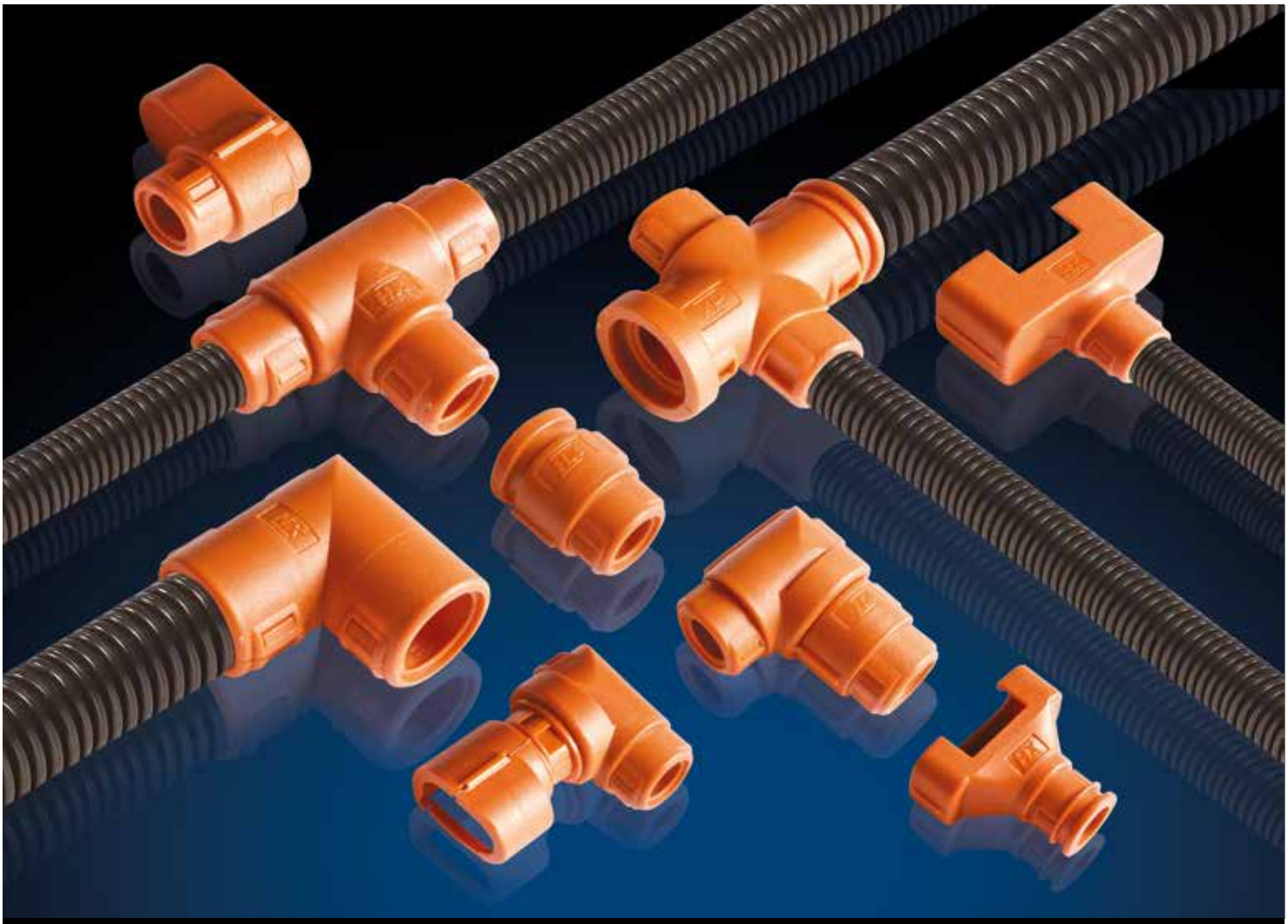


Product Overview

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 200ºC, 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, mimimises breakdowns and downtime, increasing overall productivity.

Features & benefits

- High temperature range of (up to 200ºC) 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

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.

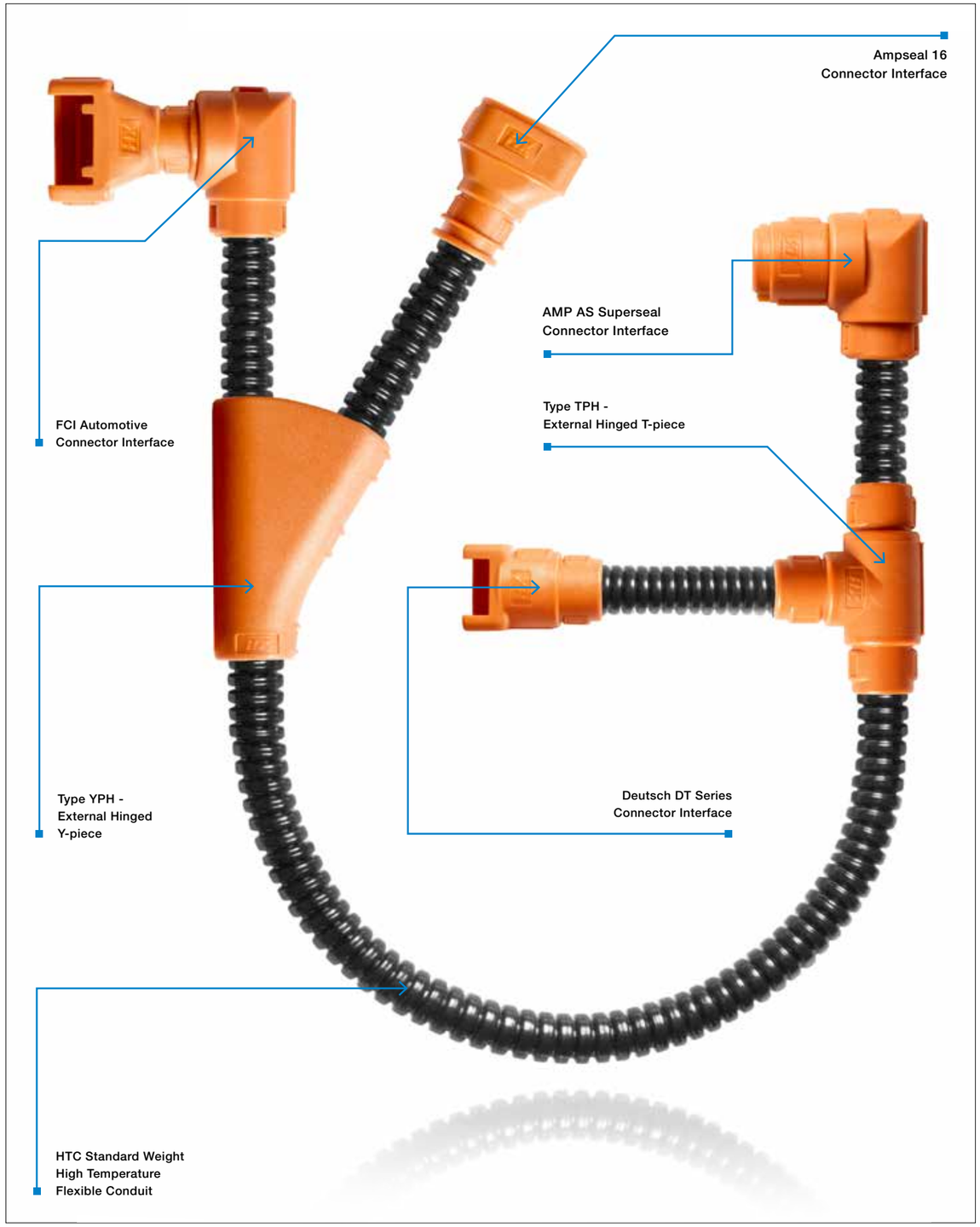
Harnessflex have responded to market demand, by creating it's new range of high temperature conduits and fittings, designed to operate at temperatures up to 200°C. Created from the outset for use as a full system, the range is made from specialist co-polyester and polyamide respectively, that provide 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









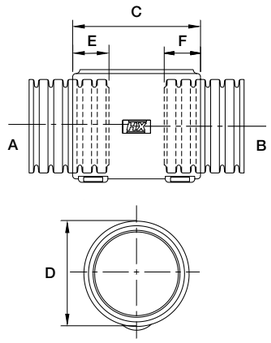



Type	Type JPH - External Hinged Joiner	Type EPH - External Hinged Elbow	Type TPH - External Hinged T-Piece	Type YPH - External Hinged Y-Piece	Two-piece X Configuration fitting	AMP AS Superseal Swivel Interface	AMP Junior & Mini Timer Connector Interface	Ampseal 16 Connector Interface	Bosch Compact Connector Interface	Deutsch - DT Series Connector Interface	FCI Automotive Apex Connector Interface	HTC Standard Weight High Temperature Conduit
Part number	JPH	EPH	TPH	YPH	XPH	CIH-AS	CIH-AM	CIH-AT	CIH-BC	CIH-DT	CIH-FC	HTC
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 together over all types of slit and unslit conduit, maintaining maximum conduit bore.	Single junction straight and 90º elbow interfaces providing high integrity connections between AS - AMP Superseal connectors and Harnessflex conduit systems. In addition, 90º elbow versions allow the conduit to swivel 360º around the connector housing.	Single junction straight and 90º elbow interfaces providing high integrity connections between AMP Superseal or Junior Timer connectors and Harnessflex conduit systems In addition, 90º elbow versions allow the conduit to swivel 360º around the connector housing.	A range of straight and 90º 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.	Single junction straight and 90º elbow interfaces providing high integrity connections between Bosch Compact connectors and Harnessflex conduit systems. In addition, 90º elbow versions allow the conduit to swivel 360º around the connector housing.	Single junction straight and 90° elbow fittings providing high integrity connections between Deutsch DT connectors and Harnessflex conduit systems. In addition, 90º elbow versions allow the conduit to swivel 360º around the connector housing.	Straight and 90° elbow fittings offering a compact and high integrity connection between FCI Apex automotive connectors or junior timer connectors and Harnessflex conduit systems. These interfaces provide complete protection right up to the connector.	HTC Conduit suited to static applications where elevated temperatures are present. High compression strength and excellent chemical resistance.
Material	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Co-Polyester
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	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	Harnessflex High Temperature Hinged Fittings
Colour												
Orange	•	•	•	•	•	•	•	•	•	•	•	–
Black	–	–	–	–	–	–	–	–	–	–	–	•
IP Rating (with appropriate fitting)												
IP40	•	•	•	•	•	•	•	•	•	•	•	•
Characteristics												
Temperature Range												
Minimum	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-40ºC	-45°C
Permanent max.	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+160ºC	+150°C
Long term max. (30,000 hrs)	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+185ºC	+175°C
Short term max. (3000 hrs)	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+200ºC	+190°C
Mechanical protection	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Very high
UV resistance	High	High	High	High	High	High	High	High	High	High	High	Very high
Flexibility	–	–	–	–	–	–	–	–	–	–	–	Very high
Fatigue life	–	–	–	–	–	–	–	–	–	–	–	High
Low smoke / Halogen free	•	•	•	•	•	•	•	•	•	•	•	•
Self extinguishing	•	•	•	•	•	•	•	•	•	•	•	•
High abrasion resistance	•	•	•	•	•	•	•	•	•	•	•	•
Approvals												
CE	•	•	•	•	•	•	•	•	•	•	•	•
UL94 V2	•	•	•	•	•	•	•	•	•	•	•	–
UL94 HB	–	–	–	–	–	–	–	–	– –		–	•
RoHS to 2011/65/EU	•	•	•	•	•	•	•	•	•	•	•	•
ELV EU200/53/EC	•	•	•	•	•	•	•	•	•	•	•	•
Page No.	9	9	10	11	12	12	13	14	15	16	17	19

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.

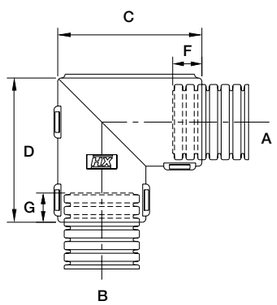
	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
Part No.	A	B	A	B	C	D	E	F
JPH1212	12	12	10	10	36mm	16mm	10mm	10mm
JPH1612	16	12	13	10	36mm	21mm	10mm	10mm
JPH2020	20	12	17	10	38mm	26mm	12mm	10mm

	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
Part No.	A	B	A	B	C	D	E	F
JPH1208*	12	8	10	7.5	38mm	16mm	10mm	10mm
JPH1616*	16	16	13	13	36mm	21mm	10mm	10mm
JPH2008*	20	8	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



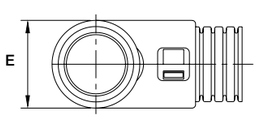
Type EPH - External High Temperature Hinged Elbow

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.

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

	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
Part No.	A	B	A	B	C	D	E	F	G
EPH08S08*	8	7.5	8	7.5	38mm	29mm	20mm	10mm	10mm
EPH12S12*	12	10	12	10	38mm	29mm	20mm	10mm	10mm
EPH1608*	16	10	8	7.5	34mm	34mm	21mm	10mm	10mm
EPH2008*	20	17	8	7.5	41mm	39mm	26mm	12mm	10mm
EPH2016*	20	17	16	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

Type TPH - External High Temperature Hinged T-piece

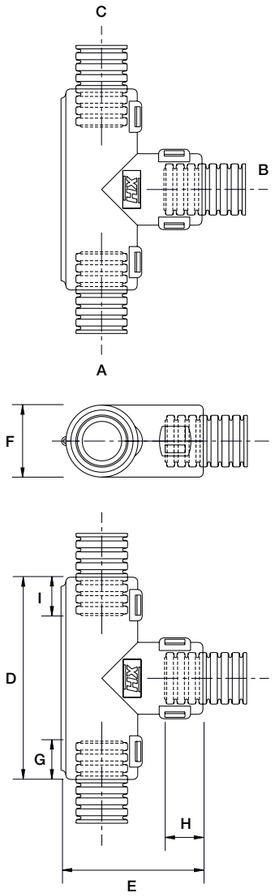
One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all Harnessflex conduits in extreme temperature applications.

	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
Part No.	A	B	C	A	B	C	D	E	F	G	H	I
TPH080808	8	8	8	7.5	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH081208	8	12	8	7.5	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH120808	12	8	8	10	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH120812	12	8	12	10	7.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH121208	12	12	8	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	8	12	13	7.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
TPH160816	16	8	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	8	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	8	16	17	7.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPH200820	20	8	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

	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
Part No.	A	B	C	A	B	C	D	E	F	G	H	I
TPH081612*	8	16	12	7.5	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
TPH100808*	10	8	8	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	10	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	8	8	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
TPH201016*	20	10	16	17	8.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
TPH201020*	20	10	20	17	8.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
TPH201612*	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

Dimensions



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

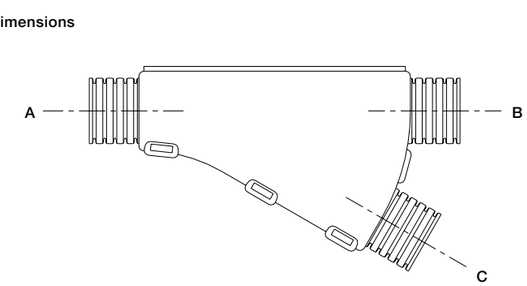
One-piece asymmetrical 3 junction fittings allow a variety of conduit variations. These fittings are designed to snap together over all types of slit and unslit Harnessflex conduit, maintaining maximum conduit bore.

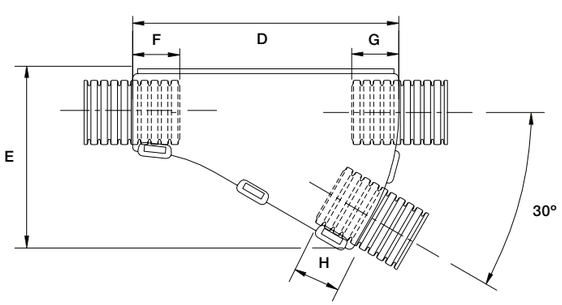
	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
Part No.	A	B	C	A	B	C	D	E	F	G	H
YPH080808	8	8	8	7.5	7.5	7.5	55mm	37mm	10mm	10mm	10mm
YPH120808	12	8	8	10	7.5	7.5	55mm	37mm	10mm	10mm	10mm
YPH120810	12	8	10	10	7.5	8.5	55mm	37mm	10mm	10mm	10mm
YPH121208	12	12	8	10	10	7.5	55mm	37mm	10mm	10mm	10mm
YPH121212	12	12	12	10	10	10	55mm	37mm	10mm	10mm	10mm
YPH161208	16	12	8	13	10	7.5	55mm	40mm	10mm	10mm	10mm
YPH161212	16	12	12	13	10	10	55mm	40mm	10mm	10mm	10mm
YPH161608	16	16	8	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	8	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

	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
Part No.	A	B	C	A	B	C	D	E	F	G	H
YPH080812	8	8	12	7.5	7.5	10	55mm	37mm	10mm	10mm	10mm
YPH081208	8	12	8	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	8	8	17	7.5	7.5	43mm	37mm	12mm	10mm	10mm
YPH201208	20	12	8	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	8	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

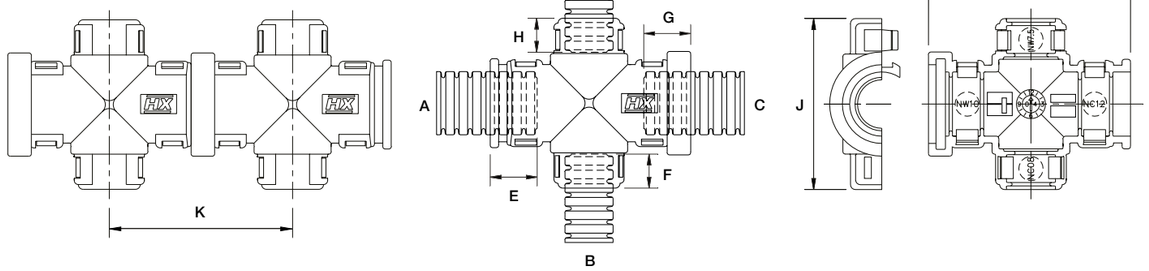
Two-piece
X Configuration Fitting

Two-piece X Configuration Fitting

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.

	Conduit Size (NC)				Conduit Size (NW)				Conduit Engagement				Nominal Dimensions		
Part No.	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K
XPH1208	12	8	12	8	10	7.5	10	7.5	9.5mm	7mm	9.5mm	7mm	42.3mm	5.5mm	38mm

Dimensions



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

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.

Part No.	Conduit Size NC	Conduit Size NW	Nominal Dimensions A	B	C	D	Interface Reference	Connector Reference
AMP AS Superseal Straight Interface								
CIH08-AS2	8	7.5	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
CIH08-AS3	8	7.5	22.4mm	26.5mm	18mm	10mm	3 Way	282087-1*
CIH08-AS4	8	7.5	34.0mm	33.0mm	18mm	10mm	4 Way	282088-1*
CIH12-AS2	12	10	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
CIH12-AS4	12	10	34.0mm	33.0mm	19mm	10mm	4 Way	282088-1*

Part No.	Conduit Size Nominal NC	NW	Dimensions A	B	C	D	Interface Reference	Connector Reference
AMP AS Superseal 90° Elbow Swivel Interface								
CIH08-90-AS2	8	7.5	33.3mm	30.3mm	18mm	10mm	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

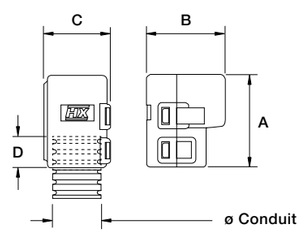
AMP Junior & Mini Timer - High Temperature External Hinged Connector Interface

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.

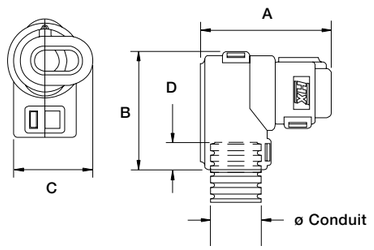
Part No.	Conduit Size NC	NW	Nominal Dimensions A	B	C	D	Interface Reference	Connector Reference
AMP Junior & Mini Timer Straight Interface								
CIH08-AM2	8	7.5	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
CIH08-AM3	8	7.5	24.9mm	27.2mm	18mm	10mm	3 Way	1-827578-1*
CIH08-AM4	8	7.5	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*
CIH12-AM2	12	10	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
CIH12-AM4	12	10	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*

Part No.	Conduit Size NC	NW	Nominal Dimensions A	B	C	D	Interface Reference	Connector Reference
AMP Junior & Mini Timer 90° Elbow Swivel Interface								
CIH08-90-AM2	8	7.5	35.7mm	30.3mm	21.3mm	7mm	2 Way	347887-3*
CIH08-90-AM3	8	7.5	35.7mm	30.3mm	27.2mm	7mm	3 Way	1-827578-1*
CIH08-90-AM4	8	7.5	39.5mm	30.3mm	32.0mm	7mm	4 Way	281804-1*
CIH12-90-AM2	12	10	35.7mm	30.3mm	21.3mm	7mm	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

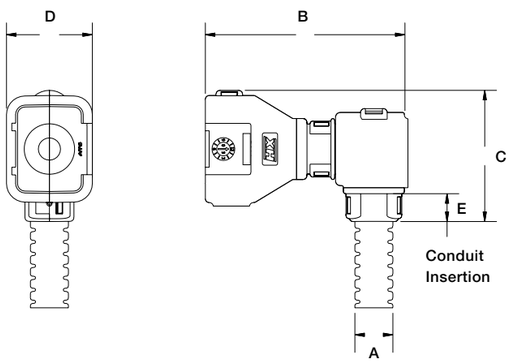
A range of straight and 90° elbow fittings offering a compact and high integrity connection between Ampseal automotive connectors and Harnessflex conduit systems. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure 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		
Ampseal 16 Straight Interface								
CIH08-AT2PL	8	7.5	23mm	18mm	34mm	12mm	2 Way	776427-1*
CIH08-AT3PL	8	7.5	28mm	18mm	33mm	11mm	3 Way	776427-1*
CIH08-AT4PL	8	7.5	29mm	23mm	39mm	13mm	4 Way	776487-1*
CIH12-AT4PL	12	10	29mm	23mm	37mm	11mm	4 Way	776487-1*
CIH12-AT6PL	12	10	29mm	23mm	37mm	11mm	6 Way	776433-1*
CIH12-AT8PL	12	10	32mm	23mm	37mm	11mm	8 Way	776494-1*

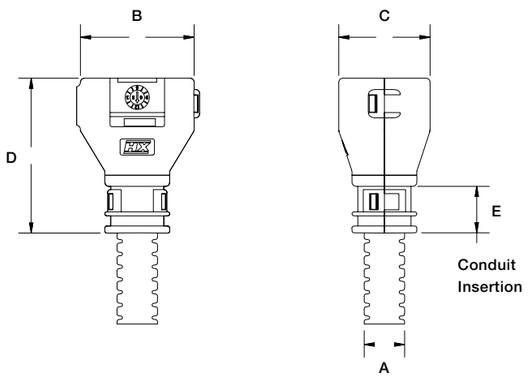
Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
Ampseal 16 90° Elbow Interface								
CIH08-90-AT2LP	8	7.5	37.3mm	25.0mm	17mm	7.1mm	2 Way	776427-1*
CIH08-90-AT3LP	8	7.5	39.8mm	29.0mm	17.1mm	7.1mm	3 Way	776427-1*
CIH08-90-AT2PL	8	7.5	49.0mm	32.0mm	20.0mm	7.1mm	2 Way	776427-1*
CIH08-90-AT3PL	8	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

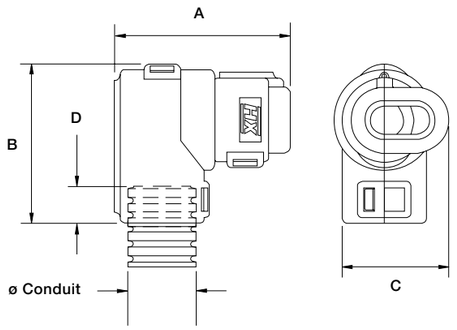
Bosch Compact - High Temperature External Hinged Connector Interface

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.

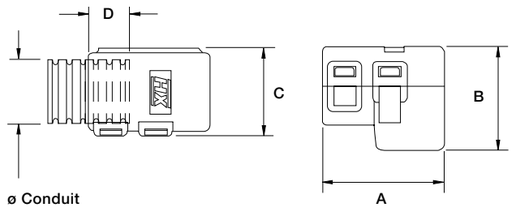
Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
Bosch Compact Straight Interface								
CIH08-BC2	8	7.5	25mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
CIH08-BC3	8	7.5	25mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*
CIH12-BC2	12	10	25mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
CIH12-BC3	12	10	25mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*

Part No.	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
Bosch Compact 90° Elbow Swivel Interface								
CIH08-90-BC2	8	7.5	33.3mm	30.3mm	20.5mm	10mm	2 Way	1 928 403 137*
CIH08-90-BC3	8	7.5	33.3mm	30.3mm	26.7mm	10mm	3 Way	1 928 403 110*
CIH12-90-BC2	12	10	33.3mm	30.3mm	20.5mm	10mm	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

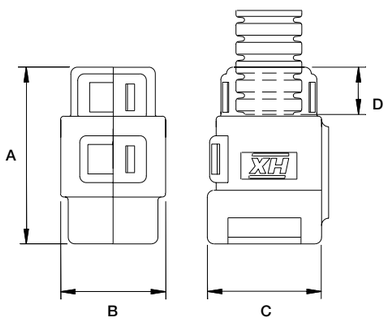
Deutsch - DT Series Interface - High Temperature External Hinged Connector Interface

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.

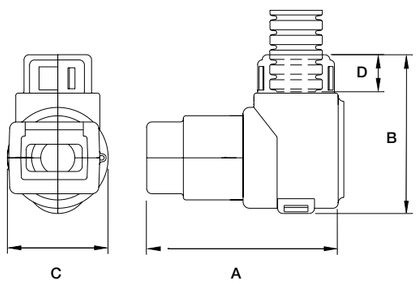
Part No.	Conduit Size NC	Conduit Size NW	Nominal Dimensions A	B	C	D	Interface Reference	Connector Reference
Deutsch - DT Series Straight Interface								
CIH08-DT2	8	7.5	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
CIH08-DT3	8	7.5	30mm	22mm	24mm	12mm	3 Way	DT06-3S*
CIH08-DT4	8	7.5	42mm	18mm	27mm	12mm	4 Way	DT06-4S*
CIH12-DT2	12	10	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
CIH12-DT3	12	10	29mm	22mm	24mm	7mm	3 Way	DT06-3S*
CIH12-DT4	12	10	40mm	18mm	27mm	7mm	4 Way	DT06-4S*
CIH12-DT6	12	10	40mm	22mm	27mm	10mm	6 Way	DT06-6S*
CIH12-DT8	12	10	40mm	25mm	30mm	10mm	8 Way	DT06-8S*

Part No.	Conduit Size NC	Conduit Size NW	Nominal Dimensions A	B	C	D	Interface Reference	Connector Reference
Deutsch - DT Series 90° Elbow Swivel Interface								
CIH08-90-DT2	8	7.5	36mm	30mm	19mm	7mm	2 Way	DT06-2S*
CIH08-90-DT4	8	7.5	48mm	30mm	25mm	7mm	4 Way	DT06-4S*
CIH12-90-DT2	12	10	36mm	30mm	19mm	7mm	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

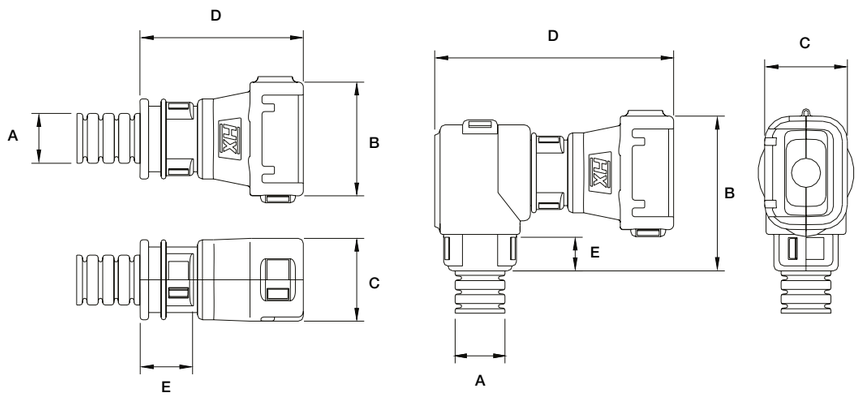
FCI Automotive Apex Interface - High Temperature External Hinged Connector Interface

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) NC	Conduit Size (A) NW	Nominal Dimensions B	C	D	E
FCI Automotive Apex Straight Interface						
CIH08-FCI02	8	7.5	25mm	17mm	33mm	12mm
CIH08-FCI03	8	7.5	34mm	17mm	34mm	12mm
CIH08-FCI04	8	7.5	39mm	17mm	34mm	12mm
CIH12-FCI02	12	10	25mm	17mm	27mm	7mm
CIH12-FCI03	12	10	35mm	17mm	29mm	7mm
CIH12-FCI04	12	10	38mm	17mm	29mm	7mm
CIH12-FCI14	12	10	53mm	26mm	34mm	10mm

Part No.	Conduit Size (A) NC	Conduit Size (A) NW	Nominal Dimensions B	C	D	E
FCI Automotive Apex 90° Elbow Swivel Interface						
CIH08-90-FCI02	8	7.5	31mm	19mm	48mm	10mm
CIH08-90-FCI03	8	7.5	35mm	19mm	49mm	10mm
CIH12-90-FCI02	12	10	32mm	19mm	48mm	10mm

Dimensions



High temperature conduit
HTC High temperature, Modified Co-Polyester

HTC Medium Weight
High Temperature Conduit

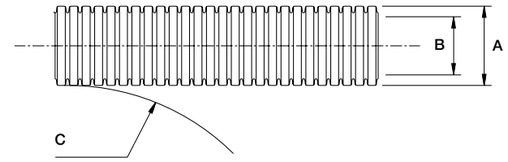
HTC Medium Weight High Temperature - Conduit

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

Part No.	Conduit Size NC	Conduit Size NW	Nominal O/D A	Min. Bore B	Min. Static Bend Radius C	Reel Length
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 190ºC.

Harnessflex TempGuard system
High temperature wiring harnesses

Index
Order code classification

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