA298010R1119	17	HTC10	7TCA298010R1127	19	YPH081208	7TCA298010R1171	11
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CIH08-AM4	7TCA298010R1082	13	HTC25	7TCA298010R1131	19	YPH121010	7TCA298010R1173	11
CIH08-AS2	7TCA298010R1073	12	HTC28	7TCA298010R1132	19	YPH121208	7TCA298010R0906	11
CIH08-AS3	7TCA298010R1065	12	JPH1208	7TCA298010R1220	9	YPH121210	7TCA298010R1174	11
CIH08-AS4	7TCA298010R1074	12	JPH1212	7TCA298010R1219	9	YPH121212	7TCA298010R1041	11
CIH08-AT2PL	7TCA298010R1062	14	JPH1612	7TCA298010R1051	9	YPH161010	7TCA298010R1175	11
CIH08-AT3PL	7TCA298010R1063	14	JPH1616	7TCA298010R1221	9	YPH161208	7TCA298010R0916	11
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CIH08-DT2	7TCA298010R1060	16	TPH080808	7TCA298010R1046	10	YPH161610	7TCA298010R1177	11
CIH08-DT3	7TCA298010R1061	16	TPH081208	7TCA298010R1224	10	YPH161612	7TCA298010R1043	11
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CIH08-FCI02	7TCA298010R1055	17	TPH100808	7TCA298010R1047	10	YPH201208	7TCA298010R1179	11
CIH08-FCI03	7TCA298010R1056	17	TPH101010	7TCA298010R1154	10	YPH201210	7TCA298010R1180	11
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CIH12-90-BC2	-	15	TPH120808	7TCA298010R1225	10	YPH201608	7TCA298010R1181	11
CIH12-90-AM2	7TCA298010R1136	13	TPH120812	7TCA298010R1048	10	YPH201612	7TCA298010R1182	11
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CIH12-DT2	7TCA298010R1206	16	TPH161616	7TCA298010R1143	10			
CIH12-DT3	7TCA298010R1207	16	TPH162012	7TCA298010R1144	10			
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