THINK
TECH
STRACK

DIGITAL PRODUCTS

TiM® by STRACK

tool information monitoring

STRACK®

NORMALIEN

STRACK BECOMES DIGITAL WITH TiM

Secure data, create transparency, optimize production

Converting analogue data and processes in digital formats is on the agenda of many companies. In the context of a networked production this also includes the availability of real-time data from the running production. The aim is collecting data transparently on tools and to draw logical conclusions for the optimization of the processes, for example with regard to a preventive maintenance. We are now offering with our new product series **TiM by STRACK** hard- and software solutions that digitally record such confidential critical core sizes for the first time, not cloud-based, but document them in the company's own network. In addition, there are further benefits such as versatile application possibilities in tools in the punching- and moulding area, integration of many tools and a good price-performance ratio.
Many toolmakers and designers are aware of the advantages of the latest, digital measurement technology, however, the concerns about data security, practicability on a permanent basis and running costs are high. Together with partner companies we invested a lot of development work in order to be able to offer a convincing concept for solving these important tasks and questions. It is called **TiM by STRACK**, TiM stands for **T**ool **i**nformation **M**onitoring.

Described in a simplified manner, a mounted, so-called TiM box records for example core sizes such as pressure, strokes and cycles and documents them in a life-cycle file of the tool. A specially developed software transfers the data directly to the box, where it is visualized via the internal network and can be called up at any workstation. In this way, the data remain in the company itself and is audit-compliant, i.e. it indicates, for example, the next maintenance, and displays which maintenance and how it has to be carried out or reveals anomalies. This ensures, among other things, security, and data transparency, increases productivity, optimizes the maintenance planning, reduces maintenance costs and downtimes.

Another special feature is that a large number of tools can be monitored in the process without having to use a separate system for each individual tool. Therefore, the TiMlog core module can also be mounted on the machine and can there collect and use real-time data from so-called TiMtags attached to the tools. Since everything can be coupled with each other, noticeable cost savings are achieved.

Whether for one or more tools and for companies already using an implemented ERP system:
Thanks to these integrated interfaces, **TiM by STRACK** is a safe and well-thought-out choice, which amortizes in short time and quickly leads to a safe and predictable production.

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Benefits of TiM by STRACK

- Documentation of all tool data directly on the tool/ machine/ network
- Recording of cycles, operating hours or sensor data
- Integrated maintenance planner for
  - ➔ Optimization of maintenances
  - ➔ Reduction of maintenance- and repair costs
  - ➔ Including setting of pre-warning limits
  - ➔ Including documentation of the individual maintenances
- Software for visualization directly on the TiMlog
- Views adaptable for different users and provided with authorizations
- User retains data sovereignty - NO cloud solution
- Free API (Application Programming Interface) - interface for connecting higher-level systems (e.g. ERP)
- TiMlog V1 location-independent (prerequisite is the integration into the respective company network)
- TiMlog V2 suitable for monitoring and documenting multiple tools on one or more machines
- Synchronization TiMlog V2 (same data base on all TiMlogs V2 by synchronization in the network brings high data security)
- TiMtags are machine-independent and can be coupled with TiMlog V2

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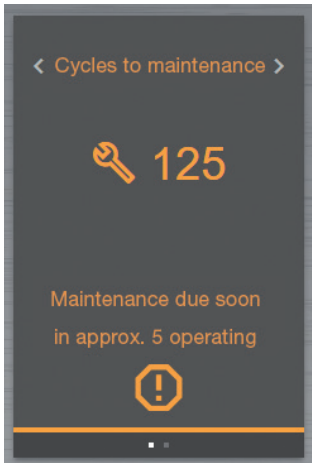
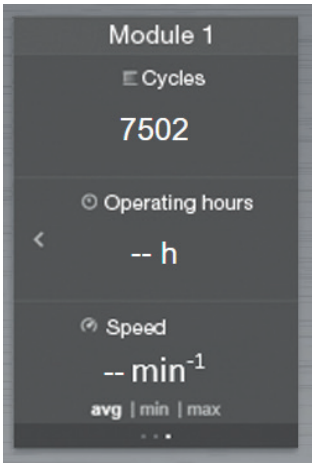
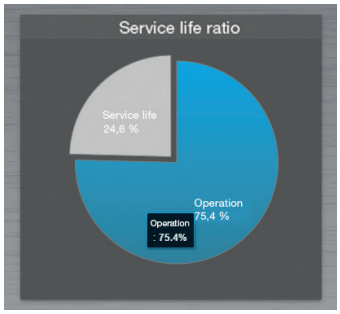
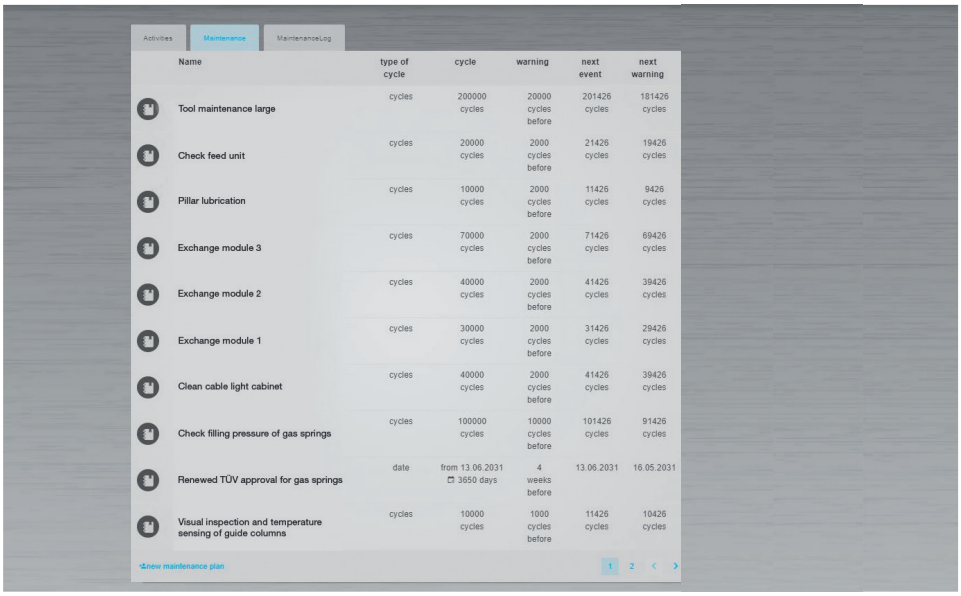
TiM Software

- Software on Board integrable and retrievable in the network
- Suitable for different users
- All data per tool depositable and retrievable
- Total cycle counter
- Several single cycle counters adjustable
- Minimum and maximum average values retrievable
- Service life distribution
- Maintenance display
- Log entries for all maintenances or sensor data retrievable
- Own company logo in the user surface
- Language selectable
- Product image of the selected tool visible
- Search function for occurrences and entries or documents









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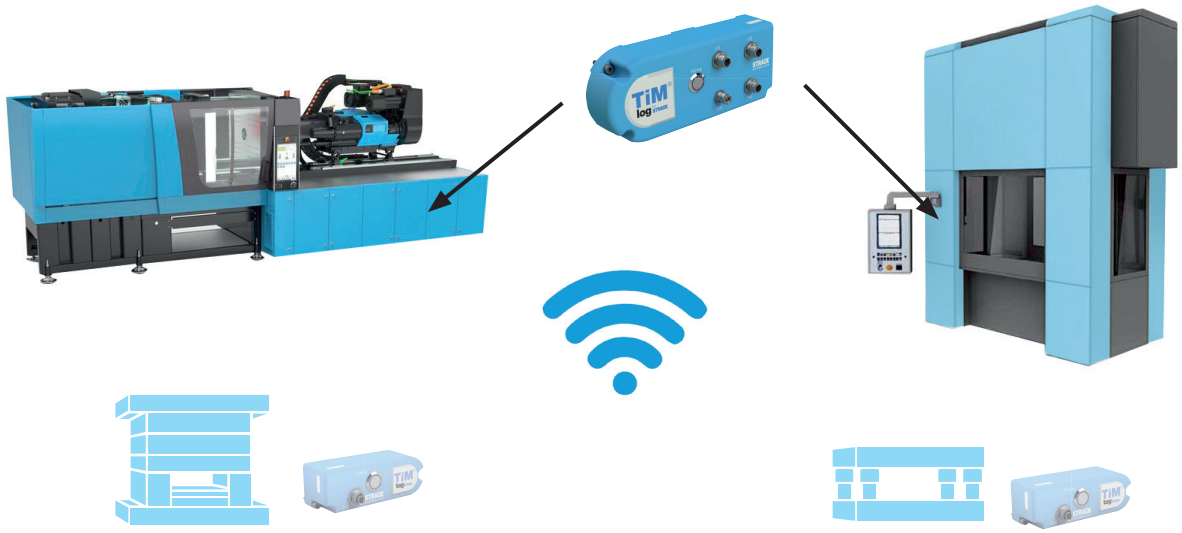
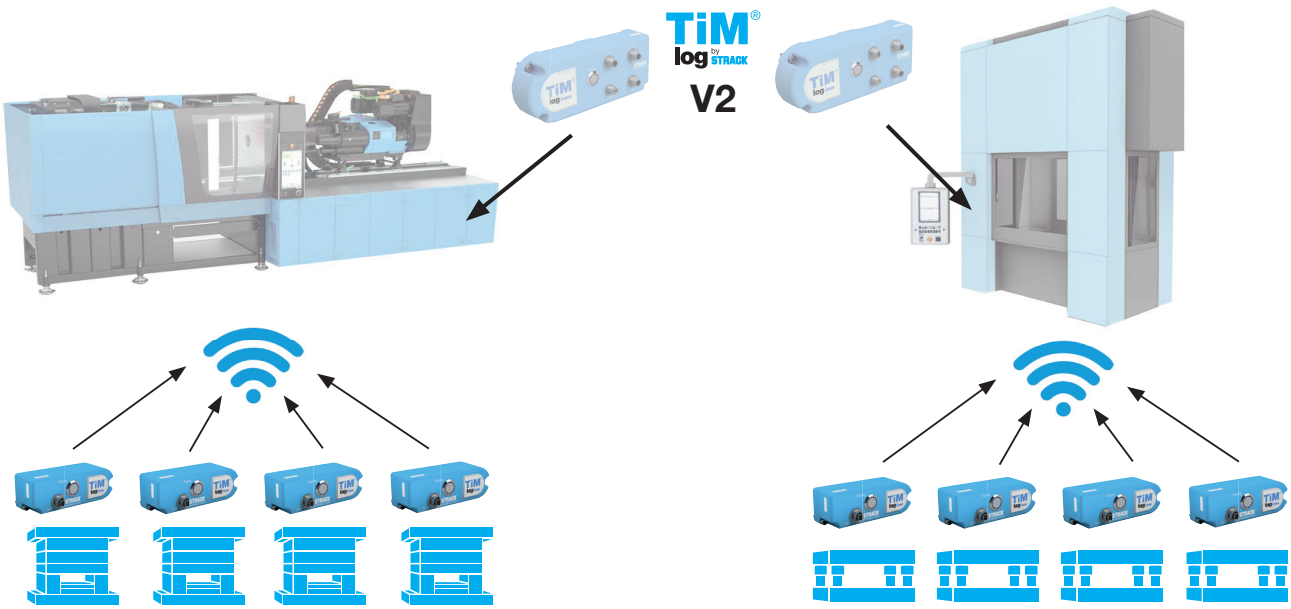
TiMlog V1 on the tool

TiMlog V2 on the machine



TiMtag on the tool



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TiM variants

Functional overview	TiMlog V1 	TiMlog V2 	TiMtag 
Cycle counter	✔		✔
Cycle speed	✔		
Different user levels	✔		
System log-entries concerning occurrences	✔		
HDMI user surface	✔		
NFC-communication	✔		✔
Preparation of maintenance schedule	✔		
Data book	✔		
Lifetime file	✔		✔
Data storage	✔	✔ **	✔ ***
Sensor connection	✔		-
Number of connectable tools	1	150	1

* *Functions included after sensor is connected*
** *All TiMtag data ever connected is on TiMlog V2*
*** *Tool data can only be found from one tool on the TiMtag*

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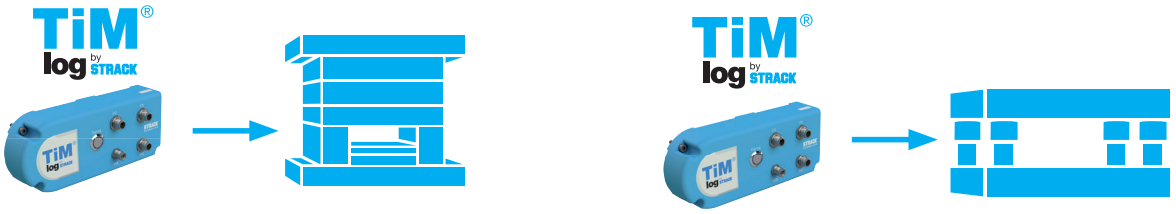
TiMlog V1 on the tool



Characteristics

TiMlog V1 mounted directly on the tool

Connection of sensors

Software for visualization on Board

TiMlog V1 must be integrated into the network for access

Integrated maintenance planner for

- ➔ Optimization of maintenances
- ➔ Reduction of maintenance- and repair costs
- ➔ Including setting of pre-warning limits
- ➔ Including documentation of the individual maintenances

Cycle counter (total- and several individual counters)

Monitoring and documentation via network on the TiMlog V1

Direct documentation on the tool (lifetime file)

Time- and cost saving, as all documents are retrievable in one place anywhere and at any time

License model including hardware and software update

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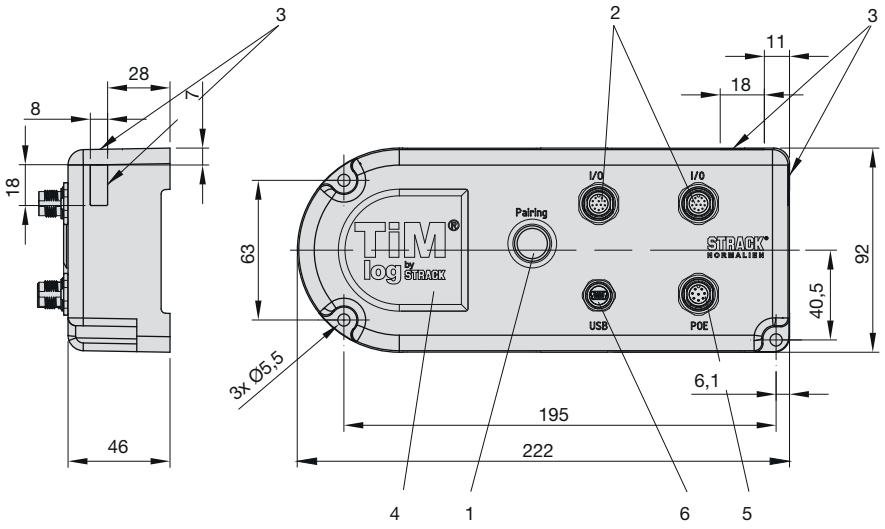
TiMlog V1 Tool information Monitoring

SN10110 | Mat.: PA6GF30

SN10110



Technical information	
Housing	PA6GF30
Protection class	IP 67
Ambient temperature operation	0°C up to 50°C
Power supply	DCIN 24V DC 7W over I/O
(optional)	DCIN 50V DC 7W over POE
LED status lights	yes

Pos.	Designation	Function
1	Pairing	Used to couple TiMlog and TiMtag
2	I/O resp. 24V	Connection power supply 24V and sensors
3	Sensor surfaces	Define the area of the sensor surface for counting the cycles
4	NFC	Used to read out the master data in case of non-existing power supply or network access (e.g. current status, last maintenance etc.)
5	POE	Power over Ethernet, network connection (alternative power supply 48V)
6	USB	Download of files, import of updates (as an alternative to network)

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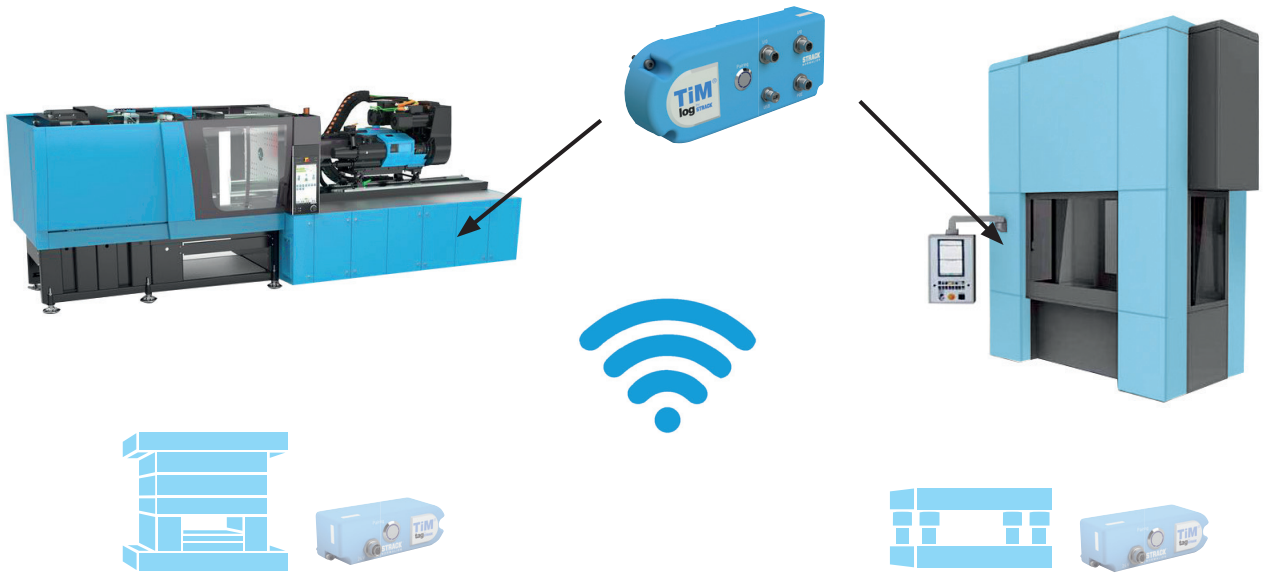
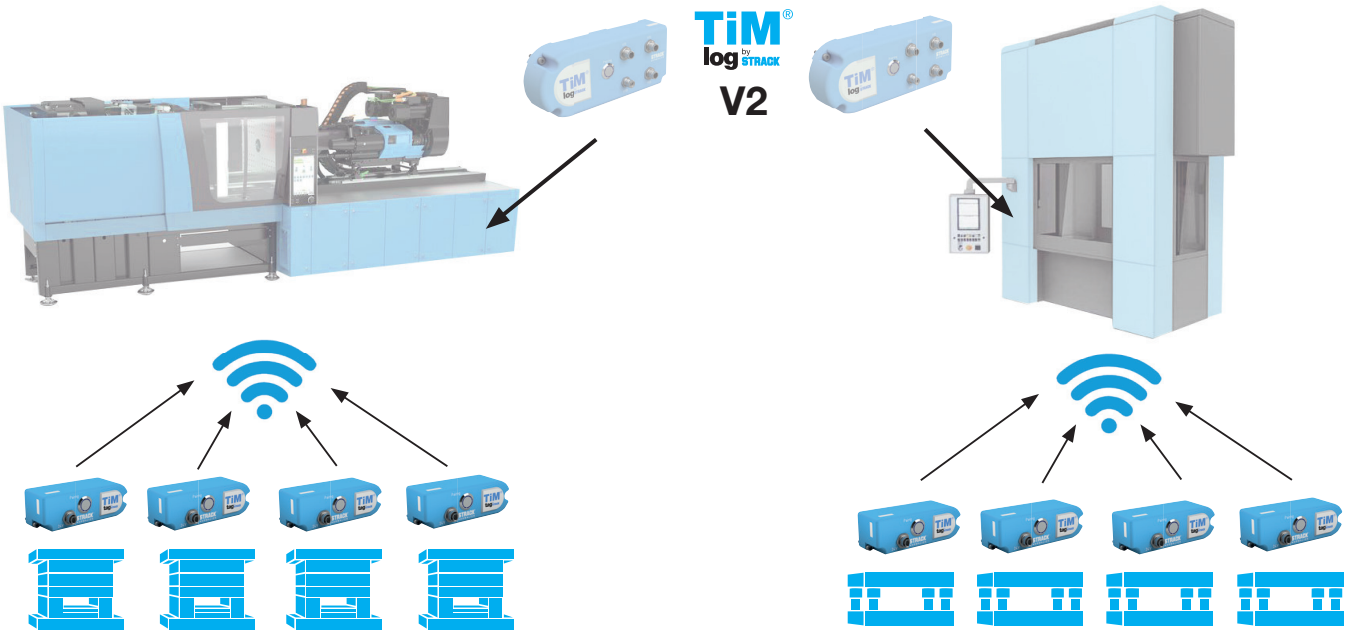
TiMlog V2 on the machine



TiMtag on the tool



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TiMlog V2

Characteristics

TiMlog V2 mounted directly on the machine

Connection of sensors

Software for visualization on Board

TiMlog V2 must be integrated into the network for access

Integrated maintenance planner for

- ➔ Optimization of maintenances
- ➔ Reduction of maintenance- and repair costs
- ➔ Including setting of pre-warning limits
- ➔ Including documentation of the individual maintenances

Cycle counter (total- and several individual counters)

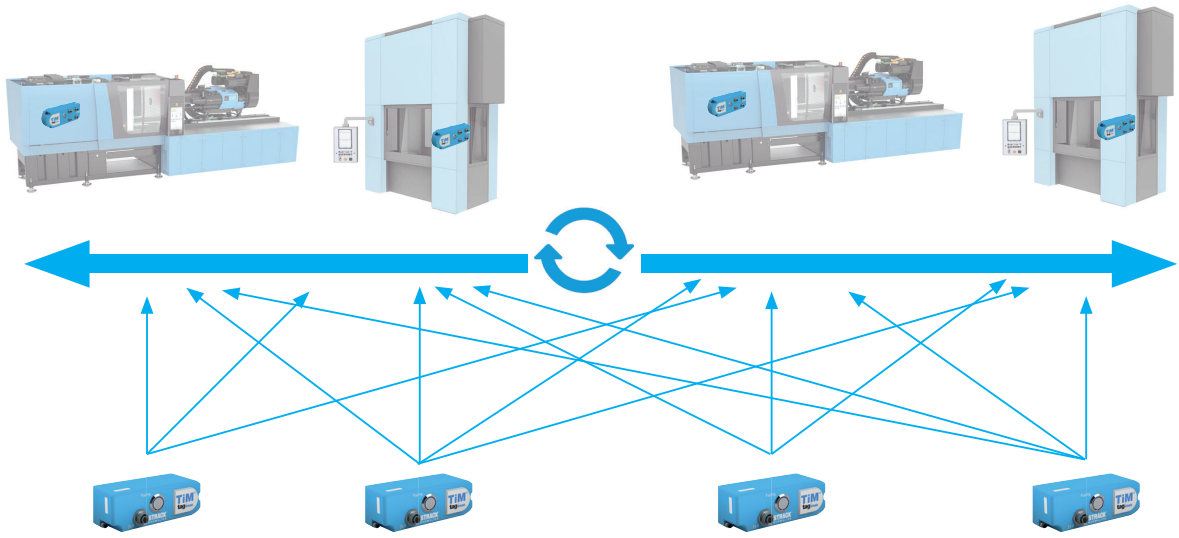
Monitoring and documentation via network on the TiMlog V2

Direct documentation on the tool (lifetime file)

Time- and cost saving, as all documents are retrievable in one place anywhere and at any time

License model including hardware and software update

TiMlog V2 - TiMtag Synchronization



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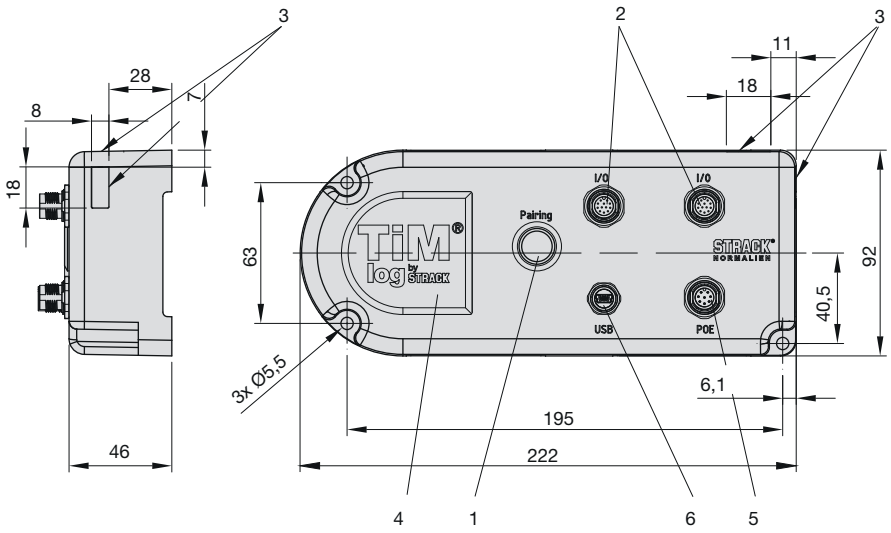
TiMlog V2 Tool information Monitoring



SN10120	Mat.: PA6GF30
SN10120	

Technical information	
Housing	PA6GF30
Protection class	IP 67
Ambient temperature operation	0°C up to 50°C
Power supply	DCIN 24V DC 7W over I/O
(optional)	DCIN 50V DC 4W over POE
LED status lights	yes

Pos.	Designation	Function
1	Pairing	Used to couple TiMlog and TiMtag
2	I/O resp. 24V	Connection power supply 24V and sensors
3	Sensor surfaces	Define the area of the sensor surface for counting the cycles
4	NFC	Used to read out the master data in case of non-existing power supply or network access (e.g. current status, last maintenance etc.)
5	POE	Power over Ethernet, network connection (alternative power supply 48V)
6	USB	Download of files, import of updates (as an alternative to network)

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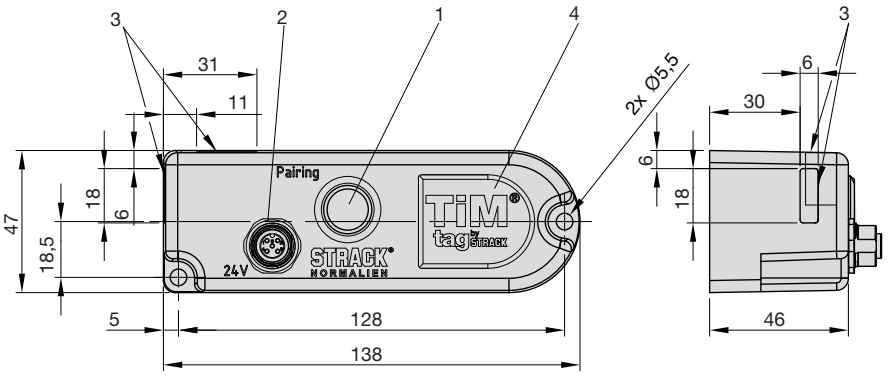
TiMtag Tool information Monitoring



SN10130 | Mat.: PA6GF30

SN10130

Technical information	
Housing	PA6GF30
Protection class	IP 67
Ambient temperature operation	0°C up to 60°C
Power supply	DCIN 24V DC 1W over I/O
LED status lights	yes

Pos.	Designation	Function
1	Pairing	Used to couple TiMlog and TiMtag
2	I/O resp. 24V	Connection power supply 24V and sensors
3	Sensor surfaces	Define the area of the sensor surface for counting the cycles
4	NFC	Used to read out the master data in case of non-existing power supply or network access (e.g. current status, last maintenance etc.)
5	POE	Power over Ethernet, network connection (alternative power supply 48V)
6	USB	Download of files, import of updates (as an alternative to network)

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Network cable

- Ethernet CAT5 (1 GBit/s)
- 8-pin
- PUR
- water blue RAL 5021
- shielded
- Connector straight RJ45 / IP20,
- on socket straight M12 SPEEDCON / IP67
- Encoding: A

SN10140-POE-	L
SN10140-POE-L	10000

Sensor cable 5-pin

- PUR halogen-free
- black grey RAL 7021
- shielded
- Plug straight M12
- Encoding: A
- on free end of line

SN10150-	Type	n	L
SN10150-Type-n-L	1	05	5000

Sensor cable 12-pin

- PUR/PVC
- black RAL 9005
- shielded
- free end of line
- on socket straight M12 SPEEDCON
- Encoding: A

SN10160-	Type	n	L
SN10160-Type-n-L	1	12	5000

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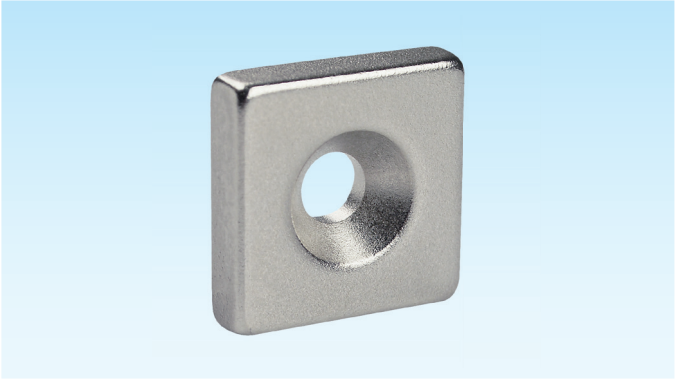
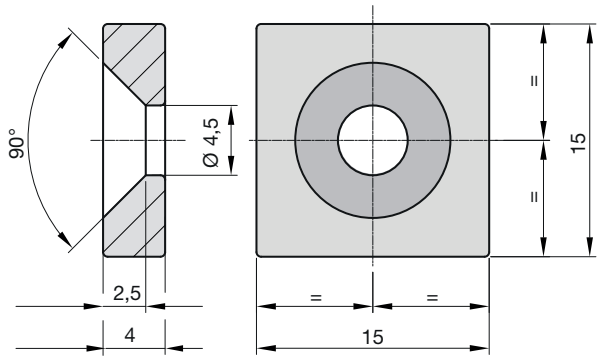
Magnet

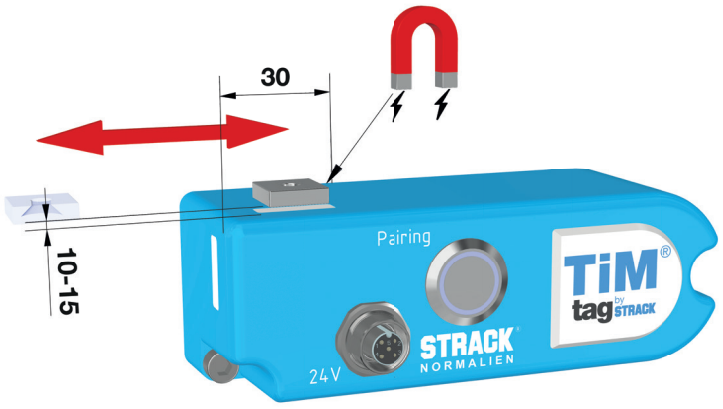




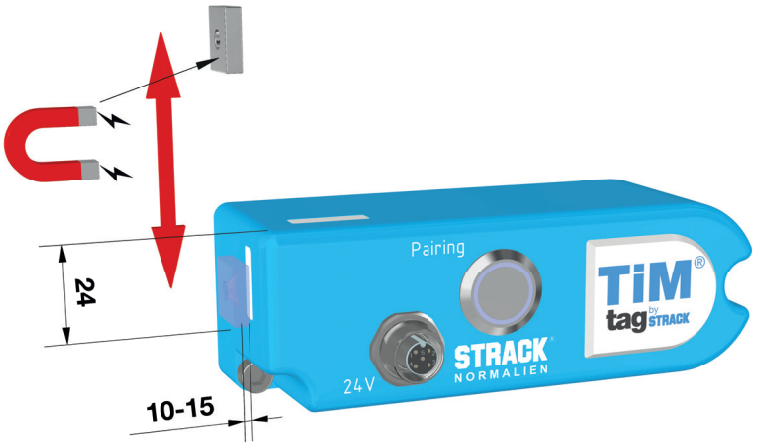
SN10170-	
SN10170-01	

Technical information	
Material	NdFeB
Adhesive force approx.	ca. 39,2 N
Tolerance	+/- 0,1 mm
Coating	nickel-plated (Ni-Cu-Ni)
Magnetization	N35
Max. operating temperature	80°C
Weight	5,8400 g

Installation example magnetic counter horizontal



Installation example magnetic counter vertical



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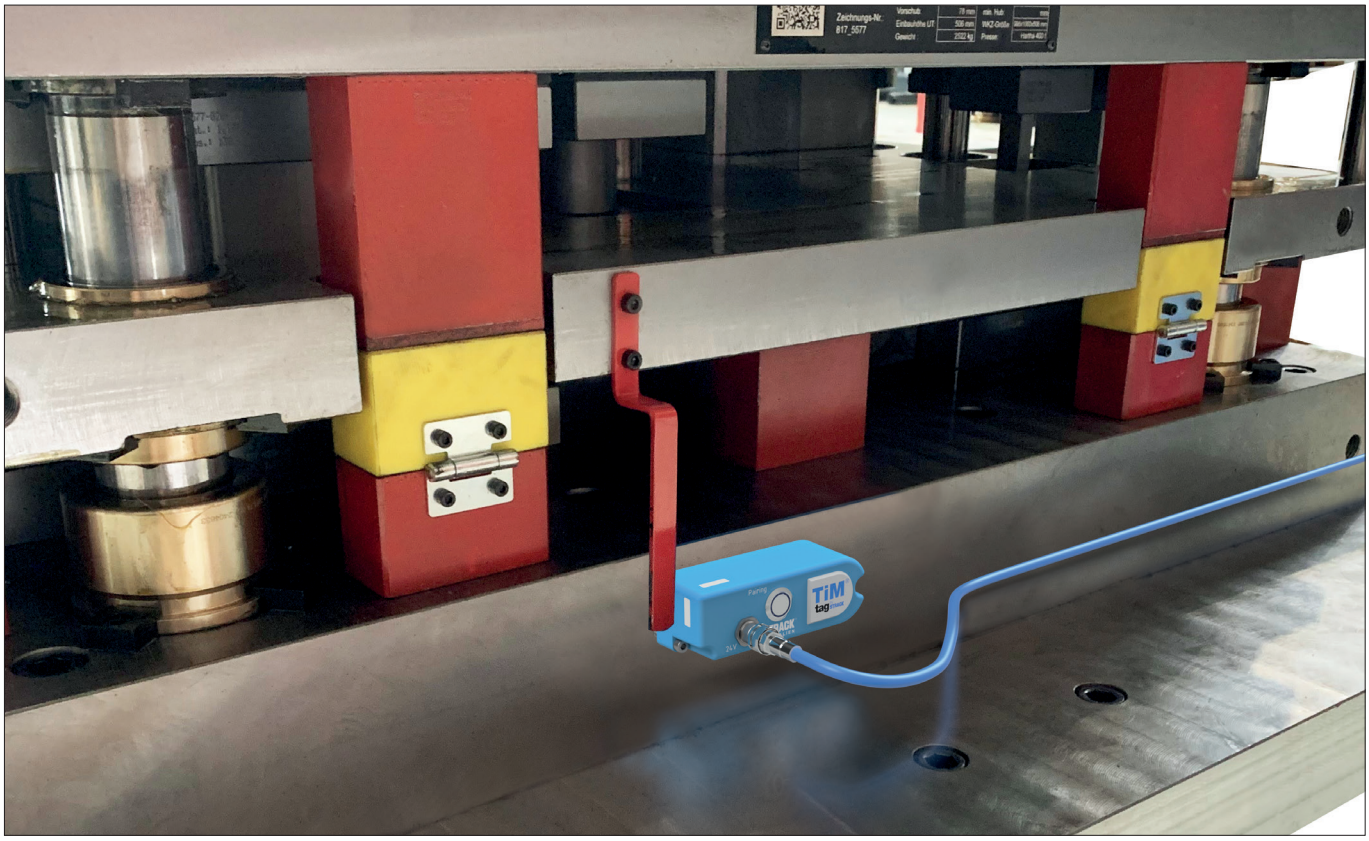
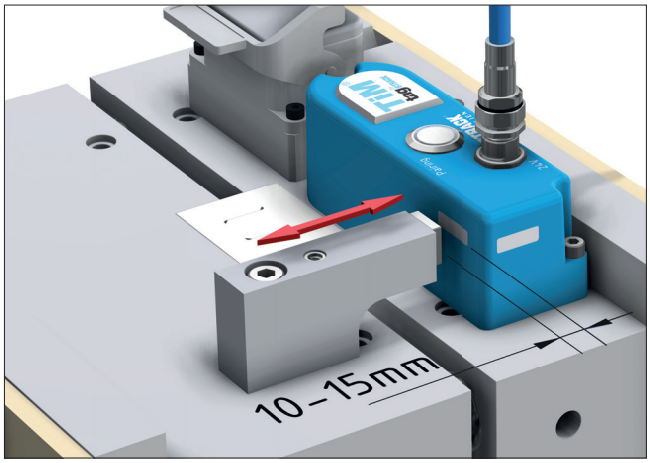
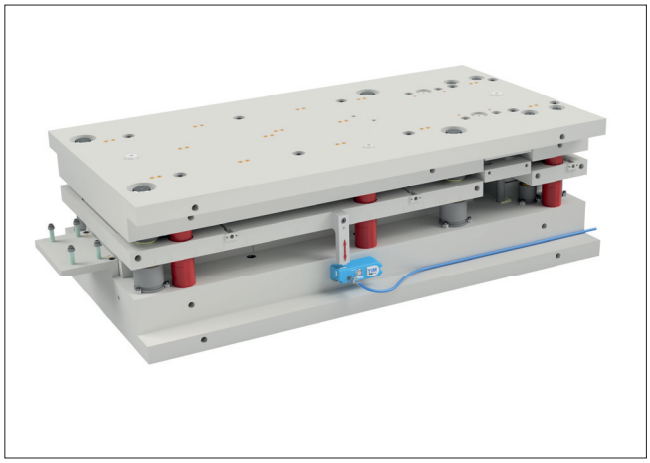
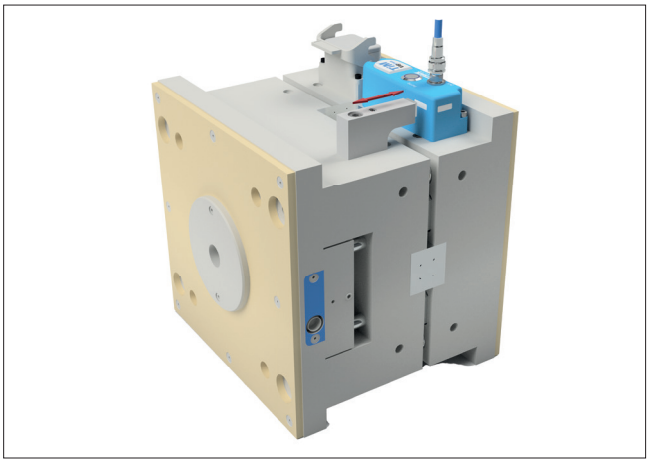




TiM has two proximity sensors mounted on the side of the housing which allow to count cycles. For this purpose, a magnet SN10170 is approximated within 15-10 mm to the sensor surfaces to trigger a counting cycle. The sensor surfaces are marked with white areas on the housing. Furthermore, external signals can be processed via sensor inputs to mount TiM for example at a more remoted location and however be able to register count cycles of the tool.





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STRACK® NORMALIEN

TiM® by STRACK

WE DIGITIZE iNFORMATION.

THINK TECH STRACK

THINK. Wir entwickeln innovative Lösungen für den Werkzeug- und Formenbau. **TECH.** Kunden schätzen unsere Sonderanfertigungen, Produktmodifikationen und individuellen Lösungen. **STRACK.** Als familiengeführter Normalienhersteller bieten wir weltweit auch Standardlösungen an.

THINK. We develop innovative solutions for tool and mould making. **TECH.** Our customers appreciate our special productions, product modifications and individually tailored solutions. **STRACK.** As family-owned standard part manufacturer, we also offer standard solutions worldwide.

THINK. Nous développons des solutions innovantes destinées à la production d'outils et de moules. **TECH.** Les clients apprécient nos productions spéciales, nos produits modifiés et nos solutions sur mesure. **STRACK.** Notre entreprise familiale fabrique des éléments normalisés et apporte également des solutions standard à travers le monde.

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