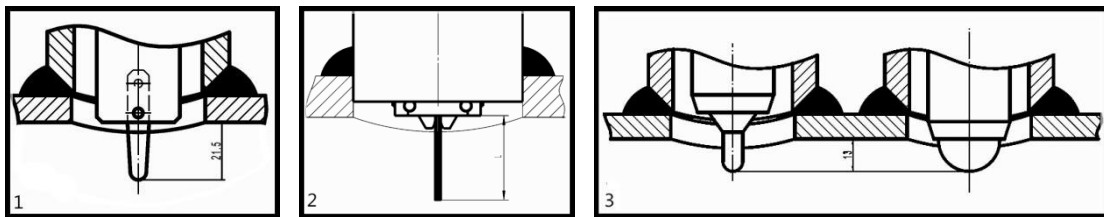


EMT Pig Signallers (Pig Passage Indicator)

EMT Pig signallers are used to provide confirmation of the movement of pipeline pigs through a pipeline. They are normally positioned at both the pig launching and pig receiving stations and at key points along a pipeline.




Benefits of EMT Pig Signallers

Three trigger type:



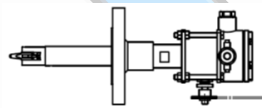
1. Bi-directional
2. Bi-directional Feather
3. Uni-directional

Three indicator types are available:

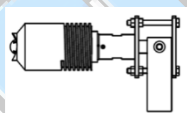
1.  B_Manual reset flag
2.  C_Manual reset flag combined with electrical switch output
3.  D_Digital display combined with electrical switch output

Four mounting types:

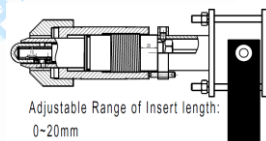
1. 2" flange connection



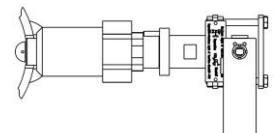
2. 2" welded nipple



3. 2" welded base- NPT nipple connection



4. 2" welded base of existing- customized or replaced connection



EMT provides six kinds of retrievable pig signaler, some require only simple tools, some require special tools.

1. Installing on flange ball valve
2. Include an isolation valve ,installing on flange
3. Include an isolation valve with welded nipple
4. Thread nipple with service valve interface
5. Welded Base to nipple joint with service valve interface.
6. Installing on flange, Thread-O-Ring Plug



✚ Features of EMT Pig Signallers

- Suitable for pipe sizes from 2" upwards
- A range of design pressure from ANSI 150 # to ANSI 2500 # are available for 2 "flange connection, the highest design pressure is 10000Psi(69MPa) for boss connection.
- The working temperature range is -20 °C to +120 °C. Special seals can be provided for operating temperatures outside this range
- Trigger mechanism does not use dynamic seals therefore both prevent leakage and ensure trigger flexibility(The boss connection, with pop-up indicator or the digital display is excluded). *The flag is interactivity with the trigger mechanism, therefore, the flexibility of trigger mechanism can be checked online.*
- The requirement about adjusting Insert depth can also be met.
- Easy to operate, Proven durability, minimal maintenance required.
- Suitable for all types of pipeline pigs such as Foam Pig, metal Bodied Pigs, Spheres, Intelligent Detection Pig.

✚ EMT make pig detection simpler and more effective

EMT's range of intrusive pig signallers are detector instruments mounted on pig launcher and receiver stations to confirm the launch or arrival of a pig. They can also be mounted at any location on a pipeline and will detect the passage of all types of pipeline pigs. Our intrusive Pig Signaller uses a unique magnetic system to prevent fluid exchange blocked, therefore, it eliminates the risk of leakage from the action seal, also the trigger of the instrument is enhanced flexibility, reduces maintenance costs and is easy to install to pipelines

Maintenance in Line Options

-AJ: Screw Thread Plug

-MFOI: Mechanism for online inspection

-REDV or RE: The Access Fitting and Plug Assembly allow maintenance and removal under pipeline pressure using a special open tool which is not contains ball valve. DV means DOWN SITE VALVE .

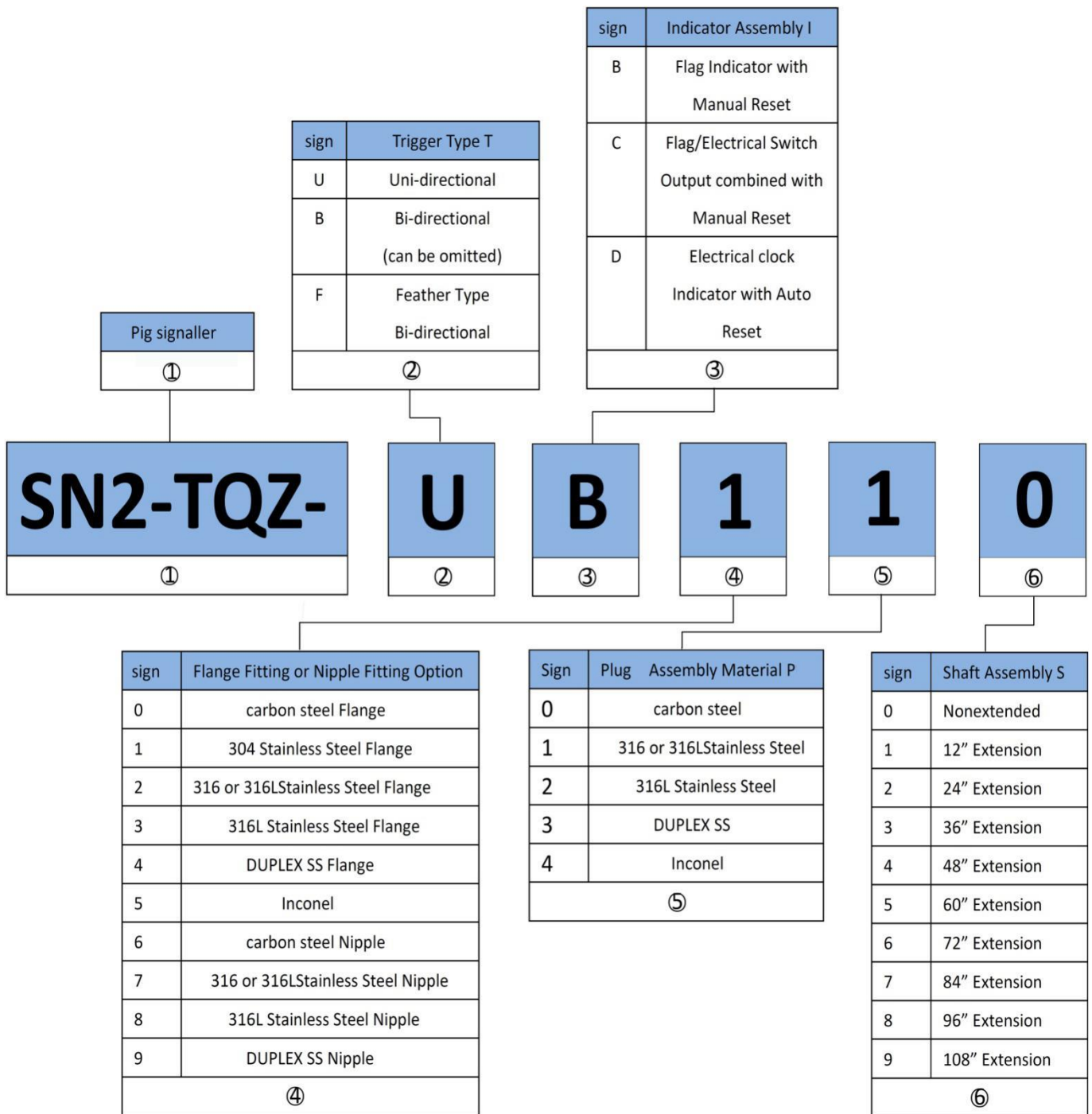
-REUV: Plug Assembly allow maintenance and removal under pipeline pressure using a special airproof tool which is contains a ball valve. UV means UP SITE VALVE .

-REIV: The Plug Assembly allow maintenance and removal under pipeline pressure using a special open tool which is not contains ball valve.
IV: Including valve itself

Extended models, for installation on buried pipelines, are available in all configurations.

Special materials and O-ring seals are available.

Order Information



Model Code:SN2-TQZ-TIFPS

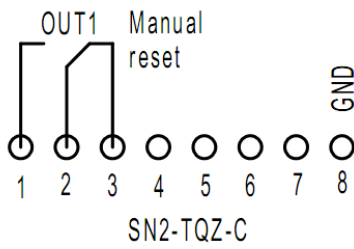
Order Example

SN2-TQZ-BC020 or SN2-TQZ-C020 is a bidirectional trigger pig signaller with Manual Reset Flag/ manual Reset Switch, a carbon steel Flange Fitting, a 316L Stainless Steel Plug Assembly, no extended shaft.

Terminal connection diagrams

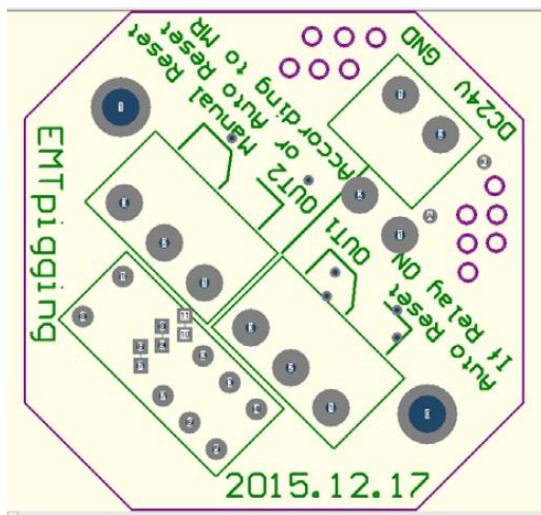


Manual Reset. SPDT Electrical Switch Output

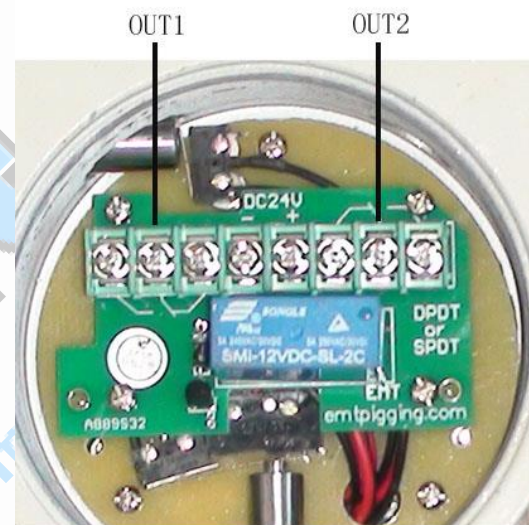
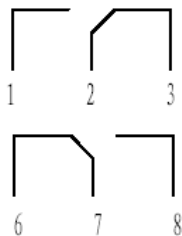


Contact Rating:5A/24VDC

Auto Reset. SPDT Electrical Switch Output and/or Manual Reset. SPDT Electrical Switch Output

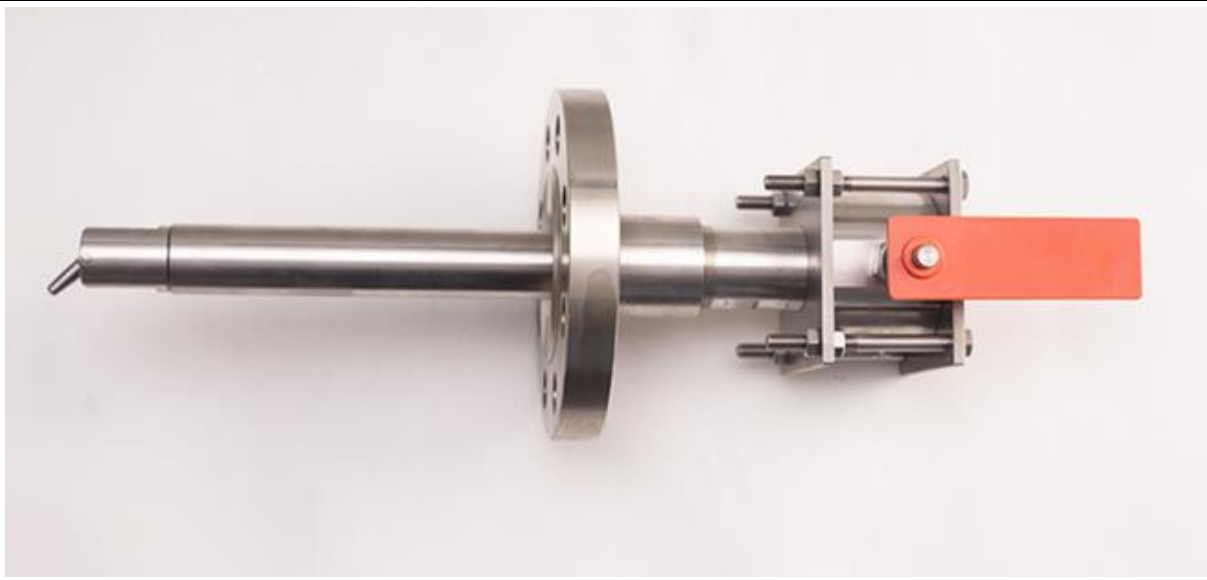


SN2-TQZ-D
SN2-TQZ-CD






Contact Rating:3A/24VDC

NO. 1 Pig Signaller: flange connection



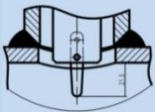

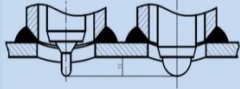
Basic Feature or Parameter

Item \ Indicator code	 B	 C	 D
Type	Intrusive		
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals
Installing type	2"Flange.As per ASME B16.5 (CLASS150~2500)		
Plug body length _Correspond to total stand off	200mm/Meet the actual needs		
Operating temperature	-20~120°C/Meet customer requirements		
NACE MR – 01- 75	Yes		
Ingress protection	IP65/IP66		
Explosion-proof class		ExdII BT4	ExdII BT4
Remove under pressure	NO		

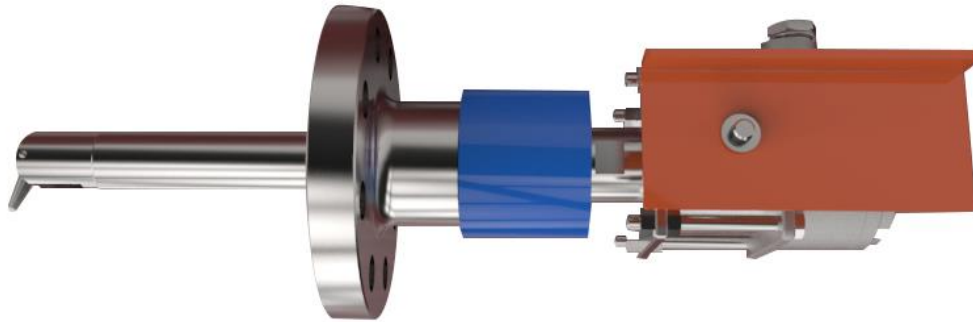
Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather /U-Uni-directional*)	●/○/○		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL /As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	●/○		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—

* Standard configuration of Uni-directional trigger is ball shape.




Corresponding relations between trigger and Insert depth (In pipe)

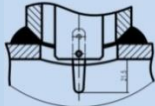
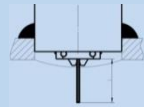
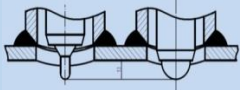
Trigger type	 Bi-directional	 Bi-directional feather	 Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 2 Removable Pig Signaller: thread o-ring plug & flange connection



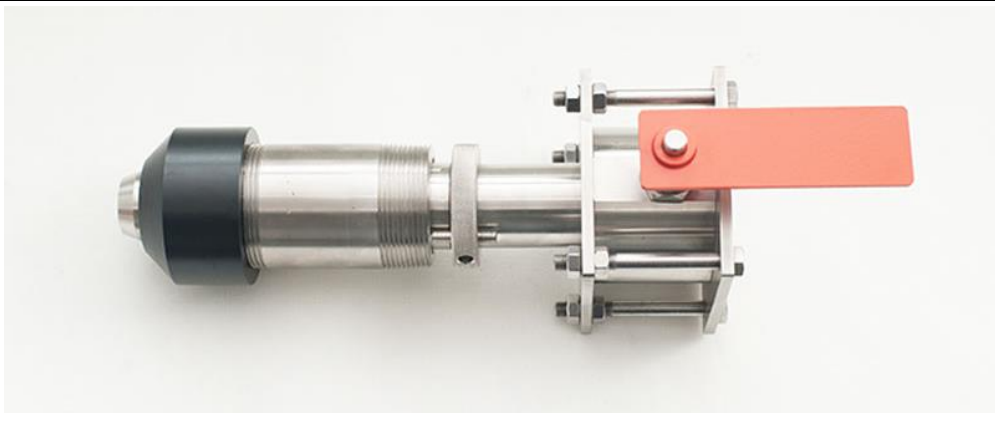
Basic Feature or Parameter

Item	Indicator code	 B	 C	 D
Type	Intrusive			
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2"Flange.As per ASME B16.5 (CLASS150~2500)			
Plug body length _Correspond to total stand off	Meet the actual needs			
Operating temperature	—20~120°C/Meet customer requirements			
NACE MR – 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class		ExdII BT4	ExdII BT4	
Include isolation valve	NO			
With bypass valve	NO			
With bleed valve	NO			
Remove under pressure	Yes			
Retriever	Special Retriever			




Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather/U-Uni-directional*)	○/○/●		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL /As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	●/○		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
* Standard configuration of Uni-directional trigger is ball shape.			
Corresponding relations between trigger and Insert depth (In pipe)			
Trigger type	 Bi-directional	 Bi-directional feather	 Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 3 Removable Pig Signaller:

2" Base welded, nipple joint connection, thread o-ring plug



Basic Feature or Parameter

Item	Indicator code		
	 B	 C	 D
Type	Intrusive		
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals
Installing type	2"Welded base,nipple joint.Design pressure up to 3000Psi		
Trigger type	Uni-directional		
Insert depth (In pipe)	13mm		
Plug body length	settled		
Insert depth adjustment	20mm		
Operating temperature	—20~120°C/Meet customer requirements		
NACE MR – 01- 75	Yes		
Ingress protection	IP65/IP66		
Explosion-proof class	ExdII BT4	ExdII BT4	ExdII BT4
Include isolation valve	NO		
With bypass valve	NO		
With bleed valve	NO		
Remove under pressure	Yes		
Retriever	Special retriever		

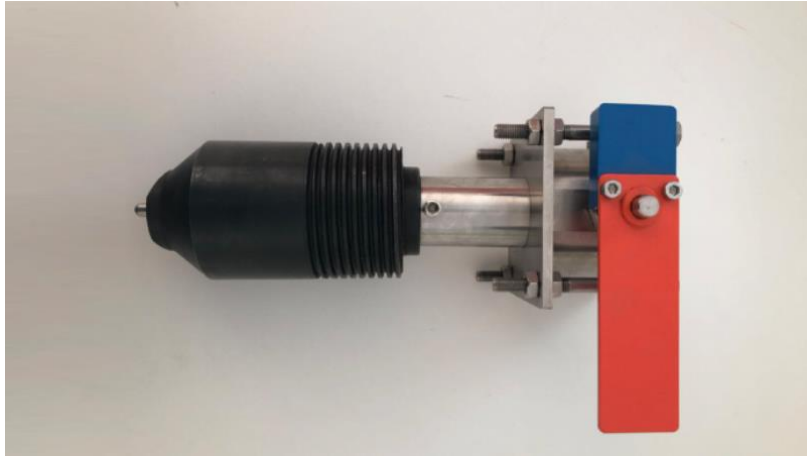
Optional Feature

● Standard configuration	○ Optional configuration	— None	
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Nipple/Body material</u> (304SS/316LSS/DSS/INCONEL/As per MR)	●/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—




* Standard configuration of Uni-directional trigger is ball shape.

Corresponding relations between trigger and Insert depth (In pipe)

NO. 4 Removable Pig Signaller: 2" Thread nipple welded & thread o-ring plug



Basic Feature or Parameter

Item	Indicator code	 B	 C	 D
Type	Intrusive			
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2" nipple welded. Design pressure up to 10000Psi			
Trigger type	Uni-directional			
Insert depth (In pipe)	13mm			
Plug body length	Meet the actual needs			
Operating temperature	-20~120°C/Meet customer requirements			
NACE MR - 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class		ExdII BT4	ExdII BT4	
Include isolation valve	NO			
With bypass valve	NO			
With bleed valve	NO			
Remove under pressure	Yes			
Retriever	Special retriever			

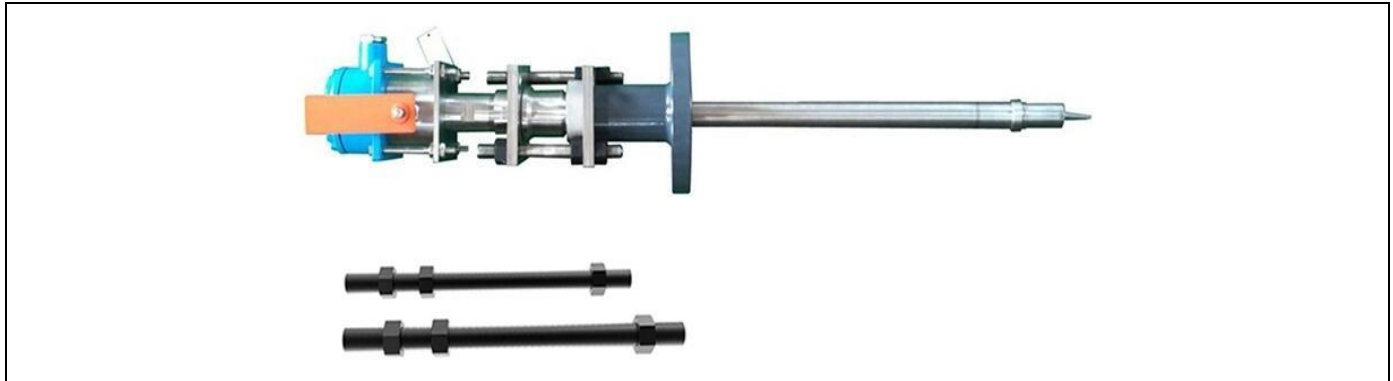
Optional Feature

● Standard configuration	○ Optional configuration	— None	
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Nipple/Body material</u> (A105N/304SS/316LSS/DSS/INCONEL/As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—




* Standard configuration of Uni-directional trigger is ball shape.

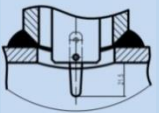
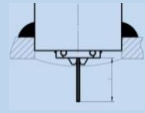
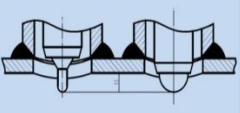
Corresponding relations between trigger and Insert depth (In pipe)

NO. 5 Removable Pig Signaller: on flange Valve

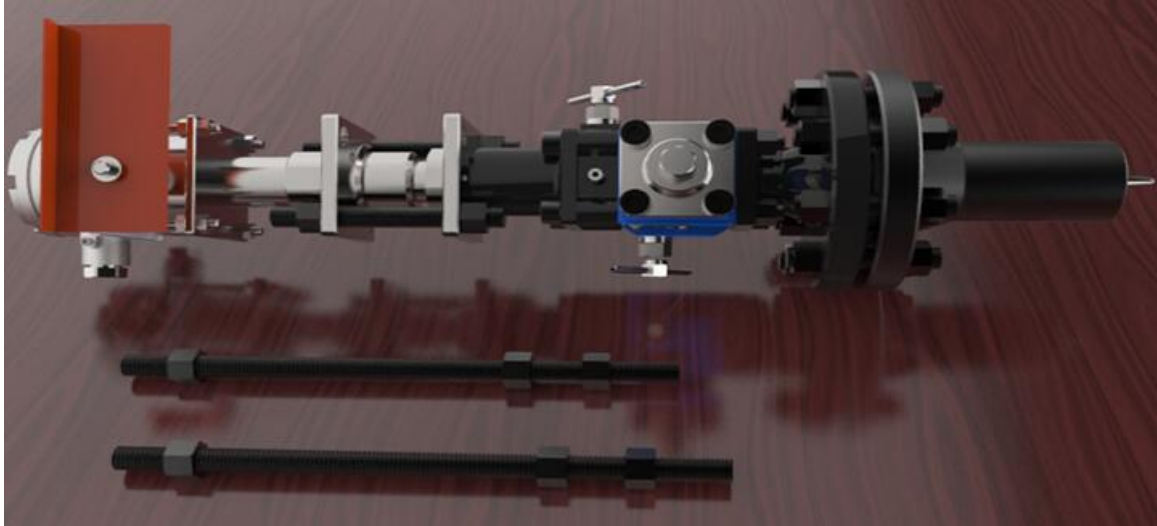


Basic Feature or Parameter

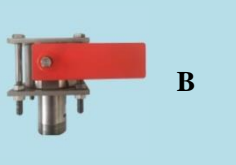


Item	Indicator code	 B	 C	 D
Type	Intrusive			
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2"Flange.As per ASME B16.5 (CLASS150~600)			
Plug body length _Correspond to total stand off	Meet the actual needs			
Operating temperature	—20~120°C/Meet customer requirements			
NACE MR – 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class		ExdII BT4	ExdII BT4	
Include isolation valve	NO			
With bypass valve	NO			
With bleed valve	NO			
Remove under pressure	Yes(The whole machine comes with a simple retriever_ two whole threaded studs)			

Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather/U-Uni-directional*)	●/○/○		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL/ As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	●/○		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/○
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
<u>Retriever</u> (Two full thread stud/ special tool)	●/○		
<u>Insert depth adjustment range</u> (± 10mm)	○		
* Standard configuration of Uni-directional trigger is ball shape.			
Corresponding relations between trigger and Insert depth (In pipe)			
Trigger type			
	Bi-directional	Bi-directional feather	Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 6 Removable Pig Signaller: flange connection with isolation valve



Basic Feature or Parameter

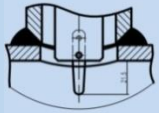
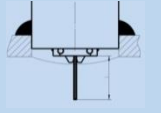
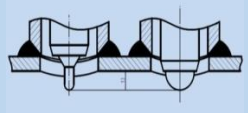
code Item	Indicator	 B	 C	 D
Type	Intrusive			
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2"Flange.As per ASME B16.5 (CLASS1500~2500)			
Plug body length _Correspond to total stand off	Meet the actual needs			
Operating temperature	—20~120°C/Meet customer requirements			
NACE MR – 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class		ExdII BT4	ExdII BT4	
Include isolation valve	Yes			
With bypass valve	Yes			
With bleed valve	Yes			
Remove under pressure	Yes(The whole machine comes with a simple retriever_ two whole threaded studs)			

Optional Feature

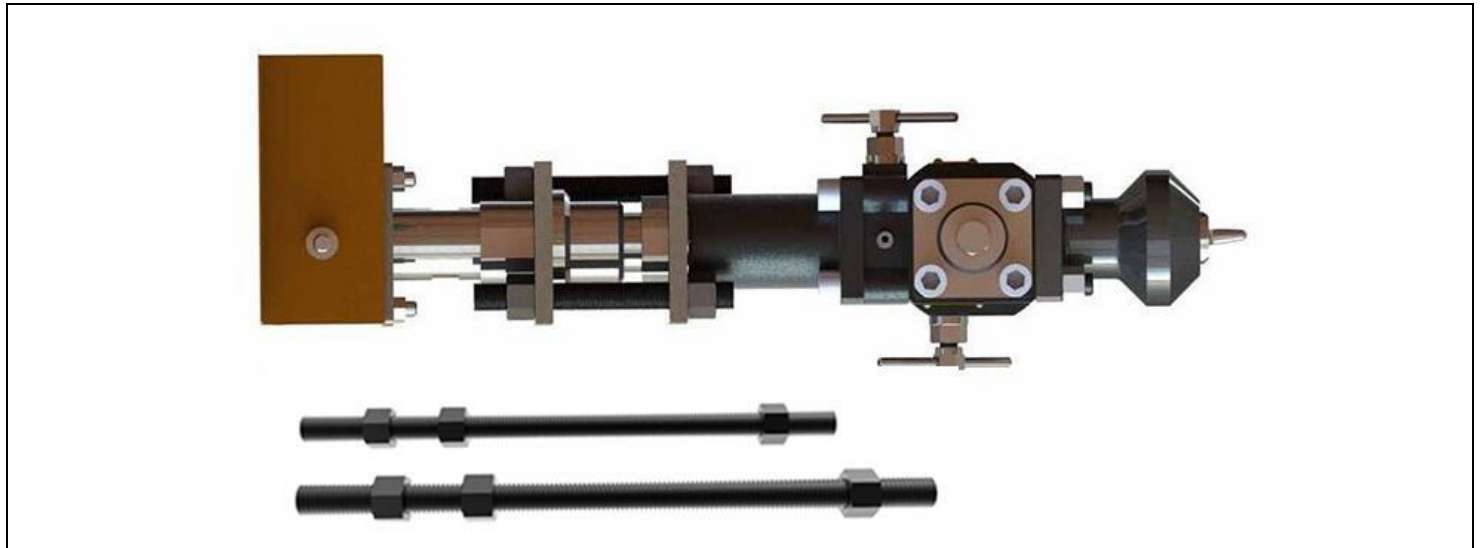
<input checked="" type="radio"/> Standard configuration	<input type="radio"/> Optional configuration		<input type="radio"/> None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather/U-Uni-directional)	○/○/●		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL /As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/○
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
<u>Retriever</u> (Two full thread stud/ special tool)	●/○		
<u>Insert depth adjustment range</u> (± 10mm)	●		

* Standard configuration of Uni-directional trigger is ball shape.




Corresponding relations between trigger and Insert depth (In pipe)

Trigger type	 Bi-directional	 Bi-directional feather	 Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 7 Removable Pig Signaller: nipple welded with isolation valve



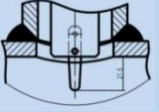
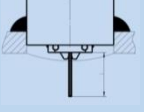
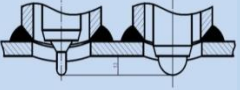
Basic Feature or Parameter

Item	Indicator code	 B	 C	 D
Type	Intrusive			
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2"Nipple welded. Design pressure up to 10000Psi			
Plug body length _Correspond to total stand off	Meet the actual needs			
Operating temperature	-20~120°C/Meet customer requirements			
NACE MR – 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class			ExdII BT4	ExdII BT4
Include isolation valve	Yes			
With bypass valve	Yes			
With bleed valve	Yes			
Remove under pressure	Yes(The whole machine comes with a simple retriever_ two whole threaded studs)			

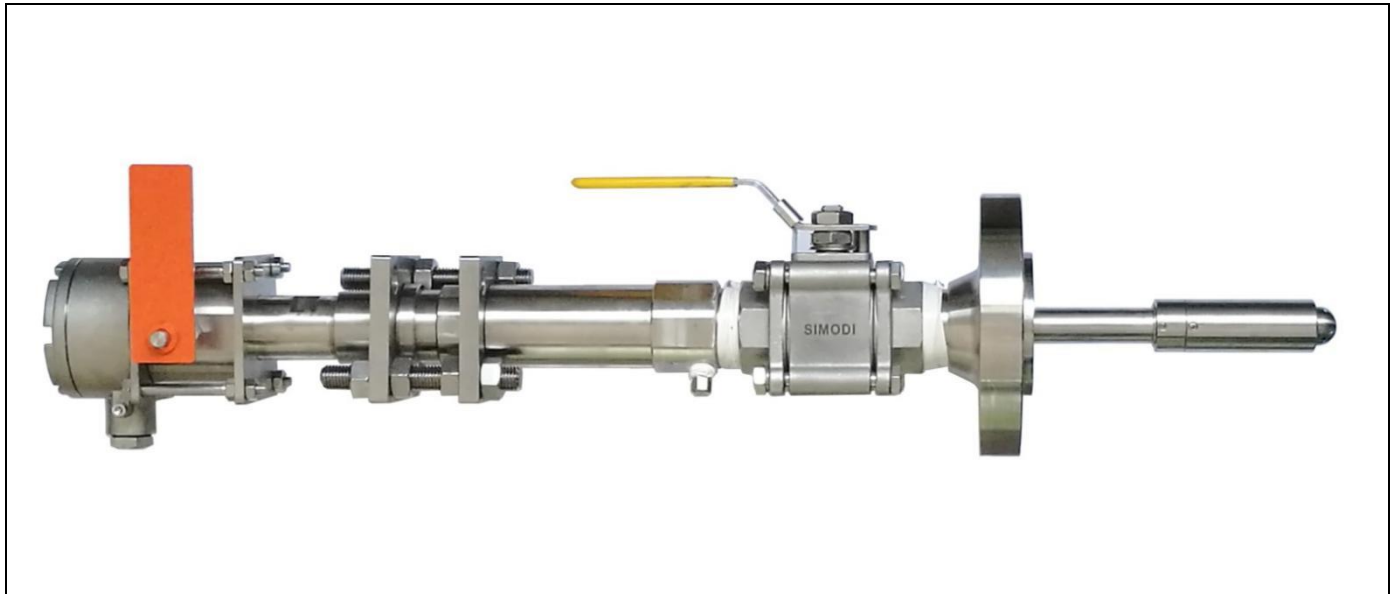
Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather/U-Uni-directional*)	○/○/●		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL /As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type(DPDT/SPDT)</u>	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
<u>Retriever</u> (Two full thread stud/ special tool)	●/○		
<u>Insert depth adjustment range</u> (±10mm)	●		

* Standard configuration of Uni-directional trigger is ball shape.


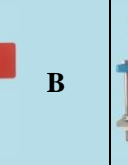

Corresponding relations between trigger and Insert depth (In pipe)

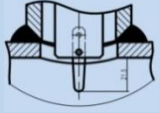
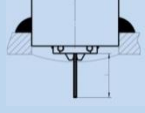
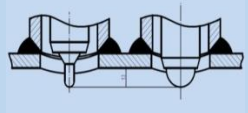
Trigger type	 Bi-directional	 Bi-directional feather	 Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 8 Removable Pig Signaller: with Ball Valve



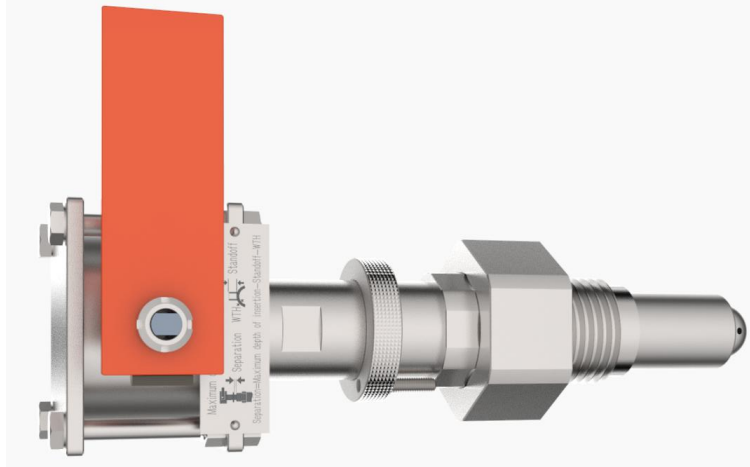
Basic Feature or Parameter

code Item	Indicator	 B  C  D		
		Type	Intrusive	
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals	
Installing type	2"Flange As per ASME B16.5(Class150~1500)/thread- o-let (4000Psi)			
Plug body length _Correspond to total stand off	Meet the actual needs			
Operating temperature	—20~120°C/Meet customer requirements			
NACE MR – 01- 75	Yes			
Ingress protection	IP65/IP66			
Explosion-proof class		ExdII BT4	ExdII BT4	
Include isolation valve	Yes			
With bypass valve	NO			
With bleed valve	Yes			




Remove under pressure	Yes(The whole machine comes with a simple retriever_ two whole threaded studs)		
Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger type</u> (B-bi-directional/F-Bi-directional feather/U-Uni-directional)	○/○/●		
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Flange/Body material</u> (PTFE Coated A105N/304SS/316LSS/DSS/INCONEL /As per MR)	●/○/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/○
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
<u>Retriever</u> (Two full thread stud/ special tool)	●/○		
<u>Insert depth adjustment range</u> (±10mm)	●		
* Standard configuration of Uni-directional trigger is ball shape.			
Corresponding relations between trigger and Insert depth (In pipe)			
Trigger type			
	Bi-directional	Bi-directional feather	Uni-directional
Insert depth (In pipe)	21mm	30mm	13mm

NO. 9 Replaced Pig Signaller for customized:

2" Base welded, replace the old pig signaller for customized, thread o-ring plug



Basic Feature or Parameter

Item \ Indicator code	 B	 C	 D
Type	Intrusive		
Indicator feature	Manual reset flag	Manual reset flag combined with electrical signals	Date and time display combined with electrical signals
Installing type	2"Welded base of existing, Design pressure up to 3000Psi		
Trigger type	Uni-directional		
Insert depth (In pipe)	13mm		
Plug body length	settled		
Insert depth adjustment	20mm		
Operating temperature	—20~120°C/Meet customer requirements		
NACE MR – 01- 75	Yes		
Ingress protection	IP65/IP66		
Explosion-proof class		ExdII BT4	ExdII BT4
Include isolation valve	NO		
With bypass valve	NO		
With bleed valve	NO		

Remove under pressure	No		
Retriever	Special retriever		
Optional Feature			
● Standard configuration	○ Optional configuration		— None
<u>Trigger mechanism-Flag interaction</u> (No/Yes_ The flexibility of trigger mechanism would be checked online)	—/●	—/●	—/—
<u>Internal part material</u> (316L SS/DSS/INCONEL)	●/○/○		
<u>Nipple/Body material</u> (304SS/316LSS/DSS/INCONEL/As per MR)	●/○/○/○/○		
<u>The position of Internal liquid surface</u> (High_Need to heating/Low_With no need for heating)	—/●		
<u>Junction box material</u> (Aluminium alloy/316SS)	—/—	●/○	●/—
<u>Switch type</u> (DPDT/SPDT)	—/—	○/●	○/●
<u>Switch rating</u> (DC24V 3A/DC24V 5A)	—/—	●/○	●/—
<u>Electrical connection size</u> (M20×1.5(F)/1/2"NPT(F))	—/—	●/○	●/—
* Standard configuration of Uni-directional trigger is ball shape.			
Corresponding relations between trigger and Insert depth (In pipe)			