



Portable reflectometer for fault location systems

Special features

- **ARMslide** technology with 15 traces in one ARM shot
- **ProRange** for optimised display of distant details
- Support of all existing prelocation technologies
- Automatic adjustment and display of cable end and fault
- Compatible with all fault location systems

Description

With the new **Teleflex SX** the excellent properties of the successful Teleflex VX were transferred into a smaller, handy and portable design. The **Teleflex SX** is operated by the new touchscreen and the well-proven control knob functionality. The interface is shown on a sharp and very bright 10.4" display.

The **Teleflex SX** is specially adapted to the fast events during fault location in power cables. The easyGO operation is reduced to the important and essential steps and runs mostly fully automatically.

The new hardware with improved parameters as sampling frequency, pulse width and impulse amplitude guarantees larger ranges and highest resolution.

The touchscreen operation allows an even easier and faster handling, especially in the case of detail data entry as it is required for the reporting menu.

The **ΔU Trigger** technology provides always perfect trigger in the correct moment.



ARMslide records 15 traces in one shot allowing a selection of the best trace, very helpful for wet and long, difficult cables.

The **ProRange** function allows a distance adapted gain, displaying far distant events with the same amplitude as from short distances.

Via CAN interface or ethernet, the **Teleflex SX** can be integrated into a system, which allows the remote control in offshore applications and ROV's.

By the CAN interface, the **Teleflex SX** becomes the combined control unit of the SPG 40 fault location system, which allows an easy and more intuitive operation of the complete fault location process.

The Linux®-based operating system stands out by highest reliability.

Technical data

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|--------------------------|--|
| Range | 20 m ... 160 km @ v/2 = 80 m/μs |
| Pulse width | 20 ns ... 10 μs |
| Pulse amplitude | 5 ... 50 V |
| Resolution | 0.1 m @ v/2 80 m/μs, 1.0 cm @ v/2 < 40 m/μs |
| Sample rate | Up to 400 MHz |
| Gain | - 37 ... +37 db |
| De-attenuation | 0 ... +22 dB for ProRange (adjustable 0 ... 100 %) |
| Propagation velocity V/2 | 10 ... 149.9 m/μs, ft/μs or nvp |
| Dynamic range | > 80 dB |
| Output impedance | 50 Ω |
| Compensation | 8 Ω ... 500 Ω, adjustable |
| ARM trigger | Automatic adaptation by ΔU Trigger. |
| ARMslide | 15 measurements in one ARM shot |
| Dead zone | None |
| Voltage proof input | < 400 V, operation only with separation filter |
| Display | 10.4" color TFT XGA 1024x768, touchscreen, 600 cd/m ² , LED-Backlight, dimmable |
| Data storage | 4 GB mSATA for program and data |
| Connectors | Ethernet, USB, BNC, CAN (LON optional) |
| Protection class | IP 65 closed, IP 54 open lid |
| Supply | 110 ... 240 V, 50/60 Hz, 30 VA 10 V ... 17 V DC, 3.8 A |
| Dimensions (W x H x D) | 362 x 195 x 306 mm (option 19", 6 HU) |
| Weight | 10 kg |
| Operation temperature | -10 °C ... +50 °C |
| Storage temperature | -20 °C ... +60 °C |

Options

- » Separation Filter TF3-1 (for the operation on life voltages up to 600 V, CAT IV)

The **Teleflex SX** is available as portable, battery operated stand-alone version but can also be integrated in any measuring system with 19" rack mounting.

All advantages at a glance

- » Large 10.4" sunlight-readable colour display
- » Easiest operation by touchscreen and control knob
- » Support of all existing prelocation technologies
- » Automatic trace analysis (cable end and fault position indication)
- » Integrated battery
- » Top performance
- » Compatible with all fault location systems

Functions

- » ARMslide with 15 traces per ARM shot
- » ProRange technology
- » Dual phased reflectometer (TDR) with simultaneous colour display of up to 6 traces
- » Automatic adjustment and display of cable end and fault
- » High resolution by real sample rate of 400 MHz
- » Internal compensation for better details at short range
- » Large 2 GB memory for automatic storage of all data
- » USB interface for data transfer via memory stick and printer
- » Control of the SPG 40
- » Report generation in *.pdf format

The Teleflex SX supports the following technologies:

- » Symmetrical / unsymmetrical reflection measurement
- » Difference measurement / comparison
- » Two-phase reflection measurement (TDR)
- » Optimised support of all Arc reflection methods by ΔU Trigger
- » ICE (impulse current methods)
- » IFL (intermittent fault locating)
- » DECAY travelling wave method
- » ARM burning
- » Partial discharge pinpointing