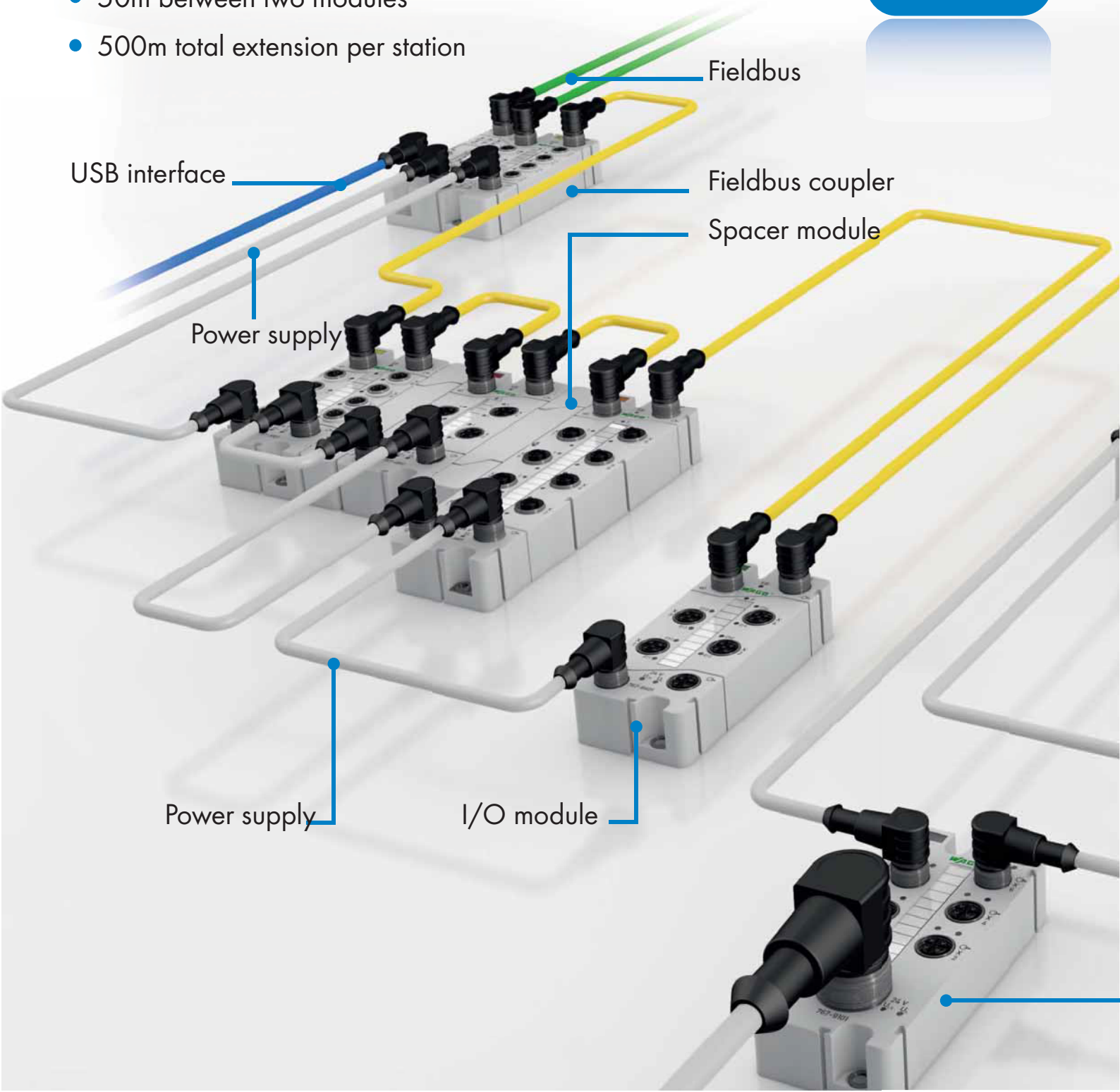
System Overview

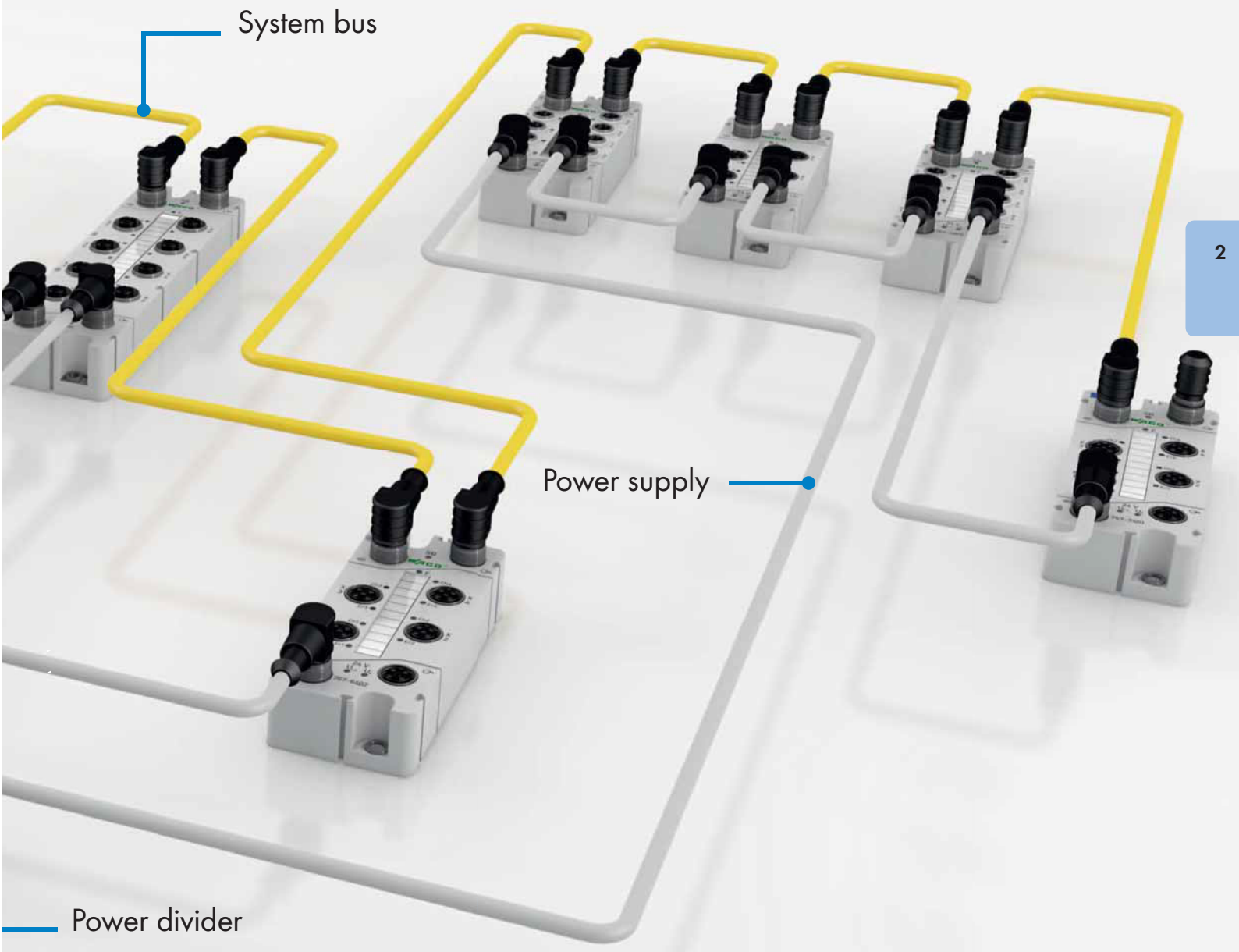
Modular Design for Application-Oriented Signal Acquisition/Output

Up to:

- 64 I/O modules per station
- 8 channels per module
- 520 channels per station
- 50m between two modules
- 500m total extension per station



WAGO *SPEEDWAY 767* is a modular IP67 I/O system. *SPEEDWAY* connects to a fieldbus and on to higher-level control systems via (programmable) fieldbus coupler. The fieldbus coupler features digital inputs. An integrated system bus interface allows connection to other I/O modules (e.g., analog, digital). This permits signals to be received and transmitted directly in the field, as based on application requirements. When used in areas of high signal concentration, the modules can be installed in an extremely compact manner. The I/O modules are connected to each other via data line (system bus) and supply line, allowing additional power supply to be performed via power dividers (e.g., when higher power demand is required or greater distances must be bridged). Depending on the fieldbus type, configuration, programming, servicing and diagnostics can be performed via integrated USB port and fieldbus interface.

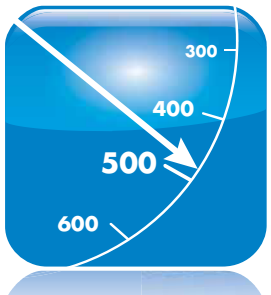


High-Performance Data Transfer

Fast Data Exchange

- Up to 512 digital signals, approx. 700µs
- Up to 256 digital signals + 64 analog signals, approx. 700µs
- Up to 32 digital signals + 8 analog signals, approx. 400µs

Increasing degrees of system automation and the trend toward fast ETHERNET-based controllers or fieldbus protocols call for a high communication bandwidth. Large data volumes are forwarded in short cycles for signal acquisition and transmission within the I/O system.
WAGO *SPEEDWAY 767* is designed for this purpose, also offering high synchrony, low jitter/skew and low latency for optimal control of dynamic system processes.



Easy to Service

Updatable, Parameter-Saving and Flexible

- Updatable
- System parameter handling
- "Options handling" for PROFIBUS

Updatable
Acquisition and operating costs of a system are steadily increasing. This is why your return on investment is now more important than ever. The *SPEEDWAY 767* System is updatable, providing a valuable contribution to cost optimization.

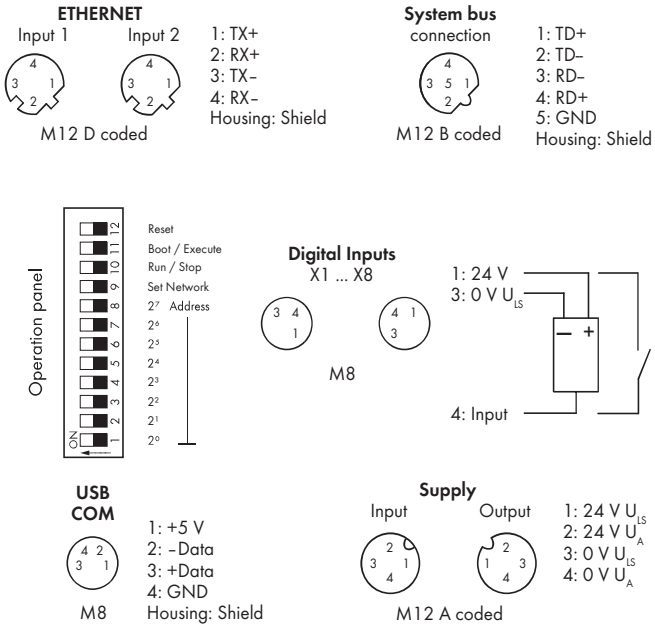
Both coupler and I/O module firmware can be easily updated. This allows quick access to new functionalities, while errors can be fixed without replacing components.

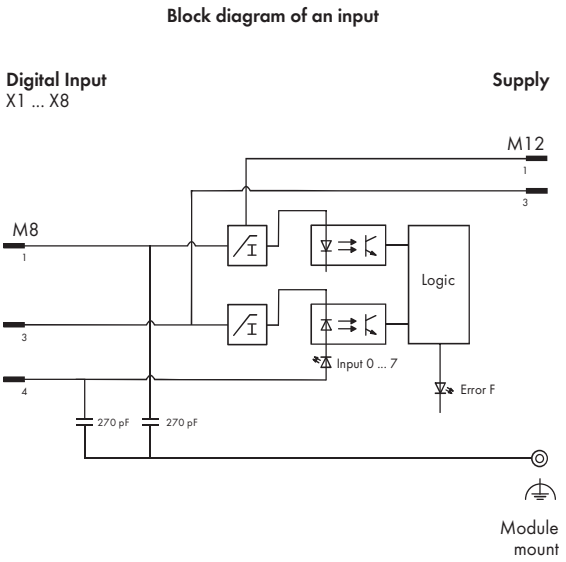
System parameter handling
All parameterizable *SPEEDWAY* modules feature factory default settings. The modules can be customized to suit-specific systems requirements. *SPEEDWAY* provides the freedom of system parameter handling – not every control system permits direct data parameterization, administration and archiving.

This way, parameter settings won't be lost in case of a module exchange. System parameter handling provides archiving of all settings and checks (e.g., when exchanging an I/O module) if the right replacement module is used. In the event of a failure, parameter data can be restored quickly and reliably. Optionally, current hardware, software and firmware versions can be checked.

"Options handling"
Operation-related, variable I/O station configurations of a system (e.g., tool replacement in processing center) can often only be customized with extensive engineering before a changed production process can start. *With PROFIBUS, SPEEDWAY 767 supports variable system configuration without engineering modification.*

Supporting this, the higher-level control system defines various expansion stages within a maximum engineering configuration. This allows the control system to identify a *SPEEDWAY* station modification (number and type of modules) and run a sub-program without engineering modification.





Technical Data

Digital inputs:	
Number of inputs	8
Connection type (2)	M8 connectors, 3 poles
Wire connection	2- or 3-wire
Input filter	parametrizable
Input characteristic	Type 1, acc. to IEC 61131-2
Signal voltage (0)	-3 V ... +5 V DC
Signal voltage (1)	+15 V ... +30 V DC
Input wiring	high-side switching
Input voltage	24 V DC (-30 V DC < U_{IN} < +30 V DC)
Input current (typ.)	2.8 mA
Cable length, unshielded	≤ 30 m
Wrong connection of inputs	No effect
System bus:	
Number of expendable modules	64
Connection type (3)	M12 connectors, B coded, 5 poles, shielded
Isolation:	
Channel - Channel	No
U_{LS}, U_A, system bus, fieldbus	500 V DC each
Service:	
Type	USB standard 1.1
Connection type (5)	M8 connectors, 4 poles
Standards and approvals:	
UL 508	
Conformity marking	CE
Configurable functions:	
Fieldbus coupler	see manual
Digital Inputs	
Input filter (per channel)	0.1/ 0.5/ 3 /15 /20 ms/ filter off
Inversion (per channel)	On/off
Online simulation (per channel)	Lock/unlock, simulation value: 0/1
Online simulation (per module)	Diagnostics
I/O diagnostics:	
I/O diagnostics (per module)	Short circuit of sensor supply
	Undervoltage (U_{LS} + U_A)

Technical Data

Process image:	
Input process image	2048 bytes
Output process image	2048 bytes
Input variables	512 bytes
Output variables	512 bytes
Program memory	1024 Kbytes
Data memory	256 Kbytes
Remanent memory	32 Kbytes (20 Kbytes retain, 12 Kbytes flag)
LED indicators:	
MS : ETHERNET module status	LED (green/red)
NS : ETHERNET network status	LED (green/red)
ACT/LNK 1 : ETHERNET data exchange/network connection	LED (green)
ACT/LNK 2 : ETHERNET data exchange/network connection	LED (green)
CS : Fieldbus coupler status	LED (green/red)
PS: Program status	LED (green/red)
SBM : System bus master status	LED (green/red)
F: Error status	LED (red)
0 ... 7: Input signal status	LED (yellow)
U_{LS} + U_A: Supply status	LED (green)
Indicators	Non-latching

General Specifications

Dimensions (mm) W x H x L	75 x 35.7 x 117
Weight	330 g