



Order Code 2015
Process Automation



Order Code Process Automation

Level Sensors | Level Switches | Overfill Prevention
Pressure Sensors | Temperature Sensors



Accurate



Flexible



Reliable

Sensors and Systems: www.fafnir.com

TORRIX



Order Code – TORRIX

Version

TORRIX (order code)							
Approvals	Without	NN					
	Ex (ATEX and IECEx)	EX					
Electrical output	4 to 20 mA	AN					
	4 to 20 mA/HART®	HA					
Material	Stainless Steel 316 Ti	SS					
Version	Standard (Ø 12 mm probe tube) for variable screw connection	SV					
	Standard (Ø 12 mm probe tube) for welded screw connection or flange	SF					
	Bypass (Ø 12 mm probe tube) for magnetic level indicator	SB					
	TORRIX 90 (Ø 12 mm probe tube; housing bended)**	90					
	TORRIX 6 (Ø 6 mm probe tube centred)***	6S					
	TORRIX 6 B (Ø 6 mm probe tube, off-centred)***	6B					
Length							
Temperature range	Normal temperature (- 40 °C to +125 °C)	NT					
	High temperature (- 40 °C to +250 °C)	HT					
	Highest temperature (- 40 °C to + 450 °C)	HH					
	Low temperature (- 65 °C to +125 °C)	LT					

* Other material on request.

** Temperature range -40 °C to +85 °C.

*** Only NT (-40 °C to +125 °C).

Order Code – TORRIX Cable Terminal

Description	Order number	Order code
Cable gland – Standard for cable diameter of 5 to 10 mm		CG6
Cable gland M20 x 1,5 with reduction M16 x 1,5	909391	CG2
M12 connector	908761	M12
M20 x 1,5 female thread	908757	IM2
½" NPT female thread	908758	NP2

Order code – Special Designs

(Please indicate in addition to standard order code)

Description TORRIX Special Designs	Order code
Vibration-resistant version in accordance with OIML D11 (TORRIX NT and TORRIX Flange NT only)	V
Increased accuracy ± 0.3 mm (TORRIX NT and TORRIX Flange NT only)*	P
Surface treatment – electropolished	E

* In combination with precision float only.

Order numbers – Certificates

Description	Order number
Inspection certificate 3.1 in accordance with EN 10204:2004	904495
Inspection certificate 3.1 with supplier report in accordance with EN 10204:2004	904496
TORRIX calibration protocol	904498
Factory setting	

TORRIX RS485



Order code – TORRIX RS485

Version

TORRIX (order code)		-	RS485	-		-		-		-	
Approvals	Without		NN								
	Ex (ATEX and IECEx)		EX								
Material (probe tube)	Stainless Steel 316 Ti*		SS								
Version	Standard (Ø 12 mm probe tube) for adjustable screw connection							SV			
	Standard (Ø 12 mm probe tube) for welded screw connection or flange							SF			
	TORRIX 90 (Ø 12 mm probe tube; housing bended)**							90			
	TORRIX 6 (Ø 6 mm probe tube, centred)***							6S			
	TORRIX 6 B (Ø 6 mm probe tube, off-centred)***							6B			
Length											
Temperature range	Normal temperature (- 40 °C to +125 °C)							NT			
	High temperature (- 40 °C to +250 °C)							HT			
	Highest temperature (- 40 °C to + 450 °C)							HH			
	Low temperature (- 65 °C to +125 °C)							LT			
Electrical output	Modbus Protocol (ASCII)							MB			
	FAFNIR Universal Device Protocol							UD			
	FAFNIR Digital Access Protocol							DA			

* Other material on request.

** Temperature range - 40 °C to + 85 °C.

*** Only NT (- 40 °C to +125 °C).

Order code – Special Designs

(Please indicate in addition to standard order code)

Description	Order code
Vibration-resistant version in accordance with OIML D11 (TORRIX RS485 NT and TORRIX RS485 Flange NT only)	VT
Advanced Version with increased accuracy and up to 5 temperature sensors*	A
Surface treatment – electropolished	E

* Only available as SV/SF version; temperature range - 40 °C to +85 °C.
Increased accuracy only in combination with a precision float.

TORRIX RS485I

Order numbers – TORRIX RS485I

Length	Material	Temperature range	Order number	Order number
			TORRIX Ex RS485I with Ex-Approval	TORRIX Ex RS485I Advanced (with 5 temperature sensors)
2.000 mm	1.4301	- 40 °C to + 85 °C	*	900165
2.400 mm	1.4301	- 40 °C to + 85 °C	*	900166
2.900 mm	1.4301	- 40 °C to + 85 °C	908749	900164
3.300 mm	1.4301	- 40 °C to + 85 °C	*	900167

Protocols: Modbus (ASCII), FAFNIR Universal Device Protocol, FAFNIR Digital Access Protocol

* On request.

Order numbers – Installation kit for fuel tanks*

Name	Order number
Installation kit 1" for Regular Fuel up to E10	908493
Installation kit 1" for Diesel Fuel	908484
Installation kit 1½" for Regular Fuel up to E15	900158
Installation kit 1½" for Diesel Fuel	900159
Installation kit 2" Advanced for Regular Fuel up to E15	900161
Installation kit 2" Advanced for Diesel Fuel	900160

* Consists of product, waterfloat and brass process connection.

Order numbers – Accessories

Name	Order number
Connecting cable M12; 4-wire; 2 m; straight	908613
Connecting cable M12; 4-wire; 2 m; right angled	908614

TORRIX SC

Order code – TORRIX SC

Ausführung

	TORRIX (order code)		-	SC	-		-		-		-	
Approvals	Without	NN										
	Ex (ATEX and IECEx)	EX										
Material (probe tube)		Stainless Steel 316 Ti*		SS								
Version	Standard (Ø 12 mm probe tube) for variable screw connection							SV				
	Standard (Ø 12 mm probe tube) for welded screw connection or flange							SF				
	TORRIX 90 (Ø 12 mm probe tube; housing bended)**							90				
	TORRIX 6 (Ø 6 mm probe tube, centred)***							6S				
	TORRIX 6 B (Ø 6 mm probe tube, off-centred)***							6B				
Length												
Temperature range								Normal temperature (- 40 °C to +125 °C)				NT
								High temperature (- 40 °C to +250 °C)				HT
								Highest temperature (- 40 °C to + 450 °C)				HH
								Low temperature (- 65 °C to +125 °C)				LT

* Other material on request.

** Temperature range - 40 °C to + 85 °C.

*** Only NT (- 40 °C to +125 °C).

Order code – Special Designs

(Please indicate in addition to standard order code)

Description	Order code
Vibration-resistant version in accordance with OIML D11 (TORRIX SC NT and TORRIX SC Flange NT only)	VT
Advanced Version with increased accuracy and up to 5 temperature sensors*	A
Surface treatment – electropolished	E

* Only available as SV/SF version; temperature range - 40 °C to +85 °C.
Increased accuracy only in combination with a precision float.

TORRIX Flex



Order code – TORRIX Flex

Ausführung

TORRIX Flex (order code)							
Approvals	Without	NN					
	Ex (ATEX and IECEx)	EX					
Version	Standard 4 to 20 mA/HART®	HA					
	RS485-interface – Modbus (ASCII) Protocol	RS485	MB				
	RS485-interface – FAFNIR UD Protocol	RS485	UD				
	Compact housing with M12 connector; 4 to 20 mA*	C					
Type	Flexible hose; 13 mm; for length of 1.5 m to 5 m			Flex F			
	Corrugated hose; 12 mm; for length of 3.5 to 10 m (TORRIX RS485 and TORRIX C version up to 15 m)**			Flex T			
Length							
Temperature range						Normal temperature (- 40 °C to +85 °C)	NT

* Configuration of TORRIX C requires a FAFNIR USB Adapter (900185).

** Stainless steel weight with reference magnet(s) mandatory for probes longer 7,500 mm.

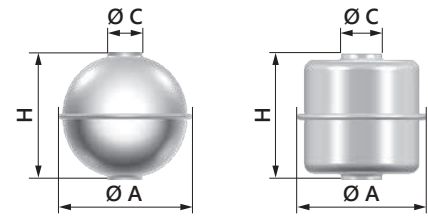
Order numbers – TORRIX Flex Accessories

Name	Order number
Stainless steel weight with reference magnet; without fixture (non Ex)	909331
Stainless steel weight with magnet and one reference magnet*	909324
Stainless steel weight with magnet and two reference magnets**	909402
FAFNIR USB Adapter – configuration of TORRIX C Flex	900185

* Mandatory for probes with one float if longer 7,500 mm.

** Mandatory for probes with two floats if longer 7,500 mm.

Floats



Order numbers – Floats

For medium density	Float density	Temperature range	Max. operating pressure	Dimensions in mm			Shape	Order code
				A	H	C		
Stainless Steel 316 Ti								
≥0,95 g/cm ³	<0,85 g/cm ³	- 200 °C to +250 °C	50 bar	43.0	40.0	15.0	Sphere	909115
≥0,85 g/cm ³	<0,75 g/cm ³	- 200 °C to +250 °C	20 bar	43.0	40.0	15.5	Sphere	909130
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	40 bar	52.0	52.0	15.5	Sphere	900013
≥0,60 g/cm ³	<0,50 g/cm ³	- 200 °C to +250 °C	20 bar	52.0	49.0	15.5	Sphere	909109
≥0,45 g/cm ³	<0,36 g/cm ³	- 40 °C to +250 °C	25 bar	83.0	82.0	15.0	Sphere	909229
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	16 bar	43.0	43.0	15.5	Cylinder	909119
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	5 bar	29.5	40.0	12.5	Cylinder	908495
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	1 bar	29.5	40.0	12.5	Cylinder	908528
≥0,78 g/cm ³	<0,67 g/cm ³	- 20 °C to +100 °C	16 bar	27.0	31.0	10.0	Cylinder	909236*
Stainless Steel 316 Ti with conical spring for measurement of residual liquids								
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	16 bar	43.0	43.0	15.5	Cylinder	909383
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	5 bar	29.5	40.0	12.5	Cylinder	909384
≥0,78 g/cm ³	<0,67 g/cm ³	- 20 °C to +100 °C	16 bar	27.0	31.0	10.0	Cylinder	909385*
Stainless Steel 316 Ti precision float								
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	atmosphere pressure	54.0	31.0	13.0/23.4	Cylinder	909353
Titanium								
≥0,50 g/cm ³	<0,40 g/cm ³	- 200 °C to +250 °C	20 bar	50.0	48.0	15.4	Sphere	909113
≥0,40 g/cm ³	<0,30 g/cm ³	- 40 °C to +125 °C	25 bar	83.0	81.0	15.0	Sphere	909140
≥0,50 g/cm ³	<0,42 g/cm ³	- 40 °C to +125 °C	25 bar	98.0	96.0	23.0	Sphere	909177
≥0,69 g/cm ³	<0,59 g/cm ³	- 200 °C to +450 °C	200 bar	60.0	59.0	14.5	Sphere	909205
Hastelloy® C 276								
≥0,70 g/cm ³	<0,60 g/cm ³	- 200 °C to +250 °C	10 bar	46.0	48.0	15.2	Cylinder	909096
BUNA								
≥0,45 g/cm ³	<0,38 g/cm ³	- 40 °C to +80 °C	16 bar	40.0	120.0	18.0	Cylinder	909183
≥0,45 g/cm ³	<0,38 g/cm ³	- 40 °C to +80 °C	4 bar	30.0	45.0	13.0	Cylinder	909275
Kunststoffschwimmer (POM mit Grafit)								
≥0,65 g/cm ³	<0,55 g/cm ³	- 40 °C to +80 °C	1 bar	55.0	14.0	12.5	Disc	909216

* Only for TORRIX 6 and TORRIX 6B. Other floats on request.

Process Connections

(Other fittings and flanges on request)

Order numbers – Process Connections

Process Connections for TORRIX-Version SV (Ø 12 mm probe tube)

Threads	Material	Operating pressure	Order number
R 1½"	304	up to 3 bar	909338
R 1½"	Brass	up to 3 bar	909097

Threads	Material	Order number	Order number
		Cutting Ring Stainless Steel – up to 40 bar	Clamping Ring PTFE – up to 1.5 bar
G ⅜"	316 Ti	909202	909336
G ½"	316 Ti	909092	909335
G ¾"	316 Ti	909355	909359
⅜" NPT	316 Ti	909356	909360
½" NPT	316 Ti	909357	909361
¾" NPT	316 Ti	909358	909362

Process Connections for TORRIX-Version 6S and 6B (Ø 6 mm probe tube)

Threads	Material	Order number	Order number
		Cutting Ring Stainless Steel – up to 16 bar	Clamping Ring PTFE – up to 1.5 bar
G ¼"	316 Ti	909368	909363
G ⅜"	316 Ti	909369	909250
G ½"	316 Ti	909370	909364
¼" NPT	316 Ti	909371	909365
⅜" NPT	316 Ti	909372	909366
½" NPT	316 Ti	909373	909367

Order numbers – Process Connections

Process Connections for TORRIX Version SF

Nominal Size	Pressure Rating	Material	Norm	Description	Order number
Welded Flanges					
DN 25	PN40	316 Ti	EN 1092-1 Form B1	For pressure rating PN10-PN40 Compatible with Form C and Form D DIN 2527	909386
DN 50	PN40	316 Ti	EN 1092-1 Form B1	For pressure rating PN10-PN40 Compatible with Form C and Form D DIN 2527	909262
DN 65	PN40	316 Ti	EN 1092-1 Form B1	For pressure rating PN10-PN40 Compatible with Form C and Form D DIN 2527	909387
DN 80	PN40	316 Ti	EN 1092-1 Form B1	For pressure rating PN10-PN40 Compatible with Form C and Form D DIN 2527	909257
DN 100	PN16	316 Ti	EN 1092-1 Form B1	For pressure rating PN10-PN16 Compatible with Form C and Form D DIN 2527	909271
DN 100	PN40	316 Ti	EN 1092-1 Form B1	For pressure rating PN25-PN40 Compatible with Form C and Form D DIN 2527	909294
2"	150 lbs	316 Ti	ANSI/ASME		909245
3"	150 lbs	316 Ti	ANSI/ASME		909237
Welded Threads					
2" NPT		316 Ti			909254
R 2"		316 Ti			909118
G 2"		316 Ti			909244

Order numbers – Installation kit incl. float

Name	Order number
LPG Installation kit (variable); with 3/4" NPT process connection	910020
Installation kit; Pipe Ø 18 mm; welded flange or thread	910050

Order numbers – Installation kit in plastic incl. float

Material	Name	Order number
PP	Price for up to 1,000 mm with threaded connection (G 2" and G 3")	910051
PP	Price for up to 1,000 mm with flange (DN 65 to DN 100)	910048
PVC	Price for up to 1,000 mm with threaded connection (G 2" and G 3")	*
PVC	Price for up to 1,000 mm with flange (DN 65 to DN 100)	*
PVDF	Price for up to 1,000 mm with threaded connection (G 2" and G 3")	910049
PVDF	Price for up to 1,000 mm with flange (DN 65 to DN 100)	910052

* On request.



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