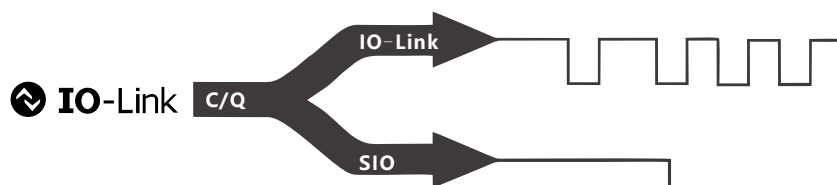




T3H、T3P IO-Link

T-Series III

Data Sheet



- + Updated new generation: stronger performance
- + Direct analog output, position and velocity
- + Full scale adjustable, 100% adjustable zero and full scale
- + IO-Link signal output



THE NEW  GENERATION



Double
anti-interference



High
performance chip



Reverse polarity
protection



Shock/vibration
resistant

TECHNICAL PARAMETER

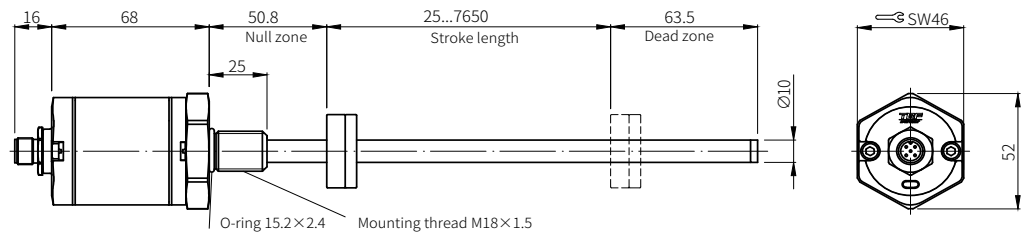
TECHNOLOGY PERCEIVES THE FUTURE

Input	Measured data	Position/Velocity			
	Position measurement range	T3H 25mm...7650mm T3P 25mm...5600mm			
	Velocity measurement range	0.01...10m/s			
Output	Interface	IO-Link 1.1			
	Data format	32-bit signed			
	Process data Master – Device	0 Byte			
	Transmission rate	Rate(bit/s) Port	4800 COM1	38400 COM2	230400 COM3
Resolution	Position resolution	5/10/20/50/100μm			
	None-Linearity	< ±0.02%F.S. (min. ±20μm)			
	Repeatability	< ±0.002%F.S. (min. ±5μm)			
	Update time	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4800mm
		Update time	0.5ms	1ms	2ms
	Temperature coefficient	<30ppm/°C			
Mounting	Mounting position	Any			
	T3P aluminum profile	Removable fixing card			
	T3H pressure resistant outer tube	Threaded: metric M18x1.5, metric M20x1.5, metric M24x1, 3/4"-16UNF-3A			
Design/ Material	T3H	Electronics housing: aluminum alloy/zinc alloy Measuring rod: stainless steel 304/316L Magnet: standard magnet/open magnet			
	T3P	Electronics housing: aluminum alloy/zinc alloy Profile: aluminum alloy Magnet: slider magnet/suspension magnet/U-magnet/U-magnet			
	Operating pressure	35MPa (continuous) ,70MPa (peak)			
Electrical connection	Wiring connection	5 pin M12 connector			
	Operating voltage	+24VDC (-15/+20%)			
	Polarity protection	Up to -36VDC			
	Overvoltage protection	Up to +36VDC			
	Power consumption	< 40mA (varies with range size)			
	Dielectric strength	500 VDC (DC ground to machine ground)			
Operating conditions	Magnet velocity	Slider magnet ≤ 10m/s; magnetic ring, any; suspension magnet, any.			
	Operating temperature	-40...85°C			
	Humidity	90 % relative humidity, no condensation			
	Ingress protection	IP67			
	Shock	150 g/11 ms, IEC standard 60068-2-27			
	Vibration	30 g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies excluded)			
	EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2			
ITEM	CATEGORY	PARAMETER			

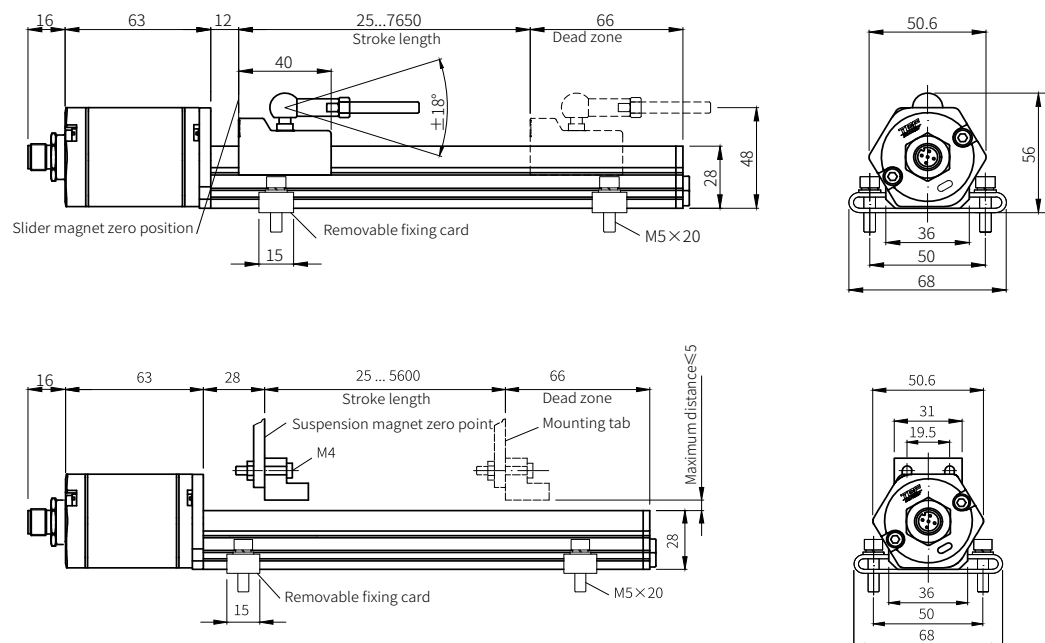
T3H/P- ____ - **D512** - ____

Aviation plug

T3H



T3P



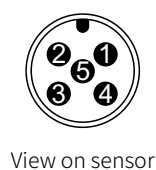
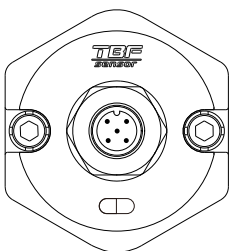
FUNCTION

5 pin M12 connector

D512

PIN

Function

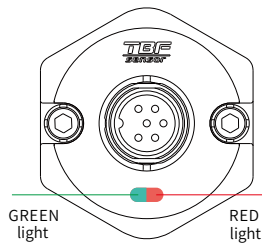


View on sensor

1	+24VDC (-15/+20%)
2	-
3	GND
4	C/Q(communication line)
5	-

Enhanced monitoring and diagnostic functions

TECHNOLOGY PERCEIVES THE FUTURE



Green light	Function	Red light	Function
FLASH	Normal communication	OFF	Magnet within effective range
OFF	Communication exception	ON	Magnet leaves effective range or magnet cannot be detected

The built-in LED indicator light provides basic fault feedback and fault alarm of the sensor.

ORDER CODE

T3H - - - - M - - - - L - - - -

Thread	Stroke length	Connection type	Output (Output Code)
M Metric M18x1.5	0025...7650mm (5mm increments)	D512 5 pin M12 connector	
V Metric M20x1.5			
S 3/4"-16UNF-3A			
W Metric M24x1			
R Metric M18x1.5, with M4x6 thread at tail end			

T3P - - - - M - - - - L - - - -

Magnet	Stroke length	Connection type	Output (Output Code)
S Magnet slider joint at top	0025...5600mm (5mm increments)	Same as above	
V Magnet slider joint at front			
F Suspension magnet			
U U-magnet			

IO-Link Output Code	L [1][2][3]-[4]			
L Interface	[1] Resolution	[2] Output	[3] IO-Link version	[4] Magnet number
L IO-Link	1 5μm*	1 Position	1 V1.1, COM 1	1 one magnet *
	3 10μm	2 Position and speed*	2 V1.1, COM 2	2 two magnets
	4 50μm	3 2 positions	3 V1.1, COM 3*	3 three magnets
	5 100μm	4 2 positions and 2 speeds		
	7 20μm	5 Configurable outputs		

Note: "*" as default

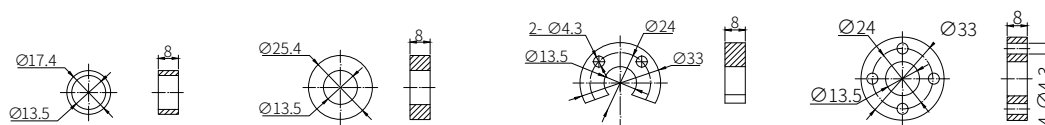
Model selection | Model: T3H-M-0600M-D512-L123-1

Explanation: T series III generation, T3H pressure resistance outer tube type, mounting thread metric M18x1.5, stroke length 600mm, 5 pin M12 connector, IO-Link output ,resolution 5μm ,position and speed measurement, V1.1,COM3,single magnet.

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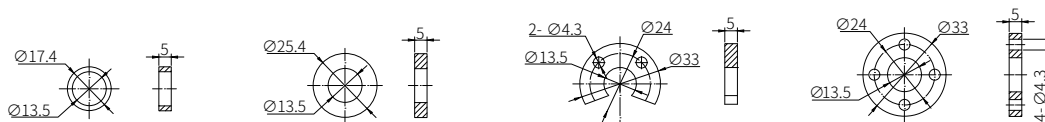
PARTS SELECTION

TECHNOLOGY PERCEIVES THE FUTURE

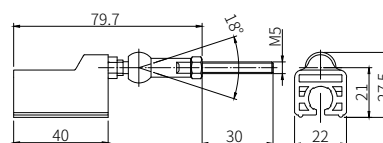
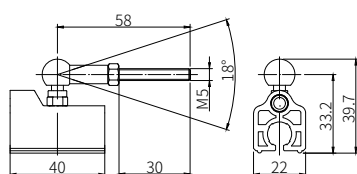


Name	Ring magnet	Ring magnet	U-magnet	Ring magnet
Operating temperature	-40...125°C			
Order code	12-1032	12-1019	12-1017	12-1001

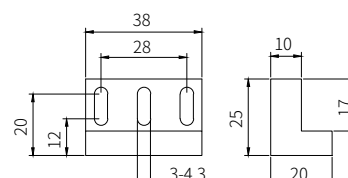
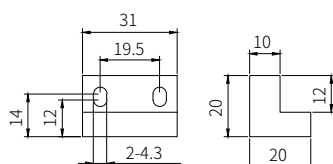
Fitting non-magnetic gasket



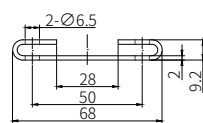
Name	Non-magnetic gasket	Non-magnetic gasket	Non-magnetic gasket	Non-magnetic gasket
Operating temperature	-40...125°C			
Order code	12-1037	12-1021	12-1018	12-1008



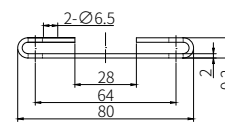
Name	Magnet slider S, joint at top	Magnet slider V, joint at front
Operating temperature	-40...105°C	
Order code	12-1114	12-1115



Name	Suspension magnet 31x20	Suspension magnet 38x25
Operating temperature	-40...105°C	
Order code	12-1010	12-1009

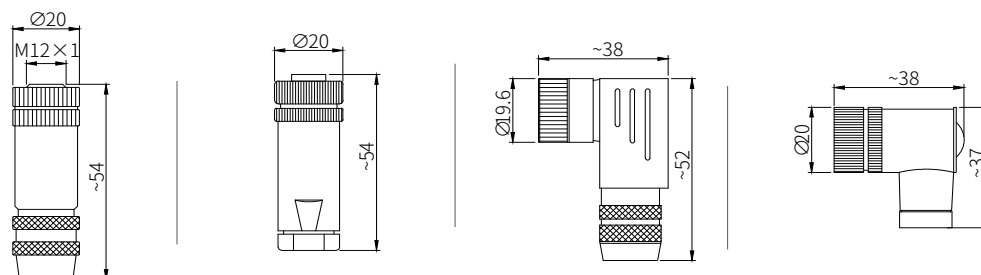


Width: 15mm



Width: 15mm

Name	Removable fixing card	Removable fixing card
Order code	11-1003	11-1004



Name	5 Pin M12 female connector	5 Pin M12 female connector	5 Pin M12 female connector	5 Pin M12 female connector
Interface drawing				
Material	Galvanized nickel	Polyamide	Galvanized nickel	Polyamide
Fitting diameter	6...8mm			
Connection	Threaded			
Order code	18-2007 (female)	18-2005 (female)	18-2010 (female)	18-2006 (female)

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