

INDUSTRY Range

R/W head

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TCF18 PLA

GENERAL FEATURES

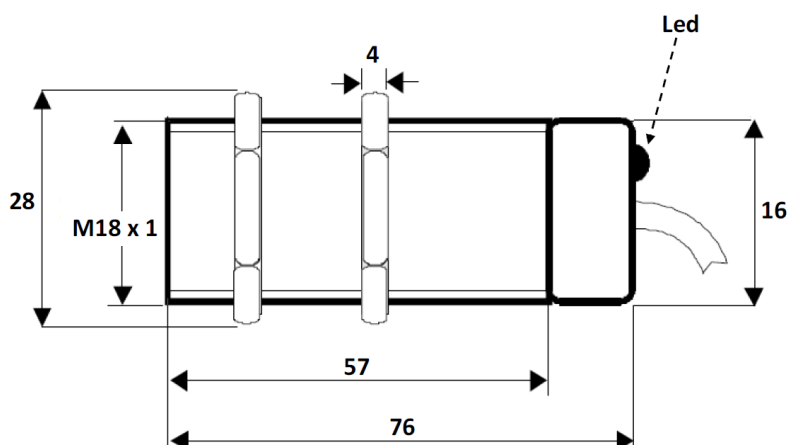
TCF18 is an R/W head allowing to exchange data with tags TAI or TAM without contact, using a protocol compliant with the standards ISO 18000-3 mode 1 and ISO 15693.

It has to be linked up to a Balogh interface, chosen among:

- BI**170 McMc (for the tag TAI) or BI**170 TT (for the tag TAM)
- CEPR96* (programmable)



ASSEMBLY DATA



All sizes are in millimeters (mm)

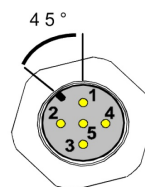
CONNECTION

The TCF18 is fitted with a 2m cable and a connector 5 pin M12 metallic male.

Use a corresponding female cable connector(A-coded, ref. 202 274) and a shielded cable with the following characteristics:

- max length : 50m,
- overall max. capacity between conductors and the shield :10nF.

The shield must be in contact to the cable connector housing 360° round crimping.



Pin Nr	Description	Wire colour
1	+24 Vdc	brown
2	output	white
3	input	blue
4	0 V	black
5	NC	green/yellow



CHARACTERISTICS

TCF18	TAG (data carrier)							
	TAI7.5S IC SLI				TAI10 IC SLI			
D_{em}^* (transceiver side to metal)	0	6	9	18	0	6	9	18
S_n nominal range	6	10	11	11	6	10	11	12
S_r recommended range	4	6	7	7	4	6	7	7
D_{tm} TAG distance to metal @ S_r	0	0	0	0	4	4	4	4
	TAG (data carrier)							
	TAI10S IC SLI				TAI20 IC SLI			
D_{em}^* (transceiver side to metal)	0	6	9	18	0	6	9	18
S_n nominal range	5	8	8	8	11	16	18	20
S_r recommended range	3	5	5	5	7	10	11	12
D_{tm} TAG distance to metal @ S_r	0	0	0	0	4	4	4	4
	TAG (data carrier)							
	TAI30 IC SLI				TAI711 IC SLI			
D_{em}^* (transceiver side to metal)	0	6	9	18	0	6	9	18
S_n nominal range	4-16	27	30	37	3-15	26	29	36
S_r recommended range	4-10	16	18	22	3-9	16	17	22
D_{tm} TAG distance to metal @ S_r	10	10	10	10	0	0	0	0

All distances are in millimeters (mm)

* See **Assembly recommendations** chapter (page 3) to have distance description.

10 % nominal range derating against supply voltage and operating temperature.

min	nominal	max	unit
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Power

Supply direct voltage (ripple included)	21	24	29	V
Protection against polarity reversal	yes			-
Supply current @ 24V	70			mA

Electronic

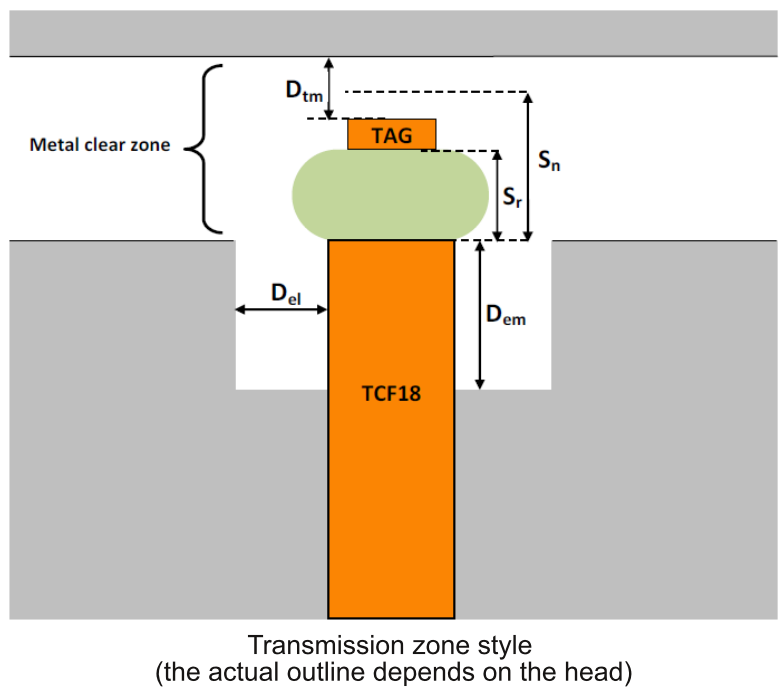
Carrier frequency	13,56	MHz
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General

Casing	PA12 (30% FV)	-
Operating temperature	- 2570	°C
Protection rating	IP67	-
Weight	150	g

ASSEMBLY RECOMMENDATIONS

- The head is not to be mounted directly in a recessed metal cavity.
A minimum metal-free clearance is required round the head :



S_n	Nominal range
S_r	Recommended range
D_{em}	Longitudinal distance transceiver side to metal
D_{el}	Lateral distance transceiver side to metal
D_{tm}	TAG (data carrier) distance to metal @ S_r

- Important:
 - D_{el} must be at minimum to 25 mm to have the TAG ranges indicated in the characteristics chapter
 - To avoid interference between two TCF18, there must be 40 mm end to end minimum distance

ACCESSORY

M12 Female connector A-coded, ref 202274.

- For various possible interfaces, Balogh proposes cables with straight connector(s) :
- PUR cordset 5 m (*) (réf. 495XXB4512) for BI interfaces (refer to accesories corresponding data sheet)
 - PUR cable FFMD5/12 (lenght 2, 10 or 15 m) for the others interfaces

* On request: 10 m and 25 m